

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

PRESENT:-

Thiru.S.Nagalsamy Member

and

Thiru.G.Rajagopal Member

P.P.A.P.No.1 of 2013

M/s.Cauvery Power Generation Chennai Pvt. Ltd.,
5, Ranganathan Gardens
Anna Nagar
Chennai – 600 040.

... Petitioner
(Thiru.P.Vinod Kumar)
Advocates for the Petitioner)

Vs

1. TANGEDCO
Rep. by its Chairman
NPKRR Maaligai, 144, Anna Salai
Chennai – 600 002.
2. The Chief Engineer/PPP
TANGEDCO
6th Floor, Eastern Wing
144, Anna Salai, Chennai – 600 002.
3. The Director (Operation)
TANTRANSCO
144, Anna Salai
Chennai – 600 002.

....Respondents
(Thiru P.H.Vinod Pandian
Standing Counsel for the Respondents)

Dates of hearing : 07-02-2013 and 19-03-2014

Date of order : 15-09-2014

The above P.P.A.P.No. 1 of 2013 came up for final hearing before the Commission on 19-03-2014. The Commission upon perusing the above petition 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 fix the tariff payable by the TANGEDCO in respect of the infirm power injected from the petitioner's 1 x 63 MW Thermal Power Plant from the date of synchronization till 16-11-2012 which is the Commercial Operation Date (COD) and to consequently direct payment of such sums and pass such further or other orders as deemed fit.

2. Facts of the case:-

- 2.1. The petitioner is a company incorporated under the provisions of the Companies Act, 1956 and is primarily involved in the business of setting up power plant. The 1 x 63 MW Thermal Power Plant at Billakuppam Village, S.R.Kandigai, Gummidipoondi is the first plant being set up by the petitioner.
- 2.2. The third respondent on 01-09-2012 accorded approval for grid connectivity for the petitioner's 1 x 63 MW plant. An agreement was also entered into between the petitioner and the TANGEDCO for parallel operation and wheeling of power to the destination of the petitioner's choice using the transmission / distribution network of the licensee.
- 2.3. The petitioner started injecting infirm power into grid with effect from 17-10-2012 and claims payment of tariff for such infirm power from the respondents. The respondents directed the petitioner to get the tariff for the infirm power fixed by the TNERC. Hence the present D.R.P.

3. Contention of the Petitioner:-

- 3.1. The petitioner by its letter dated 01-10-2012, informed the second respondent that the plant is ready to be synchronized with the grid and that being a captive power plant the power injected from the date of synchronization can be consumed by the captive consumers. However, the petitioner also informed that it is ready to commence testing after synchronizing from 03-10-2012 onwards and requested the respondent to accept the infirm power generated from the plant till the petitioner goes in for commercial operation of the plant. The petitioner also pointed out that for the power injected into the grid during the testing, it would seek payment of appropriate tariff.
- 3.2. On 17-10-2012, the third respondent taking note of the petitioner's program to synchronize the unit with the grid requested the petitioner to synchronize the unit in front of the official of the Board. The petitioner was also asked to contact the second respondent with regard to the injection of infirm power into the grid before the COD.
- 3.3. The petitioner's plant was synchronized with the grid at 3.45 p.m. on 17-10-2012 in the presence of officials of the TANGEDCO and TANTRANSCO.
- 3.4. The petitioner by its letter dated 25-10-2012 requested the second respondent to accept the infirm power generated from its 1 x 63 MW plant till the plant achieved COD. The second respondent vide communication bearing Lr.No.CE/PPP/SE/PPP/EE/PPP/AEE2/FCauvery Power cfvol 1/D.No.255/12, dated 30-12-2012, while agreeing to accept the infirm power generated by the petitioner's generating plant, informed that the power injected into the grid with effect from 00.00 hrs. on 26-10-2012 till COD would be purchased. The

second respondent, directed the petitioner to approach the Commission for fixation of tariff for such infirm power.

- 3.5. By its letter dated 14-11-2012, the petitioner requested the second respondent to consider the purchase of infirm power from 17-10-2012, the date on which the plant was synchronized with the grid in the presence of the respondent officials. It is relevant to point out that the petitioner had by its earlier letters dated 01-10-2012 and 04-10-2012 while requesting permission to synchronize also requested that the infirm power be purchased from the date of synchronization.
- 3.6. The TANTRANSCO issued letter No.SE/LD&GO/EE/OA/AEE2/F.Cauvery power/D3136/12, dated 16-11-2012 confirming COD by the Petitioner's plant from 8.30 hrs. on 16-11-2012. The petitioner has from 17-10-2012 to 16-11-2012 injected 49,24,929 units of infirm power into the grid.
- 3.7. The infirm power referred in Order No.4 of this Commission is the power available in excess after supplying to the captive consumers which can be stopped on short notice. In Order No.4 no separate tariff has been provided for infirm power injected by a captive power plant during testing before the declaration of commercial operation.
- 3.8. The Tamil Nadu Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2005, which defines infirm power as the electricity generated prior to commercial operation and provides that the cost of infirm power will be the lowest fuel cost applicable for similar stations, has not been made applicable to captive power plants.
- 3.9. As on date there are no Regulations and orders in place as regards the commissioning of a captive power plant and the rates payable to the captive power plant for the infirm power injected into the grid prior to its COD. Earlier,

the practice adopted by the TNEB in respect of captive power plants was to treat the date of synchronization as the date of COD and the power injected into the grid from the date of synchronization was allowed to be scheduled to the captive consumers. It is in such circumstances that the petitioner had in its earlier petition before the Commission (D.R.P.No.18 of 2012) instead of seeking tariff fixation sought a direction to the respondents to pay the tariff as stipulated in Order No.4 dated 15-05-2006.

3.10. The petitioner had during its discussions with the respondent prior to the synchronization of the plant with the grid brought to the knowledge of the officials that the practice adopted in the past by the Board in respect of the captive power plants has been to treat the date of synchronization with the grid as the date of COD. However, the petitioner was informed that even in respect of captive power plant, commercial operation date will have to be declared.

3.11. The petition is being filed consequent to the letter No.CE/PPP/SE/PPP/EE/PPP/AEE2/F.Cauvery Power cfvol 1/D.No.255/12, dated 30-10-2012 issued by the Chief Engineer (PPP), TANGEDCO informing that the TANGEDCO is willing to purchase the infirm power offered by the petitioner from the 63 MW captive power plant at Gummidipoondi as per the tariff to be determined by the Commission and has requested the petitioner to file the present petition for fixation of tariff.

3.12. The Commission in P.P.A.P. No.6 of 2011, filed by another coal based thermal power plant at Gummidipoondi relied upon Regulations 20 and 38 of the TNERC (Terms and Conditions for the Determination of Tariff) Regulations, 2005 and fixed the tariff for the infirm power by fixing it on the basis of the cost of the lowest fuel cost applicable to the existing similar type

of station. The said power plant is a merchant power plant and not a captive power plant like the petitioner's.

- 3.13. The petitioner uses imported coal at its plant and the landed cost of the coal imported from Indonesia is Rs.4,900/- per MT. Based on the said landed cost of coal and based on the data available since declaration of commercial operation of the petitioner's plant, the lowest fuel cost incurred by the petitioner works out to Rs.4.50 per kWh.
- 3.14. The petitioner understands that P.P.A.P.No.6 of 2012 has been filed before the Commission by M/s.OPG Power Generation Pvt. Ltd. for its Unit-II, wherein details of "lowest fuel cost" actually incurred by the 1 x 77 MW Unit-I of the said plant which was commissioned during April 2010 has been provided. The "lowest fuel cost" actually incurred by Unit-I of M/s.OPG Power Generation Pvt. Ltd. is in excess Rs.4/kWh. Since, the 1 x 77 MW Unit I of M/s.OPG Power Generation Pvt. Ltd. situated at Gummidipoondi, is a generating plant similar to that of the petitioner, the "lowest fuel cost" that has actually been incurred by the said plant can be adopted for the purposes of the fixation of tariff for the infirm power injected by the petitioner's 1 x 63 MW power plant prior to the COD.

4. Contention of the Respondents:-

- 4.1. The petitioner informed the second respondent vide letter dated 01-10-2012 that they are ready to commence testing of the generator from 03-10-2012 and during testing infirm power will be injected into the grid. The company further informed that if TANGEDCO so require they are willing to enter into an agreement in respect of injection of infirm power and they will be claiming

appropriate tariff for the infirm power injected before the Commercial Operation Date (COD).

- 4.2. The petitioner vide letter dated 04-10-2012, informed that Grid Connectivity agreement was signed on 05-09-2012, and stated that approaching TNERC and getting tariff fixed is time consuming process and requested to consider issue of permission to wheel infirm power to their captive users and signing Energy Wheeling Agreement for the same. The petitioner has also stated that as per TNERC's Order No.4 dated 15-05-2006 as far as CPP is concerned there is no clear cut definition given for COD.
- 4.3. The petitioner before issue of any order by the second respondent filed a petition vide D.R.P.No.18 of 2012 on 05-10-2012 before the Commission with a prayer to direct the respondent to accept supply of infirm power from 1 x 63 MW thermal power plant from the date of commissioning till the issuance of Short Term Open Access (STOA) and execution of wheeling agreements for captive users and third party customers. The petitioner further prayed to direct the respondent to pay the rate fixed by the Commission in the Order No.4 dated 15-05-2006 from the date of commissioning till the issuance of STOA and execution of wheeling agreements.
- 4.4. The Commission ordered in the said D.R.P.No.18 of 2012 that the petitioner shall exhaust the remedy as available to him by dealing with TANGEDCO and the TANTRANSCO / SLDC, as the case may be, and if need arises an appropriate petition may be filed before the Commission.
- 4.5. After issue of orders by the Commission on 18-10-2012, nothing transpired for seven days from 19-10-2012 to 25-10-2012. The petitioner vide letter dated 25-10-2012 informed the second respondent on 25-10-2012 evening that the 63 MW plant was synchronized with the grid at 03.45 p.m. on 17-10-2012 in

the presence of TANGEDCO and TANTRANSCO officials, and they are directed by TANTRANSCO to approach TANGEDCO regarding infirm power supply till COD. The petitioner has further informed that the plant will achieve COD in another two weeks and during that period the company was expecting to pump two million units of infirm power into the grid. In the letter the petitioner has requested to accept infirm power (till COD) and also requested TANGEDCO's offer for tariff for the infirm power supplied.

- 4.6. In response to the petitioner's letter dated 25-10-2012, the request was processed under the official procedure and the second respondent vide letter dated 30-10-2012 expressed willingness to purchase infirm power from the petitioner's generator with effect from 00.00 hours on 26-10-2012 till COD, as per the tariff to be determined by the TNERC without prejudice to respondent's right to prefer any appeal against the orders of TNERC.
- 4.7. The petitioner vide letter dated 14-11-2012 had requested the second respondent to consider purchase of infirm power from 17-10-2012 (i.e.) the date on which their plant was permitted to be synchronized with grid by the Director (Operation).
- 4.8. The Chief Engineer (PPP) vide letter dated 06-12-2012 informed the petitioner that based on the petitioner's request letter dated 25-10-2012 and the TNERC's orders dated 18-10-2012, approval was accorded on 30-10-2012 for purchase of infirm power with effect from 00.00 hours on 26-10-2012 which was the immediate succeeding day after receipt of request letter from the company till COD and hence petitioner's request for purchase of infirm power with effect from 17-10-2012 is not feasible of compliance. Inasmuch as, the petitioner was technically not before this respondent with a proper request on

this issue, before 25-10-2012 evening, whatever may have happened before 25-10-2012 evening will not be binding the Chief Engineer (PPP) in any way.

- 4.9. The Commission's Tariff Regulations, 2005 hold good for all generators and a captive generating plant is also a generator except for the purpose for which the power supplied or used and hence all the common laws / rules / regulations applicable for a generating plants are equally applicable for captive generating plant unless specifically excluded. The Order No.4 dated 15-05-2006 of the Commission and the UI rates notified therein and subsequent amendments are applicable for purchase of surplus power from captive generating plant on regular basis and not for purchase of infirm power till COD.
- 4.10. The petitioner's claim of Rs.4.50 per KWh and for adoption of Rs.4/- per KWh which as per the petitioner, is the lowest fuel cost incurred by M/s.OPG Power Generation Pvt. Ltd. for their 1 x 77 MW Unit-I generator cannot be accepted since the Commission has already ordered that the intention of the Regulation was not to provide for reimbursement of the actual variable cost of the various generators.
- 4.11. Chapter III of the TNERC (Terms and Conditions for determination of Tariff) Regulations, 2005 fundamentally deals with computation of capital cost, and the various factors involved in calculation of capital cost, such as Debt-equity ratio, Return on equity, interest and finance charges on loan capital etc. Further Regulation 38 clearly states that any revenue other than the recovery of fuel cost earned by the generating company from the sale of infirm power shall be taken as reduction in capital cost as provided in Regulation 20. In continuation to the above, it is said in Regulation 20 (3) that the cost of infirm

power shall be lowest fuel cost applicable to the existing similar type of station.

- 4.12. The above said Regulations can be made applicable only when tariff is determined under section 62 of the Electricity Act, 2003 which generally happens under MOU route with prior agreement between generating company and the distribution licensee for purchase of electricity under normal course. A minimum and maximum ceiling of tariff can be fixed for a period of not exceeding one year.
- 4.13. The rate for supply of infirm power before COD does not qualify to be termed as tariff under section 62 of Electricity Act, 2003, since the terms and conditions specified in Tariff Regulations, 2005 are not complied with.
- 4.14. A comprehensive reading of the said regulation would clearly reveal that the said regulation have no application to the facts and circumstances of this case particularly for realizing some rate for the fuel spent for the trial run of the plant before COD and when there will be no occasion to the petitioner to come before this Commission, for the rigour of regulation provided for the purpose of full-fledged tariff fixation.
- 4.15. The Commission in its order dated 07-10-2011 in P.P.A.P.No.6 of 2011 stated that the interconnection with the grid for the purpose of testing, which results in injecting infirm power into the grid is a service rendered by the respondent.
- 4.16. The licensee extends its facility for testing the generator as a service without collecting any charges for such testing. Such infirm power is inconsequential towards positive requirement of the licensee. On the other hand, the requirement of the generator is really huge towards necessity to attain COD. Declaring COD is the first and foremost, eligibility for going into any commercial dealing by the generator. To get the eligibility of "COD attained"

the generator is bound to incur expenditure, and the licensee is not under any obligation to pay towards this expenditure of the generator. It is illogical to expect the above from the licensee, since all the benefits and profits, the generator will earn after COD will be entirely his, and not going to be shared with the licensee. Therefore, the theory of full expenditure, type of fuel, capacity of machine are of no concern to the licensee at least in respect of the infirm power supply before COD. The MOP guidelines for short term tender does not see the type of fuel, capacity of machine etc. but see only the rate. Logically, the status of the infirm power before COD is far below the status of the power supplied under short term tender. Such being the case the generating companies can't be permitted to claim reimbursement of actual cost incurred by them for generation during trial run period which is unreasonable and therefore amounts to undue enrichment at the cost of public exchequer. Hence as a good will gesture only a token amount can be paid for such infirm power supplies till COD.

- 4.17. Considering the Station Heat Rate, GCV of coal and auxiliary consumption, a reasonable rate is submitted by the respondent based on empirical calculation at Rs.1.07 / Kwhr. The above rate for such infirm power supply till COD may be adopted for all the generating plants irrespective of capacity, fuel etc.
- 4.18. As the petitioner had approached the respondent as per the direction of the Commission vide their letter dated 25-10-2012 requesting approval to inject infirm power and the second respondent had accepted to purchase infirm power from 00.00 hrs. on 26-10-2012 till COD, which is the immediate succeeding day after receipt of the letter dated 25-10-2012, the petitioner can claim payment for supply of infirm power from 26-10-2012 to COD and not

from 17-10-2012 as prayed by the petitioner. The company has declared COD on 8.30 hours on 16-11-2012.

- 4.19. The Commission may be pleased to fix Rs.1.07 per unit as the rate for the infirm power supplied by the petitioner company from their 63 MW Unit-I Thermal Power Plant from 00.00 hours on 26-10-2012 till 8.30 hours on 16-11-2012 i.e. the day on which COD was declared.

5. Additional contentions of the Petitioner in the Reply Affidavit:-

- 5.1. It must be noted that the petitioner had informed the first respondent that they are willing to enter into an agreement for supply of the infirm power generated during the testing and that the appropriate tariff will be payable at COD.
- 5.2. The petitioner had indeed filed D.R.P.No.18 of 2012 on 05-10-2012, for a direction to the respondents to pay the rate fixed by the Commission in its Tariff Order No.4, for the electricity injected into the grid from the date of commissioning till the issuance of the STOA and execution of Energy Wheeling Agreement. The petitioner was under no obligation to wait for an inordinate amount of time for any response from the second respondent. The respondent has deliberately not chosen to refer to the fact that the petitioner had also requested that purchase of infirm power be considered in the aforesaid letters.
- 5.3. Filing of D.R.P.No.18 of 2012 was to seek a direction to the respondent to pay the rate fixed by the Commission in its Tariff Order No.4. The earlier letters of the petitioner dated 01-10-2012 and 04-10-2012 were requests to accept the infirm power injected into the grid from the date of synchronization till the COD, seeking payment for the infirm power, conveying the petitioner's readiness for synchronization and commencing testing after synchronization

from 03-10-2012. Hence, the DRP filed and the letters seeking acceptance of power from date of synchronization are independent ones.

- 5.4. The Commission's order in D.R.P.No.18 of 2012 directed that the petitioner should exhaust the remedy as available to it and it did not state that the date of infirm power purchases must be prospective to the date of the order. As the request of the petitioner in the letter dated 01-10-2012 was not rejected by the respondents, the remedy sought therein remained alive. The respondents cannot now claim that the petitioner has not exhausted its remedy and cannot seek to start the process afresh prospectively from the date of order of the Commission.
- 5.5. Since the petitioner's earlier request for accepting infirm power was pending with the respondents and the respondents were aware of the synchronization of the plant on 17-10-2012 and the order passed by this Commission on 18-10-2012, the petitioner was of the view that the respondent would pay the applicable tariff for the infirm power injected from the date of synchronization. The petitioner's letter dated 25-10-2012 was only in pursuance to the earlier letters and categorically makes reference to the said letters of the petitioner.
- 5.6. The petitioner was taken aback by the letter dated 30-10-2012 issued by the second respondent expressing willingness to purchase the infirm power from 26-10-2012 till COD referring only the petitioner's letter dated 25-10-2012. The said letter did not have any reference to the original letter dated 01-10-2012 sent by the petitioner to the second respondent wherein the petitioner's willingness to enter into an agreement in respect of the injection of the infirm power and claim of appropriate tariff during testing till COD had been set out.

- 5.7. The fact that approval was accorded for grid connectivity by the third respondent and that the agreement was executed on 05-09-2012 with the first respondent for parallel operation and wheeling, and the petitioner's letters dated 01-10-2012 and 04-10-2012, 14-11-2012 and the respondents' inaction on the same cannot be brushed aside by the respondents as not binding on them. The respondents cannot ignore the previous communication of the petitioner and claim that payment may only be due from 26-10-2012.
- 5.8. The stand of the respondents that the rate for infirm power does not qualify to be termed as tariff is not acceptable. The respondent's stand is contrary to its stand taken in P.P.A.No.6 of 2011 that the rate for the infirm power injected prior to COD is to be in accordance with the tariff regulations.
- 5.9. While the interconnection with grid for purpose of testing, resulting in drawal from the grid and injection of infirm power into the grid is indeed a service rendered by the respondent, the same is done only on effecting payment to the respondent for such drawal of power from the grid and on agreeing to the conditions stipulated in the Open Access Agreement signed on 05-09-2012. The said conditions stipulate that the utility will not be responsible for any damage to company and petitioner will be responsible for any damage to the grid and indemnify the TANGEDCO against any possible damages to their equipment or personnel due to grid connectivity, etc. These conditions have been made eventhough the impact of the injection of the maximum of about 63 MW at 230 kV level from the captive plant's sub-station into the grid, which is interconnected to the southern grid of about 30,000 MW of peak demand met would be negligible besides providing adequate protection by the company at its cost as required by the TANGEDCO for the parallel operation of the generator set with the grid.

- 5.10. The petitioner's request for permission to sell the infirm power prior to COD to its captive consumers was not considered by the respondents. For the start-up power supplied to the petitioner, the respondents have levied excess demand charges contrary to the regulations despite the petitioner having requested for enhancing its demand. The purported service rendered by the respondents have been deficient to say the least.
- 5.11. Whatever energy that is imported for testing is paid for by the petitioner and whatever is generated before COD is exported into the grid and supplied to consumers by the Licensee fetching revenue at average revenue from sale of power of Rs.4.99. Though it is infirm, it is absorbed in the grid and hence it is a valuable injection of power, without which such quantum would have been purchased at higher costs from IPPS and Traders at the Bench Mark cost of Rs.4/kwh as derived from the Tariff Order No.1 of 2012 dated 30-03-2012.
- 5.12. A token amount for this valuable energy injected by the licensee, in fact, will only amount to undue enrichment at the cost of the generator. The infirm power injected into the grid by the generator before COD for the trial run period, and firm power supply after COD causing certain relief to the grid, results in a situation where neither party falls into adverse position.
- 5.13. The respondents have arrived at the purported amount of Rs.1.07 per unit based on use of domestic coal, whereas the petitioner uses imported coal at the plant in question.

6. Findings of the Commission:-

- 6.1. We have heard the arguments of both sides and gone through the written submissions filed on behalf of the Petitioner and the Respondents. The only issue that arises for consideration is as to what is the rate payable by the

Licensee for the infirm power injected by the generating company into the grid during the trial or test run conducted by the generating company before commissioning of its commercial operation.

- 6.2. The relevant provision for determination of the cost for infirm power is traceable to regulation 20 of the Tamil Nadu Electricity Regulatory Commission (Terms and Conditions for the determination of Tariff) Regulation, 2005. The said regulation reads as follows:-

“20. Revenue / charges during trial stage (prior to COD)

- (1) The cost incurred during trial up to COD shall be treated as capital cost.*
- (2) The revenue earned from sale of power (infirm power) shall be treated as reduction in capital cost.*
- (3) Cost of infirm power shall be the lowest fuel cost applicable to the existing similar type of station”.*

- 6.3. Sub-Regulation 20(3) provides criteria to determine the cost of infirm power. In the absence of specific Regulation to determine the cost of infirm power to the CGPs, Merchant Generators etc., the Commission has decided to adopt sub-regulation 20(3) to all the generators. The Commission adopted the regulation to determine the cost of infirm power in its earlier similar cases and orders. As per sub-regulation 20 (3), the lowest fuel cost of the existing “similar type of station” should be reckoned as the cost of infirm power. There is a difficulty in applying the above said regulation in toto due to non-availability of “similar type of station” in the State. Each generating station varies in terms of its capacity. The generators may use different fuels such as Indian coal, Imported coal, gas, liquid fuel etc.

- 6.4. The respondent contended that the licensees are offering their grid for testing the generating plants as a service to the generators. Further the injection of such infirm power imposes certain difficulties to the licenses to schedule and

dispatch. The respondent therefore contends that the generating companies cannot be permitted to claim reimbursement of actual cost incurred by them for generation during trial run period. There is a valid point in the contention of the respondents. The generators may use different fuels including the costly fuels such as liquid fuel, naphtha etc. to their convenience. The licensees are providing a service to the generators by extending their network / grid facilities for conducting the test / trial run. Just because, the generators use costly fuel, it is not justifiable to charge the licensee the high variable cost of the costly fuel. Therefore, a viable solution has to be arrived at, in order to arrive at the cost of infirm power as provided in regulation 20(3) referred to above. Regarding the fuel, though the cost of gas is considered to be the cheapest, since most of the upcoming generators are coal based, coal has been considered as the fuel for the purpose of determining the tariff for infirm power. Even among the coal, imported coal cannot be considered in view of high cost involved, since the regulation 20(3) insists on the lowest fuel cost. As such we consider that the cost of the Indian coal may be considered for this purpose. In order to protect the interest of both the generators and the licensee / consumers, we have considered the cost of Indian coal for arriving at the tariff for infirm power.

- 6.5. Further there are many new generators with different capacities coming up in the State. It is difficult to determine infirm power tariff by the Commission for each and every new generators. As already discussed, in view of the non-availability of "similar type of station" and the lowest fuel cost we have decided to consider the following generalized parameters to determine the reasonable cost of infirm power for all categories of generators.

- (i) Average specific coal consumption;
- (ii) Average auxiliary consumption; and
- (iii) Lowest landed cost of coal in Tamil Nadu.

The first two parameters can be obtained from the Central Electricity Authority's annual report on "Performance Review of Thermal Power Stations". We have chosen to adopt the Central Electricity Authority's report obviously for the reason that the annual report of Central Electricity Authority covers more than 400 thermal units in the country to a total installed capacity of around 1,00,000 MW in the range of 25 MW and above and most of the petitions pending with the Commission for determination of cost of infirm power is in respect of less than 200 MW coal fired thermal units. Further Central Electricity Authority report considers the higher size units also. The heat rate and the variable cost are generally high for small capacity generators. Captive / merchant generators are generally choosing small capacities for their convenience. On the other hand, the general trend among the Government owned generators and IPPs is opting for higher capacity units in the range of 500–800 MW so as to increase the efficiency. Therefore, it is considered injustice to make the licensee to bear the high variable cost of such small generators of the captive / merchant generators. In the future higher capacity units also may be commissioned by the captive / merchant generators. Hence, it is prudent to consider the higher capacity units also to arrive at the common parameters to arrive at a generalized tariff.

6.6. The fuel cost varies depending upon the source of fuel and the destination of its use. The Commission has approved yearwise average landed coal cost for the state owned thermal stations in Tamil Nadu which are available in the

Commission's tariff order. The lowest landed coal cost for the year in question shall be obtained from the Commission's tariff order which is in force for the particular period.

6.7. The respondent has argued that taking into account the service provided by the licensee, only a token rate may be fixed as tariff to the infirm power injected by the generators. It is a fact that the respondent is providing a service by offering his grid to the petitioner without which the generator cannot conduct the test / trial run. We cannot conclude that the service of the licensee is a gratuitous one. Since the respondent has made large investment to create the network / grid, a charge has to be paid for using the grid. At the same time, the Commission has to facilitate the generators in the State to utilize the grid for testing and commissioning their generators. Therefore, we have no hesitation to introduce a factor, namely Grid Facilitation Factor (Gf) to give reasonable charges to the service provided by the licensee. While facilitating the generators to test their generators, the Commission shall take into account the interest of the consumers also. As the electricity consumers are ultimately paying the network cost through tariff, the benefit arising out of introduction of grid facilitation factor should go to the consumers. Taking into account all the factors, we consider that it is reasonable to apply a Gf of 0.60 (sixty percent) on the formula to arrive at the generalized tariff for infirm power.

6.8. Taking into account the three parameters and a constant of 0.60, the Commission arrives at the following formula which can be used to arrive at the generalized per unit cost of infirm power (Ti).

$$T_i = \frac{\{G_f \times [100 \times (C_{sp} \times C_c)]\}}{(100 - AUX)}$$

- T_i - Tariff for infirm power in paise / kWh
- C_{sp} - All India Specific coal consumption of thermal power stations in kg/kWh as per the latest Central Electricity Authority report on “Performance Review of Thermal Power Stations.
- AUX - All India average AUX of thermal power stations in percent as per the latest Central Electricity Authority report on “Performance Review of Thermal Power Stations”.
- C_c - Lowest landed cost of coal in any of the Power Stations in Tamil Nadu Paise / kg as approved by the Commission in its latest Tariff Order.
- G_f - Grid facilitation constant = 0.6

6.9. The above parameters shall be adopted irrespective of generator capacity and fuel used, for the purpose of determination of tariff for the infirm power supplied by the generators during the trial / test run. The parameters available in the latest Central Electricity Authority report and the latest tariff order may be considered for the calculation in case if it is not available for the relevant period. We make it clear that the above formula is made due to non-availability of “similar type of stations” as provided in the said regulation 20(3) and to arrive at the lowest cost of fuel of similar type of stations. As discussed supra, the Commission faced with some practical difficulties in adopting the sub-regulation 20 (3) in toto. The Commission issues this order under Regulation 89 of the Tariff Regulations, 2005 which is reproduced below:-

“89. Power to remove difficulty

If any difficulty arises in giving effect to any of these regulations, the Commission, may, of its own motion or otherwise, by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such

provisions, not inconsistent with these regulations, as may appear to be necessary for removing difficulties”.

- 6.10. This procedure may be adopted by the generators / Distribution Licensee to determine the cost of infirm power injected by the generators during the trial / test run before declaration of COD. The petitioner may furnish a revised bill to the TANGEDCO confirming to this order. The TANGEDCO shall make payment to the petitioner / generator within 30 days of receipt of the bill.
- 6.11. In the course of arguments in the above P.P.A.P.No.1 of 2013 the Counsel for the Petitioner vehemently contented that the infirm power has been injected in the grid right from the time of synchronization on 17-10-2012 and that synchronization happened in the presence of the officials of the TANGEDCO / TANTRANSCO. Further the likelihood of injection of infirm power has already been informed to the Respondents on 01-10-2012, 04-10-2012 and that the willingness to enter into an agreement for supply of infirm power generated during testing has also been informed to the Respondents much before the date of synchronization.
- 6.12. Contenting that the infirm power absorbed in the grid was valuable power which has not been rejected by the Respondents, the Petitioner claims that the Respondents are liable to pay for the infirm power injected into the grid from 17-10-2012 to 25-10-2012.
- 6.13. While TANTRANSCO is the authority concerned with transmission of electricity, TANGEDCO is concerned with the purchase of electricity from the

generators. The Petitioner vide letter dated 25-10-2012 informed the second Respondent on 25-10-2012 evening that 63 MW generator was synchronized with the grid, which was the first communication made with the TANGEDCO intimating the fact of synchronization. The TANGEDCO acting on the said letter conveyed its consent to purchase the infirm power from 0.00 hours 26-10-2012 till CoD as per the tariff to be determined by the Commission. Mere request on the part of the Petitioner to sell the infirm power generated during the period of testing and commissioning to the Respondents will not create an obligation on the part of the Respondent to pay. The liability to pay would arise only in respect of the power generated and injected into the grid with effect from 26-10-2012 in terms of the letter of the second Respondent dated 30-12-2012.

6.14. The Commission concludes that the Petitioner is not entitled to claim payment for whatever infirm power injected into the grid by the Petitioner Generator from 17-10-2012 to 25-10-2012 without getting express approval from the TANGEDCO.

7. 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.Nagalsamy)
Member

/ True Copy /

Secretary
Tamil Nadu Electricity
Regulatory Commission