छत्तीसगढ़ राज्य
विद्युत नियामक आयोग

Chhattisgarh State Electricity Regulatory Commission
Civil Lines, G.E. Road, Raipur – 492001
Tel: 0771-5073555, Fax-5073553

Petition No.14 of 2005

The Chhattisgarh Steel Re-Rollers Association Ist Floor, Sona TowerOpp. Deshbandhu Press, Ramsagarpara, Raipur.	-	Petitioner

Versus

The Chhattisgarh State Electricity Board (CSEB) Dangania, Raipur.	-	Respondent

Petition No.15 of 2005

The Chhattisgarh Udyog Mahasangh Punjabi Colony, Katora Talab Raipur.	-	Petitioner

Versus

The Chhattisgarh State Electricity Board (CSEB) Dangania, Raipur.	-	Respondent

ORDER
(Passed on 12.08.2005)

The Chhattisgarh Steel Re-Rollers Association, Raipur and the Chhattisgarh Udyog Mahasangh, Raipur have both filed petitions under clause 21, 22, 23 and 33 of the CSERC (Details to be furnished by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 (the Tariff Regulations, for short) read with Sec. 64(2) of the Electricity Act, 2003 (the Act, for short) for review of the tariff decided for the rolling mills and the other HT industries respectively, in the tariff order for the year 2005-06 passed by the Commission on 15th June, 2005. in petition No. 5/2005 Although they belong to two different categories of consumers for the purposes of tariff, since both the petitions have raised similar issues they are being taken up together.

2. The Chhattisgarh Steel Re-Rollers Association, which is the representative body of the steel re-rolling industry in the State, submitted the review petition on 21st July, 2005 (registered as Petition No.14 of 2005) in which they have raised a number of issues concerning the tariff order of the Commission aforementioned,

including their basic concern about the alleged high increase in the tariff applicable to this industry.

3. The Chhattisgarh Udyog Mahasangh, which represents industries in the State, in their review petition filed on the same day (registered as Petition No.15 of 2005) have raised more or less similar issues. In fact, but for minor variations as required for the industries they represent, the petitions are more or less the same.

4. Since they were in the nature of appeal and not of review, these could not have been considered as review petition under clause 33 of the Tariff regulations. Clause 33 lay down that a petition for review can be admitted by the Commission if *'there is an error apparent on the face of the record'*. The petitioners, therefore, revised their plea before the Commission and pleaded for review of the tariff concerning the industries they represent. The review petitions were admitted for consideration of only the tariff issue.

5. The Re-Rollers Association has sought a review of the tariff order as applicable to them on the following main grounds:

(i) The rolling mills, which constitute an important segment of the industries of this State (there are about 100 rolling mills) generally have a low load factor as they operate mostly in one shift during the day. Their connected load, however, is generally high because of the nature of their requirement in which MD may be attained but the average consumption is low. Therefore, there is a clear divergence between their contract demand and the actual consumption of electricity because of the nature of the industry.

(ii) For the purposes of tariff they have been included in power intensive industries (HV-5) and this category includes industries upto 20 MVA CD, such as mini steel plants, sponge iron plants, ferro alloys etc. While from the contract demand point of view rolling mills may appear to be power intensive industries, their low load factor sets them apart from other steel industries they have been grouped with for the purposes of tariff.

(iii) Before tariff revision most of the rolling mills availed power under slab tariff and some under two-part tariff. There was no demand charge for slab tariff and they were charged only for their energy consumption. The Commission by grouping them together with other steel industries has imposed a demand charge and has further specified a monthly minimum charge which is equivalent to the demand charge on contract demand, whether energy is consumed during the month or not. This has hit the industry hard and the tariff applicable to them has gone up by 15% to nearly 50%.

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(iv) The Commission has apparently overlooked the nature of consumption of energy by this industry because there is higher load factor incentive provided for consumers in this category while it is well known that generally the load factor of rolling mills is never more than 25 to 30% because of their single shift operation.

The petitioner has pleaded for reintroducing slab tariff and doing away with demand charges altogether or reducing the demand charges by at least 50% on the above grounds.

6. The contention of the Udyog Mahasangh in the second petition is similar. The Mahasangh, which represents mostly small industries, has prayed for review of the tariff order of the Commission in so far as it relates to other HT industries (HV-6) on the following grounds:

(i) The 'other HT industries' category includes all industries which do not fall in the HT tariff category of railway traction, coal mines, cement factories, heavy industries and power intensive industries. Since the last category includes mostly steel industries, all industries in the State other than steel industries availing power on high voltage will fall in the category of HV-6. These include industries with high load factor as also those with very low load factor and with seasional load accounting for low load factor.

(ii) Such industries had mostly opted for slab tariff earlier, which had no demand charge and hence the industries were charged only for the energy consumed. The load factor was not material for them under this tariff regime. But since they have now been categorised under HV-6 they are required to pay a demand charge which is very high at Rs.340 per KVA\month and Rs.350 per KVA\month for 33 and 11 KV supply respectively. Besides, a monthly minimum demand charge has been imposed which is the demand charge on contract demand whether energy has been consumed during the month or not. This has adversely affected the small industries with low load factor and their tariff has gone up, in some cases, to more than 50% resulting in a tariff shock.

7. The CSEB, respondent in both the petitions, have mainly raised the issue of the affect any review of tariff would have on their revenue requirement for the year. Their general argument is that the tariff fixed by the Commission for these industries is in order and does not call for any review. The CSEB did not file any written reply.

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8. The Commission has carefully examined the pleadings of the two petitioners which, as already mentioned, are similar in nature. The Commission is of the view that generally the tariff orders for any consumer category should not be reviewed as it might have an effect on the annual revenue requirement of the utility and may undo the rationalisation of tariff attempted by the Commission in the tariff order. But on careful consideration of the position brought out in these two petitions and the detailed information furnished by the industries' associations, the Commission considers the tariff orders fit for review on the grounds discussed in the following paragraphs.

9. So far as the **re-rolling industries** are concerned their main case for review of tariff is their low load factor. It is generally recognised that these industries are not highly mechanised and are labour-intensive and run only on one shift during day time. This is borne out from the load factor position of a large number of such industries furnished by the petitioner association, as also from the information obtained from the CSEB. On the other hand, their contract demand can not be reduced to better their load factor position because of the nature of the industry. It is inherent in the industry that it can not attain a high load factor in their consumption of power because of their limited operation.

10. Most of these industries - about 80% to 90% of them - had earlier opted for slab tariff before the present tariff revision, which had no demand charge. Most of these industries availing power at 33 KV will have to now pay demand charge of Rs.275 KVA\month. There is thus a sudden and substantial increase in tariff on account of the minimum demand charge fixed irrespective of energy consumption. As per the calculations made by the association which have been verified by the Commission, this would have an impact of raising the tariff by 15% to almost 50% which has not been the intention of the Commission in the tariff design and which would adversely affect this important industry in the State.

11. There is an apparent incongruity in the tariff design as applicable to this industry. In the tariff design (chapter 6, para 6.13.5) it has been stated that in restructuring the tariff of industries included under the category (power intensive industries), *'there is some reduction in ferro alloy units as these are highly power intensive, whereas for rolling mills there is only a marginal rise in the tariff which, however, is sought to be compensated to an extent by higher load factor incentive'*. As has already been mentioned because of their lower load factor these industries can not ever avail of the higher load factor incentive which commences as 50% load factor. It would, therefore, be necessary to treat rolling mills differently from other power intensive industries included in this tariff category (HV-V) and the tariff applicable to them revised.

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12. **Other HT industries** are a mix of industries having high load factor and low load factor, depending on their nature. However, such HT industries which have low load factor and hence had opted for slab tariff earlier would be hit because of the demand charges which in their case is rather high, at 33KV supply it is Rs.340 and at 11 KV supply it is Rs.350 per KV\month. There is also the monthly minimum demand charge based on the contract demand irrespective of the energy consumed during the month as is also the case with rolling mills. The high demand charge would cast a very heavy financial burden on the other HT industries with low load factor. There are many industries in this group which had earlier opted for two-part tariff. The demand charge for them under two-part tariff was Rs.130 per KW\month. The rise in the demand charge would affect such industries.

13. It is relevant to mention here that the tariff for other HT industries (HV-6) has been designed on the basis of an average load factor of 40. Industries which work on single shift can not achieve this load factor. There is thus a case for reduction in demand charge for such industries.

14. Section 62(3) of the Act mandates that the Commission while determining the tariff shall '*not show undue preference to any industry but may differentiate according to the consumers' load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required xxxxxxxx'.* In both the above cases there are sufficient grounds to invoke the provision of the Act to review the tariff prescribed for them in the tariff order.

15. The two important matters to be considered next are (i) what should be the tariff for such low load factor industries; and (ii) what impact would it have on the ARR of the CSEB as determined by the Commission.

16. There is clearly no going back to slab tariff which does not have any fixed cost. However, the whole case is based on the incidence of demand charge which needs to be reduced. Secondly, the proposed tariff should also take into consideration a fact the petitioners have brought out, that these industries work in single shift and are operational only during the day time roughly between 6.00 a.m. to 6.00 p.m. Thirdly, load factor should be an important consideration in the determination of tariff for these industries. However, it is not practicable to fix tariff on the basis of load factor. In case of the rolling mills the question of a threshold load factor becomes relevant which is difficult to arrive at considering the wide variance in load factors shown in the data furnished by the petitioners as well as the respondent in both the cases. The Commission is, therefore, inclined to fix a tariff which has substantially low demand charge and slightly higher energy charge and which is applicable to industries which run on single shift basis during the day time.

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17. In the light of the discussion above, it would be necessary to create a new consumer category under HT tariff. This is being created as HV-6A as per annexure-1 to this order. This tariff will be optional for HT industries covered under HV-5 and hV-6. The tariff will be treated as part of the tariff order of 15.06.2005 and will also be applicable with effect from 1st July 2005.

18. How is the new tariff likely to impact on the revenue requirement of the CSEB for the year is the question to be addressed next. In Chhattisgarh the other HT industries are about 200 to 250 in number and the rolling mills are about 100. As per the Commission's calculations their consumption would be roughly about 200 MW. With the proposed revision in tariff on an average basis the Board is likely to loose about Rs.6 crore of revenue annually. However, since the tariff is applicable only for consumption during the day time, there would be a peak load saving of about 100 MW to the Board in the evening peak hours. This would result in saving to the Board by way of either lesser purchase of electricity or, most likely, avoidance of higher UI charges, which averages to about 80p. per unit. That may largely offset the anticipated loss of revenue. In case the industries draw power after 6.00 p.m. they would be required to pay 30% extra because of the peak load tariff. That should take care of the cost of extra consumption, if any, during the peak hours beyond 6.00 p.m. The Commission, therefore, feels that the new tariff category being introduced by this order would not materially affect the ARR of the utility as determined by the Commission in the tariff order.

19. This disposes off both review petitions Nos. 14 and 15 of 2005.

Sd/-
Member

Sd/-
Chairman

True Copy

(Ajay Srivastava)
Deputy Secretary

ANNEXURE -1

HV-6A: H.T. INDUSTRIES WORKING WITH LOW LOAD FACTOR

1. Applicability

This tariff is applicable to all HT industries covered under HV-5 and HV-6 working during day time only, between 6:00 A.M. and 6:00 P.M. as an **optional** tariff for power, lights, fans, coolers, etc. which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein. The tariff will be made applicable by the CSEB/licensee if option is exercised within 30 days by submitting an application in the office of the concerned Superintending Engineer of the area. In that event this tariff will be made applicable from 01/07/2005. In case, no option is exercised for electing this tariff by any HT industry, he will remain in the same category where he is presently placed. After electing this tariff, if any industrial HT consumer on account of some reasons wants to go back to the earlier tariff, this facility shall be available to him only once during the currency of this tariff.

2. Character of Services

Alternating current, 3 phase, 50 hertz., 33 KV or below depending upon the availability of the voltage of supply and at sole discretion of the CSEB/licensee.

3. Tariff

	Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KWh)
HV-6A	Industries working with low load factor		
6A.1	33KV Supply	175	3.25
6A.2	11KV Supply	185	3.30

4. Minimum Charge

<u>For 33/11 KV Supply</u>

The demand charge on contract demand is a monthly minimum charge whether any energy is consumed during the month or not.

5. Additional Energy charge for use beyond specified period

This tariff is applicable to HT industries, which use power during day time between 6:00 A.M. and 6:00 P.M., In case, they draw any power beyond the specified period, the energy consumed shall be charged at one hundred and thirty percentage (1.3 times) the normal rate of energy charge applicable to the consumer as per the following table:

1. Demand Charges	**Normal rate of Demand Charge**
PLUS	
2. Energy Charge	
Period of Energy Consumption	**Rate (Rs. per unit)**
(i) Normal period (Between 6:00 a.m. and 6:00 p.m.)	normal rate of Energy Charges
(ii) Beyond above period (Between 6:00 p.m. and 6:00 a.m.)	130% of normal rate of Energy Charge

For the purpose of billing of additional energy charge, the CSEB/licensee shall ensure installation of time of day meters and such consumers shall not be entitled to TOD tariff as provided in clause 12 of Tariff Schedule for HT consumers.

The supply availed beyond specified period in any month shall be charged along with the monthly bill and shall be payable by the consumer.

6. Determination of the Demand

The maximum demand of supply in each month shall be four times the largest number of Kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.