TAMIL NADU ELECTRICITY REGULATORY COMMISSION

(Constituted under section 82 (1) of the Electricity Act, 2003)
(Central Act 36 of 2003)

PRESENT:-

Thiru S.Akshayakumar .... Chairman

and

Thiru.G.Rajagopal .... Member

M.P.No.34 of 2012

Brakes India Limited
MTH Road, Padi, Chennai – 600 050
Represented by its Executive Director
(Operations & Finance) Mr.S.Kesavan

... Petitioner
(Thiru N.L. Rajah,
Advocate for Petitioner)

Vs.

Tamil Nadu Generation and Distribution
Corporation Limited (TANGEDCO)
Represented by its Chairman and Managing Director
144, Anna Salai, Chennai – 600 002. .... Respondent

Date of hearing : 18-10-2012, 27-11-2012, 30-01-2013, 26-02-2014, 23-04-2014, 22-09-2014 and 13-01-2015

Date of order : 13-11-2015

The M.P.No.34 of 2012 filed by M/s.Brakes India Limited came up for final hearing on 13-01-2015. The Commission upon perusing the above petition and the connected records and after hearing the submissions of the Petitioner passes the following order:-

ORDER

1 Prayer of the Petitioner in M.P.No.34 of 2012:-

The Prayer of the Petitioner in M.P.No.34 of 2012 is to clarify that the order passed by the Commission in M.P.Nos.32 and 41 of 2010 dated 28-12-2011 applies only to wind energy injected into the grid and that in respect of energy generated and

fed into the grid through Long Term Open Access Captive Power Plants, the demand available to the Petitioner should be calculated only on the basis of the energy injected into the grid and not on the basis of the energy consumed by the Petitioner and render justice.

2. Contentions of the Petitioner:-

2.1. The Petitioner has manufacturing locations at various places in Tamil Nadu. For its manufacturing activities, it has HT service connections provided by the Respondent. In addition to utilizing the power supplied by the Respondent, the Petitioner has also tied up with various Group Captive Power Plants situated within Tamil Nadu and are wheeling power in proportion to the shareholding in the respective power company.

2.2. Due to power crisis, the TANGEDCO has imposed certain Restriction and Control (R&C) measures sanctioned by the Commission by its order dated 28-11-2008 in M.P.No.42 of 2008. After these orders were passed, HT consumers had made representations stating that the quota fixed could apply only to the component of power supplied by the Respondent and that no quota could be fixed for the power consumed from Captive Power Plants. After considering these representations the Respondent had issued a memo dated 19-12-2008 directing the Superintending Engineer to fix the quota only for the power supplied by the Respondent and allowed industry and consumers to use the actual energy and demand supplied by Captive Power Plants. Based on the guidelines in the memo, the respective EDCs had refixed the demand quota taking into account only the power supplied by the licensees. The injected power from Group Captive Power

Plants were allowed to be utilized in full both in terms of energy and deemed demand. Though the memo dated 19-12-2008 was struck down by the Commission vide order passed in S.M.P. No.1 of 2009 dated 28-10-2009 the substance of the memos especially in so far as it is related to using the energy injected by windmills were concerned the same was affirmed by order dated 28-08-2009.

2.3. In terms of Commission's Order No.4 dated 15-05-2006, the Respondent had calculated deemed demand equal to the power fed by the Group Captive Power Plant and arrived at the deemed demand and had deducted the deemed demand so arrived at from the total demand. In other words, the Respondent gives deduction from the total demand charge payable to the extent of deemed demand for the power supplied by CPP. However, the proportionate demand is restricted to actual energy consumed by the HT consumers.

2.4. The demand calculated on the basis of consumption and not on the basis of units injected has adversely affected the Petitioner's operations and the Petitioner is unable to meet its demand requirements. This results in the Petitioner consuming demand in excess of the quota fixed and consequently the Petitioner is subjected to penalty at exorbitant rate i.e. 3 times the normal demand charges.

2.5. Under the present situation, when R&C measures are in force, 100% of the energy equated demand injected by the Captive Power Plant should be allowed. Restricting the demand to the actual consumption results in paying penalty for exceeding the demand quota fixed. It is relevant to note that without allowing the

demand equivalent to the energy injected by the Captive Power Plants, the Petitioner's plants are unable to get required demand resulting in heavy loss.

2.6. It is relevant that for the energy purchased under the Short Term Open Access, 100% of the demand equivalent to the energy injected is allowed. This facility, however, is not extended when power is injected from the CPPs. This is a clear discrimination amongst the same class of electricity consumers, since energy supplied under Short Term Open Access enjoy 100% of the equivalent demand in KVA and for the other groups (for the energy supplied by CPP under long term open access), the demand is restricted to actual consumption. This puts the HT consumers in a disadvantageous position and they are forced to pay penal demand charges.

2.7. Earlier, the Chief Financial Controller (Revenue) of the Respondent sought to issue a clarification dated 25-06-2010 in Lr.No.CFC/Rev/FC/R/D.No./10 in utter disregard to the orders of the Commission passed in M.P.No.42 of 2008 and in Suo Motu Proceedings No.1 of 2009, wherein the Respondent has sought to interpret "actual energy supplied" in Memo dated 17-11-2008 to mean actually energy adjusted. Further, the Respondent in its clarification dated 25-06-2010 in para (iii) has provided as follows:-

> "(iii) In the above, the actual energy supplied was meant only the actual energy adjusted. (if the supplied energy is more than the consumption, the excess energy would have been lapsed)".

In respect of wind energy, the Respondent allowed equivalent demand based on the units injected into the grid. This is a practice which had been applied consistently as this was in line with the order dated 28-11-2008 passed in M.P.No.42 of 2008

approving the provisions of the Respondent's Memo dated 17-11-2008. In the said Memo dated 17-11-2008, it had been clearly mentioned that the equivalent demand will be provided based on the "actual energy supplied". However, by virtue of the clarification dated 25-06-2010 issued by the Respondent, the position was altered and the Respondent issued an order to the effect that "actual energy supplied" would be the actual "actual energy adjusted" and reduced the equivalent demand of the consumers.

2.8. The act of the Respondent in seeking to issue a clarification to a formula already approved by the Commission without seeking its approval amounts to willful violation of its order in M.P.No.42 of 2008 and SMP No.1 of 2009 and as such is punishable under section 142 of the Electricity Act, 2003, together with Regulation 36 of the Tamil Nadu Electricity Regulatory Commission (Conduct of Business Regulations), 2004. The change sought to be effected by the Respondent changes the entire calculation to the detriment of the consumers by shifting the calculation from "energy injected" to "energy actually consumed" which is a gross abuse of power and a blatant violation of the Commission.

2.9. The Southern Indian Mills Association (SIMA) representing consumers interests approached the Commission by way of M.P.No.41 of 2010 to direct the Respondent to strictly follow its Technical Branch Memo CE/Comml/EE/DSM/PMM/ F.Powercut/D.28/2008 dated 17-11-2008 in respect of calculation of wind energy quota and the order dated 28-10-2009 passed in SMP No.1 of 2009 and to calculate the deemed demand for wind energy on the basis of units injected into the grid by the wind energy generators and not on the basis of units consumed by the consumer

industries. SIMA also sought an interim order to restrain the Respondent from calculating the wind energy quota by taking the injected quantity of wind energy instead of taking the quantity consumed, pending disposal of the M.P.

2.10. The Indian Wind Power Association (IWPA) has also filed M.P.No.32 of 2010 before the Commission praying that the Respondent may be punished for non-compliance with the orders of this Commission in M.P.No.42 of 2008 and SMP No.1 of 2009 in so far as it relates to the issuance of the clarification dated 25-06-2010 pertaining to the calculation of energy quota and consequently set aside the clarification dated 25-06-2010 as being illegal. An interim order of stay of the Respondent's communication dated 25-06-2010 was also sought.

2.11. After hearing the two Associations and the Respondent, this Commission was pleased to stay the said Letter No.CFC/REV/FC/R/D.No./10, dated 25-06-2010 of the Chief Financial Controller (Revenue) of the Respondent. However, subsequently, the petitions i.e. M.P.Nos.32 and 41 of 2010 were disposed by the Commission in and by its order dated 28-12-2011 affirming that the equivalent demand should be based on "Consumption" and not on the basis of units of energy injected.

2.12. In respect of wind energy, the Commission held that as banking facility is available, the consumer cannot have double benefit by providing equivalent demand in respect of the unadjusted banked units for the subsequent periods. The Commission has clarified that the equivalent demand is based on consumption in respect of wind energy. This order dated 28-12-2011 is now pending in appeal before the Hon'ble APTEL. However, applying the same principle of "Consumption

based", the Respondent is now calculating the equivalent demand (based on the consumption) even in respect of power supplied by CPPs. The order of the Commission has made such calculation i.e. on the basis of energy consumed, apply only in respect of energy made available through wind mills for it is only to that class of energy can the logic of advantage accruing on account of banking facility apply and it cannot apply to energy supplied through CPP. Consequently, in respect of CPP power the equivalent demand is to be arrived at based on the energy injected into the grid and for the number of days and number of hours supplied by the Respondent.

2.13. The Respondent had clarified in the Advisory Meeting that Captive Consumers have been permitted to avail of the entire demand and energy supplied by the captive generators. However, in reality equal demand is not extended and the same is restricted to the demand equal to the actual consumption of energy.

2.14. As the Respondent is not extending the equal demand for the injected quantity, the Petitioner is not able to meet its demand and therefore the Petitioner is forced to run its diesel generators. Under the present circumstances, using diesel for running the gensets is a waste of precious natural resource. There is also the problem of handling and transporting diesel and many times even the availability of diesel is a problem. The Petitioner is willing to inject more CPP energy than its requirement for the purpose of getting the necessary deemed demand to run the Petitioner's factory.

3. Counter Affidavit filed on behalf of the Respondent:-

3.1. Pursuant to the representations received from various HT consumers requesting for fixation of quota as aggregate total of 60% of their TNEB supply and 100% of the power received from CPPs, a memo was issued to that effect on 17-11-2008 in connection with fixation of demand and energy quota for the HT consumers partially using power from CPPs which are stated below:-

"Fixing of Energy quota:

(i)	*Monthly base energy consumption as illustrated in working instructions dated 01-11-2008*	*A*
(ii)	*In that the actual energy supplied (monthly average) for the above three months average by the CPP*	*B*
(iii)	*The actual energy availed by consumer from TNEB*	*A-B=C*
(iv)	*60% energy on C (C x 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 01-11-2008*	*E*
(ii)	*In that the calculated demand supplied for the energy for the month by CPP* $F = \frac{\text{Energy supplied by CPP in a month}}{\text{No.of days in the month x 24 hours x P.F 0.95}}$	*F*
(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* *(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 06-11-2007 and subsequent amendment thereof)"*	*F+H*

3.2. The above memo dated 17-11-2008 was not adopted for fixation in respect of wind energy captive users at the time of its issuance. Aggrieved with the memo dated 17-11-2008, some of the Wind Energy Captive Users filed W.P.No.12448 of 2009 etc. batch case before the Madras High Court praying for re-fixation of their

demand and energy quota on par with the CPP users. The High Court in its order, dated 29-08-2009 and 01-09-2009 had passed the following order which reads as follows:-

> *"The petitioner has come forward with the present writ petition calling for the records relating to the order dated 28-11-2008 made in M.R.No.42 of 2008 on the file of respondent Commission, challenging the said proceedings in so far as it relates to banking of wind energy and the enhancement of the demand and energy quota in favour of the wind mill captive consumer.*
>
> *2. Admittedly, the petitioner has got a remedy of filing an Appeal before the Appellate Tribunal for Electricity as contemplated under section 111 of the Electricity Act, 2003. It has also been reiterated by the Hon'ble Apex Court in the case of HP Electricity Regulatory Commission Vs. HP State Electricity Board reported in (2006) 9 SCC Page 233.*
>
> *3. In view of the same, the Petitioner is directed to approach the Appellate Tribunal for Electricity against the order of the respondent under challenging in this writ petition. It would be therefore suffice to pass the following order by consent.*
>
> *(a) The petitioner has to approach the Appellate Tribunal for Electricity challenging the order of the respondent dated 28-11-2008 made in M.P.No.42 of 2008 and the consequential order dated 24-12-2008 in M.P.No.2 of 2008 within a period of two weeks from the date of receipt of this order.*
>
> *(b) The unutilized bank units shall not lapse as on 31-03-2009 but it is subject to the outcome of an appeal.*
>
> *(c) The stay that has been granted by this court would be in operation for a period of four weeks.*
>
> *(d) The petitioner is at liberty to approach the Appellate Tribunal seeking interim orders.*
>
> *With the above observations and directions, the writ petition and miscellaneous petitions are disposed of. No costs."*

3.3. Consequent to the order passed by the High Court, the Commission initiated Suo-Motu Proceedings vide S.M.P. No.1 of 2009 on 28-10-2009 with regard to the fixation of quota for Wind Energy Captive Users to be carried out on par with CPP users and thereby the Commission formally approved the formula contained in the respondent's memo, dated 17-11-2008 for re-fixing the demand and energy quota for

the period from 12/2008 to 10/2009 and further had stated that from 01-11-2009 all captive users, whether thermal or wind, shall declare on the first day of every month the energy proposed for captive use for the following month, which shall be considered as “B” and “F” for the purpose of fixing energy quota and demand quota respectively, in the formula of the TNEB, dated 17-11-2008. It is further stated that, the energy declared shall be the monthly average generation. Further, from 01-11-2009, the peak hour power generation shall be eligible for peak hour utilization for every month subject to a limit of one-twelfth of annual peak hour generation.

3.4. In continuation of the above, the Respondent issued circular to all the Superintending Engineer/Electricity Distribution Circles vide Memo No.CE/Comml/ EE/DSM/AEE/PMM/F.Powercut/D.508, dated 25-11-2009. The Member (Distribution) of the Respondent had issued the workings by way of an illustration vide circular Memo No.CFC/REV/FC/R/D.No.362/dated 26-11-2009 as under:-

> *“3. As far as the 1st part is concerned the refixed demand and energy quota have to be adjusted against the actual demand and energy consumed between the periods 01-12-2008 to 30-04-2009 and wind energy banked as 01-11-2008 shall be adjusted in 5 equal monthly instalments between 01-12-2008 and 30-04-2009 and equivalent additional demand and additional energy quota should be allotted to them and the excess charges for the above period shall be worked out. The excess charges if any collected already based on previous instructions, the same may be revised and refunded to the consumer.*
>
> *4. As far as the 2nd part is concerned, the generators are entitled for current generation in accordance with the formula stipulated in the Circular dated 17-11-2008 of the Chief Engineer / Commercial. If the energy quota and demand quota during this period had exceeded by the captive users (wind), they are entitled to draw from the energy banked to the extent of excess demand and energy consumption. As such the excess charges if any levied and collected the same may be revised and refunded.*
>
> *5. In the 3rd part (from 01-11-2009 to 31-03-2010) the unutilized banked wind energy available as on 01-11-2009 may be allowed to be utilized by the Wind Energy Captive Users in 5 equal instalments from 01-11-2009 to 31-03-2010 in addition to the current wind generation of that month. The deemed*

demand has to be worked out as per TNERC's formula for the above energy (both current month and 1/5th banking).

6. From 01-11-2009, all the captive users, whether thermal or wind, shall declare on the first day of every month, the energy proposed for captive use for the following month, which shall be considered as B and F for the purpose of energy quota and demand quota respectively in terms of the memo TNEB dated 17-11-2008; the energy declared shall roughly be the monthly generation.

7. From 01-11-2009, peak hour current generation as well as peak hour banked energy shall be eligible for peak our utilization every month subject to the limit of one-twelfth of annual peak hour generation.

8. The Circles must get the above details (Sl.No.6 & 7) from the HT consumers before 5th of every bill month and the same should be taken for calculation of excess demand / excess energy during billing. There should be no delay in getting the above details from the consumers and no subsequent alteration of the details. If no declaration is given by the consumer within the period, the proposed energy for wheeling and demand may be taken as "NIL" and the bill has to be prepared accordingly."

3.5. It could be clearly observed from the above Memos dated 25-11-2009 and 26-11-2009, that the period from 12-12-2008 to 10-10-2009 (known as first and second part) for the purpose of calculation and fixation could be prior to the issuance of the order of the Commission in S.M.P. No.1 of 2009, but pertaining to the period from 11-11-2009 to 03-10-2010 (known as third part), it could be clearly observed that the order of the Commission in S.M.P.No.1 of 2009 is squarely applicable. Therefore, the demand and energy quota had to be revised and re-fixed in respect of the First part and Second part only and the same should be taken for excess energy and demand calculation. As far as the third part is concerned, the demand and energy quota had to be fixed based on the proposed energy (i.e.) declared by the consumer, the same should be taken for excess energy and demand calculation. Besides, while calculating the equivalent demand to arrive at the excess demand charges, the energy-consumed (units) alone is taken from the introduction of R&C measures. Further, in all the parts, the demand and energy quota had been arrived

at in accordance with the memo, dated 17-11-2008. The memo, dated 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.

3.6. During the base period (i.e.) 10/2007 to 10/2008, the supplied energy clearly means only the adjusted energy, during that period the monthly HT bills are prepared by deducting the units brought in slot wise by the captive HT consumers at the consumption and (after deducting the Line loss, banking charges of 5% etc.) for the energy consumed by the HT consumer from the TNEB point of supply. Only for the above adjusted energy, the deemed demand had been calculated as per the Commission's formula.

3.7. Though clear instructions were issued by the Respondent vide Memos, dated 25-11-2009 and 26-11-2009, clarification was sought for by the Superintending Engineer / CEDC / Metro / Coimbatore and the Superintending Engineer / NEDC / Namakkal vide clarification letter, dated 26-05-2010 based on the representations submitted from the HT industrial consumers and the contents are as follows:-

> *1. "The peak Hour Penalty in respect of HT services having wind mill adjustment is calculated as per TNERC Suo-Motu order dated 28-10-2009 by enhancing the quota taking into account the wind mill units generated during the period from 12/2008 to 07/2009. The demand notices have been issued to the consumers as per above.*
>
> *2. For the period from 12/2008 to 04/2009 the quota is arrived taking 1/5th of the banked energy available as on 31-10-2008 plus current month generation. For the period from 05/2009 to 07/2009 actual windmill units injected or consumed units whichever is lower are taken for windmill quota.*
>
> *3. The above method is arrived based on the Para 2 of HT team discussion U.O. letter dated 23-04-2010.*

4. Now, the HT consumer M/s.Sree Narasimha Textiles (P) Ltd. and South India Mills Association have represented in their letter cited that the wind mill quota shall be arrived taking into actual energy supplied / injected during the month in other words injected units as per the 17-11-2008 order and not for units consumed. They have requested to recalculate the quota and revision of penalty.

5. Hence, the clarification is requested whether, the wind mill quota be arrived taking total units injected into grid or actual consumed / adjusted in the bill".

3.8. Based on the above requests of Superintending Engineers only, the clarification was issued by the Chief Financial Controller / Revenue vide letter dated 25-06-*2010 which reads as follows:-*

"I) In the Memo dated 17-11-2008, it has been mentioned that (fixing of energy quota) (i) Monthly base energy consumption as illustrated in working instructions dated 01-11-2008.
II) In that the actual energy supplied (monthly average) for the above 3 months average by the CPP.
III) In the above, the actual energy supplied was meant only the actual energy adjusted. (If the supplied energy is more than the consumption, the excess energy would have been lapsed).
IV) In the case of wind energy, the energy supplied during a month will be adjusted against the industrial consumption and the excess supplied energy will be sent to the generation circle for banking.
V) The energy available in the banking will be drawn for adjustment at the time of off-season of wind. At that time, the equivalent Demand (Deemed Demand) will be calculated and added in the quota.
VI) Therefore, the Deemed demand will also be allowed only based on the actual units adjusted and not based on the energy supplied / injected into the grid."

3.9. In the memo, dated 17-11-2008 wherein in page number 2 under the column of fixing of demand quota, it has been stated as follows:-

"Calculation of demand supplied by the 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 06-11-2007 and subsequent amendment thereof."

In the Chief Engineer / Private Power Project memo dated 06-11-2007 wherein it had been clearly stated as follows:

> "Demand charges shall be computed for the captive users as per the example worked out in clause 5.22.4 in order 2 dated 15-05-2006"

b) The Clause 5.22.4 of Order No.2 dated 15-05-2006 is extracted below:-

The demand charges payable by the Open Access consumer will be calculated as below:-

Case 1:

Injection Voltage	110 KV
Drawal Voltage	33 KV
Percentage of deemed demand as per the table	41.28
Sanctioned Demand	1000 KVA
Recorded Demand	855 KVA
Units consumed	650000 Units
Power factor	0.95
Units supplied by the generator (at consumption point)	5,00,000 Units
Demand supplied by the generator	5,00,000 / 720 x 0.95 = 659.72 KVA
Demand supplied by the licensee	855 – 659.72 = 195.28 KVA
Billable demand – Supplied by licensee	900 – 659.72 = 240.28 KVA (at 90% of the sanctioned demand)
Demand charges payable	(659.72 x 0.4128 x 300) + (240.28 x 300) = 81,699.72 + 72,084 = Rs.153783.72

Case 2:

Injection Voltage	230 KV
Drawal Voltage	22/11 KV
Percentage of deemed demand as per the table	40.04
Sanctioned Demand	1000 KVA
Recorded Demand	950 KVA
Units consumed	700000 Units
Power factor	0.92
Units supplied by the generator (at consumption point)	7,00,000 Units
Demand supplied by the generator	7,00,000 / 720 x 0.92 = 894.44 KVA
Demand supplied by the licensee	950 –894.44 = 55.56 KVA
Billable demand – Supplied by licensee	950–894.44=55.56 KVA
Demand charges payable	(894.44 x 0.4004 x 300) + (55.56 x 300) = 1,07,440.13 + 16,668 = Rs.1,24,108.13

In the above examples the demand supplied by the generator was reckoned at consumption point (i.e.) units consumed.

3.10. In the Order No.3 dated 15-05-2006 order on purchase of power from NCES based Generating Plants, the demand charges payable by wind energy user was calculated as below:-

Total generated units consumed by the user divided by (30 x 24 x Actual 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 wind energy user =(A x 81.23% of applicable demand charges) + (C x applicable demand charges)

In the above two worked out examples, the demand supplied by the generator had been reckoned at consumption point (i.e.), consumed units only.

In the case of wind energy captive users, since banking facility is provided under the relevant regulations, calculation of equivalent demand taking into consideration actual units injected would result in double benefits in respect of the unadjusted banked units is drawn for subsequent month's utilization.

The clause 8.7.4 of the Tamil Nadu Electricity Regulatory Commission's Comprehensive Tariff Order on Wind Energy Order No.1 of 2009 dated 20-03-2009 deals with demand charges. The example set out in clause No.8.7.4.3 is furnished below:-

Total generated units consumed by the consumer on Open Access divided by (30 x 24 x Actual 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 energy supplied is only the energy adjusted against the consumption exclusive of line loss even as per the above example. The equivalent demand (deemed demand) as per the formula laid down by the Tamil Nadu Electricity Regulatory Commission can be allowed only for the energy adjusted during that month. If there is any unadjusted surplus energy, it will be sent to banking for adjustment in the subsequent months. Whenever banked energy is drawn and adjusted against the TANGEDCO's power, the equivalent demand will be calculated for the banked energy as per the formula. Based on the above only, the clarification was issued by the TANGEDCO. In M.P.No.32 of 2010 and M.P.No.41 of 2010, it has ordered as follows:-

> *"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. The Commission, therefore, decides that the impugned clarification dated 25-06-2010 issued by TANGEDCO is in order. It is but fair that the clarification should have effect from 25-06-2010. In this approach, the orders of the Commission as contained in Tariff Order for wind energy in Order No.1 of 2009 dated 20-03-2009 and various orders issued for Restriction and Control measures have to be harmoniously constructed and implemented".*

3.11. In continuation to the above, the Commission had passed orders in D.R.P.No.23 of 2011 and I.A. Nos. 1 & 2 of 2011 filed by M/s. Orchid Chemicals & Pharmaceuticals Limited with regard to calculation of demand based on the energy supplied / injected by the Petitioner from their wind mills / captive generating plant instead of taking energy adjusted as per the orders passed in M.P.No.42 of 2008 dated 28-11-2008. It is further stated that the order passed by the Commission in

S.M.P.No.1 of 2009 dated 28-10-2009 and the clarification issued by the Respondent dated 25-06-2010 can be perused for fixing of energy quota and refund / *adjust the excess demand charges, which reads as follows:-*

"I.A.No.1 of 2011 and I.A. No.2 of 2011 in D.R.P. No.23 of 2011 were taken up for admission. This Commission has passed an order on 28th December 2011 in M.P.No.32 of 2010 and M.P.No.41 of 2010 wherein the circular dated 25-06-2010 of TANGEDCO was in question and an order was passed. This petition D.R.P.No.23 of 2011 as well as the two I.A.s are disposed off in the context of the order passed on 28th December 2011 in the above referred two petitions. The petition is disposed off at the admission stage itself with this order".

3.12. The SIMA and IWPA have filed appeals before the APTEL against the order of the Commission dated 28-12-2011 and the matter has been reserved for final orders. The order passed by the Commission in M.P.No.32 and 41 of 2010 dated 28-12-2011 is applicable to all captive users whether thermal or wind. As per the Commission's Order No.3 dated 15-05-2006 and Order No.2 dated 15-05-2006 in respect of NCES Captive users and thermal captive users (conventional) respectively, the demand supplied by the generator, in other words equivalent demand or deemed demand had been arrived at for adjusted units only for computation of billable demand. From the above, it could be observed that the equivalent demand had been arrived at for adjusted units only before introduction of R&C measures.

3.13. The TANGEDCO had not changed the billing procedure already followed as per the Commission Order No.3 and Order No.2 dated 15-05-2006. Further, R & C measures had been introduced to meet out the demand and supply gap by way of fixing demand quota and energy quota. However, the billing procedures are followed only as per the Commission's order.

3.14. The Petitioner had accepted the billing methodology prior to the introduction of R&C measures (i.e.) what methodology is followed for computation of demand charges, the same methodology applies for computation of excess demand charges too. The contention of the Petitioner is that the equivalent demand has to be arrived at based on supplied units while computation of excess demand charges and the equivalent demand to be arrived at based on adjusted units is discriminating one in the billing methodology and also against the billing procedures already followed as per Commission's Order No.3 dated 15-05-2006 and Order No.2 dated 15-05-2006 in respect of NCES Captive users and thermal Captive users. It is explained for better understanding as below:-

Billing Procedure Before Introduction of R&C Measures	**Billing Procedure after Introduction of R&C Measures**
Bill for the month of 10/2008 (HT SC No.1168 / M/s.Brakes India Ltd./Vellore:)	**Bill for the month of 05/2010** (HT SC No.1168 / M/s.Brakes India Ltd./Vellore:)
Computation of billable demand:-	Computation of billable demand:-
Sanctioned demand = 9850 KVA	Sanctioned demand = 9850 KVA
1. Recorded demand = 10092 KVA=A	Recorded demand = 7764 KVA=A
2. Energy adjusted = 2246700 units	Energy adjusted = 2878574 units
3. Deemed demand or equivalent demand supplied by CPP = 2246700/(30*24*0.98)=3184.099 KVA=B	3. Equivalent demand for adjusted units = 2878574/(30*24*0.98)=4079.613 KVA=B
4. Demand supplied by TANGEDCO (A-B) = 6907.901 KVA=C	4. Demand supplied by TANGEDCO (A-B) = 3684.387 KVA=C
5. Deemed demand share of TNEB (B*41.28%)=1314.396 KVA=D	5. Deemed demand share of TNEB (B*41.28%)=1684.064 KVA=D
6.Billable Demand (C+D)=8222.300 KVA	6.Billable Demand (C+D)=5368.450 KVA
Computation of Excess demand:	**Computation of Excess demand:**
Recorded demand during the month = 10092 KVA=A	Recorded demand during the month = 7764 KVA
2. Sanctioned demand =9850 KVA	Equivalent demand for adjusted units=2878574(30*24*098)=4079.613 KVA
3. Excess contracted demand =242KVA	TNEB supplied demand =3684.387 KVA
	Quota demand = 8288 KVA
	Excess demand availed by the Consumer = Nil

Thus the Respondent has not altered the billing procedure especially with regard to computation of deemed demand or equivalent demand. The allocation between generator and user is merely bilateral. TANGEDCO and TANTRANSCO grant only Open Access to enable power transfer from injected point to delivery point. As such, allocation to the captive users by the generators and the consumption by the users solely depend upon generator and the consumer. The Petitioners should have utilized / consumed the entire energy supplied by its generator based on the allocation made by the generator. The energy so consumed by the HT consumer which is recorded in a meter provided at consumer premises / factory end alone could be taken as energy consumed by the consumer which includes energy supplied by the Licensee as well as by the generator. Actual energy recorded in the meter will alone be taken for conversion of demand as per the Commission's Order No.2 dated 15-05-2006 and Order No.3 of 2006. When the consumer fails to consume entire quantum of energy allocated by the generator, the equivalent demand could be allowed only for the actual energy recorded in the Captive user's meter and the energy utilized alone can be allowed for conversion into demand. If the Captive users are unable to utilize the entire generated energy during a particular month, it will get lapsed. No compensation is payable by the Licensee for the lapsed units in respect of fossil fuel based captive generators. When no compensation is allowable for the lapsed units, how a deemed demand benefit could be allowed.

3.15. The Commission in exercise of the powers conferred under sections 62 and 64 of the Electricity Act, 2003, directed as follows in M.P.No.21 of 2009 dated 05-01-2010 with regard to reliability power:-

> *"-------- (k) the TNEB should ascertain from each consumer the additional demand and energy requirement for every month limited to the base demand*

and base energy; the TNEB should confirm to the indenting consumer one week prior to the commencement of the month the additional available demand and energy ; both for the 6.00 p.m. to 10.00 p.m. slot as well as the remaining hours; having confirmed the additional demand and energy the TNEB is bound by the promise; the consumer is entitled to consume the additional demand at the normal rate and additional energy at the higher rate; penal charges should not be levied for that committed quantity; similarly, if the consumer does not off take the committed demand and energy, he is liable to pay the higher charges for the committed quantum of energy....."

3.16. As per the order in M.P.No.21 of 2009, third party power had been treated as at par with reliability power. Further, if the third party consumer does not off take the committed demand and energy, he is liable to pay the charge for the committed quantum of energy and supplied quantum of energy and also now third party consumer has to pay the relevant Cross Subsidy Surcharge. At the same time, in respect of Captive Users, Captive Generator shall be allotted the generated energy depending upon captive users consumption and also Cross subsidy surcharge has not been levied in respect of the captive use as per the Electricity Act, 2003. As such, it is clear discrimination between third party user and captive user. Hence, it is the Petitioner's responsibility to run their industry by fully utilizing their captive consumption under open access. The averment of the Petitioner that demand is restricted to actual consumption and this puts the HT consumer in a disadvantageous position and they are forced to pay penal demand charges are therefore, totally baseless, meaningless and incorrect. The Petitioner being an agreement holder is bound by the agreement clause, the terms and conditions and as such estopped from disputing the demand. Clause 9 of the agreement reads as follows:-

"The wheeling charges, billing adjustment of energy and other charges etc. shall be subject to revision as may be prescribed by the Board / TNERC, as the case may be, from time to time."

3.17. As per the Commission's Order No.2 dated 15-05-2006 the equivalent demand is being arrived at for the adjusted units only. The Petitioner has to abide by the Commission's regulations. As per the Tamil Nadu Electricity Grid Code, all the generators shall maintain the Scheduling. In this regard, the energy allocation between generator and user is purely bilateral. TANGEDCO and TANTRANSCO grant only Open Access to enable power transfers from injected point to delivery point. As such allocation to the captive users by the generators and the consumption by the users solely rest upon generator and the captive user. The Petitioners should have utilized / consumed the entire energy supplied by its generator based on the allocation made by the generator. Hence, it is the Petitioner's responsibility to maintain the consumption in accordance with generation.

3.18. The very issue raised in the present D.R.P. was already considered and decided by the Commission in D.R.P.No.23 of 2011 and I.A.Nos.1 & 2 of 2011 filed by M/s.Orchid Chemicals & Pharmaceuticals Limited with regard to calculation of demand based on the energy supplied / injected by the Petitioner from their wind mills / captive generating plant. Therefore, present petition may also be dismissed as was done in the earlier case.

3.19. In the case of injection and consumption of conventional power through captive mode, the energy injected by the captive generator scheduled for a particular captive user is to be fully utilized by the captive user. In case of any less consumption by the captive user than the energy injected by the captive generator, the unconsumed energy will lapse, i.e. it can be neither banked nor encashed. The

energy so injected by the captive generator and consumed by the captive user is measured in terms of units (KWHr.). The object and purport of allowing unutilized units to lapse is to maintain strict discipline in injection and consumption of electricity through the licensee's grid. Based on such consumed energy, the consequential equivalent demand is arrived at. In view of the above only, the energy consumed by the captive user is taken for arriving at the consequential equivalent demand. In such a situation, when the unutilized energy (in units) itself gets lapsed, there is no question of considering the consequential equivalent demand for such lapsed energy. The direct object sought to be achieved by the Petitioner by filing the above petition is to derive an unintended and unjust benefit from such lapsed energy (in units), which is impermissible. It is a settled position in law that what cannot be done directly, cannot be done indirectly.

4. Contentions of Written Submissions filed on behalf of the Petitioner:-

4.1. Pursuant to request made by Captive Power Plants the formula for working out the quota in terms of energy on demand was stipulated by the TNEB on 17-11-2008. The formula is;

$$F = \frac{\text{Energy supplied by CPP in a month}}{\text{Number of days in a month x 24 hrs. x by PF0.95}}$$

On 28-11-2008, the Commission in M.P.No.42 of 2008 imposed some R&C measures and also approved the above formula for calculating excess demand. Pursuant to this order HT Consumers made representations requesting that the quota fixed must only apply to the component of power supplied by the Respondent and not for the power consumed from CPP.

4.2. On 19-12-2008, taking these requests into account, the Respondent issued a memo directing the Superintending Engineer to fix the quota only for the power supplied by the Respondent and to allow consumers to use actual energy. The demand quota was re-fixed based only on the power supplied by Licensees.

4.3. On 28-10-2009, this memo was struck down in the Suo Motu Proceedings No.1 of 2009. However, a detailed appraisal of the proceedings clearly shows that the substance of the memos applies only to wind energy generators.

4.4. The Chief Financial Controller of the Respondent sought to issue a clarification dated 25-06-2010 in Lr.No.CFC/Rev/FC/R/D.No./10 wherein the Respondent sought to interpret "actual energy supplied" to mean actual energy adjusted. This has been elaborated in para (iii) as follows:-

> *"In the above the actual energy supplied was meant only the actual energy adjusted. (if the supplied energy is more than the consumption, the excess energy would have been lapsed)".*

This was challenged by wind energy generators in M.P.Nos.32 and 41 of 2011 before the Commission. The Commission passed orders on 28-12-2011 in M.P.No.32 and 41 of 2011, which were filed by SIMA and IWPA, both of which are associations which deal with wind energy to set aside the Respondents communication in Lr.No.CFC/Rev/ FC/R/D.No./10, dated 25-06-2010. It was clarified by the Commission, that the new system of calculation of demand was due to the banking facility available for the wind energy based CPP's and that this was necessary to counteract the fact that a consumer cannot have a double benefit by providing equivalent demand in respect of unadjusted bank units for the subsequent periods.

4.5. The Petitioner contends that the equitable method by which demand available to the Petitioner is to be calculated is to be on the basis of energy injected into the grid and not on the basis of energy consumed. The problem arose due to the R&C measures imposed by the State, which were then sanctioned by the Commission in M.P.No.42 of 2008. A memo had been prepared by the Commission which took into account the power shortages faced by HT consumers and directed the Superintending Engineer to fix the quota only for the power supplied by the Electricity Board and thus allow the industry and consumers to use the actual energy and demand supplied by Captive Power Plants. The Petitioner is adversely affected by the Commission's Order No.4 on 15-06-2006 whereby the demand is calculated on the basis of consumption and not on the basis of injection of energy. This has in turn adversely affected the Petitioners operations and the Petitioner is unable to meet their demand requirements. The R&C Measures have resulted in a situation wherein actual injected units does not correspond to the energy consumed due to grid breakdowns, load shedding and other reasons. This results in a situation where (a) they are forced to pay an exorbitant rate due to consuming in excess of the demand quota; and (b) they are forced to pay a penalty for exceeding the demand fixed, due to the disparity between energy injected and demand received. This is unfair and arbitrary situation since it was due to the Respondents that the Petitioners have been unable to meet the demand.

4.6. There is a clear discrimination between charges on Short Term Open Access, wherein 100 percent demand equivalent is injected while for CPP's, the same benefit is not extended. The Respondent sought to issue a clarification dated 25-06-2010 in

Lr.No.CFC/Rev/FC/R/D.No./10 wherein the meaning of actual energy supplied was sought to be interpreted as actual energy adjusted in respect of wind mill generators. This action by the Respondent which results in shifting the calculation from energy injected to energy actually consumed for CPPs other than windmill generators is an inequitable arrangement wherein the consumers will, in addition to losing the energy which they injected into the grid but could not use, will also end up paying excess demand charges if the calculation of excess demand charges is to be made on the basis of energy consumed and not on the basis of energy injected. In response to this, M.P.No.32 was filed by wind energy generators wherein this clarification dated 25-06-2010 in Lr.No.CFC/Rev/FC/R/D.No./10 was sought to be set aside as illegal. In the order passed, it is very clearly stated that the concept of calculation based on energy consumed applies to Captive Power Plants which are run on wind energy and not other Captive Power Plants.

4.7. The justification for this order was since wind mills had the benefit of banking calculation of excess demand charges on the basis of energy injected would give them a double benefit. It is for this reason a particular manner of interpretation was given in respect of wind mill generators alone. This obviously could not be applied to CPP generators. The Petitioner therefore states that the consumption based calculation of excess demand charges applies to wind energy alone since the consumer cannot have double benefit on account of provision of equivalent demand as well as unadjusted banked units for subsequent periods.

4.8. The Respondents contention of raising an issue of maintainability at the stage of final hearing is belated and impermissible, as preliminary objections such as

that of maintainability are to be decided before entering into the merits of the matter. A question relating to maintainability may not be in all cases the same as a question relating to jurisdiction. The practice of calculating excess demand on the basis of energy consumed in respect of CPP is a practice that has been adopted by the Respondent only after orders in M.P.Nos.32 and 41 were passed on 28-12-2001 reached finality. Clearly this method cannot be applied to CPP plants. Calculating excess demand charges on them is inapplicable as they are not a wind energy based CPP and therefore the method of calculation for non-wind energy based CPPs should still be based on energy injected into the grid and not on the basis of energy consumed.

5. Findings of the Commission:-

5.1. The prayer of the petitioner is to clarify that the order passed by this Commission in M.P.No.32 and 41 of 2010 dated 28.11.2011 applies only to wind energy injected into the grid and that in respect of energy generated and fed into the grid through Long Term Open Access Captive Power Plants, the demand available to the petitioner should be calculated only on the basis of the energy injected into the grid and not on the basis of the energy consumed by the petitioner.

5.2. The petitioner has manufacturing units at various places in Tamil Nadu with HT service connections provided by the Respondent. The petitioner, in addition to utilizing the power supplied by the respondent, has also tied up with various group Captive Power Plants situated within Tamil Nadu and are wheeling power in proportion to the shareholding in the respective power company.

5.3. The issue raised by the petitioner is whether the demand availed from the Captive generator shall be based on the energy produced and injected into the grid by the captive generator or on the basis of energy actually consumed by the petitioner as captive consumer. The petitioner contends that the total energy injected should alone be the basis for the above purpose. In support of their contention, the petitioner states that considering the energy consumption as the basis would apply to consumers having captive wind energy plants only since banking of excess energy over consumption is available in such cases. The petitioner further contends that in the case of the short term open access consumers the energy injected has been reckoned. The respondent, TANGEDCO stoutly denies it.

5.4. Before, considering the above contentions of the petitioner, let us understand the background of the whole issue.

The HT consumers of the licensee are permitted to meet part of their demand by outsourcing the power either through their own captive generation or through third party purchase. The demand or consumption of the consumer is invariably dynamic and not static and the consumption may not exactly match with the supply. There may be instances where the consumption over shooting supply during certain period and falling short during some other period in the same day depending on the load factor.

5.5. If the load factor of the consumer is low, the differences may be significant. The question that arises for consideration is while calculating the demand met through outsourcing whether it should be reckoned based on the energy that is

consumed by the consumer (after adjusting for losses) or the energy injected by the generator.

This aspect has been considered by the Commission and the Commission in its order No.2, on Transmission and Wheeling charges issued on 15.5.2006. The demand availed by the consumer from open access has been illustrated citing 2 examples. The relevant portion of the order is reproduced below:

"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 demand as per the table = 41.28
Sanction Demand 1000 Kva
Recorded Demand 855 Kva
Units consumed 650000 units
Power factor 0.95
*Units supplied by generator **(at consumption point)** : 500000 units*
*Demand supplied by generator = 500000/720*0.95 = 659.72 Kva*
Demand supplied by the licensee = 855-659.72 = 195.28 Kva
Billable demand –supplied by licensee = 900 – 659.72 = 240.28
(at 90% of the sanctioned demand)
*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 demand as per the table above = 40.04

Sanction Demand 1000 Kva
Recorded Demand 950 Kva
Units consumed 700000 units
Power factor 0.92
*Units supplied by generator **(at consumption point)**: 700000 units*
*Demand supplied by generator = 700000/720*0.92 = 894.44 Kva*
Demand supplied by the licensee = 950-894.44 = 55.56 Kva
Billable demand –supplied by licensee = 950 – 894.44 = 55.56 Kva
*Demand charges payable = (894.44*0.4004*300)+(55.56*300)*
= 107440.13 + 16668 = 124108.13"
(emphasis supplied)

It has been specifically mentioned in the examples that the units supplied by the generator is to be reckoned only at the consumption point.

5.6. The primary concern for the distribution licensee is to see what has been consumed by the consumer. If the consumer happens to be a partial open access consumer, it has to see what is supplied by it and what is availed through open access. Once this is done the demand (power) supplied by it and also availed from open access can be worked out based on the above. The consumption point is the focal.

From the above, it can be seen that prior to the introduction of R&C measures in November, 2008, the demand availed from the captive generator was determined based on the energy actually consumed at the consumer end and not based on energy injected / supplied by the generator.

5.7. Now let us refer to the position obtaining subsequent to the introduction of R&C measures in November, 2008.

Due to shortage of power in Tamil Nadu, R&C measures were introduced by the Respondent from November, 2008. Working instructions for fixing of quota was issued by the Respondent in their circular instruction dated 1-11-2008. Accordingly

quota on demand and energy consumption was fixed and it was periodically revised depending upon the availability of power.

Against this circular instruction of the Respondent dated 1-11-2008, certain HT consumers have made representations stating that the quota fixed would apply only to the component of power supplied by the Respondent and that no quota could be fixed for the power consumed by them from CPPs. After considering these representations, the Respondent has issued a memo dated 17-11-2008 in connection with fixation of demand and energy quota for these HT consumers who are partially using power from CPPs which are stated below:-

Fixing of Energy quota:

(i)	Monthly base energy consumption as illustrated In working instructions dated 1-11-2008	-	A
(ii)	In that the actual energy supplied (monthly average) For the above three months average by the CPP	-	B
(iii)	The actual energy availed by consumer from TNEB	-	A – B = C
(iv)	60% energy on C (C x 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
	$F = \frac{\text{Energy supplied by CPP in a month}}{\text{No.of days in the month x 24 hours P.F.0.95}}$		
(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)

The above memo of the respondent dated 17-11-2008 stipulates 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 only.

Clause 5.22.4 in order No.2 dated 15-5-2006 also stipulates that units supplied by Generator at consumption point for calculating demand supplied by the generator.

5.8. In order No.3 dated 15-5-2006 under issue – 5 (Commission’s view) demand supplied by the WEG is reckoned based on consumed units only.

Further the Commission has disposed of the I.A. (1 & 2) of 2011 in DRP 23 of 2011 filed by M/s.Orchid Chemicals & Pharmaceuticals Ltd., for reckoning demand based on energy adjusted instead of energy injected from their wind mills / captive generating plants in line with Commissions earlier order in M.P.(32&41) of 2010 dated 28-4-2011 which means clarification has already been made.

5.9. On the question of lapsing of the excess energy injected into the grid and the inability to bank the same as is the case with the Wind generators, it may be seen that no parallel can be drawn between the wind generators and other generators as banking is a special concession flowing from promotion of renewable energy sources under section 86(1)(e) of the Electricity Act, 2003 and in view of the fact that the wind energy being infirm in nature the facility of banking has been extended as a promotional measure. Therefore, the fact that wind energy generators are allowed to bank their excess energy with the licensee and the petitioner herein is not being

allowed to bank the excess energy and the same gets lapsed has no relevance to the present issue as the issue herein is common to all generators. There cannot be differential treatment in respect of adjustment of energy for the purpose of calculating demand quota.

5.10. In the result, we cannot subscribe to the view of the Petitioner that there is a difference between the wind generators and any other generators in the matter of adjustment of energy and the fixation of quota and the petition is therefore dismissed.

5.11. In view of the above, we are unable to hold that the orders passed in M.P.No.32 and 41 of 2010 dated 28-12-2011 applies only to the wind energy injected into the grid. In the contrary the order issued by the Respondent, TANGEDCO in its Memo CE/Comml/EE/DSM/AEE/MM/F.Powercut/D28/2007, dated 17-11-2008 would apply to all consumers who avail Open Access to meet part of their demand.

6. Appeal:-

An appeal against this order shall lie before the Appellate Tribunal for Electricity under section 111 of the Electricity *Act*, 2003 within a period of 45 days from the date of receipt of a copy of this order by the aggrieved person.

(Sd…….)
(**G.Rajagopal)**
Member

(Sd…….)
(S.Akshayakumar)
Chairman

/ True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission