

**TAMIL NADU ELECTRICITY REGULATORY COMMISSION**  
**(Constituted under Section 82 (1) of the Electricity Act 2003**  
**Central Act 36 of 2003)**

**PRESENT:-**

**Thiru.S.Kabilan** ... **Chairman**

**Thiru.K.Venugopal** .... **Member**  
and

**Thiru.S.Nagalsamy** .... **Member**

**D.R.P. No. 10 of 2010**

M/s. Hi-Tech Mineral Industries (Covai) (P) Ltd  
Kottagoundanpatti Village  
Chellapillaikuttai Post  
Omalur Road  
Salem – 636 304.

.... **Petitioner**  
(Thiru.K. Seshadri, Advocate for Petitioner)

**Vs.**

1. The Chairman  
The Tamil Nadu Electricity Board  
144, Anna Salai  
Chennai – 600 002.
2. The Chief Engineer  
Private Power Project  
Tamil Nadu Electricity Board  
144, Anna Salai  
Chennai – 600 002.
3. The Superintending Engineer  
Salem Electricity Distribution Circle  
Tamil Nadu Electricity Board  
Udayampatty  
Salem District

.... **Respondents**  
(Thiru.H.S.Mohammed Rafi, Advocate for Respondents)

**Dates of hearing : 7-9-2010, 21-10-2010, 29-10-2010,  
10-1-2011, 15-3-2011 and 26-4-2011**

**Date of Order : 7-10-2011**

The D.R.P.No.10 of 2010 came up for final hearing before the Commission on **26-4-2011**. The Commission upon perusing the above D.R.P.No.10 of 2010 and all other connected records and after hearing both sides passes the following:-

### **ORDER**

#### **Prayer in D.R.P. No.10 of 2010:-**

The prayer in D.R.P. No. 10 of 2010 is to direct the Respondents to accord approval for the synchronization of 5 MW power generated in the Petitioner's captive power plant and to sanction Open Access to wheel 1 M.W. of power without insisting on payment of extra cost.

#### **Facts of the case :-**

The Petitioner set up a 5 M.W. waste heat recovery based captive generating plant at Kottagoundanpatti Village, Chellapillai Kuttai Post, Omalur Road, Salem, where the High Tension Service Connection No.128 of the Petitioner is located for the manufacture of sponge iron. On 27-10-2009 they submitted an application to the second Respondent for Open Access to wheel 1 M.W. of power after captive consumption of 4 M.W with relevant documents. The Petitioner paid Rs.5000/- towards registration fee.

2. On 17-11-2009 the Member (Generation) of TNEB advised the Petitioner to pay a sum of Rs.1,00,000/- towards the fee for load flow study for the newly proposed 5 MW waste heat recovery based power plant and accordingly the Petitioner paid the said amount on 18-11-2009.

3. On 12-02-2010 the Petitioner sent a representation to first Respondent to issue directions to the second and third Respondents to speed up the process of wheeling to the Petitioner. On 10-03-2010 another representation was sent to the first respondent for initial approval for synchronization of 5 M.W. of power with TNEB's grid with wheeling approval of 1 M.W. On 11-03-2010 the second Respondent directed the Petitioner to bear the entire cost of existing supply line from Karuppur Sub-Station to the Petitioner's plant laid by TNEB and furnish an undertaking that the company shall not claim any compensation from the respondent for any unforeseen outage or schedule maintenance outage of the existing 22 K.V. service connection line between the project and Karuppur Sub-Station.

4. On 08-07-2010 the third Respondent informed the Petitioner that the grid connectivity of the 5 M.W. of the captive power plant established in High Tension Service Connection No.128 and wheeling of 1 M.W. power to the Petitioner's another High Tension Service Connection No.263 have been sanctioned and advised the Petitioner to pay a sum of Rs.89,32,110/- within fifteen days. Alleging that the above letter is not in compliance with the Electricity Act, 2003

and the Regulations framed by the Commission thereunder the present D.R.P. has been filed by the Petitioner.

**Contentions of the Petitioner:-**

5. The Petitioner industry is a consumer of the Respondents. The Petitioner has been sanctioned three High Tension Service Connections. H.T. S.C. No. 128 was sanctioned on 13-6-2003 with a maximum demand of 500 K.V.A. and was enhanced subsequently to 4250 K.V.A. on 22-6-2007. H.T. S.C. No. 248 was sanctioned with a maximum demand of 4500 K.V.A. on 8-6-2007 and an additional demand of 490 K.V.A. was sanctioned on 21-07-2007 totaling to 4990 K.V.A. The H.T.S.C. No. 263 was sanctioned with a maximum demand of 2500 K.V.A. on 02-01-2009 and an additional demand of 300 K.V.A. was sanctioned on 7-10-2009 totaling to 2800 K.V.A. which is being used for re-rolling of steel rods. Though all the service connections are located in the same premises, they are physically segregated to enable the Respondents to effect separate service connections. All the said service connections are being fed through 22 K.V. line from Karuppur SS from a distance of approximately 5 kms. from the premises. While sanctioning the said service connections, the Petitioner has paid Rs.42,14,000/- towards development charges and Rs.3,81,960/- towards extension and service connection charges to the Respondent Board.

6. The Petitioner is entitled to open access under Section 9 (2) of the Electricity Act, 2003 and in terms of Clause (f) of the General Condition 8 (e) of

the Order No. 4 dated 15-5-2006 of the Commission. The Petitioner being a consumer of the Respondent Board is entitled to use the existing 22 K.V. line without payment of charges since no laying of new dedicated 22 K.V. transmission line is necessary. The existing service line is sufficient to cater to the needs to export (wheeling) power upto 2 M.V.A. to the distribution licensee grid.

7. The Petitioner's application for synchronization and wheeling of energy was made on 27-10-2009. While so, ignoring Order No. 4, dated 15-5-2006 of the Commission, the Respondent in letter dated 8-7-2010 demanded a sum of Rs.89,32,110/- as per (Permanent) B.P. (Ch) No. 90, Technical Branch, dated 2-3-2010, which has been issued subsequent to the application for synchronization and wheeling. The said B.P. cannot have retrospective effect.

8. Initially it was proposed to establish a 7 MW coal based power plant and a 5 MW power generation through the waste heat recovered from the sponge iron kilns. For the total 12 MW, common turbine and generator was installed on 27-1-2010. In the first phase, the 5 MW power generation using waste heat recovery boiler was commissioned on 7-6-2010. FBC boiler was installed in April 2010 and 7 MW plant was commissioned in August 2010. The steam generated from waste heat recovery and FBC boilers passes through the common single turbine for generation of 12 MW power. The energy generated through the total 12 MW installed generator is being used in HT S.C. No. 128 comprising of

sponge iron plant, power plant auxiliary and one number Electric Induction furnace of 2.75 MW and in H.T. S.C. No. 248 for another Electric Induction furnace of 4 MW capacity and in H.T. S.C. No. 263, where a steel rerolling mill has been erected. All the three service connections are connected with the Captive Power Plant installed by the Petitioner.

9. At present the Petitioner separated power distribution in two levels of voltages (i.e.) 11 KV bus and 22 KV bus. The Petitioner has restricted generation to 11 MW as against 12 MW installed capacity to suit the captive use. The 11 KV supply generated is used by the HT S.C. No. 248 to the tune of 4 MW and another 1 M.W for the power plant auxiliary load in H.T. S.C. No. 128. Balance 6 MW is connected to the 22 KV bus by stepping up the 11 KV supply to 22 KV through 7.5 MVA 11 KV / 22 KV transformer and being utilized for sponge iron plant with a load of 1 MW and for one number Electric induction furnace with load of 2.75 MW in HT S.C. No. 128 and 2.25 MW is utilized in the steel re-rolling mill in HT S.C. No. 263.

10. After getting the approval from the Respondents for grid connectivity of 5 MW and Open Access to wheel power of 1 MW, it will be arranged to connect 12 MW – 11 KV generation to furnace – 1 with a load of 2.75 MW, Furnace – 2 with a load of 4 MW and power plant auxiliary load of 1 MW totaling 7.75 MW in 11 KV bus. The balance 4.25 MW at 11 KV supply will be stepped upto 22 KV through the said 7.5 MVA 11KV/22KV transformer to utilize 1 MW for sponge iron

plant and 2.25 MW for re-rolling mill totaling to 3.25 MW. Balance 1 MW at 22 KV supply will be available for export to Respondent's grid.

11. As per condition (f) of general condition 8 (e) of the Order No.4 dated 15-5-2006, when the owner of the captive power generator happens to be a consumer and when the power fed to the distribution licensee grid is less than 2 MVA a dedicated line from the location of the captive power generator to the nearby distribution licensee sub-station is not required. The service line itself will cater to the need to export the power to the distribution licensee grid. While so, ignoring the provision in the Order No. 4 referred to above, the Respondents have claimed a sum of Rs.89,32,110/- towards cost of transmission line under (Permanent) BP (Ch) No. 90 Technical Branch, dated 2-3-2010. The present 22 KV line has been feeding all the three HT service connections totaling 12.04 MVA and hence is having adequate capacity to withstand the power to be exported which is only one MW. In fact, the load flow study was approved by the Respondent only after ascertaining the technical feasibility and withstanding power of the existing transmission line.

**Contentions of the Respondent Board in Counter Affidavit and Additional**

**Counter Affidavits filed by them:-**

12. The Petitioner company has got three HT Service Connections with the total sanctioned demand of 11740 KVA, although the original request at the time

of expression of interest of the establishment of Co-Gen Plant was 12 MW. Due to various reasons not known to this Respondent the application was given for grid connectivity and open access for establishment of 5 M.W. plant

13. As per B.P. No.90 dated 02-03-2010, the connectivity for HT/EHT consumer's power plant with TNEB Grid through the same line feeding the company's sanctioned demand can be permitted provided the cost of the supply line is borne by the promoter.

14. Necessary estimate has been sanctioned vide B.P.(Ch) No.259, dated 28-6-2010 for the transmission system for the connectivity of the 5 MW plant with Tamil Nadu Electricity Board grid and wheeling of 1 MW power to their H.T. Service No. 263 through the existing 22 KV feeder initially inasmuch as the plant as claimed by the Petitioner, is in the stage of ready for commissioning, and later through a separate 22 KV single circuit line to be laid immediately from Karuppur SS on DCW basis since two criminal cases are pending against the consumer due to the theft of energy detected in their services.

15. The load flow study was done for grid connectivity of 5 MW plant with 1 MW evacuation of power for wheeling to the Petitioner's Unit 3. In order to provide sufficient line capacity for the connectivity of the plant with the capacity of 5 MW and to avoid disturbance to other services connected to this existing line

since the existing line is not a dedicated line, the need for a separate line was envisaged.

16. After conducting load flow study, the Petitioner company was directed to furnish an undertaking on 11-3-2010 to the effect that, (i) the entire cost of the existing supply line from Karuppur SS to the power plant laid by Tamil Nadu Electricity Board will be borne by promoter M/s. Hi-Tech Minerals Industries Covai Pvt Ltd., (ii) the company shall not claim for compensation from Tamil Nadu Electricity Board for any unforeseen outage or scheduled maintenance of the existing 22 KV SC line between the project / company and Karuppur SS. The collection of the cost of the line was meant for ultimately for providing a separate line from Karuppur SS to their plant and as concurred by the party. The above claim was made as per the provision of Sec. 9 (1) & 10 (1) of Electricity Act, 2003 and the company has given an undertaking to that effect.

17. The Petitioner has committed an offence of theft of energy in their two HT services i.e. in HT SC No. 128 (in which the Petitioner propose the establishment of the waste heat recovery Co-Gen plant) Unit I and in HT SC No. 248 Unit II on 09-03-2008. Petition is pending. The Board felt the need to have a dedicated feeder.

18. The dedicated transmission evacuation line is part of the obligation of the generator to provide / establish, operate and maintain as per Clause 10(1) of

Electricity Act, 2003. As such, Tamil Nadu Electricity Board is collecting the amount on DCW basis for the laying of the line alone.

19. The existing feeder will not withstand any additional load. The first proviso to Section 9(2) of the Electricity Act, 2003 stipulates that open access shall be subject to availability of adequate transmission facility. In the facts and circumstances of the case, sub-clauses (f) and (g) of clause 12(8)(e) – viz Application Procedure and Evacuation facilities relied on by the Petitioner has no application to the case of the Petitioner. The case of the Petitioner will fall under Section 10(1) of the Electricity Act, 2003 and the Board is entitled to collect the cost of the lines.

20. The Petitioner company in their application requesting for Open Access has stated that they have established 5 MW Co-generation plant, where as on scrutinizing the document furnished by the company along with the petition in DRP No. 10 of 2010 it was noticed that the company infact has established a 12 MW generator and has obtained safety certificate for 12 MW generator.

21. As a consumer of the distribution licensee the Petitioner company was provided with three HT service connections viz. 128, 248 & 263 at the cost of the distribution licensee. Moreover since the company has become a captive generator section 10 (1) of Indian Electricity Act, 2003 will hold good for them and hence it is proposed to evacuate the power through a separate feeder as a

permanent measure for which the cost of the evacuation line connecting to the Petitioner's generator has to be borne by the Petitioner. The Respondents have not issued any order granting approval to the Petitioner before issue of BP No. 90 dated 2-3-2010. Hence no retrospective claim is involved.

22. As the connected load to the generator (4250 + 5000 KVA) exceeds the installed capacity of the generator, it was not possible for evacuation of 1 MW power for wheeling to HTSC No. 263 through the same feeding point of supply. Hence connectivity was proposed with a separate dedicated line but initially through the existing 22 KV Hi-tech feeder supply line from Karuppur 110/22 KV SS at the terminal take off point of the feeder just before the tapping point for the three HT services, after collecting the entire cost of the line as per estimate since the company has given concurrence for payment for the cost of line, and the plant is also in the stage of ready for commissioning as stated by the company to match with the commissioning of the generator and in turn to avoid any generation loss.

23. Inasmuch as the cost for the proposed 22 KV line from SS to the plant was proposed to be collected before commissioning, a separate new 22 KV line was proposed as a dedicated line to be laid from Karuppur 110 / 22 KV SS to the plant premises immediately inasmuch as the capacity of the generator is 5 MW. The connectivity was proposed with a separate dedicated feeder as the

dedicated line may facilitate any further additional evacuation / Open Access eventhough the present request is for wheeling of 1 MW.

24. The Petitioner has two boilers, one using waste heat recovery and the other using FBC boiler. Steam generated from above two different boilers is passed through the single turbine for generation of 12 MW power from the 12 MW generator with its allied equipments. The company is not having a separate 5 MW generator (i.e. machine) with its Waste Heat Recovery Boiler and its raised capacity equipments for which the Petitioner has sought grid connectivity.

25. The company has requested for reduction in demand in respect of HTSC No. 128 from 4250 KVA to 3250 KVA and the same is yet to be approved. Service No. HTSC No. 248 is under disconnection for non-payment of CC charges towards the 07/2010 CC bill and the company has sought for reduction in demand and which request is under process now. Service No. HTSC No. 263 is also under disconnection from 10/2010 for non-payment of CC charges in respect of which wheeling has been requested.

26. The capacity of the generator is 12 MW. As such connectivity and wheeling can be established only after conducting fresh load flow study on receipt of fresh application from the Petitioner with proper and full details of the generating machine and its allied equipments and their requirements since the

characteristics of 12 MW generator and its allied equipments are different from that of 5 MW generator and its equipments.

27. In a discussion on 16-3-2011 TANGEDCO informed the company's representatives that, since the generator capacity has been declared by the company as 12 MW, the connectivity of the generating plant shall be examined with reference to 12 MW only, since the source capacity shall be the criteria for grid connectivity of the generating plant as the injury caused to the system during the fault condition depends entirely on the capacity of the generator which is being interfaced with the grid. As such, generator machine with a capacity of 12 MW shall be the criteria for the grid connectivity and not the partial power 5 MW available at the 22 KV bus for conducting the grid connectivity study.

28. The distribution licensee is in a position to permit to connect any generator to its distribution system only after taking into account of source and its characteristics of the supply which in this case is a generating plant with a capacity of 12 MW. It is not acceptable to the Respondents for permitting connectivity of 5 MW, as the same is only part of the quantum of power generated from 12 MW generator.

29. Wheeling is feasible if HTSC 263 is separately availed and without connecting part loads of HTSC 263 from the Generator, installed at HTSC 128 i.e. the loads of HTSC 263 to be electrically segregated from HTSC 128.

**Findings of the Commission:-**

30. M/s. Hi-tech Mineral Industries (Covai) (P) Ltd. has filed this petition praying that the Respondents may be directed to agree for open access to wheel 1 MW of power to the Petitioner's H.T.Sc. No. 263, following the Order No. 4 of the TNERC without insisting on any extra cost. The Petitioner has stated that the Respondents have demanded payment of a sum of Rs.89,32,110/- for providing this open access. Respondent in this case is TNEB. After unbundling of TNEB on 01-11-2010, TANGEDCO is the successor of TNEB.

31. The Petitioner has indicated that they have established a 5 MW waste heat recovery based captive generating plant. After captive consumption of 4 MW, open access to wheel 1 MW of power was sought from the Respondents. The Petitioner has also submitted that they have furnished all the relevant documents for wheeling approval and for synchronization of their generating unit with TNEB grid. The Petitioner has further stated that a sum of rupees one lakh towards fee for load flow study for the interconnection of their 5 MW waste heat recovery unit with TNEB was paid on 18-11-2009.

32. The TNEB in their counter had indicated that the actual capacity of the co-generation plant set up by the petitioner is 12 MW and therefore the reason for indicating the capacity of the captive power plant as 5 MW is not understood. The TNEB also stated that based on the load flow studies, the Petitioner was addressed on 11-03-2010 for furnishing an undertaking to share the cost of existing supply line, etc for considering their request for synchronization and the Petitioner has submitted the undertaking on 12-03-2010 without any objection.

33. From the pleadings of the parties the following facts emerge:-

- a) The Petitioner has 3 service connections in the same premises. This was also confirmed by the Respondents during the hearing on 26-04-2010. The service connections are
  - i) H.T.Sc.No. 128 with sanctioned demand of 4250 K.V.A.
  - ii) H.T.Sc.No. 248 with sanctioned demand of 4990 K.V.A.
  - iii) H.T.Sc.No. 263 with sanctioned demand of 2800 K.V.A.
  - iv) The overall demand, therefore, is of the order of 12000 K.V.A.

34. It appears that theft cases were booked in two of the service connections for which charge sheet is yet to be filed. At present, H.T.Sc.No. 128 alone is in operation. This was confirmed by the petitioner as well as the respondents on the last date of hearing on 26<sup>th</sup> April 2011. The Commission has sought and obtained the lay out as well as the Single Line Diagram for the three connections.

The Petitioner explained that the actual capacity of the captive generating plant is 12MW out of which certain loads at 11K.V. is being drawn directly from the captive generating plant. The balance energy, after consumption, is stepped up to 22 K.V. using a 7.5. M.V.A transformer. Normally, there is no requirement for any supply from the TNEB grid. At the same time 1 MW excess capacity is available with the petitioner for which he seeks open access. The Commission observes that the facts as given in the petition and the facts as narrated now during the hearing are vastly different which has confused the entire issue. The Respondent TNEB contended that they have to do load flow study corresponding to installed capacity of 12 MW so that the parallel operation of the captive plant with the TNEB grid is safe and sound. Since the Petitioner has already paid rupees one lakh for the load flow study, TNEB may carry out any further studies without insisting for any additional payment for the same. The Petitioner shall furnish all the required information. The Commission also observes that the inter-connection is through 7.5 M.V.A transformer and the entire generation of 12 MW is not directly connected to the TENB grid. This factor shall also be kept in view by the respondent while carrying out any further load flow studies.

35. The issues involved in this petition are listed below:-

- (1) Inter-connection of the captive generating plant to the TNEB grid;
- and
- (2) Provision of open access for 1 MW as sought by the Petitioner.

The first issue has been dealt with in para 34 above. Granting permission for parallel operation with the grid and permission for open access are two

separate and distinct activities. Interlinking these two issues is not proper. Whatever technically requires to be done by either of the parties for safe inter-connection of the captive plant to the TNEB grid is to be done to protect the interest of both the parties. This issue has to be resolved accordingly.

36. As regards the permission for open access of 1 MW, a reference to order No.4 dated 15-05-2006 of this Commission is necessary. Relevant paragraphs of this order are extracted below:-

*“Para 12 (8) (e) f : When the owner of the captive power generator happens to be a consumer and when the power fed to the Distribution Licensee grid is less than 2 MVA, dedicated line from the location of the captive power generator to near by Distribution Licensee substation will not be required. The service line itself will cater to the need to export the power to the Distribution Licensee grid.*

37. In accordance with para 12 (8) (e) f above, when the owner of the captive power generator happens to be a consumer and when the power fed to the Distribution Licensee Grid is less than 2 MVA, dedicated line from the captive power generator to nearby Distribution Licensee sub-station will not be required. The service line is adequate to export power. Order No. 4 dated 15-05-2006 does not envisage payment for any dedicated line under these circumstances. In this case, the learned Counsel for TNEB during the hearing on 26<sup>th</sup> April 2011 clearly stated that they are not raising the issue of payment of charges for a dedicated line any more though the same was raised in their pleadings.

Therefore, the issue of any payment with regard to dedicated line does not survive in view of the clear position expressed by the respondent counsel.

38. As regards open access sought by the petitioner, they shall make a specific application to the Nodal Officer concerned along with the required fees as per the applicable regulations and guidelines indicating the name of the person who will be receiving this power, point of injection and point of drawal, etc since H.T.Sc.No. 128 alone is connected now and other two connections Viz., H.T.Sc.No. 248 and H.T.Sc.No. 263 are disconnected. He is directed to prefer an application indicating the name of the parties, the point of injection and point of drawal in accordance with the TNERCs Open Access Regulations. Such an application shall be dealt with by the Respondents as per the Regulations and Orders of this Commission.

**Appeal:-**

39. An appeal under section 111 of the Electricity Act 2003 against this order shall lie to the Appellate Tribunal for electricity within a period of 45 days.

D.R.P.No.10 of 2010 is ordered accordingly. No order as to cost.

(Sd.....)  
(S. Nagalsamy)  
Member – II

(Sd.....)  
(K. Venugopal)  
Member – I

(Sd.....)  
(S.Kaliban)  
Chairman

/ True Copy /

**Secretary  
Tamil Nadu Electricity  
Regulatory Commission**