

(2004) 02 BOM CK 0113

In the Bombay High Court

Case No : MERC Appeal No's. 4 to 6 of 2002

Maharashtra State Electricity Board

APPELLANT

Vs

Maharashtra Electricity Regulatory Commission

RESPONDENT

Date of Decision : 11-02-2004

Acts Referred:

Electricity (Supply) Act, 1948 — Section 45, 49, 59

Electricity Regulatory Commission Act, 1998 — Section 17(5), 27, 29

Citation : AIR 2004 Bom 294 : (2004) 3 BomCR 485

Hon'ble Judges : D.G. Karnik, J;A.P. Shah, J

Bench : Division Bench

Advocate : A.R. Kulkarni, for the Appellant; Shyam Diwan and Alpana Dhake, instructed by Little and Co. and R.K. Shriram, for the Respondent

Judgement

D.B. Karnik, J.—By these appeals, the appellants challenge the order dated 10th January, 2002 passed by the Maharashtra Electricity Regulation Commission (for short "the Commission") passed u/s 29 of the Electricity Regulatory Commission Act, 1998 (for short "ERC Act") determining and fixing the tariff for electrical power at rates lower than the rates claimed by the appellant. The facts giving rise to the appeal are summarised below :--

M.S.E.B. is a State Electricity Board (for short "the Board" or "the appellant-Board") constituted u/s 5 of Electric (Supply) Act, 1948. On the application made by MSEB on 15th October, 1999, the Commission for the first time issued a tariff order on 5th May, 2000 fixing the tariff for electrical power for the year 2000-2001. On 15th March, 2001, the Board submitted a proposal seeking revision of retail distribution tariff with effect from 1st April, 2001. On an earlier petition bearing Case No. 8 of 2000 filed by Prayas, Pune, a consumer interest organisation, the Commission passed an order directing the appellant to disclose the documents demanded by Prayas. In its internal meeting held on 15th June, 2001, the Commission noted that on account of certain developments concerning disputes between the Board and Dabhol Power Company arithmetic for fixing the

tariff may undergo a sea change. Consequently, the Commission asked the Board whether it would like to revise the tariff proposal or would like to continue with the same proposal dated 15th March, 2001. The Board chose to submit a revised proposal for retail tariff on 31st October, 2001. The Commission held a technical validation session on 11th September, 2001 and decided that the proposal made by the appellant-Board on 31st August, 2001 should be put through a public hearing process. The Commission also requested the Government of Maharashtra to actively participate in the public hearing. Public notices were also issued in the newspapers to enable the interested persons to participate in the public hearing proceedings, which were posted on 25th September, 2001. On request by the Government of Maharashtra, the date of public hearing was extended on a few occasions and parties were permitted to file the affidavits. After the public hearing on 24th December, 2001, the Commission issued a short operative order on 28th December, 2001 summarising the approved tariff. The reasoned order was pronounced on 10th January, 2002 which is impugned in this Appeal filed u/s 27 of the ERC Act.

2. We would first consider the points arising in Appeal No. 4 of 2002 and rival submissions made thereon as they cover most of the controversies and then deal with only the remaining points in the other appeals.

3. Shri Diwan, the learned counsel appearing for the appellant canvassed before us the following grounds of objections to the impugned order.

1) The Commission erred in allowing the revision in tariff only from January 2002 to ought to have allowed the revision in the tariff from 1st April, 2001. In any event, it ought to have compensated the appellant in some way as the appellant was not responsible for the delay in fixing of the tariff by the Commission. ii) The Commission erred in not permitting the appellant-Board to submit a revised tariff proposal for the financial year 2002-2003 and it ought to have permitted the appellant to submit the tariff proposal for each year. It further erred in giving a direction or making an observation that the revised tariff proposal for a financial year should be submitted on or before 15th December, 2000 of the previous year.

iii) The Commission acted in excess of his jurisdiction by levying the penalty of Rs. 7 crores i.e. Rs. 1 crore for each of the seven alleged non-compliances of its previous directions by the appellant-Board, and acted in excess of the powers u/s 15 of the ERC Act.

iv) The Commission did not properly consider the provisions of Section 59 of the Electric Supply Act and the notification issued by the Government of Maharashtra in pursuance thereof providing for surplus of 4.5% to be generated. The tariff order made by the Commission is contrary to Section 59 inasmuch as with the tariff fixed it is not possible to have 3% much less 4.5% of surplus; on the other hand, there would be a deficit -- an uncovered revenue gap.

v) The Commission erred in making certain disallowances u/s 59 of Electric Supply Act especially in respect of (a) transit loss in coal, (b) in calculating the

heat rate, (c) reduction of employee expenses and (d) Transmission and Distribution losses.

vi) There were apparent errors in computation made by the respondent.

We would consider each of the grounds serially.

Ground No. 1 -- Delay in tariff determination and its effect.

4. The Commission has permitted revision in the tariff with effect from 1st January, 2002 though the appellant had initially claimed revision in the tariff with effect from 1st April, 2002. Effectively, the Commission has denied tariff revision for the period between 1st April, 2001 and 31st December, 2001. As the appellant would be able to recover higher tariff only for a period of three months of the financial year 2001-2002, the revenue generated would be less than the estimates resulting in a loss to the appellant. There was no reason for the Commission, submits learned counsel, to deny revision with effect from 1st April, 2001 especially because the appellant-Board had submitted the tariff revision proposal by 15th March, 2001 which was well before the commencement of the financial year 2001-2002. The appellant was not responsible for the delay and therefore, it should not have been penalised for declining--to grant revision in tariff retrospectively with effect from 1st April, 2001.

5. On 31st August, 2001, the appellant submitted the revised tariff proposal. In this tariff proposal, the appellant had factored in a period of two months for completion of tariff exercise by the Commission. The proposed tariff submitted by the appellant was based on recovery of the increased energy charges only for the period beginning from 1st November, 2001. Thus, there was no question of granting revision for a period earlier to 1st November, 2001.

6. It is the appellant's own case that the preparation of the tariff proposal is a complex process and it took four months for the appellant to prepare the tariff proposal. In paragraph No. 8(f) of the appeal memo the appellant itself has stated : "..... Preparation of tariff proposal is a complex exercise involving diverse inputs and projections. The original tariff proposal for 2001-2002 took approximately 4 months to prepare". Evaluation of the tariff proposal would be equally complex. When the tariff proposal is to go through a public hearing wherein objections to the tariff proposal raised by the public are to be considered, one cannot say that the time of 4 months (which incidentally was the time required for the Board to prepare the proposal) taken by the Commission to decide the tariff proposal, in the facts and circumstances of the case was unreasonable. In paragraph No. 8(g), the appellant-Board has specifically stated that its tariff proposal was based on increased energy charges for the period beginning from 1st November, 2001. Thus, the appellant had factored in a lower revenue up to October, 2001 and made computation on the basis of increased revenue only with effect from 1st November, 2001. The revised tariff proposals have been allowed with effect from 1st January, 2002 and the delay of two months, in our opinion cannot be said to be unreasonable, taking into

consideration the nature of the process of tariff fixation, after public enquiry.

7. In our opinion, it is necessary to reconcile the two competing submissions made before us. One of reasons for declining to grant retrospective revision in tariff with effect from 1st November 2001 is that the bills for the energy charges between 1st November 2001 to 31st December 2001 would have already been sent and recovered by the appellate Board by the time tariff order was issued by it on 10th January 2002. Even if the bills were not sent, it would be unreasonable to require the consumers to pay for the energy at a higher rate because if the higher rate is announced in advance, the consumers could have had an opportunity of not consuming the power or at least to reduce the consumption on being aware that the rate would be higher. Per contra, denial of a tariff revision with effect from 1st November 2001 would leave a revenue gap in the revenues of the Board. Section 59 of the Electricity (Supply) Act 1948 requires tariff must be so fixed as to leave no tariff gap and in fact, there should be revenue surplus to the extent of 3% or such higher percentage as may be prescribed by the State Government. As the tariff could not have been increased retrospectively, the learned counsel for the Board submitted that a one time Regulatory Asset could have been created by the Commission while fixing the tariff. In paragraph 19 on page 89 of its order, the Commission has stated :

"The Commission is of the view that the Regulatory Asset can only be considered in exceptional cases wherein the recovery of entire revenue requirement during a single year might lead to a tariff shock and so a part of the required revenue is deferred for future recovery. A mere delay in tariff award due to late submission of the Tariff revision proposal cannot be considered sufficient ground for creation of a Regulatory Asset, as the MSEB could have approached the Commission for Tariff Revision that earlier. Accordingly, the Commission has disallowed the creation of a Regulatory Asset."

We agree with the Commission that Regulatory Asset should be created only as an exception. We are however, of the opinion that tariff proposal for the year 2001-02 was an exception. Though the initial tariff proposal was submitted on 15th March 2001, the Board was required to submit a revised tariff proposal on 3-1st August 2001, on account of very special circumstances arising out of the disputes between the Board and Dabhol Power Company (Enron). Such disputes do not occur every year. The situation arising out of the disputes was exceptional. The reasons for the delay in submitting the revised tariff proposal were therefore, exceptional. The Commission, therefore, could have and should have considered the creation of a Regulatory Asset for the year 2001-2002, without fear of that being treated as a precedent in future. We make it clear that this direction of our directing the Commission to consider the creation of a one time Regulatory Asset would not and should not be taken as a precedent for future years. We accordingly, remand the matter to the Commission of appropriate decision regarding creation of a one time Regulatory Asset.

Ground No. 2 -- Denial of their revision for the year 2002-2003.

8. On page No. 86 in paragraph No. 18 of its order, the respondent has observed :

"In this context, the Commission expects that MSEB will not approach the Commission for tariff revision for financial year 2002-2003."

9. There appears to be some justification in the grievance of the appellant that the commission could not have directed that the appellant should not approach for tariff revision for the financial year 2002-2003. u/s 59 of the Electric Supply Act, the Board is required to generate surplus of not less than 3% or such higher percentage as the State Commission may by notification in the official gazette specify of the value of the fixed assets of the Board in service at the beginning of the year. Thus, the amount of surplus would vary depending upon the value of the assets at the beginning of each financial year. The tariff proposal for the year 2001-2002 would take into consideration the value of the fixed assets at the beginning of the year 2001-2002 while the tariff for the year 2002-2003 would have to take into consideration the value of the fixed assets not at the beginning of the year 2001-2002 but their value at the beginning of the financial year 2002-2003. The value of the fixed assets at the beginning of the year 2002-2003 would be different than the value of the fixed assets at the beginning of the year 2001-2002 on account of the additions to the assets as well as on account of depreciation of existing assets. As the tariff could vary on the basis of value of fixed assets in service at the beginning of each financial year, the appellant Board could not have been denied the right to apply for revision and re-fixation of the tariff for the year 2002-2003. Besides the tariff for next year would have varied depending upon the projections of revenue generation and expenses. Though we agree that the direction not to approach the Commission for tariff revision for the year 2002-2003 could not and should not have been given, we are not inclined to set it aside at this stage because the financial year 2002-2003 is already over, and the next financial year 2003-2004 would also get over in next couple of months. If the principle applied by the Commission that there should ordinarily be no retrospective revision in the tariff requiring the consumers to pay tariff at a higher rate for the energy already consumed without knowing that they would be required to pay higher rate for it is accepted, and in our opinion it is sound to accept the said principle, then we cannot set aside that direction of the Commission at this stage and permit the appellant to submit a revised tariff proposal for the year 2002-2003. Shri Diwan, learned counsel for the appellant being aware of this principle of ordinarily not allowing retrospective effect to increase in the tariff did not rightly press for setting aside of this direction of the Commission at this stage of the appeal but only wished a finding that this direction should not have been issued by the Commission so that such direction would be issued in future by the Commission directing the appellant not to submit a revised tariff proposal for any particular financial year. We accordingly, held that the Commission ought not to have issued the direction directing the appellant not to submit a revised tariff proposal for the financial year 2002-2003 or for that matter any particular financial year.

Ground No. 3 -- Penalty of alleged non-compliance of directions.

10. On page No. 10, paragraph No. 24 of the impugned order, the Commission has observed thus :

"The Commission has found that MSEB has disregarded its directives on 7 counts viz. metering of flat rate consumers, TOD, meter installation for HT industrial category, provision of name badges, domestic supply of Railways, disconnection of supply to consumers for arrears over 75 days, to desist from issue of commercial circulars without the prior approval of the Commission, and data on public institutions and Kutir Joti Consumers. The commission has disallowed revenue to the MSEB for about non-compliance at Rs. 1 crore for each act of non-compliance amounting to Rs. 7 crores. This amount should be deposited in a special account together with the Energy conservative food, discussed subsequently in paragraph No. 51."

Though the words used are "disallowed revenue" we have no doubt that this disallowance of revenue is in the nature of penalty for the non-compliance of the previous directions issued by the Commission.

11. Section 45 of the ERC Act provides for a penalty for non-compliance of the directions given by a Commission. Section 45 reads thus :

45. Punishment for non-compliance of directions given by a Commission.

(1) In case any complaint is filed before the Commission by any person or in the Commission is satisfied that any person has contravened any directions issued by the Commission under this Act, rules or regulations made thereunder, the Commission may after giving such person an opportunity of being heard in the matter, by order in writing, direct that, without prejudice to any other penalty to which he may be liable under this Act, such person shall pay, by way of penalty, which shall not exceed rupees one lakh for each contravention and in case of a continuing failure with an additional penalty which may extend to rupees six thousand for every day during which the failure continues after contravention of the first such direction.

(2) Any amount payable under this section, if not paid, may be recovered as if it were an arrear of land revenue.

12. Firstly, it is necessary to give an opportunity of hearing to the person before passing of an order of penalty u/s 45. Secondly, the penalty cannot exceed Rs. 1,00,000/-, for each contravention. The section also contemplates additional penalties for continuing contraventions. The Commission could not have been levied the penalty without giving an opportunity to the appellant to show cause against the penalty. There is nothing on record to show that specific opportunity was given to the appellant before this penalty was imposed. Assuming that such opportunity was given, the amount of penalty could not have exceeded Rs. 1,00,000/- per contravention. The order does not disclose that the penalty imposed was greater on account of additional penalty for continued

contraventions. Prima facie, additional penalty can be imposed only if contravention continues after imposition of penalty at the first instance. In the circumstances, the order regarding the imposition of penalty of Rs. 1 crore per contravention has to be set aside and is accordingly set aside.

Ground No. 4 -- Proper construction of Section 59, expenditure to be disallowed and generation of surplus.

13. Learned counsel for the appellant invited our attention to paragraph No. 28 on page 11 of the impugned order and pointed out that the Commission had recorded a finding that if the revised tariffs were to be charged for the entire year then there would have been uncovered revenue gap of Rs. 452 crores and as the revised tariffs were to be enforced only for a period of three months, there would be uncovered revenue gap of Rs. 119 crores. In other words, even with the revised tariffs as approved of the Commission, the Board would suffer a deficit of Rs. 119 crores. The learned counsel submitted that the Commission erred in fixing a tariff at such a rate which would leave an uncovered revenue gap and the tariffs should have been so approved that there would be no uncovered revenue gap in the finances of the Board. In our opinion, there can be no doubt that the affairs of Electricity Board are to be conducted on the basis of sound economic principles. After taking into consideration the subventions which may be allowed by the State Government in accordance with Sections 39 and 63 of the Electricity Supply Act, 1948 and subsidies, if any, which the State Government requires the Board to grant and for which the State Government must compensate the Board under Sub-section (5) of Section 29 of the ERC Act 1998, the Board cannot suffer a deficit. The Board, after meeting all expenses properly chargeable to revenues including operating, maintenance and the management expenses and taxes (if any) on income and profits, depreciation and interest payable on debentures, bonds and loans. Such surplus as is not less than 3% or such higher percentage as the State Government may by notification of the Official Gazette specify in this behalf, of the value of the fixed assets of the Board in service at the beginning of the year. This is the mandate of Section 59 of the Electricity Supply Act 1948, The Commission must therefore, fix the tariff and adjust the tariff in such a way as not to require the Board to suffer uncovered revenue gap.

14. Section 59 of the Electricity Supply Act 1948 reads as under :--

59. General principles for Board's finance:--

(1) The Board shall, after taking-credit for any subvention from the State Government u/s 63, carry on its operations under this Act and adjust its tariffs so as to ensure that the total revenues in any year of accounts shall, after meeting all expenses properly chargeable to revenues, including operating, maintenance and management expenses, taxes (if any) on income and profits, depreciation and interest payable on all debentures, bonds and loans, leave such surplus as is not less than three per cent, or such higher percentage, as the State

Government may, by notification in the Official Gazette, specify in this behalf, of the value of the fixed assets of the Board in service at the beginning of such year.

(2) In specifying any higher percentage under Sub-section (1), the State Government shall have due regard to the availability of amounts accrued by way of depreciation and the liability for loan amortization and leave--

(a) a reasonable sum to contribute towards the cost of capital works; and

(b) where in respect of the Board, a notification has been issued under Sub-section (1) of Section 12-A, a reasonable sum by way of return on the capital provided by the State Government under Sub-section (3) of that section and the amount of the loans (if any) converted by the State Government into capital under Sub-section (1) of Section 66-A).

15. While considering the finances of the Board for the purpose of fixation of the tariff what can be considered are only the expenses properly chargeable. The expression "properly chargeable" connotes not the expenses which are actually incurred by the Board but the expenses which are "properly incurred" i.e. the expenses which were required and ought to have been incurred by the Board for the purpose of meeting its obligations and supplying of energy. There can be no doubt that the affairs of the Board should be managed efficiently. Extravagance, unnecessary and wasteful expenditure is not permitted and if incurred must be on the Board's own account. The consumer cannot be made to pay on account of wastages inefficiencies and extravagances of the Board through increase in the tariff. The Auditor's opinion as to whether the expenditure was properly incurred under Schedule 6 to the Electricity Supply Act is not binding on the Commission which is charged with the duty of fixing the tariff by taking into consideration only the expenses properly incurred.

16. In *West Bengal Electricity Regulatory Commission Vs. C.E.S.C. Ltd. etc. etc.*, the Supreme Court in paragraph No. 94 of its judgment observed (at page 3618 of AIR):

"We notice that for the purpose of the 1948 Act, Clause XVII of Schedule VI defines the various types of expenditures enumerated therein, as expenditure "properly incurred" therefore for the purpose of the 1948 Act it would have been sufficient for a licensee to bring his expenditure under that definition clause and the same was entitled to be counted for the purpose of determining the tariff under the said Act. But we have noticed hereinabove that though the principles of Schedule VI have been adopted by the Commission in its Regulations the same will have to be considered along with other principles enumerated in the Regulations which includes the principles encompassed in Clauses (b) to (g) of Section 29(2) of the 1988 Act. We have also held that in the event of there being any conflict, it is the provisions of the 1998 Act which would prevail. The 1998 Act mandates the Commission to take into consideration the efficient management by the licensee of its Company, as also the interests of consumers while determining the tariff, therefore, if these two factors which go in favour of

the consumers are in conflict with the definition of expenditure "properly incurred" in Schedule VI to the 1948 Act then it is for the Commission to reconcile this conflict and decide whether to accept the expenditure reflected in the accounts of the Company or not. In this process the Commission in our opinion is not bound by the auditors' report."

17. Commission would therefore, be required to only take into consideration the expenses properly incurred while determining the tariff. It would exclude the expenses which were incurred by the Board on account of its inefficiencies as also wastefulness and extravagance. After disallowing the expenses which in the opinion of the Board were not properly incurred, however, the Commission cannot allow a revenue gap in the finances of the Board.

Limits of the appellate power of the High Court.

18. While examining whether the Commission has improperly allowed certain expenditure for inefficiencies, wastefulness or extravagance of the Board and disallowing certain expenditure allegedly improperly incurred by the Board, there are certain limitations on the High Court. It is true that the High Court hears a first appeal against the judgment of a State Commission and u/s 27 of the ERC Act, its powers are unrestricted. However, it must always be kept in mind that State Commission is an expert multimember body consisting of members having adequate knowledge in the fields of engineering, finances, commerce, economics, law or management as provided in Sub-section (5) of Section 17 of the ERC Act. It would not be proper to interfere with the considered orders of the Commission unless the High Court is satisfied that the order of the Commission is perverse or not based on evidence or on misreading of the evidence or patently erroneous. In *West Bengal Electricity Regulatory Commission Vs. C.E.S.C. Ltd. etc. etc.*, the Supreme Court in paragraph No. 69 of its judgment observed :

".....We have no hesitation in holding that the appellate power of the High Court statutorily is not hedged in by any restriction but in our opinion, the High Court merely because it has unrestricted appellate power, should not interfere with the considered order of the Commission unless it is satisfied that the order of the Commission is perverse, not based on evidence or on misreading of evidence, keeping in mind the fact that the Commission is an expert body."

The Supreme Court then went further to the extent of suggesting that since the fixation of the tariff by the Commission involves a very highly technical procedure requiring working knowledge of law, engineering, finance, commerce, economics and management, it would be appropriate if the statutory appeal is provided to similar expert body and neither the High Court nor the Supreme Court in reality be appropriate appellate forums in dealing with this type of factual and technical matters (See paragraph No. 112 of the judgment).

19. While considering whether the respondent committed any error in disallowing certain items of expenditure viz. (a) transit loss in coal, (b) heat rate

disallowance (c) Employee expenses disallowance and (d) transmission and distribution losses, we would have to keep in mind these limits on our appellate power. We can interfere only in case of a clear error and not when two views are possible and we would have preferred the view other than the one taken by the Commission.

Ground No. 5 : Disallowances (a) Regarding transit loss in coal.

20. Coal is transported to the generation station from the Coal mines through the Railway Wagons. Coal wagons are weighed and provided with an electronic print at the loading point and on the basis of this the appellant is required to pay the price of the coal to the Coal Companies as the contracts with the coal companies are based on F.O.R. colliery basis. The title in the coal passes to the appellant at the loading point after which the coal companies cease to be responsible. Insurance of the coal in transit entails a very high rate which renders insurance economically unviable. At the receipt point, the coal is weighed and the weight is invariably less than at the loading weight, principally due to loss of moisture during transit. Some loss also takes place in transportation and handling. The accounting practice adopted by the appellant Board in this regard is consistent with the Electricity (Supply) Annual Accounts Rules 1985 framed u/s 89 of the Electricity Supply Act. In other states such as Gujarat, Madhya Pradesh, Andhra Pradesh and also in case of N.T.P.C. transit loss varies between 3% and over 5%. Other State Electricity Regulatory Commissions such as GERC, MPERC and APERC in Gujarat, Madhya Pradesh and Andhra Pradesh respectively have allowed coal losses in the range of 3% or actuals, whichever is less. The respondent Commission however has disallowed the transit loss of coal by observing at paragraph No. 65 of its order thus :

"The Commission has disallowed the cost incurred due to transit loss in coal that the principle followed in the previous tariff order. The MSEB has approached the High Court for relief in this matter and the matter is subjudice."

21. Thus, the only ground on which the transit loss in coal was disallowed by the Commission was that such transit loss was disallowed in its previous order and that order was in challenge in an appeal before the High Court. We have perused the order passed by the Division Bench of this Court on 24th February 2003 in MERC Appeal No. 1 of 2001 reported in Maharashtra State Electricity Board Vs. Maharashtra Electricity Regulatory Commission, , to which one of us (A.P. Shah, J.) was a party. In paragraph No. 14, Division Bench has observed (at page 404 of AIR) :--

"While we agree with the learned counsel appearing for the respondents that MSEB should strive to bring down the loss under this head, at the same time we cannot ignore that transit loss of coal claimed by MSEB is consistent with the Accounting Rules. Even the Central Electricity Authority has in its report of October 2001 opined that coal loss in transit at 3% will have to be considered while calculating the tariff. According to MSEB the transit loss is caused mainly

due to loss of moisture in the coal during transit. This loss, according to Board, is beyond their control. We find merit in the submission of Mr. Diwan. In our view, MERC was in error in denying the claim to MSEB for transit loss in coal."

22. The matter having since been concluded by earlier decision of the Division Bench of this Court, it has to be held that the Commission was in error in denying expenditure on account of the transit loss in coal.

(b) Regarding Heat Rate for coal fired Thermal Power Stations.

23. The Commission has approved heat rate of 2704 kcal/kWh of power as against 2740 Kcal/KWh approved for the previous financial year 2000-2001. The Commission has stated that it considers a reduction of about 1% of heat rate in coal fired Thermal Power Stations of the appellant Board. The learned counsel for the Board challenged this reduction in the heat rate as unrealistic. Since long, mankind has known that energy can neither be created nor destroyed, the only exception being atomic energy which is calculated on the famous Einstein formula $E = mc^2$. It provides that energy can be created by destruction of a mass and the energy created (E) would be equivalent mass x square of speed of light. Except in case of an atomic energy which is created by conversion of a mass, energy is only transformed from one form to another. In case of hydel power generating stations kinetic energy of flowing water is converted into a electric energy and in case of thermal power stations, heat energy generated by use of coal or gas by converting heat energy into electrical energy. In the process of conversion, some heat is lost and wasted by dissipation of heat into atmosphere and other technical losses. Therefore, though theoretically one unit of heat energy must produce equivalent amount of electrical energy, there is some loss on account of wastages and dissipation. The efficiency of a thermal power station, among others, depends upon the prevention of heat loss. The Central Electricity Authority (for short "CEA") has prescribed heat rate of 2500 kcal/kwh. As per CEA norms, not more than 2500 kcal of coal fire heat energy is required to generate 1 kwh of electrical power. Expenses incurred by consumption of heat energy higher than the optimum would have to be regarded as the expenses improperly incurred and therefore, not allowed to be chargeable to the account of the consumers u/s 59 of the Electricity Supply Act 1948. For the gas thermal stations, MSEB itself has achieved a ratio of 1914 kcal/kWh (see table on page No. 135 of the MERC order). Thus, theoretically, less than 1914 kcal of heat is required for producing of 1 kWh of electrical power. Of course, in case of coal fired thermal power stations, the heat loss is higher than gas fired thermal power stations. It is for this reason that CEA has prescribed higher heat rate of 2500 kcal/kWh. In case of older thermal stations, the heat loss would be more until efficiencies are achieved by preventing heat losses and replacement of heat absorbing or heat wasting parts of the machinery. This would of course take time and for this the Commission has prescribed 1% heat rate reduction per year. The Commission had approved heat rate of 2740 kcal/kWh for the financial year 2000-2001 and has approved 2704 kcal/kWh hour for financial year

2001-2002 by expecting 1% improvement in the efficiencies. The Commission is thus lenient towards appellant in allowing 2704 kcal/ kWh heat rate as against 2500 kcal/kWh prescribed by the CEA. However, since the Commission is an expert body which after taking into consideration all relevant circumstances has allowed the heat rate of 2704 kcal/kWh, we find no reason to interfere in the said finding, for the tariff fixation for the F. Y. 2001-02.

(c) Regarding employee expenses.

24. In paragraph No. 28.2.1 of its order, the Commission has very neatly made computation of employee expenses. The Commission has noted the fact that the appellant had signed wage agreement with its workers in January 2001 by which it was required to pay arrears from 19th April 1998. The Commission has also noted that the accumulated arrears of employee expenses would be Rs. 455 crores out of which 170 crores had already been provided for in financial years 1998-99 and 1999-2000 leaving a balance of 285 crores. The Commission has also noted that the wage agreement between the appellant and the employee provides payment of 50% of the wage arrears, only if the revenue collection in any one month exceeded Rs. 1,000 crores and arrears to be paid were also restricted to the extent of 50% of the surplus collection of over 1000 crores and only for those months. Naturally, this would result in better efficiencies and savings in the interest cost to the Board. In our opinion, the Commission has applied proper principles and taken into consideration all relevant factors while considering employee expenses. As against the projected employee expenses of 1840 crores, the net of capitalisation, including a provision for payment of arrears due to wage revision, the Commission has reduced Rs. 100 crores taking into consideration the relevant factors including better efficiencies and achievements by better collections. We do not see any error in the computation of the employee expenses made by the Commission.

(d) Regarding Transmission and Distribution losses.

25. The main point of controversy raised in all the appeals is regarding Transmission & Distribution losses (for short T & D losses"). The revenue that would have been earned by the Board if T & D losses were contained was not taken into consideration by the Board while preparing tariff proposal. If the T & D losses are reduced, the revenue generation would be much higher. At page Nos. 156 and 157 of its order, the Commission has noted that for the year 2001-2002 of 61, 145 million units of electrical power available to the appellant Board through generation and power purchase, the Board had projected revenue by sale of only 37,000 million units. This was because projected T & D losses were of the order of 39.49%. In other words, out of every 100 units of power generated and purchased by the Board, it expected to bill only for 60.51 of the units and was unable to bill for 39.49 units on account of T & D losses. The calculations for the tariff proposals were based by the Board on the basis of revenue earned by billing for 60.15% of the power. The representatives of the consumers who participated in the proceedings before the Commission had

severely-objected to this and had even suggested that the Commission should straightway reject the tariff proposal based on this revenue estimation. u/s 59 of the Electricity Supply Act, the tariff is to be based on the basis of total revenues of the Board after meeting all expenses properly chargeable to revenues. Non recovery of the electricity bills to the extent of 39.49% power by claiming them to be a T & D losses would violate principle of Section 59. Revenue not recovered is revenue lost or expenses improperly incurred for generation of the electric power without its billing and sale. There can be no doubt that while fixing the tariff proposal the revenue which is actually earned and which ought to have been earned in the ordinary course of business must be taken into consideration while fixing tariff on the principles contained in Section 59 of the Electricity Supply Act. If revenue for the whole of the electricity generated and purchased, except the electrical power lost due to technical and proper commercial reasons, is not recovered on the ground of T & D losses the revenue lost would have to be taken as revenue earned while fixing the tariffs.

26. The issue therefore, is what should be the amount of T & D losses that should be allowed while making calculations for fixing the tariff. The Central Electricity Authority of the Government of India, (for short "CEA") is considered to be Apex Body in the country in estimating and laying down various standards and performance parameters in the electrical sector, especially for the guidance of the State Electricity Boards and other electricity utilities. CEA has laid down that for Indian conditions, the maximum permissible figure for T & D losses for any State Electricity Boards should be 16%. In the developed countries and even some developing countries like Brazil, T & D losses do not exceed 8 or 9%. In Maharashtra, in Mumbai city, private utility companies like Tata Power Company and BSES and even a public sector utility like B.E.S.T. have been able to contain their T & D losses at around 11%. Of course, one cannot lose sight of the fact that they supply electricity in urban areas and therefore, their T & D losses are less. T & D losses depend upon variety of circumstances; they vary from place to place depending upon location being rural or urban; the losses also depend upon the nature of distribution viz. whether it is over-head or underground as also the prevailing culture in the Society. Typically, in cities losses are less firstly because average distance between the feeder and actual consumer is less. In a multi storeyed buildings many consumers are served through the same feeder and the same transformer curtailing the distance between the feeder, the transformer and the consumer lessening the losses. Secondly, in cities many cables are underground which prevents thefts. Culture of the consumer also plays an important role. The CEA being an expert body must be deemed to have taken into consideration all the relevant factors in fixing the maximum permissible figure for T & D losses at 16% as against better figure of 11% achieved in Mumbai City. Maximum of 16% T & D losses is the target figure to be achieved. This cannot be achieved forthwith and in no time. Reasonable period must be given to the appellant Board to achieve this target. It is for the State Commission being an expert body to decide how much time should be allowed for achieving

this target. We may usually refer to the judgment of the Apex Court in West Bengal Electricity Regulatory Commission Vs. C.E.S.C. Ltd. etc. etc., wherein the Supreme Court set aside the direction of the West Bengal State Commission which had pegged down the T & D losses to 16.8% for the year 2000-2001 as against T & D losses claimed by the Company at 22.36% and allowed the Company to claim T & D losses at 19% i.e. 2.2% more than what was allowed by the Commission but 3.36% less than the actual T & D losses claimed by the Company. The Supreme Court noted that there was some element of ad hocism in fixing the T & D losses as done by it, but the situation was such that the element of ad hocism could not be escaped. The Supreme Court further directed that for the future years taking into consideration the future considerations, the Commission could assess the efficacy of the Company in controlling T & D losses and refix the limit of T&D losses.

27. In the tariff proposal, the Board had estimated the T & D losses at 39.4%. In paragraph No. 20 on page No. 155 of its order, the Commission has noted that on proper computation of T & D losses considered on the basis of energy inputs, the estimated T & D losses worked out to 39.6%. The Commission has also noted that in its previous order, the Commission had set the target of T & D losses for the Board for F.Y. 2000-2001 at 26.87% and thus, the appellant Board had estimated tariff losses of 12.8% in excess of the target fixed by the Commission. The Commission also noted that for the previous F. Y. 1999-2000, the T & D losses were 31.87%. Thus, instead of reducing the tariff losses for the next F.Y. 2000-2001, the Board had estimated higher T & D losses. The Board contested this claim and contended that increase in the T & D losses from 31.47% in F. Y. 1999-2000 to 39.6% for the F. Y. 2000-2001 was not the actual increase in the losses but only that the losses were better estimated. The Board contended that because of a non-metering of customers, the losses could not be correctly estimated and the estimate of 31.87% for the previous F. Y. 1999-2000 was erroneous. The T & D losses of 39.4% projected for the F.Y. 2000-2001 were only based on better estimation on account of increasing the sample of survey of more feeders. Before the Commission, the Board further contended that on sample size of feeder being widened further and on estimates being more accurate, the actual T & D losses might go up to 50-55% (See page 158 of the tariff order). We are aghast at the claim made by the Board that actual T & D losses could be in the region of 50% to 55%. At this level of T & D losses, we wonder whether the appellant Board is generating, purchasing and distributing power for the consumers or for the thieves of electricity. In our opinion, the Commission has rightly rejected the claim of the MSEB for fixing the tariff on the basis of T & D losses 39.4%. It is however necessary to consider whether the Tribunal was justified in allowing the T & D losses only to the extent of 26.87 and on that account, disallowing the revenue requirement to the extent of 636 crores.

28. We notice that the Commission has adopted an unorthodox and innovative method in dealing with T & D losses. T & D losses can be broadly classified in two categories, transmission losses and distribution losses. Transmission loss is the

loss of energy which occurs between the point of generation or power purchase and the point where first transformer station for distribution is set up. Some amount of energy is lost and would continue to be lost in transmission until super conductivity is achieved at ambient temperature; because some amount of energy is always lost on account of resistance offered by the conducting wires transmitting the energy. The amount of energy loss in transmission is reduced by transmitting the power at extreme high voltages. This requires step up transformers at the point of generation and step down transformers at the point of bulk distribution centres and further step down transformers at retail distribution points. Even with transmission at mega high voltages, some loss of energy in transmission is inevitable and can be classified as transmission loss or technical loss. This would be in the region of 10% or below. Substantial loss occurs at retail distribution level. As stated earlier, this could be on account of variety of reasons, most important of which is theft of electricity or supply of electricity without meters. If electricity is supplied to certain class or classes of consumers without meters on account of policy of the State and thereby they are required to pay less than the power consumed, the State consumed, the State is now bound to make good the loss by subsidy u/s 65 of the Electricity Supply Act, 2003. The Commission has recorded a finding of fact that both the appellant Board and consumers are responsible for inability to prevent theft of electricity. The Board has not taken effective steps for detection and prevention of thefts. Even when the cases are detected and prosecutions are launched on account of judicial delays, the accused are not convicted immediately and often acquitted for want of sufficient evidence, encouraging the people to commit theft. One of the major factors against detection and prevention of thefts is ethos and culture of the Society and loath ness of the consumers in reporting thefts of electricity by their neighbours. Even those who are aware, rarely complain or bring the theft to the notice of the authorities. The Board and the consumers are pari detector in preventing. T & D losses on account of thefts. The Commission has noted that it would be appropriate to apportion 50% of the excess over the targeted distribution loss to the account of the appellant Board and 50% to the consumers accounts.

29. The Commission appears to have made a sincere effort for improving the social culture and ethos and encouraging the consumers to report thefts of power which happen to their knowledge. After analysing the data carefully, the Commission has noted that in certain areas of the State, T & D losses are much higher than the other areas. This would probably be in account of higher theft of electricity in certain pockets. Certain areas have reported much lesser T & D losses probably on account of better culture in the Society and less thefts. The Commission has also noted that it will be improper to require the consumers in areas which show better compliances to pay for the thefts by the consumers in other areas which show less compliances and higher thefts. The Commission has therefore, proposed that it would be proper to fix higher energy charges in less complying areas than the energy charges in better complying areas". The

Commission has proposed to do this by fixing basic fixed tariff and additional variable charge on account of T & D losses. In an area where T & D losses are more, probably on account of theft, variable T & D charges would be more and in better complying areas the variable charge would be less. This would achieve two purposes. Firstly, the consumers would know that they are required to pay more for higher T & D losses on account of thefts and they would report thefts of neighbours. Secondly, it would help in improving culture of the society wherein the consumer would know that he would be required to pay less if he and his neighbours accurately report the consumption.

30. We are inclined to ignore the criticism that the Commission has proposed to do something which has not been done before. When a first precedent is made, it is always new. It breaks path from the existing traditions. Law and Society are not static, they change. New remedies must be found for new menaces. An effort to find a remedy for a new growing wrong of electricity theft cannot be criticised on the ground that the approach is unorthodox and the remedy has never been tried before. If the method adopted on experience is proved to be ineffective, it can be modified in future and we have no doubt that the Commission would do so in future but we cannot prevent adoption of the new method only on the ground that it was not done before.

31. Whether a 50% burden of the difference between targeted T & D losses and actual T & D losses should be borne by MSEB or whether the percentage should have been different could be a debatable issue. We are conscious that the expert body like respondent Commission has taken a view and we should be slow in substituting our opinion for theirs.

32. The learned counsel for the petitioner submitted that as against 39.4% losses estimated by the appellant Board in proposing the tariff for the F.Y. 2001-2002, the Commission has allowed T & D losses at 26.87% and thus, proposed the reduction of T & D losses by 12.6% (i.e. $39.4\% - 26.8\% = 12.6\%$) to be achieved in one financial year which is impracticable nay impossible. The learned counsel invited our attention to paragraph No. 86 of the judgment of the Supreme Court in *West Bengal Electricity Regulatory Commission Vs. C.E.S.C. Ltd. etc. etc.*, wherein the Supreme Court has observed (at page 3615 of AIR) :

"In this regard, we take note of the fact that it is for the first time after coming into force of the 1998 Act that the Company has realised that it is unable to pass on this loss in its entirety to the consumers. Therefore, there is a need to see that the Company is given some latitude in this regard. We are thus, of the opinion that for the year 2000-01, the Company should be allowed to claim a T & D loss of 19% i.e. 2.2% more than what is allowed by the Commission, and for the year 2001-02 the same shall be 18% because the Company's documents itself show that for the said year they have been able to curb the loss by 1%. For future years i.e. for the year 2002 onwards, we leave it to the Commission to reconsider the above figures fixed by us based on material available before it while determining the tariff for the year 2002-03."

33. The learned counsel submitted that the Supreme Court has also recognised that it is not possible to reduce the T & D losses overnight and same latitude must be given to the Company (in this case the appellant Board) in reducing the T & D losses. The learned counsel submitted that asking the appellant Board to reduce T & D losses by 12.6% in a year, runs contrary to the principle adopted by the Supreme Court in allowing gradual reduction of T & D losses and showing latitude to the Company.

34. While we see force in the argument that some latitude must be shown to the Board in reducing the T & D losses, we are unable to hold that the Commission has not shown sufficient latitude in reducing T & D losses. We are also unable to subscribe to the view that the Commission has proposed 12.6% reduction T& D losses in a year. What we notice is that for the year 1999-2000 i.e. for the previous Financial Year, the Commission had fixed the tariff taking into consideration the T & D losses at 31.87%. In the very order, the Commission had proposed that next year the T & D losses should be reduced by 5% i.e. 26.87% and therefore, reduction proposed by the Commission is not 12.6% as submitted by the learned counsel. It is the appellant Board which revised the estimate of T & D losses from 31.87% of the previous year 1999-2000 to 39.5% saying that it was only better estimating the T & D losses. We have already dealt with this aspect. What the Commission has done is calculated the difference between the allegedly properly estimated T & D loss of 39.4% and the targeted loss of 26.87% to be 12.6% and has proposed to apportion at 50% of this difference to the Board and 50% to the consumers by the methodology discussed above. Thus, out of T & D loss 39.6%, 6.3% is charged to the account of the consumers, which if reduced would make the T & D losses to the account of appellant Board to be a little over 33%. Thus, in fact, the Commission has allowed more T & D losses of a little over 33% which are more than 31.87% fixed for the previous year. Taking into consideration that the T & D losses are to be reduced to 16% as fixed by CEA in a reasonable period of time, we are unable to accept the submission of the learned counsel for the Board that Commission should have allowed more latitude. Ground No. 6 -- Apparent errors in calculations.

35. The learned counsel for the appellant submitted that the order of the Commission suffers from apparent errors in computation. The errors alleged are as follows :

(i) Commission erred in reducing Rs. 100 crores from employee expenses on account of wage revision.

(ii) The Commission erred in applying a capitalisation rate of 12.8% as against 10.8% suggested by the Board regarding the employee expenses.

(iii) Commission erred in proposing a capitalisation rate of 16.4% as against 14.3% proposed by the Board for capitalisation of administration and general expenses.

(iv) As against the projected depreciation expenses of 1444 crores the

Commission has allowed depreciation expenditure to the extent of Rs. 1526.94 crores erroneously.

36. We have already held that Commission has given appropriate reasons for reducing Rs. 100 crores from employee expenses on account of wage revision. No material was placed before us to show that the capitalisation rate applied by the Commission was on unscientific principles. No authority was placed before us to show that the capitalisation rate suggested by the Board is generally accepted capitalisation rate and the rate proposed by the Commission was not generally accepted capitalisation rate. In the absence of any material, we cannot fault the capitalisation rate proposed by the Commission. As regards the projected depreciation also, nothing was shown to us that the computation made to us by Commission was erroneous. We are therefore, unable to agree that there are apparent errors in the computation made by the Commission.

37. We would now proceed to consider the Appeal Nos. 5 of 2002 and 6 of 2002. The appellants in these appeals have contested the claim of the Board regarding T & D losses. We have taken into consideration the submissions of the appellant in these appeals while dealing with the T & D losses earlier. Therefore, it is not necessary to consider the same submissions again. Same is the case in respect of the other submissions in these appeals except those which we are separately dealing herein below :--

38. Mr. Kaul, Intervenor submitted that dues of 655 crores of nearly 100 High Tension industrial consumers have not been recovered by MSEB. He also submitted that an amount of Rs. 275.90 crores was due and payable by Ispat Industries Ltd. and its subsidiary (hereinafter collectively called as "Ispat") to the Board as on 18th September, 2001. The Board had entered into the agreement on 21st September, 2001 with Ispat granting it facility to pay of the past dues by monthly instalments in 54 months. The agreement provides for a payment of interest by Ispat to the Board at 12% p.a. while Board pays interest on its borrowings at the rate of 14% p.a. Ispat is a profit making Company and there was no need for the Board to enter into an agreement granting facility of payment of arrears in instalments and that too charging interest at the rate less than the rate at which the Board borrows money. It is alleged that the Officers of the Board do not recover the bills of H.T. consumers for corrupt and collateral reasons. It is not necessary for us in this appeal to decide in this appeal the motives attributed to the Officers of the Board for not recovering dues of H.T. industrial consumers and entering into agreement with Ispat. However, the fact remains that several hundreds of crores of Rupees are due to the Board which is required to borrow money and pay interest on such borrowings. Such interest would not have been required to be paid by the Board if the dues were recovered on time. It was submitted that the Board has a power to cut off the electricity supply if the bills are not paid on time. It was also submitted out that Board actually disconnects the electricity supply in respect of small residential consumers for non payment of the bills but has failed to take action of

disconnection in respect of H.T. industrial consumers for collateral reasons.

Therefore, the expenses incurred by the Board on payment of interest on the borrowings of the Board should be disallowed because the Board would not have been required to borrow-money and pay interest if the dues of customers were recovered on time, if necessary by coercive means like disconnection of electric supply. Interest, it was submitted, is not an expenditure properly incurred by the Board and cannot be taken into consideration for the purposes of Section 59 of the Electricity Supply Act. Since we are remanding the matter back to the Commission on other issues, we also direct the Commission to consider to what extent the Board could or ought to have recovered the dues and to what extent it is paying interest unnecessarily or improperly. The interest paid by the Board improperly would have to be excluded and disallowed while fixing the tariff in the light of Section 59 of the Electricity Supply Act.

Conclusions :--

39. The matter is remanded back to the Respondent Commission for deciding it afresh in the light of observations made in this judgment and in particular :

(i) The Commission shall strictly follow the principles followed u/s 59 of the Electricity Supply Act 1948 to ensure that after deducting the expenditure properly chargeable to the revenues including operating, maintenance and management expenses, taxes, if any, depreciation and interest payable on all debentures bonds and loans properly incurred, the Board is left with such surplus as is not less than 3% (and from the date of notification such higher percentage as may have been specified by the State Government by notifying of Official Gazette) of the value of the fixed asset of the Board in service at the beginning of the year.

(ii) To consider creation of a one time Regulatory Asset in respect of tariff fixed for the year 2001-2002.

40. We set aside the following parts of the order of the Commission.

(i) To the extent to which the Commission disallowed transit loss in the coal and direct the Commission to consider the expenditure in respect of the transit loss on the coal in the light of observations made in this judgment.

(ii) Direction given by the Commission that it expects MSEB not to approach the Commission for the Tariff Revision for the Financial Year 2002-2003. However, for the reasons stated in the order and taking into consideration that Financial year 2002-2003 is already over, the learned counsel for the Board has informed the Court that the Board would not approach the Commission for the Revision in the tariff for Financial Year 2002-2003.

(iii) Direction given by the Commission levying the penalty of Rs. 7 crore for alleged contravention of its previous directions.

41. All other findings not specifically dealt with in our judgment above are hereby

confirmed.