

**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**

**D.R.P.No.4 of 2011**

JSW Steel Ltd  
Pottaneri, Mecheri  
Salem District – 636 453  
Represented by J.M.SATHAYE  
Executive Director (Works)

... Petitioner  
Thiru. Karthik Seshadri  
(Advocate for Petitioner)

Vs

The Chairman cum Managing Director  
Tamil Nadu Generation and Distribution  
Corporation Limited  
144, Anna Salai  
Chennai – 600 002.

....Respondent  
Thiru.M.Gopinathan  
(Standing Counsel for TANGEDCO)

**Dates of hearing :** 02-03-2011; 21-04-2011; 11-10-2011;  
28-11-2012; 24-01-2013; 05-02-2014;  
25-03-2014; 21-07-2014; 25-09-2018 and  
08-11-2018

**Date of order :** 04-01-2019

The above D.R.P. No.4 of 2011 came up for final hearing before the Commission on 08-11-2018. The Commission upon perusing the above petition, counter affidavit, rejoinder and the connected records and after hearing both sides passes the following order:-

## **ORDER**

### **1. Prayer of the Petitioner:-**

The prayer of the petitioner is to make a rule for grid support to consumers who are having Captive Power Plant within their premises, in a similar manner as has been done for CPP which are located outside the premises of the consumer vide TNERC Ruling Order No.4 dated 15-05-2006.

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

2.1. The Petitioner i.e. M/s.JSW Steel Ltd. is an Integrated Steel Plant in the State of Tamil Nadu put up jointly with Tamil Nadu Industrial Development Corporation Ltd. (TIDCO), a State Government undertaking. TIDCO has invested 11% (Rs.45 crores) which has been their highest investment in any project. Last financial year, the gross turnover of M/s.JSW Steel Ltd. was Rs.3000 crores. The Petitioner is one of the highest payers of excise duty and sales tax and it gives very large business to railways, Chennai and Tuticorin Ports etc. The Petitioner has given direct and indirect employment to over 5000 people.

2.2. The Petitioner has 67 MW Captive Power Generation, and has to run the steel plant parallel to the grid due to very large capacity motors having fluctuating loads within its system. After meeting the energy requirement of the steel plant, the excess units are being exported to TNEB grid.

2.3. Since there is no specific provision as to grid support to CPPs which are located within the premises, the present DRP has been filed by the Petitioner.

**3. Contentions of the Petitioner in the affidavit dated 07-02-2011:-**

3.1. The Petitioner is using the captive power plants of capacity (2 x 30 MW and 1 x 7 MW i.e. 67 MW) running in parallel with the TNEB grid. The Petitioner was having a contract with TNEB for demand of 20 MVA, which is now increased to 38 MVA from 04-10-2010. The demand is to take care of mill's fluctuating load and also during any outage due to CPP breakdown / statutory inspection of CPP facilities reasons.

3.2. The Petitioner has also entered into an agreement with TNEB for the export of excess power available after captive consumption. Accordingly depending on the time of day and on the operating condition of the plant, power may be exported to the grid or imported from the grid.

3.3. The industry is a continuous process industry and very heavy losses are incurred during outage which may be due to breakdown or for inspection by statutory authorities like Boiler Inspector. The Petitioner approached TNEB vide Letter No.JSWSL/ELEC/TNEB/2010-11, dated 28<sup>th</sup> August 2010 to consume up to the contract demand in case of CPP outage because of either equipment breakdown or statutory inspection. However, TNEB vide their letter SEM/DFC/AOR/HT/A1/F.HT.143/R72, dated 30-08-2010 informed that it is not feasible of compliance.

**4. Contention of the Respondent in the Counter Affidavit dated 29-03-2011:-**

4.1. The Petitioner is using the captive power plant 2 x 30 MW and 1 x 7 MW i.e. 67 MW running in parallel with TNEB grid and that the Petitioner was permitted a sanctioned demand 20 MVA and an additional 18 MVA has been permitted with

effect from 04-10-2011 as a regular HT service with demand quota of 25,000 KVA and energy quota of 78,05,600 units.

4.2. The sanctioned demand of 20 MVA without restricting the energy is only for the start-up of their CPP whenever the CPP generator trips but not for statutory inspection of their CPP as stated by the Petitioner. The Petitioner has entered into an agreement for the export of excess power available after captive consumption, vide agreement dated 24-07-2006.

4.3. TNEB has accorded sanction for using demand upto 20 MVA for starting their CPP in case of any trip, subject to the condition that they have to furnish a proof for tripping of CPP during evening hours if TNEB's power (now TANGEDCO) is used. Subsequently, the Petitioner requested to enhance the demand for start-up power upto 38 MVA. When requisite information was called for, to proceed further, there was no response and as on date the demand for start-up is only 20 MVA.

4.4. In letter No.SEM/DFC/AOR/HT/A1/F.143/D.129/2009, dated 09-03-2009, the Petitioner was clearly informed that the approval has been accorded to use the sanctioned demand of 20 MVA without restricting the energy during the start-up of their CPP and whenever the CPP generators trip. They are permitted to use TNEB power for start-up of the CPP during evening hours also, when the power plants trip during evening peak hours. Otherwise, evening hours restriction has to be imposed to the Petitioner subject to furnishing a proof for tripping of CPP during evening hours if TNEB power is used.

4.5. The Petitioner, in their No.JSW/SL/ELEC/TNEB/2010-11, dated 28-08-2010, had informed the Superintending Engineer/TNEB/Mettur EDC, that they are going to

stop their 30 MW CPP out of 2 x 30 MW Captive Power Plant at 09.00 hours on 01-09-2010 for statutory clearance / annual inspection for 15 days. As the sanctioned demand of 20 MVA without restricting the energy is for the purpose of start-up of their CPP and whenever the CPP generator trips, the Petitioner was correctly informed that the Petitioner's request is not feasible of compliance.

4.6. The Petitioner had requested to consider its industry as continuous process industry vide letters dated 27-11-2009, 05-03-2011 and 21-03-2011 so as to enjoy the benefit of optimum demand. The Petitioner had failed to establish that there was a continuous process industry and has sought for redressal for usage during peak hours by way of filing this petition. The Petitioner is a net exporter of power.

4.7. The Petitioner's prayer seeking grid support to consumers who are having CPP within their premises in a similar manner as done for CPP which are located outside the premises is not clear. There are no separate rules for grid support to consumers for CPP which are located inside the premises.

4.8. The Petitioner is trying to circumvent the restrictions and control measures imposed due to the present power shortage. In that case, the Petitioner is trying to achieve what cannot be done directly.

**5. Contention of the Respondent in the affidavit petition dated 10-10-2011 filed as per direction of the Commission:-**

5.1. The Commission on 21-04-2011 directed the Respondent to come up with grid support charges for captive plants located within the premises of consumption. Accordingly, the Respondent has submitted as follows:-

5.2. Grid support is extended to the consumers when they avail supply from TANGEDCO as well as from other generators in a situation when the generator fails to supply. The charges levied are termed as “grid support charges” and the same has been framed by the Commission and notified in Tariff Order No.2 dated 15-05-2006. The grid support charges for the above cases is 621.81 paise per unit which is inclusive of energy as well as demand charges applicable to HT tariff III. In case of CPPs located within the premises of consumption, sanction for the required demand to meet out their industrial loads available in their premises have to be obtained from TANGEDCO identical to the HT SCs located outside the premises of CPP.

As per the Commission in Tariff Regulations, 2005, the norms for auxiliary consumption for various types of plants are as follows:-

Auxiliary energy consumption:

- a) Coal based generating stations:
  - (i) with cooling towers - 9%
  - (ii) without cooling towers - 8.5%
- b) Gas based and Naptha-based generating stations:
  - (i) Combined cycle - 3%
  - (ii) Open Cycle - 1%
- c) Lignite fired thermal power station:  
The auxiliary consumption norms shall be 0.5% point more than the auxiliary energy consumption norms for coal based generating stations indicated in (a) (i) ad (ii) above.
- d) During stabilization period, normative auxiliary consumption shall be reckoned at 0.5% point more than the norms indicated at (a), (b) and (c) above.

Since the power required for the auxiliaries will be minimum at the time of start-up, the start-up power to be sanctioned to the CPP for the generator of highest capacity is to be limited to 50% of the norms specified by the Commission as above for auxiliary consumption. Startup power is 50% x 9% of installed capacity of

generator which is equal to 4.5% of installed capacity of generator of highest capacity.

5.3. At present the start-up charges are being levied @ 621.81 paise per unit as per the Commission's Order No.2 dated 15-05-2006 which comprises of energy charges and energy equated demand charges when supply availed from the grid. However, in case of CPP located within the premises, the start-up demand will be more and its burden on the grid will be high. Hence, the charges have to be arrived at on both KVA and energy basis. The duration for availing the start-up power could not be assessed due to various technical aspects. Further, the duration in hours that can be allowed for cold start-up and hot start-up is not predictable for NCES based generators since it depends on fuel and other parameters.

5.4. The grid support charges may be levied for start-up at the rate equal to the prevailing demand charge for HT commercial tariff at present which is at present Rs.300 per KVA per month and the prevailing energy charges which is Rs.5.80 per unit. If the start-up power exceeds 4.5% of the installed capacity two times energy and demand charges may be levied. This will also compel the CPPs to restrict frequent availing of start-up power from the grid.

5.5. An ABT compliant meter may be provided at the breaker(s) / primary of the transformer which feeds exclusively to the auxiliary loads of the captive generator from the TANGEDCO supply. The meter will record demand as well as energy on 15 minutes time integration. The recorded energy may be billed at the rates specified above. Similarly, the demand recorded in the ABT meter (during the period of start-up) provided for measuring auxiliary load consumption may be billed at the rates specified above. The energy and demand recorded in the meter is to be

deducted from the energy and demand recorded in the main ABT meter and the balance is to be billed for the HT service.

5.6. If start-up power is used during peak hour while R & C measures are in force the demand and energy charges may be billed as per rates to be fixed by the Commission for R & C measures from time to time (thrice the normal rate for the present) in order to maintain stability of the grid.

5.7. Outage of own generation:-

For CPPs located within the premises of consumption, all in-house loads should be connected to the grid and sanction for the required demand should be obtained to cater to their entire loads in the event of failure of their generator as per the HT SCs located outside the premises of CPP. On obtaining sanction of demand for the entire load, both the demand and energy comes under the purview of regular HT consumer with applicable conditions for the same and R & C measures from time to time applicable to the HT service.

5.8. During the R&C measures, the charges may be fixed as follows:-

- (i) In case of CPPs located within the premises of consumption, sanction for the required demand to meet out their industrial loads available in their premises have to be obtained from TANGEDCO identical to the HT SCs located outside the premises of CPP.
- (ii) The start-up power to be sanctioned to the CPP for the generator of highest capacity is to be limited to 50% of the auxiliary power norms specified by the Commission.

- (iii) The grid support charges may be levied for start-up at the rate equal to the prevailing demand and energy charges or HT commercial tariff at present.
- (iv) The demand recorded in the ABT meter (during the period of start-up) provided for measuring auxiliary load consumption may be billed at the rates specified above.
- (v) If the start-up power is used during peak hour while R & C measures are in force, the demand and energy charges may be billed as per rates to be fixed by the Commission for R & C measures from time to time.
- (vi) For CPPs located within the premises of consumption, all in-house loads should be connected to the grid and sanction for the required demand should be obtained to cater their entire loads in the event of failure of their generator as per the HT SCs located outside the premises of CPP.

**6. Contentions in the Rejoinder Affidavit dated 20-02-2012 filed on behalf of the Petitioner:-**

6.1. The proposal filed by the Respondent discusses extensively about the start-up power charges, method of calculation of charges and obtaining sanction for required demand, which has no relevance to the present petition filed by the Petitioner and the same is intricate and uncalled-for in the present case.

6.2. The Respondent not being able to come out with clear and plain suggestions to make rules and calculation of grid charges in case of Captive Power Plant situated within the premises of consumer, the following generic suggestions are submitted to the Commission in respect of making rules and provisions for grid charges in respect

of the Captive Power Plants situated within the premises of consumers across the State:-

- (i) Any grid support shall be permissible only within the contracted demand of the concerned consumer i.e. any consumer desirous of obtaining the grid support from TANGEDCO should have contracted demand which will be sufficient to meet the start-up and other grid support needs of the consumer.
- (ii) In case of planned outages, the consumer may make an application to TANGEDCO 15 days in advance and permission shall be given immediately or permission shall be given to the consumer to purchase Inter-State or Intra-State power in case TANGEDCO is unable to provide the power;
- (iii) In case of unplanned outages, the consumer may be allowed to draw power upto contracted demand for a maximum period of 72 hours in each case of outage.
- (iv) The rate for the power supplied by TANGEDCO under these conditions in excess of the normal permitted supply (i.e. R & C conditions) may be charged at the rate which is equal to the rate prescribed for the supply to those consumer with Captive Power Plant outside the premises of the consumer as per the Commission's Order No.4 of 2006.

## **7. Written Submission of the Petitioner:-**

The Petitioner has reiterated his submission made in their petition in addition to the following:-

7.1. The Petitioner relies on the order of APTEL dated 21-02-2011 in Appeal No.270 of 2006 rendered in Chhattisgarh State Power Distribution Co. Ltd. Vs. Shri

J.P. Saboo, Urla Industries Association Ltd. and Ors. The APTEL inter-alia observed as follows:

Para 38-Summary of Findings

*“ ..... The Captive Consumers are different from other consumers as the Captive Consumers will normally take electricity only from Captive Power Plant. The Captive consumer will be taking electricity from grid only in exceptional circumstances, that too, when the Captive Power Plant is under an outage. The captive consumers have been already paying demand charges for the contract demand as is applicable to all the other consumers. That apart, the transmission and the wheeling charges are being paid by the Captive Consumer to compensate the fixed cost incurred by the Appellant. The Electricity Act, National Electricity Policy and the National Tariff Policy place Captive Consumer in a separate category.*

*Therefore, the Captive Consumers of the Captive Power Plant have to be treated as different categories of consumers of a Licensee. Therefore, the finding given by the State Commission to waive the minimum energy charge to be paid by Captive Consumers of the Captive Power Plant is perfectly justified .....*”.

In view of the findings of the APTEL in the above matter, the Petitioner being different category of Captive Consumer and considering the fact that there are similar consumers across the State, the Commission may be pleased to frame rule in respect of the Captive Power Plants situated within the premises of consumers across the State.

7.2. Alternative Submission:-

The Commission may incorporate the following provisions in the Clarificatory Order No.4-1, dated 21-02-2008 by substituting clause 12 (6) of order dated 15-05-2006 as follows:-

*(b) For clause 12 (6) of Order No.4 dated 15-05-2006, the following shall be substituted, namely:-*

*“(6) Regarding the grid support / availability charges, the charges determined by the Commission in order on transmission and wheeling charges etc. for the following conditions are applicable to all fossil fuel based captive and cogeneration plants and for all third party purchases in the State.*

- 1. Outage of generator conditions and providing start-up power.*
- 2. When the scheduled generation is not maintained and / or when the drawal by the consumer is in excess of the schedule.”*

The Petitioner’s Captive Power Plant being a fossil fuel based Captive Cogeneration Plant is covered by the above Amendment Order and provisions of grid support charges applied to the Petitioner CPP shall be as per the aforesaid Amendment Order.

**8. Affidavit filed by the Petitioner on 16-04-2013:-**

In their affidavit dated 16-04-2013, the Respondent has submitted as follows:-

8.1. According to the various provisions of the Intra-State Open Access Regulations, 2005 clause 19(A)(1)(e) of the Grid Support Charge provides as follows :-

The Distribution Licensee shall raise bills on the open access customer for the drawal of power from the grid by the consumer as back up supply under the conditions specified in clause (a) of sub-regulation (7) of regulation 9, within five days from the date of meter reading. The open access consumer shall pay the charges within seven days from the date of the bill. Clause 19 A (2) provides that failure to pay the charges will result in discontinuation of open access as contemplated in sub-regulation (8) of regulation 9.

8.2. Further, Regulation 9 specifies under sub-regulation (7) of Grid Availability Charges that –

*“In cases of outages of generator supplying to a consumer on open access or when the scheduled generation is not maintained or when the drawal by the said consumer is in excess of the schedule, standby arrangements should be provided by the Distribution Licensee. Towards this end, the Distribution Licensee is entitled to collect tariff for temporary connection to that category of consumer as grid availability charges for back up supply from the grid. As and when the ABT regime is implemented in the State and the UI Charges are fixed by the Commission, the grid support charge eligible to the Distribution Licensee shall be (a) the tariff applicable for the temporary connection to that category of consumer or (b) the applicable UI charges whichever is higher.”*

The cited regulation does not discriminate Open Access Consumer who is located outside the Captive Generation Plant (CGP) premises or within the CGP premises.

8.3. In Order No.4 dated 15-05-2006, the Commission directed that the grid support / availability charges, proposed by the Commission in its order on transmission and wheeling charges etc., on the petition filed by the TNEB for the following conditions are applicable to all fossil fuel based captive / cogeneration plants and for all third party purchasers in the State. Grid support charges will be levied only for the captive generators who have been synchronized with the grid for the purpose of wheeling power to his / her destination of his / her own use and or to a third party.

8.4. The amended clause 12 (4) of Order No.4 dated 15-05-2006 provides as follows:-

*“To promote cogeneration as provided in section 86 (1) (e) of the Act, the Commission fixes a single charge for use of both Transmission and Distribution networks of the licensee for wheeling the power generated in the fossil fuel based cogeneration plants as below:*

*(a) 3% of the energy wheeled where the usage is within 25 kms.*

*(b) 7% of the energy wheeled where the usage is beyond 25 kms.*

*The charges fixed as above will get reduced, if the voltage level at the point of injection and at the point of drawal is equal to or more than 110 kV. The*

*reduction will be based on the Commission's order on the Transmission and Wheeling charges etc. As an example, if the injection voltage by the cogeneration plant is at 110 KV and the drawal for captive usage is also at 110 KV, the transmission charges specified by the Commission will work out to around 5.80%. Such cases shall be specially brought to the Commission and the rate revised".*

8.5. The amended clause 12 (6) of Order No.4 dated 15-05-2006 provides as follows:-

“(6) Regarding the grid support / availability charges, the charges determined by the Commission in order on transmission and wheeling charges etc. for the following conditions are applicable to all fossil fuel based captive and cogeneration plants and for all third party purchasers in the State.

1. Outage of generator conditions and providing start-up power.
2. When the scheduled generation is not maintained and / or when the drawal by the consumer is in excess of the schedule.”

In the above said order, the Commission has considered the location of Open Access consumer only for determining the wheeling charges.

8.6. In Order No.2 dated 15-05-2006, provides the following provisions:-

6.0 Schedule of Charges.

7. Grid availability charge (Ps. / Unit) at the time of outages

- |   |   |   |
|---|---|---|
| a. Charges for backup power during the outage of generator –payable by open access consumer                                       | - | 621.81 ps./unit   |
| b. Charges payable by generator for start-up power  | - | 621.81 ps./Unit   |
| c. When scheduled generation is not maintained by the generator and / or when the drawal by the consumer is in excess of schedule | - | Energy charges at appropriate tariff for energy supplied by the Licensee. |

The said Order No.2 dated 15-05-2006 will be applicable to all the Open Access Consumers covered under the Commission's Intra State Open Access Regulation, 2005 which has taken effect from 03-08-2005. It has been provided that the existing Open Access Consumers shall continue to be covered under the agreement for the balance period remaining after 03-08-2005, unless it is mutually agreed by both parties to come under this order at an earlier date. Wherever period of the agreement is not specified (open ended) in the agreement, such consumer may opt to come under this order and the Licensee shall agree for the same.

8.7. The said Order No.2 also does not discriminate on the basis of location of the consumer.

8.8. The Petitioner has not paid any amount towards Grid Support Charges till date and the Respondent Licensee could not reason out for this review petition, except that the petition could have been made to avoid paying penal charges for demand violation and bring the excess demand under grid support.

8.9. The Petitioner has multiple relation with the Respondent viz. (a) CGP Operator exporting power to the Respondent; (b) HT consumer of the Respondent having sanctioned demand of 38 MVA; (c) Open Access Consumer purchasing power from third party sources; and (d) wheeling power to his sister concern situated outside the CGP premises. The single line diagram of CGP and Industrial Unit furnished by the Petitioner reveals the fact that there is only one authorized metering arrangement at the point of common coupling (POC) meeting the CEA Regulation and both the Industrial and CGP are operating in parallel with the Respondent's Grid.

8.10. The Petitioner is a consumer who is operating captive generating plants in parallel with the grid. The APTEL while dismissing the appeal has stated as follows:-

*“The parallel operation is definitely a service that the second Respondent renders to all the CPPs like the Appellant. It is the contention of the Appellant that no charges could be levied or collected for the grid services. As rightly pointed out by the Expert who appeared for the second Respondent, the parallel operation is a service which extend support to the system and at the same time it causes voltage dip in the system, harmonics injection, additional reactive power requirement etc. By parallel operation, the CPP gains more and hence it is liable to pay the charges for the service. There is no escape for CPP to pay charges for parallel operation by which parallel operation the CPP gains while the transmission system of the second Respondent is affected apart from the admitted fact the transmission grid is strengthened by the power injected by CPP. Hence the contention that no charges at all is payable by CPP to the second Respondent for parallel operation is not acceptable nor such a claim could be sustained.”*

8.11. The APTEL while dismissing the Appeal No.120 of 2009 dated 18-02-2011 stated as follows:-

*“The parallel operation charges are payable on the installed capacity of the Captive Power Plant. The Captive Power Plant consists of a number of machines and equipments. Then capacity of Captive Power Plant cannot be considered in isolation of one or two equipments. MVA capacity of generating plant shall be worked out on the basis of designed power factor which is recorded in the nameplate of the generator. From the quantum of the steam generated by the three boilers installed in the premises of the 1<sup>st</sup> Respondent, only one 10 MW generating plant can run at a time along with the 30 MW power plant. Thus, the effective connectivity of generating plant with the grid is 40 MW and not 60 MW. Therefore, the 1<sup>st</sup> Respondent should be billed for parallel operation charges for 40 MW only and not for 60 MW”.*

8.12. The Gujarat Electricity Regulatory Commission has delivered the following order in Petition No.256/2003 & 867/2006:-

*“After hearing all the parties, and as discussed in the earlier para the Commission decides that Parallel Operation Charges (POC) is leviable for the CPPs operating in parallel with the State grid. The charge decided in this order is applicable to the Respondents of the present petition, who have not executed any agreement with the Petitioner as per the High Court of Gujarat order dated 28<sup>th</sup> April 2009 in Miscellaneous Civil Application No.2967 of 2008. Moreover, the charges decided in this Judgment at the rate of Rs.26.50 / KVA shall also apply to the new CPPs, operating in parallel with State Transmission Utilities (Transmission Licensee) and / or Distribution Licensee network in the grid.”*

The Petitioner is deriving the maximum advantage by the parallel operation as the on field study done by M/s. Electrical Research & Development Association, Vadodara (ERDA) reveals the following:-

- It is found that variation in the active power at point of common coupling is higher than that at generator output terminal. The CPP generator operates almost at constant power mode operation and grid takes care for the variation in the demand required by CPP loads.
- It is to be noted that CPP generator can generate less power when it operates in isolation mode i.e. without the grid support. The variation in the reactive power at the generator output terminal is higher when it operates in isolation mode i.e. without grid support. Thus grid absorbs the variation in the reactive power required by load.
- The variation in the apparent power at the point of common coupling is higher than at generator output terminal. Also it is to be noted that the variation at generator output terminal is higher when it operates in isolation mode i.e. without grid support. Thus grid absorbs the variation in the apparent power.
- The value of power factor is lower when CPP generator operates without the grid support i.e. CPP generator have to generate more reactive power in

absence of grid. Also it is to be noted that variation in the power factor at the generator terminal is higher when it operates without the grid.

- The value of negative phase sequence current at point of common coupling is much higher than at generator output terminals. Higher negative phase sequence current at PCC clearly indicates the support drawn by CPP from grid.

8.13. Because of kind of connectivity it possess the Petitioner had derived maximum benefits from the Respondent as his plants are declared COD.

8.14. The Petitioner's CGP and load connected with it are situated at the same place and connected with grid and the Petitioner also procures power from third party and also wheels its power to plant situated outside the premises. Accounting of energy for different purposes is very difficult with the present metering arrangement and additional arrangement is required for the same.

8.15. The major issue with the Petitioner is how to account generation and energy consumed. The present metering arrangement available at his premises does not have the provision for the same. The Grid and CGP (2 x 30 MW) are connected in parallel to feed the load and ABT metering is provided at grid entry to gantry. Another generator of 7.5 MW is directly connected to the load.

8.16. It is reiterated that Grid Support Charges are collected from the consumers, when the consumers avail supply from TANGEDCO as well as from other generators and when the generator fails to supply. In the instant case, i.e. with reference to JSW Steels, as an EHT consumer of TANGEDCO, supply is always available at the company's doorsteps and the company can always avail supply. The only limitation

is imposition of R & C measures. The company as a consumer can avail supply upto sanctioned demand by procuring power from third party under open access.

8.17. The Commission in Order No.2, dated 15-05-2006 regarding Grid Support to a consumer availing supply from the generator is applicable only when Open Access is materialized i.e. the power is transferred from generator end to the consumer on displacement basis. In such circumstances, only the Open Access consumer are eligible to be billed under special charges i.e. Grid Support Charges as notified by the Commission.

8.18. M/s.JSW is an industry having CPP on its own and utilized the generation for their industrial requirements and there is no Open Access taking place and surplus power if any after auxiliary consumption of CGP and industrial consumption alone is pumped into the grid for sale to Distribution Licensee or any other purpose.

8.19. The Petitioner is being supported by this Respondent continuously in terms of grid support and this Respondent needs to be rightly compensated for the services rendered retrospectively.

**9. In the affidavit filed on 26-05-2014, the Respondent has submitted as follows:-**

9.1. The Commission in the order dated 25-03-2014 has directed TANGEDCO to file a feasibility report for providing grid support to consumers having their own CPP within the premises. The issues are classified under two category namely Grid Support and Parallel Operation as discussed below:-

### Grid Support:-

There is no difference in asking of grid support to the consumer having their own CPP within the premises or outside the premises. It is to be reiterated that Grid Support Charge is collected from the consumers, who avail supply from TANGEDCO as well as from other generators whenever the generator fails to supply. In the instant case as an EHT consumer of TANGEDCO, supply is always available at the company's doorsteps and the company can always avail the supply. The only limitation is imposition of R & C measures. The company as a consumer can avail supply upto sanctioned demand by procuring power from third party under open access. Grid Support to a consumer availing supply from the generator is applicable only when Open Access is materialized i.e. the power is transferred from generator end to the consumer on displacement basis. In such circumstances, only the Open Access consumers are eligible to be billed under special charges i.e. Grid Support Charges as notified by the Commission vide Order No.2 dated 15-05-2006.

9.2. There is no Open Access taking place in the present case and only surplus power if any after auxiliary consumption of CGP and industrial consumption is pumped into the grid for sale to Distribution Licensee or any other purpose. The Petitioner is being supported by this Respondent continuously in terms of grid support and this Respondent needs to be rightly compensated for the services rendered to the Petitioner.

9.3. Under sub section (3) (b) of section 5.68 of Tariff Order T.P. No.1 of 2013 dated 20-06-2013, overdrawal charges are being levied as detailed below:-

*“b) Deviations between the schedule and the actual injection / drawal shall come under the purview of the intra-state ABT, as notified by the Commission and shall be settled based on the composite accounts for imbalance transactions issued*

by SLDC on a weekly cycle in accordance with the UI charges specified by the Commission's orders on Intra State ABT, as may be applicable from time to time. Till the implementation of Intra-State ABT, the imbalance charge shall be regulated as below:-

- (i) *In case of actual energy / demand drawal is more than the scheduled energy / demand but within the permitted energy / demand (based on contracted load and energy or quota demand and energy as applicable), customer shall be liable to pay for such over drawal at the applicable tariff rates of that category of consumer as determined by the Commission from time to time.*
- (ii) *In case of actual energy / demand drawal is more than the scheduled energy / demand drawal and also more than the permitted energy / demand (based on contracted load and energy or quota demand and energy as applicable), payment for the capacity above the contract demand shall have to be made at the excess demand / energy charges as specified by the Commission for such categories of customers in the regulation / order”.*

As per the above order, this firm M/s.JSW Steel Ltd. is bound to pay the grid support charges.

9.4. The industries which operate their CPPs in parallel with Grid Supply do get a valuable service from the Licensee. They derive the following benefits of interconnection with the Grid:-

- (i) Grid provides the required fault level in the industrial plant for starting large motors in the industry, and also provides the initial active and reactive components of starting current. Without Grid Support, there

will be dip in voltage, resulting in tripping of other motors in the industry on low voltage, dip in frequency and fluctuation in power output of CPPs.

- (ii) Whenever there is a large load throw-off or incidence in the industry, Grid initially absorbs the shock and minimizes the chance of tripping of CPPs.
- (iii) The high fault level offered by the Grid acts as a supporting system for successful operation of CPPs in the industry in terms of electrical performance.
- (iv) Grid also helps in stabilizing fluctuating loads like those in steel mills and arc furnaces.

9.5. The consumer can also avail instantaneous demand in excess of the Contracted Maximum Demand (CMD) without paying extra charges as long as such demand is within 15 or 30 minute integration period under the existing metering arrangements. It is also to be noted that the nature of the burden imposed by them on the Grid system will be heavy, as both connected generation / connected load are several times more than Contracted Maximum Demand.

9.6. The transient load may also cause severe loading of the power transformer. If it is just an occasional transient load the grid system might be able to tolerate such load. But, it is possible for such overload to persist for a considerable period of time of several minutes without the consumer exceeding the Contracted Maximum Demand within the integrating time of 15 or 30 minutes as the case may be due to the averaging of the integrating period. Such overloads can also occur sometimes one following the other in successive integration intervals. This may cause substantial damage to the Licensee's equipment (reducing its overall life) not

noticeable immediately. For safety, the licensee will have to rate his connecting equipment liberally to meet the additional onerous duty.

9.7. The grid system is mainly intended for service to the large volumes of its native consumers including HT consumers without captive generation. The captive generators who intend to use it and benefit from the parallel operation need to compensate for its upkeep. Grid Support does not merely mean the termination of the network bit connecting the CPP with the complicated mesh of network extending from one corner of the State to the other. Also the services rendered by the Licensee to the CPP cannot be looked in isolation but to be looked as part of the overall system in the integrated Grid.

9.8. When there is wide divergence between the CMD and the CPP capacity, (if the Grid transformer capacity is tailored to the CMD) and Parallel Operation with CPP is allowed there may be interruption of supply to all the consumers in the vicinity for even minor faults in the customer premises or in the Grid System. If on the other hand, the Grid transformer, switch gear and equipment are to be rated in commensurate with the CPP operated in parallel, the increased network capacity needs to be paid for suitably. Charges based on the existing CMD do not address the compensation for the Grid Support to the CPP in the absence of nexus between CMD and Capacity. This nexus need to be captured in the proposal for levying the proposed charges on the difference between the CPP capacity (in parallel operation) and the existing CMD.

9.9. The industries having captive power plants are very keen in keeping less contract demand with utility and the services provided by the utility are much higher than the revenue collected from such connections. More so the energy supplied to

such industries is cross subsidizing. The services provided by utility to CPP are not accounted for and hence resulting in loss of revenue to the utility inspite of having made huge investment for laying the infrastructure. The parallel operation charges are levied for the grid support provided to the CPP generator for its smooth and efficient operation, for bearing all the harmful effects of their load fluctuations and for enhancing and stabilizing captive generator's Plant Load Factor. Thus, the Licensee has a logical claim to be suitably compensated. Since the Commission has already notified regulations for parallel operational charges, the same can be collected in this case also for the support.

9.10. Metering arrangement shall be carried out as per CEA Regulations [which permits (distribution) Licensee to install meters wherever required for accurate accounting] to the Petitioner company who is a consumer, CPP owner, Intra State Open Access Customer and Interstate Open Access Customer. The metering arrangement existing at present is to be suitably provided as follows:-

- (i) Installation of ABT meters of 0.2s class accuracy metering system with 0.2s CT & 02.PT where the CPP power incident on the bus interfacing with Licensee's supply.
- (ii) Installation of ABT meters of 0.2s class accuracy metering system with 0.2s CT & 02.PT in all outgoing feeders to the industrial plant.

**10. In the Written Submissions filed on 05-08-2014, the Petitioner has submitted the following:-**

10.1. The Feasibility Report submitted by the Respondent is complex, vague and imprecise. The Feasibility Report is submitted by the Respondent from JSW's

perspective rather report should have been from the perspective of consumers across the State having CPP within premises.

10.2. The submissions of Respondent are contradictory to each other. The Respondent during its argument stated that “there is no difference in asking grid support to the consumer having their own CPP within premises or outside premises. However, it was stated that the consumer having CPP situated within premises is not an Open Access Consumer and that consumer having CPP outside the premises are Open Access Consumer and such consumers are covered by grid availability charges which is paradoxical.

10.3. The Respondent failed to note that the very purpose of filing the present petition is for framing of rules for grid support charges to consumers having CPP within premises and made the submission that as such there is no provisions for grid support to consumers having CPP within premises.

10.4. The Commission may be pleased to record the submission of the Respondent in para 7 of the Feasibility Report dated 26-05-2014 stating that Grid Availability Charges under section 5.68 of sub-section 3 Unscheduled Interchange (UI) charges as specified by the Commission’s Order Intra State ABT shall be applicable as grid support charges in case of consumer having their own CPP within premises.

10.5. With reference to Parallel Operation Charges, Instantaneous Demand, Transient Load etc. is already covered by the recent order of the Commission on Parallel Operations Charges.

10.6. ABT meters are already installed within plant and approved by the Respondent.

10.7. The Respondent is not being able to come out with clear and plain suggestions to make rules and calculation of grid charges in case of Captive Power Plant situated within the premises of consumer except making submissions contradictory to each other. The Petitioner makes the following generic suggestions to the Commission in respect of making rules and provisions for grid charges in respect of the Captive Power Plants situated within the premises of consumers across the State:-

- (i) Any grid support shall be permissible only within the contract demand of the concerned consumer i.e. any consumer desirous of obtaining the grid support from TANGEDCO should have contract demand which will be sufficient to meet the start-up and other grid support needs of the consumer;
- (ii) That in case of planned outages the consumer may make application to TANGEDCO 15 days in advance and permission shall be given immediately or permission shall have to be given to the consumer to purchase interstate or intrastate power, in case TANGEDCO is unable to provide the power;
- (iii) That in case of unplanned outages the consumer may be allowed to draw power upto contracted demand for a maximum period of 72 hours in each case of outage;
- (iv) That the rate for the power supplied by TANGEDCO under these conditions in excess of the normal permitted supply (i.e. R & C conditions) may be charged at the rate which is equal to the rate prescribed for the supply to those consumer with (Captive Power Plant) outside the premises of the consumer as per sub-section (3) of section

5.68 of Tariff Order T.P.No.1 of 2013 dated 20-06-2013 providing for overdrawal charges i.e. Unscheduled Interchange (UI) charges as specified by the Commission's order Intra State ABT shall be applicable as grid support charges whenever there is outage of CPP within premises.

- (v) That the consumers (including the Petitioner) shall be permitted to draw power within the sanctioned demand as and when there is an outage of CPP within premises and the charges payable shall be as per Tariff Order T.P.No.1 of 2013 dated 20-06-2013 as per section 5.68 of sub-section 3 overdrawal charges.

**11. In the Written Submission filed on 05-08-2014 the Respondent has submitted as follows:-**

11.1. Intra State Open Access Regulations, 2005 as amended upto 31-12-2010 specify about Grid Availability Charges under the head "Charges for Open Access" vide Regulation 9 (7) as under:-

*"In cases of outages of generator supplying to a consumer on open access or when the scheduled generation is not maintained or when the drawal by the said consumer is in excess of the schedule, standby arrangements should be provided by the Distribution Licensee. Towards this end, the Distribution Licensee is entitled to collect tariff for temporary connection to that category of consumer as grid availability charges for back up supply from the grid. As and when the ABT regime is implemented in the State and the UI charges are fixed by the Commission, the grid support charge eligible to the Distribution Licensee shall be (a) the tariff applicable for the temporary connection to that category of consumer or (b) the applicable UI charges whichever is higher."*

11.2. Clause 12 (6) of the Order No.4 dated 15-05-2006 provides as follows:-

*"(6) Regarding the grid support / availability charges, the charges determined by the Commission in order on transmission and wheeling charges etc. for the*

*following conditions are applicable to all fossil fuel based captive and co-generation plants and for all third party purchasers in the State.*

- (a) Outage of Generator conditions and providing start-up power.
- (b) When the scheduled generation is not maintained and / or when the drawal by the consumer is in excess of the schedule.”

11.3. The above said order regarding Grid Support to a consumer availing supply from the generator is applicable only when Open Access is materialized i.e. the power is transferred from generator end to the consumer on displacement basis. In such circumstances, only the Open Access Consumer was eligible to be billed under special charges i.e. Grid Support Charges as notified by the Commission.

11.4. In the matter of the charges for Grid Support / Availability, the above said order also does not discriminate on the basis of location of the consumer. As for as the power availability is concerned there is no difference to the Open Access Consumer having their own CPP within the premises or outside the premises, but the consumer having CPP outside are permitted to go upto the sanctioned demand during R & C period since grid support upto sanctioned demand is committed by way of Open Access Agreement. But in the case of the Petitioner, the consumer is having CPP within the premises and any power drawn in excess over the quota attracts penal charges besides R & C measures, since there is no commitment by way of any Open Access Agreement between TANGEDCO and the consumer.

11.5. R & C measures are totally withdrawn from 01-06-2014, the company does not have any issues on Grid Support / Availability. They may avail power upto the sanctioned demand in case of any outage of the CPP at present (i.e. non-R&C period). During R & C period, if the company requires additional power over and above the quota demand and upto the sanctioned demand, they have to avail Open

Access and during that period TANGEDCO will provide grid support for the quantum of power agreed through Open Access on par with other consumers having CPP outside the premises. Hence, the Petitioner is eligible for grid support during R & C period upto sanctioned demand through Open Access argument only and Grid Support Charges as per Tariff Order T.P. No.1 of 2013 dated 20-06-2013 will be collected on par with other consumers having CPP outside, in case of any outage of the CPP.

## **12. Reopening of the case: -**

As one of the members of the Commission demitted office before pronouncement of the order, the case was reopened on 25.09.2018 for refreshing the present Commission. Accordingly arguments were heard and both parties were directed to come out with a proposed to measure the energy drawn for startup power and for industrial purposes during the relevant period. However no such proposal has been filed by either party. On 08.11.2018, when the case was listed for hearing, the petitioner informed the Commission that they limit their prayer only with regard to making of a rule for startup power and grid support and levy of fees thereof in respect of consumers having CPP within their premises.

## **13. Findings of the Commission:-**

**13.1.** The initial prayer of the petitioner was to make a rule for grid support to consumers who are having Captive Power Plants (CPP) within the premises in a similar manner as done for CPPs located outside the premises vide the Commission's ruling in Order No.4 of 2006. In the course of the hearing, the petitioner, in the rejoinder filed on 20.02.2012 made generic suggestions for grid support, and in the submission made on 02.03.2013 prayed to levy grid support

charges as per amended order dt.17.06.2008 issued to the Order No.4 dt.15.05.2006 and consider grid support rules as suggested by them. In the submissions made on 31.07.2014, the petitioner prayed for the following:

- i. To consider and make rules for grid support in line with suggestions made by the petitioner.
- ii. To hold that the petitioner is entitled to avail supply upto 38 MVA and to charge supply provided during outages of generator and overdrawals as per sub section 3 of section 5.68 of Tariff order in T.P No.1 of 2013 dt.20.06.2013 i.e at Unscheduled Interchange charges as per Commission's order on Intra State ABT.
- iii. To frame /make rules as deemed fit in the circumstances of the case.

**13.2.** Since the filing of the case, submissions and counter submissions have been made both by the petitioner and the respondents. The respondents though stated that the request of the petitioner was not clear and that petitioner circumvented the case to tide over the Restriction & Control measures on supply of electricity imposed in the State, in their subsequent submissions offered suggestions on providing grid support to consumers like the petitioner with levy of parallel operation charges.

**13.3.** The respondents also informed that the Restriction and Control measures were withdrawn from 01.06.2014. In the hearing on 08.11.2018, when the petitioner was asked to state whether any redressal is required for the events prior to the withdrawal of R&C measures, the petitioner stated in the negative and affirmed that he limits his prayer only to making a rule for start up power and grid support, and levy of fees to consumers with CPP inside the premises.

**13.4.** Before discussing the prayer of the petitioner, the facts presented and the submissions made are summarized:

**13.4.1** The petitioner owns and operates an integrated steel plant located at Pottaneri, Mettur Taluk, Salem District with a production capacity of 1.0 million MTPA. The premises houses two captive power plants(CPP) of capacity 2x30 MW and the third power plant of capacity 7 MW, a total of 67 MW running in parallel with TNEB grid. The petitioner had a contract demand of 20 MVA with the respondent erstwhile TNEB, presently TANGEDCO, that was enhanced to 38 MVA from 04.10.2010. According to the petitioner, this demand is to meet the fluctuating loads and outages due to CPP breakdown as well as during statutory inspection of CPP. The petitioner has an agreement dt.24.07.2006 with TANGEDCO for export of excess power available after captive consumption depending on operating condition of plant.

**13.4.2** The counter affidavit filed by the Respondent, TANGEDCO also confirms the capacities of the generating plants and the sanctioned demand of 20 MVA plus an additional demand of 18 MVA as stated by the petitioner. The petitioner's service has been treated as a regular HT service and a quota on Demand of 25000 KVA and quota on energy at 78,05,600 units fixed during the period when Restriction & Control measures were in force. The demand of 20 MVA has been permitted to be used for start up purpose without any restrictions on energy subject to the condition of furnishing proof of tripping of generators.

**13.4.3** Petitioner's request to the respondent, TANGEDCO on 28.08.2010 to supply power for 15 days during planned outage of a 30 MW generator for statutory clearances was denied. The petitioner has then approached the Commission for

back up support from TANGEDCO for the loads co-located with his captive power plant, during outages of the power plant, as supported by TANGEDCO in the case of captive users who wheeled power from generators situated in another location in accordance to the provision in para 12(6) of Order No.4 of 2006.

**13.4.4** Para 12(6) of the Order No.4 of 2006 referred to by the petitioner in its amended form issued on 17.06.2008 which was only a correction to the referred section number, is as follows:

*“12 (6) Regarding the grid support / availability charges, the charges determined by the Commission in order on transmission and wheeling charges etc. for the following conditions are applicable to all fossil fuel based captive and cogeneration plants and for all third party purchasers in the state.*

- 1. Outage of Generator conditions and providing Start up Power*
- 2. When the scheduled generation is not maintained and / or when the drawal by the consumer is in excess of the schedule.”*

**13.4.5** The order on transmission and wheeling charges referred to in the order No.4 of 2006 is the Order No.2 of 2006 dt.15.5.2006 issued determining transmission, wheeling charges and other open access charges payable by an open access customer in accordance to the provisions in Commission’s Intra State Open Access Regulations 2005. The provisions on Grid availability charges in this Order No.2 of 2006 mentioned under the schedule of charges is extracted below:

***“6.0 SCHEDULE OF CHARGES***

***1. ....***

***7. Grid availability charge (Ps / unit)***

***At the time of outages***

<i>a. charges for backup power during the outage of generator – payable by open access customer</i>	<i>621.81 ps / unit</i>
<i>b. charges payable by generator for startup power</i>	<i>621.81 ps / unit</i>

<i>c. When scheduled generation is not maintained by the generator and/or when the drawal by the consumer is in excess of schedule</i>	<i>1. Energy charges at appropriate tariff for the energy supplied by the licensee 2. Demand charges :... .. “</i>
--	--

**13.4.6** Petitioner’s initial prayer was for provision of backup power as defined in sub clause (a) in clause 7 under the schedule of charges in section 6 which was subsequently modified to levy charges at rates applicable for Unscheduled Interchange of power citing Commission’s tariff order of 2013 with generic suggestions.

**13.5.** Since the filing of the petition, new tariff orders, revised Open Access Regulations have been issued by the Commission. The provisions for startup and standby supply arrangements in Order No.2 & 4 of 2006 made in accordance to the Open Access Regulations 2005 have been superseded by other orders/Open Access Regulations, 2014 notified by the Commission that take care of the prayer of the petitioner as well as the demand of the licensee for levy of parallel operation charges. This has been brought out by the respondents in their subsequent replies filed.

**13.6.** As the petitioner has decided to pursue the prayer of making rules of grid support, Commission issues this order based on facts of the case with reference to applicable provisions as on date of order as per Regulations/orders of the Commission.

**13.7.** Commission issued the revised Grid Connectivity and Intra State Open Access Regulations 2014 effective from 14.05.2014 repealing the open Access Regulations of 2005. TNERC Grid Connectivity and Intra State Open Access

Regulations 2014 inter alia specifies the eligibility of Connectivity for a generator and an open access consumer, Procedure to apply for connectivity, the applicable charges for connectivity, Eligibility to obtain open access, Procedure to be followed to obtain open access with applicable charges and other open access charges, metering etc. These regulations deal with startup power, standby support to open access consumers of the licensee and open access consumers who are not consumers of the licensee.

**13.8.** Commission also issued two retail tariff orders in the years 2014 and 2017 that cover grid availability charges and corresponding rates of tariff applicable. Commission has also floated the draft Regulations on Deviation Settlement Mechanism in 2017 to be implemented Intra State. After the issue of the above stated orders, regulations, the provisions on grid availability charges for startup and standby support in the Orders No.2 & 4 dt.15.05.2006 and its amendments thereon are not relevant to the case anymore.

**13.9.** The relevant provisions on startup power, standby power from TNERC Grid Connectivity and Open Access Regulations 2014 applicable to the case on hand is as follows:

**13.9.1. Startup power**

*“25. Charges for Startup Power Supplied by the Distribution Licensee.*

*(1) The generators connected with the state grid are eligible to get start up power after declaration of CoD. The demand shall be limited to 10% of the highest capacity of the generating unit of the generating station or the percentage of auxiliary consumption as specified in the Commission’s Tariff Regulations, whichever is less. The supply shall be restricted to 42 days in a financial year. Drawal of power for a day or part thereof shall be accounted as a day for this purpose. Power factor compensation charges are not applicable for start-up power. The generator shall pay*

*the Distribution Licensee for the supply of startup power at the rates as specified by the Commission in its Tariff Order issued from time to time. Start up supply beyond 42 days in a financial year may be provided by the Distribution Licensee at the rate of one and half times of the normal rate as specified by the Commission. However, no start up supply shall be provided beyond 120 days in a financial year....”*

The above regulations clearly state the criteria to obtain start up power. If a person requires only start up power, sanction of demand as per the norms stipulated in the above regulations has to be obtained. The category of tariff applicable for startup power is HT TF IA as per the provisions in the Tariff order issued in T.P No.1 of 2017 dt.11.08.2017. Prior to the issue of Tariff order 2017, the applicable of tariff for startup power was at HT commercial tariff.

**13.9.2** Regarding standby arrangements, the relevant regulation is reproduced below:

*“33. Imbalance Charge*

*(1)....*

*(2) Deviations between the schedule and the actual injection/drawal in respect of an open access consumer who is not a consumer of the distribution licensee and the generator, shall come under the purview of the intra-state ABT, as notified by the Commission*

*.....*

*.....Till the implementation of Intra-State ABT, the imbalance charge shall be at the UI rate of CERC. Standby support shall not be available for the open access consumer who is not a consumer of the Distribution Licensee.*

*(3) In case of deviation between the schedule and the actual injection/drawal in respect of an open access consumer who is a consumer of distribution licensee and the generator shall come under the purview of the intra-state ABT, as notified by the Commission.....*

*Open access consumer of the Distribution Licensee is eligible for standby support from the Distribution Licensee. Till the implementation of Intra-State ABT, the standby support and charge shall be regulated as below:*

*(a) In case of actual energy/demand drawal by the OA consumer in a billing cycle is equal to or less than the permitted energy/demand (based on contracted demand and energy or quota demand and energy as applicable), the OA consumer shall pay at the applicable tariff rates of that category of consumer as determined by the Commission from time to time;*

*(b) In case of actual energy drawal/demand by OA consumer in a billing cycle is more than the permitted energy/demand (based on contracted demand and energy or quota demand and energy as applicable), payment for the energy/ demand over and above the permitted energy/demand shall have to be made at the excess energy/demand charges as specified by the Commission for such categories of consumers in the regulation/order issued from time to time.”*

As per the above regulation, until implementation of Intra State ABT, the open access consumers who are consumers of the Distribution licensee will be charged at applicable tariff rates for consumption upto the contracted/permitted demand, and for consumption beyond the permitted demand / contracted, the consumer will be charged at excess energy/demand charges as specified by the Commission.

**13.9.3** As per section 5.12 of the Tariff order in T.P No.1 of 2017 on Grid availability charges, in cases of outages of generator supplying to an open access consumer, the open access consumer is liable to pay the grid support charges at the applicable tariff rates of that category of Consumer considering it as deviation from schedule. For consumption beyond the contracted demand, excess demand charges as per the provisions of Supply code and as per the terms of agreement entered into with the licensee become applicable.

**13.10.** The facts of the case putforth by the petitioner and respondents, bring to light the following:

- The petitioner has a contracted demand of 38 MVA with the Distribution licensee which is in excess of the demand required for start p power. As per the norms in Regulation 25 of Open Access regulations 2014, the petitioner’s

start up power requirement is 3 MW.

- The petitioner's peak requirement is 75 MW. Depending on the operation of load, power is exported.
- At the time of filing of the petition, the petitioner was unable to draw power from TNEB upto the sanctioned demand for his loads due to restrictions imposed on demand and energy. Approval to purchase power through open access appears to have been issued sometime after imposition of restrictions on supply.
- Presently, the petitioner is a recipient of power through open access, wheels power to their sister concern, imports and exports power from/to the Distribution licensee.
- The petitioner has one authorized metering arrangement at the Point of Common Coupling (PCC). The respondents have admitted that it is very difficult to account energy for different purposes with the present metering arrangement. Issue of measurement of startup power was also raised by the respondents.
- It is evident that with the existing arrangements of metering, the authentic details available with the licensee is the energy exported and imported by the petitioner through the licensee's network. The respondents have not been able to confirm on whether outages of the generators could be recognized.

**13.11.** With the applicable provisions as stated in para 9 above and the facts pertaining to the petitioner's service, the petitioner may be treated as follows:

**13.11.1** The petitioner has a contracted demand of 38 MVA. This demand is inclusive of the requirement for startup power.

**13.11.2** The generating units of the petitioner shall have Special Energy Meters installed in accordance to the Central Electricity Authority's (Installation and Operation of Meters) Regulations 2006 and its amendments. With appropriate metering arrangement as per CEA's Metering Regulations, the respondent licensee

will be able to read the power exclusively consumed for startup purposes. The licensee may also devise suitable metering arrangement to be installed by the petitioner but in consonance with CEA's metering regulations to record consumption/generation details of the generating plants and loads of the Steel plant of the petitioner as per requirement. The petitioner shall comply with the same.

**13.11.3** There shall be proper segregation of loads required for startup and those required for the petitioner's steel plant. Charges as applicable for the energy supplied for startup purposes and that supplied for the Steel plant industry at normal times and as standby supply during generator outages may be levied in accordance to relevant provisions in the Open Access Regulations, Supply code and orders of the Commission referred to in para 9 above.

**13.11.4** Commission is in due process of issuing Intra State Deviation Settlement Mechanism(DSM) Regulations. Petitioner's request for grid support to the steel plant at the charges applicable for deviations from schedule may get addressed in due course when the category of consumers are brought under the Intra State DSM regulations. Until then, Petitioner may avail supply from the licensee or take recourse to procure power through open access to meet the load requirements.

**13.11.5** Whenever, Restriction and Control measures are in force, the petitioner can procure power through Inter-State or Intra-State open access upto the sanctioned demand.

**13.11.6** The respondents had raised the issue of levy of parallel operation charges citing ill effects brought into the system due to CPPs operating in parallel with the

grid feeding loads co-located in the premises. Provisions for levy of parallel operation charges exist in the Open Access Regulations 2014 and Commission has issued orders on levy of parallel operation charges in tariff order 2017. The licensee may levy parallel operation charges as per orders of the Commission issued from time to time.

With the above observations and directions, the petition is disposed.

#### **14. 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