

**Before the Appellate Tribunal for Electricity
(Appellate Jurisdiction)**

Appeal No. 130 of 2005

Dated the July 10 ,2006.

Present: - Hon'ble Mr. Justice Anil Dev Singh – Chairperson
Hon'ble Mr. H.L. Bajaj – Technical Member

South East Central Railways, Chhattisgarh ... Appellant

Versus

Chhattisgarh State Electricity Board ... Respondent

For the Appellant : Mr. Yogesh Partaity (Rep. For SEC
Railway),
Mr. Manoj Verma (Rep. For CRISIL)
Mr. S. Blakrishnan, Rep. CRISIL
Mr. Umesh Agrawal
Ms Uma
Mr. Neeraj Atri

For the Respondent : Mr. M.G. Ramachandran,
Ms Taruna Singh Baghel and
Ms Saumya Sharma for CSERC
Mr. Valmiki Mehta, Sr. Advocate
Ms Suparna Srivastava for CSEB

JUDGMENT

The appeal is directed against the order of Chhattisgarh State Electricity Regulatory Commission (CSERC/Commission) dated June 15, 2005, whereby the CSERC has fixed tariff for the supply of electricity to the appellant under the HV-I: Railway Traction at 220 kV / 132 kV Category of consumers.

2. The facts leading to the appeal briefly stated are as follows:-

3. South East Central Railways (SECR/Railways) is a bulk consumer of electricity of Chhattisgarh State Electricity Board (CSEB/Board). Railways draw electricity on 220 kV and 132 kV at 12 traction sub stations for the trains hauled by electric locomotives. The respondent Board filed a petition to the CSERC for Annual Revenue Requirements (ARR) and tariff for the year 2004-05 on January 31, 2005. Railways filed draft objections to the ARR and Tariff Filing of the Board before the CSERC on April 2, 2005 in order to reduce the ARR of the Board so as to bring down the average cost of supply and thereby reducing tariff applicable to the Railways. Appellant, Railways also filed a comprehensive petition to CSERC on April 12, 2005 incorporating justification and rationale for its objections to the ARR and the tariff filed by CSEB. CSERC issued order on the ARR and tariff filed by CSEB on June 15, 2005 in which according to Railways, issues raised by them for reduction in ARR and tariff charged to Railways are not adequately addressed and hence this appeal.

4. Aggrieved by the orders of CSERC dated June 15, 2005, the appellant has sought the following reliefs:-

- (i) Reduce the Annual Revenue Requirement of CSEB based on the submissions made by Railways
- (ii) Reduce Railway Traction tariff to Rs. 2.00/kVAh and Monthly Minimum Charges should not be levied on Railways.
- (iii) CSEB be directed to generate a single consolidated bill for all the connections in a particular location of Railways.
- (iv) Since the Railways is a bulk buyer of power from the CSEB and makes all its payments promptly after receiving the bills, the CSEB should give a rebate to the Railways for making prompt payments.
- (v) The CSEB be directed to give a discount to the Railways over a certain minimum specified level of consumption in the same manner as prevalent in Maharashtra.
- (vi) The leading power factor be blocked for determining the average power factor.

5. The appellant has represented that Railways is the biggest single consumer of CSEB with total contract demand (in January, 2005) of the order of 185 MUs and annual electricity consumption of around 450 MUs. The appellant had taken keen interest during the tariff setting process by CSERC. The appellant had also submitted its objections and suggestions on the ARR of CSEB for the year 2005-06. It had even analysed the expenditure projected by CSEB and attempted to compute a reasonable level of expenditure that could be allowed so that CSEB's operations are managed efficiently and thereby resulting in reduction in tariff. Railways also submitted that the tariff should be rationalized and cross subsidy should be reduced progressively. The suggestions/objections raised by Railways are summarized as below:-

- *CSEB should improve generation performance to reduce reliance on costly power purchase and passing on the benefits to the consumers through lower tariff.*
- *The cost of power purchase from traders as projected by CSEB should not be allowed.*
- *R&M expenses proposed as 11% of GFA for generation and at 6% of GFA for transmission and distribution are very high*
- *Employees expenditure and A&G are very high compared to other states.*
- *Depreciation @ 4.6% of GFA for generation and 7.5% of GFA for transmission and distribution is high compared to CERC norms.*
- *Interest paid on new market borrowing (31% for transmission and 15% for distribution) is abnormally high.*
- *CSEB's petition is silent in the matter of collection efficiency which should be fixed by the Commission.*
- *Only variation in the fuel cost should be a pass through under fuel surcharge formula, but not the variation in the fixed cost and other uncontrollable cost.*
- *The average billing rate for Railways (including FCA) works out to Rs. 4.46/kWh, is very high and needs to be reduced.*
- *Effective tariff for Railway Traction proposed to be reduced from Rs. 4.25/kWh to Rs. 4.19/kWh (1.5%) is grossly inadequate and should be further reduced significantly.*
- *For Railway staff quarters and individual occupants the rate should be charged on the basis of lower tariff applicable to normal consumers of CSEB.*
- *Monthly minimum charges for Railways equivalent to 25% load factor at 0.85 PF, should not be levied.*
- *Railways should not be penalized for attempting to achieve a power factor of unity in the process of supplying leading kVARh to the system and leading power factor should be blocked.*

6. The Commission, while determining the tariff for Railways, formulated the following tariff design:

“6.13.1 Railways traction

- a) *Railway traction being one of the highly subsidizing and the largest consumer, efforts have been made to restructure its tariff in such a way that on a normal working load factor, there is a reduction in the average tariff.*
- b) *The condition of minimum 30% load factor on contract demand for calculating monthly minimum charges has been relaxed to 25% on an average power factor of 0.9*
- c) *KVAh billing is being introduced for the first time only for this category, which will automatically take care of the power factor incentive/disincentive”.*

7. Based on the above tariff design, the respondent No. 2 Commission by its order dated June 15, 2005 determined the tariff for the appellant for the year 2005-06 as under:

“HV-1:RAILWAY TRACTION

1. *Applicability*
This tariff is applicable to the Railway for Traction loads only.
2. *Character of Service*
Alternating current (A.C.), two phase, 50 hertz, 220 KV or 132 KV
3. *Tariff:*

	<i>Category of consumer</i>	<i>Demand Charge (Rs./KVA/month</i>	<i>Energy Charge Rs. Per KVAh)</i>
<i>HV-1</i>	<i>Railway Traction on 220 KVA/132 KV</i>	<i>300</i>	<i>2.80</i>

4. *Minimum charge*

The consumer will guarantee a minimum monthly payment of energy charge of the units (kVAh) equivalent to 25% load factor of the contract demand plus the demand charge on the billing demand for the month irrespective of whether any energy is consumed during the month or not. An average power factor of 0.90 will be applied for the calculation of corresponding units at 25% load factor on contract demand.

5. *Determination of Demand*

The maximum demand of the supply in each month shall be four times the largest number of Kilo Volt Ampere hours (kVAh) delivered at the point of supply during any consecutive 15 minutes during the month as per the sliding window principle of measurement of demand. “ Provided that if as a result of an emergency in the consumer’s installation or in the transmission lines supplying energy to the said traction sub-station, extra load is taken by the consumer with prior intimation to the licensee, the period of such emergency shall not be taken in to account for the purpose of working out the maximum demand”.

Provided further that if as a result of emergency in the traction sub-station (TSS) or in the transmission line supplying power load of the TSS or part thereof is transferred to adjacent TSS, the maximum demand (MD) for the month shall not be taken as less than the average MD recorded for the previous three months during which no emergency had occurred.

6. *The condition of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh”*

8. The Commission issued the final tariff order dated June 15, 2005 for determination of ARR and revised supply tariff for Financial Year 2005-06. Grievance of Railways is that their concern regarding reduction in ARR and Railway Traction Tariff has not been adequately addressed in the tariff order which is contrary to Section 61 (g) of the Electricity Act, 2003 as the Commission has taken no steps to reduce the amount of cross subsidy. The appellant also made a presentation on various issues raised by them.

9. Per contra, learned counsel for the respondents pointed out that the main thrust of Railways has been on the reduction of the ARR and the tariff of CSEB. They submitted that, as it is evident from the documentary submissions made by the appellant, the suggestions made by Railways are not based on any authentic data or detailed study and that, on the contrary, these appear to be fully shadowed with individual interest. They submitted that the Commission has already reduced the requirement of revenue under various heads wherever found appropriate and reasonable. Whereas, CSEB had shown a gap of about Rs. 114 crores in its ARR, CSERC, after reviewing the expenditure in details, had reduced the gap to a sum of Rs. 46 crores only. This, in effect, resulted in reduction of Rs. 68 crores in the ARR.

10. It was represented by CSEB that the Commission had determined the actual average cost of supply at Rs. 3.45 per unit. As such, the demand of the appellant for its tariff determination at Rs. 2 kVAh not only borders on absurdity but also it will result in severe financial loss to the respondent Board who is enjoined to supply electricity to a public utility such as the Railways.

11. CSEB further submitted that the levy of monthly minimum charges in terms of the Tariff Order dated 15th June, 2005 is justified and is in accordance with the provisions of Section 45(3)(a) of the Electricity Act, 2003, and therefore, tariff order cannot be faulted. It was also submitted that there are different methodologies in practice to recover the fixed component of expenses incurred towards making power supply available at all times to the extent of required quantum irrespective of actual use of energy by the consumer as given below:-

- (i) Charging of fixed component of expenses fully in terms of fixed charges proportionate to contract demand/contracted load
- (ii) Charging of fixed component of expenses partially in terms of fixed charges proportional to contract demand/contracted load and partially with minimum guaranteed consumption.
- (iii) Charging of fixed component of expenses fully in terms of minimum guaranteed consumption.

12. Respondent Board submitted that the appellant's demand for generating a single consolidated bill for all the connections in a particular location of Railways is not practical demand. It was submitted that such a demand is tenable only when the appellant agrees to avail supply at one point only. Otherwise, every individual connection has its own legal identity and thus every connection is required to be billed separately. It was further stated that demand for raising consolidated bills by the

respondent is not a tariff related issue and therefore, is not relevant for the purpose of the present appeal.

13. The appellant's demand for a rebate from CSEB on making prompt bill payments, is also a non-tariff related issue, besides being unjustified and untenable. Respondent submitted that the CSEB supplies electricity in advance and raises the bill after consumption. The bill so generated is payable after 21 days without any penalty. Thus, benefit on payment is also made available to the appellant, and it is a settled position that a commodity availed on credit cannot be devalued further.

14. CSEB submitted that the demand of Railways for a discount over certain minimum specified level of consumption could be considered by CSEB if Railways enhance the consumption beyond 50% load factor.

15. Respondent Board submitted that demand of Railways for blocking of leading power factor for determining the average power factor is not discerning as, irrespective of the power factor, under the present tariff, Railways is not required to pay any penalty on account of low power factor.

16. We have heard the learned representatives of the appellant and counsel for the respondents. Presentations have been made and written submissions also provided to us by both the appellant and the respondents. Following are the issues that arise for our consideration in this appeal:

- (i) Has the Commission adequately addressed the suggestions and objections raised by the appellant on the ARR of CSEB for the year 2005-06?
- (ii) Has the element of cross subsidy been brought down for the tariff for Railways?
- (iii) Why monthly minimum charges should be levied on Railways?
- (iv) Is there need to block the leading power factor for determining average power factor.?
- (v) Can the Railways generate a single consolidated bill for all connections for a particular location in Railways?

17. Having framed the issues that arise in the appeal, we now deal with each issue in the following paras:

(i) Has the Commission adequately addressed the suggestions and objections raised by the appellant on the ARR of CSEB for the year 2005-06?

(a) One of the major contentions of the appellant has been that the objections and suggestions made by Railways on the CSEB's ARR proposals have not been adequately addressed by the Commission. In this regard we have heard the respondents and considered the presentations made by them. From the tariff order dated June 15, 2005 we notice that separate hearings were also given by the Commission to Railways to elicit and address their objections and suggestions.

(b) The Commission in its presentation to us held that it had judiciously and diligently scrutinized the objections of the CSEB on various points and issues brought out by the Railways. That is how the gap of Rs. 114 crores demanded by the CSEB was reduced to Rs. 46 crores only and the overall tariff increase was allowed to meet this reduced gap only, stated the learned representative of the Commission.

(c) The Commission has discussed point-wise all the objections and suggestions made by the appellant. For example we notice that the objection regarding the coal price raised by the appellant has been addressed at page 33 of the CSERC tariff order F.Y. 2005. The appellant had objected that in the ARR the increase in coal price has been estimated as 10% during the Financial Year 2005-2006 over the price prevailing as on March 31, 2005. At the same time CSEB has also proposed future adjustment in tariff due to increase in fuel price from time to time during the proposed variable cost adjustment formula, effective from January 4, 2005. In view of this the increase shown in coal rate in ARR for the F.Y. 2005-06 is not justified. The Commission's views on the issue are given below:

The objection is valid. The Commission has allowed the cost of coal at current rate with increase in fuel price

during the year to be passed on to the consumer through a Variable Cost Adjustment Formula as described in Chapter 7.

(d) Another important suggestion made by the appellant to the Commission was that CSEB should undertake measures for demand side management and bring down the load requirement of the grid accurately for efficient grid management. This would help curbing the amount paid for UI charges and the consumer should not be charged for the UI charges being paid by the Board utility. To this suggestion the Commission has responded as under:

CSEB pays for UI charges for overdrawal from the Central Generating Station. These charges range from 6 P. per unit for overdrawals at frequency below 50.5 Hz to 570 P. per unit for frequency below 49.02 Hz. The Board is paying heavily towards UI charges which in F.Y. 2005-06 has gone up to Rs. 90 crores. However, in the present scenario of the power shortage in the state, which is about 15-20% of the total demand, the Board has to buy power from all available sources, including the costly sources, such as PTC and other traders, at a higher rate in order to maintain adequate supply in the state. The purchase of power from PTC and others at Rs. 3.30/ unit and also payment of high UI charges has pushed up the average cost of power and hence of supply. The Commission feels that the Board should seek and obtain cheaper power from within the state. It should also explore the possibility of obtaining more power from captive power plants located in the state through open tenders. Other sources like unallocated power of the central sector should also be explored. Secondly, the Board should manage the demand during peak hours so as to reduce the high UI charges it is paying at present. More accurate demand forecasting, demands side management and energy audit will help the Board in tiding over the present power shortage to a large extent till new generation capacity is added, which is expected by F.Y. 07. Thirdly, load shedding should be designed and managed in a better way. It is observed that in spite of the load shedding regime, which has been introduced after repeated directions of the Commission, it is inadequate to manage the demand and supply gap. The

Board will be well advised to create a small cell, comprising both distribution and generation functionaries, to plan such management, implementation and monitoring of the load shedding after obtaining the approval of the Commission. The Board is directed to restrict the peak demand by obtaining relief through load regulatory measures and avoid paying high UI charges for overdrawal, not below 49.5 Hz frequency. In case of any exigency, if overdrawal below 49.5 Hz is unavoidable then the Commission must be kept informed. The Board is also directed that any purchase of power should not be made at overall purchase rate of higher than Rs. 3.30 per unit.

(e) From the abovementioned two illustrations on how the Commission has addressed various suggestions/objections made by the appellant, the Commission seems to have given due consideration to Railways' suggestions/objections and has adequately addressed various concerns of the appellant. Commission, after careful scrutiny of the ARR of the CSEB and taking into account various objections and suggestions on ARR has reduced the gap of Rs. 114 crores to Rs. 46 crores thereby curtailing the gap by Rs. 68 crores and thus limiting the tariff increase.

(f) In view of the above illustrations, we are of the opinion that the Commission has in fact, adequately addressed and considered the concerns of the appellant.

(ii) Has the element of cross subsidy been brought down for the tariff for Railways?

(a) The appellant made a presentation before the Tribunal praying that the effective tariff applicable to Railways may be brought down to the level of appellant's average cost of supply for Railways. The appellant also relied upon Article 287 of the Constitution of India, which as per the appellant, advocates for lower tariff for Railways compared to other HT consumers. In order to appreciate the submission of the appellant we need to set out Article 287 which reads as under:

Article 287:

Exemption from taxes on electricity. Save in so far as Parliament may by law otherwise provide, no law of State shall impose, or authorize the imposition of, a tax on the consumption or sale of electricity (whether produced by Government or other persons) which is-

- (I) *consumed by the Government of India, or sold to the Government of India for consumption by that Government; or*
 - (II) *consumer in the construction, maintenance or operation of any railway by the Government of India or railway company operating that railway, or sold to that Government or any such railway company for consumption in the construction, maintenance or operation of any railway. and any such law imposing, or authorizing, or authorizing the imposition of, a tax on the sale of electricity shall secure that the price of electricity sold to the Government of India for consumption by that Government, or to any such railway company as aforesaid for consumption in the construction, maintenance or operation of any railway, shall be less by the amount of the tax than the price charged to other consumers of a substantial quantity or electricity.*
- (b) Article 287 exempts the Railways from tax on consumption of electricity until the Parliament by law otherwise prescribes. The Article does not deal with tariff much less with the plea of the appellant that it provides for lower tariff for Railways as compared to other HT consumers.
- (c) It is confirmed by the respondent Board, that no electricity duty is charged from the Railways (copy of some bills submitted).
- (d) The appellant has pleaded that Railways should be charged a reasonable tariff in view of the following:

Railways Recognizes Social Obligations of Power Sector

Freight charges for the Bulk coal (Train load class 140) used by Power Plants is lower than other bulk items like iron or steel, non-ferrous metals, even LPG etc. (Train load class 180)

Railways has given special freight concessions to South Eastern Coal fields Ltd. (SECFL) and Mahanadi Coal Fields Ltd. (MCFL) (which supplies coal to NTPC/CSEB), as its premier customer.

Low operating expenses of Railways will ultimately reflect into lower freight cost to the power sector.

- (e) The appellant drew our attention to the fact that Railways is one of the cross subsidizing consumer of CSEB. The appellant pleaded that cross subsidy should be progressively reduced on lines of the spirit of the Electricity Act, 2003 and tariff should reflect cost of service for the consumer. In this regard appellant has relied on Section 61 of the Act which states as under:

“ The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following namely:-

...(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission”.

- (f) Representative of the appellant argued that Railways draw power at 132 kV from CSEB at which level, distribution losses are significantly less (3%). Average cost of supply for Railways at 132 kV will be less as compared to other consumers who are supplied at lower voltages. Representatives of Railways, in this regard, quoted Section 62(3) of the Electricity Act, 2003 which states as under:-

“The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer’s load factor,

power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required”.

- (g) Appellant protested that CSERC has assumed maximum demand as 75% of the contracted demand rather than 100% (Average of maximum demand for last year for S.E.C. Railway is 92% according to the appellant. Appellant went on to state that misplaced assumption has caused increase in the effective tariff by 8.15% than the tariff proposed by CSEB.
- (h) The appellant’s further contention is that instead of reducing the cross subsidy, CSERC has increased the cross subsidy burden on Railways in the form of higher tariff. Cross subsidy by Railways is 71 paise per unit, the highest in the HT category consumers. The cross subsidy element will be even higher in case “Cost of Supply” for EHT supply to Railways, which CSEB is yet to compute.
- (i) On the other hand the Commission and CSEB, both respondents, have brought to our attention the following special facilities being extended and the harmful effects on its power system due to the Railways Traction load which warrants payment of higher charges by Railways:
1. Supply on two phases is given, which induces imbalance in the system.
 2. Load can be reduced or enhanced at any time on 6 weeks’ notice and without formal sanction, unlike other H.T. Consumers.
 3. In case of emergency, load of a connection can be shifted to adjacent connections by simply informing CSEB. Additional charges for enhanced load in such cases are not levied.
 4. No load sheddings, no power cuts unlike other HT consumers.
 5. Traction load transmits fluctuations and harmonics which are harmful to system and

generators, resulting reduction in life of equipment and generators. These are absorbed by the system of CSEB and no extra charge is levied for these harmful injections by the traction load of Railway. In fact, Railways should install static var compensation devices at their cost to absorb these. CSEB has not been insisting for installation of these.

6. kVAh tariff introduced for traction which automatically takes care of penalty/incentive on power factor.

(j) The Commission has brought to our notice that it has special design of tariff for Railways as under:-

1. The variables in billing of a connection –
 - a. Demand in kVA recorded in meter as compared to the contracted demand (CD).
 - b. Energy consumption in kWh (units) or kVAh (in case of traction connections – w.e.f. July 1, 2005)
 - c. Power factor as compared to standard laid down as 0.9

2. As the demand of consumer keeps on varying, a flexibility up to 75% of the contract demand is allowed in the tariff orders.

3. Minimum charge has been reduced from equivalent units for 30% load factor to 25% load factor plus demand charge on billing demand.

4. Although demand charge has been increased but the energy charge has been so reduced that the equivalent tariff remains the same.

(k) The respondent Commission has pleaded that in view of the following social obligations and the compelling circumstances of CSEB it may not be possible for it to eliminate cross subsidy at this stage in one go and reduce tariff for Railways:

1. Essential part for the growth and development of Backward State.
2. Has responsibility to cater electricity to various types of consumers even in remote villages in forest and unapproachable terrain.
3. Supplies power to about 8 lacs L & F consumers of below poverty line/Scheduled Caste/Scheduled Tribe and of economically weaker sections at the rate much below the cost of supply.
4. As per the Electricity Act, 2003, National Electricity Plan and National Tariff Policy:-
 - i) Access of electricity to all the households by 2010, electrification of 56% rural households.
 - ii) Demand of consumers to be fully met by 2012.
 - iii) Per capita availability of electricity to be increased to over 1000 units by 2012.
 - iv) Financial turn around and commercial viability of Electricity Sector.
 - v) Loss making utilities need to be transformed into profitable ventures.
 - vi) Massive work of rural electrification.
 - vii) One power transformer for each development block.
 - viii) One distribution transformer in each village.
 - ix) Subsidized tariff to households below poverty line. Tariff to be 50% of cost of supply.
 - x) Creation of 5% spinning reserve in generation.

- (1) Having heard the parties, we now proceed to examine the impact of the impugned order on the tariff of the appellant. The following table, based on the data as per CSERC tariff order for the year FY 2005, gives an overall perspective for the FY 04, FY 05 and FY 06:

	FY 2004	FY 2005	FY 2006
Average cost of supply in Rs. Per unit	3.00	3.53	3.45
Average Tariff for Railway Traction in Rs. Per unit	4.48	4.22	4.16
Cross subsidy as % of Average Cost of Supply	49%	20%	20%

- (m) From the above table it is clear that as per CSERC cross subsidy element contribution by Railways remain at 20% during FY 2005 and FY 2006. During FY 2005 it was brought down from 49% in FY 2004 to 20% in FY 05.
- (n) The appellant has contested the figures of average tariff for Railways @ Rs. 4.22 and 4.16 for years FY 05 and FY 06 on the ground that CSERC has assumed demand factor as 75%, load factor at 33% and power factor as 0.9%. According to the appellant the assumptions are not correct. It was submitted by the Railways that for the last three (3) years demand factor is over 95%.
- (o) In our view, it may not be necessary to debate the veracity of the demand factor as CSEB has furnished the actual sample energy bills excluding surcharge for delayed payments which takes into account the actual demand for the months of July to December, 2004 and July to December, 2005. Per unit average tariff for the period from July to December, 2004 is Rs. 4.53 as per old tariff and for the period July to December, 2005 is Rs. 4.41 as per the new tariff.
- (p) Railways have argued that tariff presented by CSEB is erroneous and does not include surcharge due to deviation from the sanctioned maximum demand and power factor. Statement given by CSEB compares

amount arrived at after deducting surcharge due to maximum demand penalty and power factor penalty from the actual bills.

- (q) Per contra, it has been clarified and confirmed by the respondent Board that the above comparison gives the effective rates for the appellant from the actual energy bills raised on it under the prevailing tariff and under the tariff order dated June 15, 2005 which clearly demonstrates that the impugned tariff order has, in fact, actually, reduced the tariff to be charged by the respondent Board for the appellant. Impact due to Contract Demand and Recorded Maximum Demand have also been factored in the working of per unit rates above.
- (r) In view of the clarifications given by the respondents we are satisfied that the Commission, in determination of tariff for Railways, has so restructured the tariff that on a normal working load factor, there is reduction in the average tariff as is evident from the per unit reduction from Rs. 4.53 to Rs. 4.41 with the revised tariff during July to December, 2005. We also note that special facilities which do justify additional charge as enumerated by the respondents have to be provided for the Railway traction load without any load shedding.
- (s) Respondent Commission conceded that as per the National Tariff Policy, tariff are to be brought to plus minus 20% of the average cost of supply by the end of 2010-11. The tariff for Railways, at present is nearly 20% higher than the average cost of supply. Tariff of Railways has not been increased during the last 6 years and has been maintained almost at the same level.
- (t) We also note from the following comparison, even the average cost per kVAh for the period July to December, 2005 and the average cost per kVAh for the period July to December, 2004 is almost equal.

5. (a) Earlier Tariff w.e.f. 1..3.1999	Tariff w.e.f. 1.7.2005
Demand charge – Rs.139 per KVA	Rs. 300 per KVA
Energy Charge – Rs. 3.7159 per KWh	Rs. 2.80 per kVAh (or Rs. 3.11/KWh at 0.9 power factor
Minimum charge- Charges for units equivalent to 30% load factor + demand charge on billing demand	Charges for units equivalent to 25% load factor + demand charge on billing demand.
(b) Power Factor penalty is charged separately	Power factor penalty/incentive has now in-built effect in the tariff.
No incentive between 0.9 to 0.95 power factor	Incentive shall now be automatically available between 0.9 to 0.95 power factor
6.Overall effect of tariff (July to December, 2004)	(July to December 2005)
Billed units 3216.57 Lacs kVAh	Billed units 3259.66 Lacs kVAh
Total billed amount Rs. 12729.74 Lacs	Total billed amount Rs. 12980.37 Lacs
Average cost per kVAh Rs. 3.96	Average cost per kVAh Rs. 3.98

- (u) CSERC explained that all desired measures for reduction of cost as also the cross subsidies, cannot be taken within one year; with the improvement in performance in CSEB, the cost of supply shall decrease in future. The Commission brought to our notice that in the generation capacity of CSEB the Hydro Thermal mix

is much adverse: Hydro being only 9% and rest 91% all thermal. Commission mentioned that the respondent Board is facing 15 to 20% shortage of power which necessitates purchase of additional power through trading at higher cost and payment of UI charges becomes imminent for drawal of power over and above State's entitlement.

- (v) In the context of cross-subsidies it is important to refer to the decision of the full bench of this Appellate Tribunal. In its judgment dated May 26, 2005 in Appeal Nos. 4, 13, 14, 23, 25, 35, 36, 54 and 55 of 2005, the Tribunal has ruled that it is not the intention of the legislation that the Commission should determine the tariff based on cost of supply from the date of the enforcement of the Electricity Act, 2003. It envisages a gradual transition from the tariff loaded with cross subsidies to a tariff reflective of cost of supply to various class and categories of energy. Till the Commission progressively reaches that stage, in the interregnum the road map for achieving the objective must be notified by the Commission within six months from January 6, 2006 when the tariff policy was notified by the Government of India.
- (w) In our opinion, the respondent Commission is well aware to reduce the element of cross subsidy progressively. The effective tariff rate, as per the energy bills, has already been brought down from Rs. 4.53 to Rs. 4.41. Therefore, we do not find any justification and reason to interfere with the impugned order in this regard.

(iii) Why monthly minimum charges should be levied on Railways?

- (a) Railways has represented that they should not be levied Monthly Minimum Charges as Railways is a bulk consumer with a very heavy consumption. In its tariff petition, the CSEB has proposed that Railways will have to pay Monthly Minimum Charges in units (kVAh) equivalent to 25% load factor at 0.85 power factor on recorded maximum demand or the contract demand, whichever is higher. The appellant had pleaded that if at all the Commission decides to levy Monthly Minimum Charges, the same should be linked to Contract Demand only and there should be no linkage to the recorded maximum

demand. In the tariff order, the Commission has decided as under:

The consumer will guarantee minimum monthly payment of energy charges of the units (kVAh) equivalent to 25% load factor of the contract demand + the demand charges on the billing demand for the month irrespective whether any energy is consumed during the month or not. An average power factor of 0.90 will be applied for the calculation of corresponding units at 25% load factor on contract demand.

(b) Respondent CSEB argued that levy of Monthly Minimum Charges is justified and is in accordance with the provisions of the Section 45(3)(a) of the Electricity Act, 2003.

(c) In our view, the rationale and relevance of Monthly Minimum Charges is well established in the electricity industry. It is to be recognized that when a consumer is connected to a system, the utility has to provide or keep in readiness certain capacity of the system to serve the consumer. Machine capacity, transmission system, certain work force and supervisory staff is kept on the job of monitoring the system, attending to emergency, restoring the supply in the event of outage, routine and periodic maintenance, meter reading, billing, bill delivery, defraying administrative expenses not directly related to the consumption of energy. This element of the fixed charges, as an accepted practice, is recovered through the mechanism of minimum monthly charges. These charges reflect the cost of generation and transmission requirement of consumer and are well justified and, therefore, we decide this point against the appellant.

(iv) Is there need to block the leading power factor for determining average power factor?

(a) The appellant has argued that the concept of kVAh based tariff was agreed only for single part tariff. As the Commission has ordered two part tariff, the appellant is being penalized for the power factor. As the leading power factor is beneficial for the respondent Board, the appellant has pleaded that the leading power factor should be blocked.

(b) The respondent Board has submitted that any power factor other than 0.9 leading may result in excessive load

current for the same kWh requirement and may thus lead to excessive technical losses. Appellant's demand will tantamount to CSEB suffering the financial loss in terms of excess energy losses at supply network on account of inefficiency of customers load to operate within the prescribed parameters.

(c) The respondent Commission in its tariff order has specifically introduced kVAh billing which provides inbuilt incentive for the appellant's category, which will automatically take care of power factor incentive and disincentive for the high and low power factor respectively.

(d) In view of the above cited position we hold that there is no reason for us to interfere with the Commission's orders

(v) Can Railways generate a single consolidated bill for all connections for a particular location in Railways?

(a) Appellant has represented that they should be billed through a single consolidated bill for all the connections in a particular location. The respondent Board argued that such demand for a single bill is tenable only when the appellant agrees to avail supply at one point only, otherwise, every individual connection is required to be billed separately.

(b) This being a billing related issue our interference is not required. However, we will suggest that the appellant and the respondent Board should mutually discuss the issue and arrive at a suitable solution

18. In the result on a consideration of the entire matter we are of the opinion that no interference with the impugned order is warranted by us. Appeal is accordingly dismissed.

(Mr. Justice Anil Dev Singh)
Chairperson

(Mr. H.L. Bajaj)
Technical Member

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