Petition No. 19 of 2005 (M)

In the matter of application for the review of tariff order

M/s Jayaswals Neco Ltd. ...... Applicant
Siltara Growth Centre,
Siltara, Raipur (C.G.)

V/s

Chhattisgarh State Electricity Board .... Respondent
Daganiya, Raipur (C.G.)

ORDER
(Passed on 05/10/2005)

This is a petition submitted under Sec. 94 of the Electricity Act, 2003 (hereinafter the 'Act') read with clause 33 of CSERC (Details to be furnished by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 for the review of the tariff order passed by the Commission on 15/06/2005 in Petition No. 5 of 2005.

2. M/s Jayaswals Neco Ltd. (petitioner) has a steel plant at Siltara Growth Centre, Siltara, Raipur and is drawing power from the Chhattisgarh State Electricity Board (CSEB or the Board, for short) on a contract demand of 19000 KVA at 132 KV. The petitioner also has a captive power plant (CPP, for short) with three generators having an aggregate capacity of 15.5 MW. Out of the three, one generator (4 MW) runs in solo mode and remaining two (11.5 MW) are synchronized with the CSEB grid. The petitioner has a power purchase agreement with the CSEB for sale of surplus power to the grid with a contracted capacity of 10 MW.

3. The petitioner seeks review of Commission's tariff order dated 15/06/2005 on the following grounds:

(i) There is an error apparent on the face of record in the tariff order dated 15/06/2005, as a result of the errors in the data submitted by the respondent. There is an abrupt jump in the annual revenue requirement to the tune of Rs.533.71 crore due to power purchase and the rate of purchase of power from PTC has been shown excessively high. The energy sales forecast has also been increased abnormally. These have affected ARR and hence also tariff.

(ii) The Commission has introduced HV-5 tariff for power intensive industries up to 20 MVA contract demand (CD) and the monthly minimum charges for this tariff is the charge of units equivalent to 30% load factor on the contract demand plus demand charges on the billing demand for the month, irrespective of whether any energy is consumed during the month or not. This is unfair to the industries which have captive power plants and have energy import and export agreement with the Board. Such consumers consume much less power as compared to an industry without the benefit of a CPP. This monthly minimum charge together with the introduction of demand charge have the effect of increasing the petitioner's energy bill from Rs. 57 lakh to Rs. 171 lakh per month. This will be mainly on account of the provision of minimum consumption up to 30% load factor to be billed along with the demand charges as minimum monthly bill.

(iii) The monthly minimum charge concept is to protect the interests of supplier, who has to keep sufficient capacity to generate and supply power up to the requirement of the consumer. In such cases generation may have to be backed down in case there is a fall in consumption. But in Chhattisgarh, there is already a shortage of power and there is no need for backing-down even in case of a fall in consumption. Such a fall will only have the effect of reducing the quantum of energy purchased by the CSEB at higher rates. The interests of the CSEB have already been secured by providing fixed/demand charges in the tariff. Hence the monthly minimum charges are not justified and should be withdrawn.

(iv) The petitioner's load comes under a very special category since the load cycle of an electric arc furnace is of a variable nature. Total load of 31 MVA is used for about 20 minutes in a heat cycle of one hour and for rest of the time, they either import very less energy or export energy to the CSEB grid. Hence, although the overall load factor of the industry is about 35%, it is around 6 to 8% only in so far as drawal of power from the CSEB grid is concerned, the balance energy being supplied by their captive power plant.

(v) The Commission has decided levy of power factor incentive and penalty in the tariff on both demand charge and energy consumption whereas, earlier it was levied only on consumption. Further penalty has been converted into percentage basis, which was in terms of money earlier. The new P.F. tariff has resulted in increase of about 9 times. The petitioner has also requested to consider leading power factor as unity and not to levy any disincentive charge. However, in the subsequent hearing, he chose not to press for this issue and prayed for its withdrawal. Hence this issue is not discussed in this order.

(vii) The Commission has directed levy of parallel operation charges on CPP availing grid supply at the rate of 16 per KVA per month on the installed capacity of the CPP. Such a charge was not proposed by the Electricity Board in their petition and was not discussed during the public hearing. Subsequently, in a rejoinder filed on 23/09/05, the petitioner requested the Commission to consider this issue while deciding the various issues relating to captive co-generation plants, presently pending with the Government. Hence, this issue will be addressed by the Commission separately.

(viii) The new tariff made applicable to the petitioner will result in an increase of about 250% over the old tariff and would be a tariff shock for him.

4. The petitioner made additional submissions on 05/08/05 requesting that a separate tariff should be provided for the him considering the following:

(i) As he exports power for 16 hours in a day and imports power for 8 hours, demand charges should be reduced to 33%.

(ii) The leading power factor should be considered as unity. This plea has also been subsequently withdrawn on 09/09/2005 and hence is not discussed.

5. The CSEB in reply, has put forth the following:

(i) On the general issue of additional purchase of power at higher cost, it has submitted that the growth rate of 18% in electricity consumption was considered due to steep growth in demand.

(ii) The load cycle of the petitioner is not a system-friendly and hence the petitioner should provide extra compensation to the Board for the adverse impact it has on the supply system.

(iii) There is no logic in the plea for withdrawal of monthly minimum charges. The minimum charges are not levied as compensation for backing-down generation. It is, in fact, a part of the fixed charges. Wherever both MD and minimum unit charges are applicable, the fixed charges are apportioned between both the elements i.e. MD and units. The status of shortage or excess of power does not prevail uniformly, it varies according to the season and time of the day. No consumer will like the licensee to supply power only when it is available in excess. If the consumer wants to avail supply as and when he requires, it has to be supplied irrespective of the position of availability and hence he has to pay the cost. Even in its own power purchase, the Board has to pay for contracted power whether it is availed or not. Billing of minimum guaranteed units is required to protect the recovery of fixed charges incurred by licensee towards making the supply available to the extent of contracted demand as and when required.

(iv) The monthly minimum guaranteed consumption was also available in the earlier tariff and captive plant was also available since long. While, deciding the tariff, the Commission has considered the prevailing conditions and their impact. Economic viability of the licensee is also to be ensured under the provisions of the Act.

(v) Because of the nature of his industry the petitioner's requirement of power changes every 10 minutes and thus the availability of power to the extent of maximum demand has to be ensured round the clock. The Board can not utilize the spare capacity for a few minutes elsewhere. Therefore, the plea to reduce demand charges to 33% has no logic.

(vi) The impact of the tariff order and tariff on individual consumers should not be considered by the Commission. It will not be possible to implement the reform policies in power tariff in future as intended in the Act. Any such revision, in any case, should not have the effect of reducing the approved annual revenue requirement of the Board.

6. On the request of the petitioner, the Commission, by way of interim relief, passed orders on 09/09/05 under the provision of Sec. 94(2) of the Act directing the petitioner to make provisional payment of Rs. 90 lakh against the monthly bills raised by the CSEB till the disposal of this case.

7. It has been stated by the CSEB that the average monthly power consumption of last six months of the petitioner from CSEB is 1,17,933 KWh/16,257 KVA, whereas the 30% monthly minimum guaranteed consumption on the CD of 19 MVA would be 36,93,600 units. Under the tariff applicable to the petitioner earlier, the monthly minimum guaranteed consumption was 19,00,000 units. The CSEB has further stated that as per the new tariff, on the basis of minimum consumption required, the minimum energy charges would be of the order of Rs.1.36 crore per month. (CSEB's reply dated 15/09/2005). The average unit cost of the petitioner comes around Rs.11.57 per unit. This cost may further rise with reduction in consumption. In case the industry is in a position to attain the level of the minimum guaranteed consumption of 36,93,600 units per month, the average cost will come only to Rs.3.69 per KWh. In case the request of the petitioner for reducing the demand charge to 33% is considered and average actual consumption billed in the monthly bill under the heads of demand charges and energy charges will be Rs.44,16,239/-. The average cost per unit comes out to Rs.3.74.

8. The issues raised by the petitioner and the reply of the CSEB thereon have been examined. The main issues in this review petition are the following:

(i) Should minimum charges be based on actual load factor and has there been error in the fixation of tariff?

(ii) Should there be a reduction in demand charges?

(iii) Should the present formula of incentive/disincentive based on power factor be modified?

The matter regarding higher power purchase and the rates of purchase need no discussion as the Commission is of the view that these have been arrived at on realistic basis based on the data provided by the CSEB which were subjected to necessary scrutiny.

9. In order to assess the first issue, the officers of the Commission were asked to work out the bill towards MD and energy charges taking the average monthly consumption at the pre-revised and revised tariffs. As per these calculations, the average recorded demand during last eight months from January 2005 to August 2005 comes to 15870 KVA and the average consumption is about 11.28 lakh units. The average power factor comes to 0.72% and the load factor 11.4%. Taking these parameters, the results of billing as per the pre-revised and revised tariffs are as under:

	As per the pre-revised tariff	**As per the revised tariff**
Demand charges	Rs. 00.00	Rs.41,26,200
Energy charges	Rs.51,87,000	Rs.94,18,680
FCA charges	Rs. 8,63,571	Rs. 00.00
Total charges	**Rs.60,50,571**	**Rs.1,35,44,880**
Average unit rate	Rs. 5.37	Rs. 12.01

From the above, it is seen that the unit rate, which was earlier, Rs.5.37 has now increased to Rs. 12.01. The billing amount towards demand and energy charges has increased from Rs.60.50 lakh to Rs. 1.35 crore due to revision of tariff, and the rise is 123.86%. The intention of the Commission was not to give a tariff shock to the consumer to this extent. The reasons for this abnormal rise are that the demand charge was not applicable to this consumer earlier, it has now been levied @ Rs.260 per KVA per month. The energy and the FCA charges, which were totalling to Rs. 3.50 per unit have, however, been reduced to Rs. 2.55 per unit. The tariff minimum charge in the earlier tariff was 100 units per KVA per month which was coming to 19,00,000 units per month; in the new tariff it is coming as 36,93,600 units calculated on the basis of 30% load factor. Against this the average actual energy consumption of the petitioner during last eight months is 11,27,525. Thus, although earlier also the petitioner was required to pay extra for energy 19,00,000-11,27,525=7,72,425 units, but he was not required to pay any demand charge. Now, the petitioner is required to pay energy charges for 36,93,600 units against the average consumption of 11,27,525 units and over and above this, he is required to pay MD charge also @ Rs.260 per KVA, which alone comes to Rs.41,26,200 per month.

10. Obviously, the load factor fixed for this consumer for the computation of monthly unit charges has not been done on a realistic basis. The petitioner has a captive power plant of 15.5 MW capacity and is simultaneously drawing power from the CSEB for a contract demand of 19 MVA at 132 KV. His process is different and only two such plants, one of petitioner and the other of Jindal Steel and Power Ltd. are there in the State. They are using arc furnace technology and power plant utilizes hazardous blast furnaces gas which can not be emitted to the atmosphere. The load pattern demands very high MVA for a short period, but sustained consumption of power is very less. Once the arcing, which requires major support of CSEB's power for a duration of 10 minutes, there is no requirement of power from CSEB for the next 40 minutes; rather power is exported to CSEB. Thus, in a cycle of 60 minutes, support of additional power is required from the CSEB for 20 minutes and for rest of the time, no power or very less power is required from the CSEB and excess power generated by the petitioner is injected to the CSEB grid.

Although there can not be a differential tariff for one industry, the Commission is convinced that the petitioner's case is somewhat peculiar and different from other power-intensive industries. This is buttressed by the enquiry into the petitioner's load factor pattern.

11. Based on last eight months consumption (January 2005 to August 2005), the average load factor is found to be as 11.4%. If the load factor is decided to be maintained at 10% then the TMG unit comes to 12,31,200 as against the average consumption of 11,27,525 units which would appear to be reasonable though marginally more for which the petitioner has to pay the charges irrespective of his consumption. In that case the petitioner will still be required to pay the demand charges of Rs.41.26 lakh per month which he was not required to pay earlier, and Rs.31.39 lakh towards energy charges totalling to Rs. 72.65 lakh per month, as against Rs.60.50 lakh at the pre-revised tariff rate. According to this the average unit rate comes to Rs. 6.44 as against Rs.5.37 earlier, i.e. rise by about 20%. The request of the petitioner for reducing the demand charge to 33% on the ground that he draws power only for 8 hours and exports power to CSEB for 16 hours has no logic as the concept of demand charge has been introduced to recover the fixed charges. In this case, the CSEB has to remain prepared to supply power to the petitioner for 8 hours and the power not drawn or less drawn by the petitioner from CSEB can not be allotted to other consumers.

12. In view of the petitioner's peculiar pattern of power consumption, the Commission feels that the minimum guaranteed consumption of the petitioner should be different from the other industries in his tariff category and should be fixed at a much lower level. The Commission accordingly directs that the petitioner be required to guarantee a minimum monthly payment of charges of units equivalent to 10% load factor on the contract demand plus demand charges on the billing demand per month irrespective of whether any energy is consumed during the month or not. This will not adversely affect the income of the CSEB, as it will be earning Rs.10 lakh extra per month as compared to the pre-revised tariff. This will be further increased due to increased rate of low P.F. penalty.

13. As regards levy of power factor surcharge, the Commission has observed that in the earlier tariff effective from 01/03/1999, power factor penalty was payable on Maximum Demand in case of coal mines, cement industries and other industries and it was payable on consumption in case of Mini Steel Plants, Rolling Mills/Sponge Iron Plants. The charge was at a uniform rate in terms of Rs. per KVA or Rs. per unit. In the next tariff, it has been charged on percentage basis as follows:

(a) If the average monthly power factor of the consumer increases above 95%, he shall be paid an incentive at the following rate :

For each one percent increase by which his average monthly power factor is above 95%	-	One percent (1%) of the total amount of the bill under the heads of 'Demand Charge' and 'Energy Charge'

(b) If average monthly power factor of the consumer falls below 90%, he shall pay in addition at the following rate:

For each one percent by which his average monthly power factor falls below 90%	-	One percent (1%) of the total amount of the bill under the heads of 'Demand Charge' and 'Energy Charge'

(c) If average monthly power factor of the consumer falls below 85%, he shall pay in addition at the following rate :

For each one percent by which his average monthly power factor falls below 85%	-	Two percent (2%) of the total amount of the bill under the heads of 'Demand Charge' and 'Energy Charge'

It is seen that power factor penalty as well as incentive have been introduced on both maximum demand and consumption. In the earlier tariff there was provision of levy of penalty/incentive on either of the two. Hence, the issue needs to be studied in detail by the Commission to consider if as per the request of the petitioner levy of penalty should be either on consumption or on maximum demand and not on both. Since, incentive is also being given on both maximum demand and consumption, any decision on disincentive will affect incentive, which will also have to be restricted to either of the two. This will have effect on a much wider spectrum of tariff and hence the Commission would like to consider this issue separately. Till then the petitioner will make payment of power factor penalty as per the tariff order dated 15/06/2005.

14. As regards the levy of parallel operation charges, the petitioner has requested the Commission that the same may be considered along with other issues relating to CPPs in a petition which is already under consideration of the Commission. [Petition No. 17 of 2005 (M)] Till then the petitioner will have to pay the parallel operation charges as per the order dated 15/06/2005.

15. This review petition is thus partially admitted as above without prejudice to the other issues raised by the petitioner regarding power factor penalty and parallel operation charges. With this order, the interim order passed by the Commission on 09/09/05 becomes inoperative. The CSEB will issue revised bill based on this order giving 15 days time for payment by the petitioner and will also release the payment to the petitioner for the energy purchased which was withheld as per the interim order.

Sd/-
Member

Sd/-
Chairman

True Copy

(Ajay Srivastava)
Dy. Secretary