

ORDER

**ORDER OF THE  
WEST BENGAL ELECTRICITY REGULATORY COMMISSION  
IN**

**Case No. T.P. - 09 of 2002-03**

**AND**

**Case No. T.P. - 16 of 2003-04**

**IN RE THE TARIFF APPLICATION OF WEST BENGAL POWER DEVELOPMENT CORPORATION LTD. (WBPDC) UNDER SECTION 62(1) READ WITH SECTION 185 OF THE ELECTRICITY ACT, 2003 FOR THE YEARS 2003-04 & 2004-05**

**Present :**

1. Shri S. N. Ghosh, I.A.S. (Retd.), Chairperson.
2. Shri A. K. Jain, Member (Finance & Accounts).
3. Shri N. C. Roy, Member (Technical).

For the petitioners:

1. Shri B. K. Paul, Managing Director,
2. Shri S. Mahapatra, Executive Director, Operations,

For the objectors who had prayed for and were permitted to join the hearing for 2003-04.

1. Shri M. K. Ray, Chief Engineer, Commercial,
2. Dr. S. C. Bhattacharjee, Deputy Chief Engineer, Commercial.
3. Shri T. K. Chakraborty, Divisional Engineer,  
all from WBSEB.
4. Shri Sanjit Biswas of All Bengal Electricity Consumers' Association.
5. Shri Kanchan Mukherjee of West Bengal State Electricity Board Workmens' Union.

Objectors who had filed written objections within the stipulated dates for 2003-04:

1. West Bengal State Electricity Board (WBSEB).
2. West Bengal State Electricity Board Workmens' Union.

Objectors who had filed written objections within the stipulated date for 2004-05:

1. West Bengal State Electricity Board (WBSEB).
2. West Bengal State Electricity Board Workmens' Union.
3. All Bengal Electricity Consumers' Association.

Dated: The 3rd June, 2004.

**CHAPTER – 1: INTRODUCTION**

1.1 The West Bengal State Electricity Regulatory Commission, constituted u/s 17 of the Electricity Regulatory Commissions Act, 1998 is empowered to determine the tariff of power utilities in the

State u/s 22(1) of the ERC Act, 1998. After repeal of the ERC Act, 1998 vide Section 185 of the Electricity Act, 2003, the WBERC is the State Electricity Regulatory Commission in terms of first proviso of Section 82 (1) of the Act, 2003. The Commission has already heard and disposed of 3(three) tariff petitions of WBPDCCL for the year 2000-01 to 2002-03 and also some of FPPCA claims in terms of the tariff orders. Certain directions were given by the Commission to WBPDCCL in the aforesaid tariff orders. The Commission presently consists of three Member including Chairperson.

1.2 The West Bengal Power Development Corporation Ltd. (WBPDCCL), constituted in 1985 under the Company's Act, 1956, is a generating company within the meaning of clause (4-A) of section 2 of the Electricity Supply Act, 1948 and is in the business of generation of electricity. The WBPDCCL had initially started with the Kolaghat Thermal Power Station (KTPS). This KTPS was initiated by the WBSEB and was transferred to WBPDCCL on 1st April 1986. Different units of KTPS started their operation on different dates and the total capacities of these units are 1260 MW (6 units of 210 MW each). The WBPDCCL built up another thermal power station at Bakreswar (BKTPS) and it is having 5(five) units of 210 MW each out of which the first 3(three) units have been taken for construction and have been commissioned till date. For other two units techno-economic clearance from the CEA has been obtained and financial closure is in final stage.

1.3 In addition to the KTPS and BKTPS, the WBPDCCL acquired 2(two) more thermal power stations on transfer from West Bengal State Electricity Board (WBSEB) vide Government of West Bengal's notification No. 558-Power/IV dated 28.6.2001 with deemed effective date of transfer of 1st April, 2001. The present tariff petition of WBPDCCL relates to all these 4(four) stations of the WBPDCCL for the year 2003-04.

1.4 The WBPDCCL has also installed transmission system for evacuation of power from BKTPS and the system is being maintained by the WBSEB. The petition for transmission tariff for this line has been submitted separately.

1.5 The tariff petition was filed for 2003-04 on 31.12.2002 and the Commission has notified in the 4(four) leading newspapers published from Kolkata (two in English and two in Bengali) and had called for objections, if any, from interested persons, in support or against within due date specified therein and also directed the utility to file the rejoinders for such objections within the specified time. Interested parties were afforded opportunities to inspect the petition and the relevant records and take copies thereof as per Conduct of Business Regulations of 2000. The Commission has subsequently also notified the date of hearing of the petitions and invited the consumers, consumers' groups, associations and the persons who are likely to be affected by the order of the Commission, to be present in the notified date of public hearing to participate and raise objections subject to the regulations of the Commission and the directions of the Hon'ble Supreme Court in case of CESC Ltd. vide its order dated 3.10.2002 in Civil Appeal no. 4037 of 2002. The hearing was held on 24.02.2003.

1.6 WBPDCCL submitted tariff petition on 31.12.2003 and the Commission instructed the generating company to publish the application in reading newspapers of Kolkata (2 in English and 2 in Bengali) in the form and manner as has been directed by the Commission. In the content of the application published, it has been stated that the objectors may file written submissions/objections in support of or against the petition directly to Commission within 04.03.2004 and persons can inspect the copy of the petition in the office of the Commission and to obtain photocopy thereof apart from opportunity to inspect the petition at the office of the Commission. The petition was numbered as T.P. 16/03-04.

1.7 The objections were filed only from three objectors the names of whom are given earlier.

1.8 The WBPDCCL also submitted certain clarifications required by the commission on 19.03.2004.

1.9 The Electricity Act, 2003 has come into force w.e.f. 10th June, 2003 and the Electricity Act, 1910, Electricity (Supply) Act, 1948 and Electricity Regulatory Commission Act, 1998 has been repealed except to the extent saved as provided in the Electricity Act, 2003. The Present order for determination of tariff is being recorded keeping in view the provisions of the Electricity Act 2003. The directions of the Hon'ble Supreme Court on the interpretation of the relative provision of law

as enumerated in the case of WBERC Vs. CESC Ltd. in Civil Appeal No. 4037 of 2002 and Hon'ble High Court at Calcutta to the extent applicable has been kept in view. Due cognizance has been taken to the relevant applicable provision of 1998 Act for determining revenue requirements and tariff of relevant years.

1.10 The present order for determination of tariffs for 2003-04 & 2004-05 which are being taken up simultaneously, is being recorded also keeping in view the fact that this Commission has passed an interim order dated 23-04-2003 on the tariff petition of WBPDCCL for 2003-04, in exercise of its power under regulation 46 of the Conduct of Business Regulations of 2000, and has allowed an ad-hoc increase of 12 paise /Kwh with effect from 01-04-2003. The present order simultaneously disposes of interim order dated 23-04-2003 in the manner as stated in this order.

## **CHAPTER – 2: THE CASE OF WEST BENGAL POWER DEVELOPMENT CORPORATION LTD. (WBPDCCL) 2003-04**

2.1 The petition for revision of tariff has been filed under regulation 43 of this Commissions Conduct of Business Regulations (CBR), 2000, the Electricity Regulatory Commissions Act, 1998 and the Electricity (Supply) Act, 1948 for the year 2003-04.

2.2 The utility has stated that since the Commission has not prescribed separate tariff regulations, the determination of cost, revenue and tariff have been done in accordance with section 29 of the Electricity Regulatory Commissions Act, 1998, (ERC Act, 1998).

2.3 In the tariff petition the WBPDCCL has indicated the unit-wise rated capacity of its 4(four) thermal power stations together with the dates of its commercial operation. In case of Bandel Thermal Power Station it has given rated capacity of units 1 to 4.

2.4 The WBPDCCL has stated that its existing tariff structure is grossly inadequate to meet the Annual Revenue Requirement of the company resulting into shortfall in respect of both fixed cost and variable expenses.

2.5 It was indicated in the tariff petition that the transfer value of the Bandel and Santaldih Thermal Power Station to WBPDCCL from WBSEB is yet to be decided and advice of the Commission has been sought by the Government of West Bengal before deciding the matter.

2.6 On the question of Reasonable Return it was indicated that a generating company was required to carry on its generation activities under supervised rates of tariff and unless those rates are fixed to cover the costs, the smooth operations of the company gets affected. According to the petitioners, the Reasonable Return to be given to a generating company is primarily meant to take care of its obligations to the investors and for meeting future capital requirement failing which the company would not be in a position to meet its payment obligations, its essential capital expenditure etc. It is further mentioned that the Government of West Bengal was the sole stakeholder and it had mobilized/borrowed funds from various sources, portion of which was deployed as an investment in the equity of the WBPDCCL. The petitioners further stated that although by virtue of implementation of section 51 of the ERC Act, 1998, the provisions of section 43(A)(2) of the Electricity (Supply) Act, 1948 stood deleted vide Government of India notification dated 14.9.2000, the Government was silent on the replacement of the provisions contained in the said section of the 1948 Act. The petitioners submitted that there had been no directions in this respect from the Commission so far.

2.7 It has been insisted upon by the WBPDCCL that the rate of return to them should be 16% on the subscribed equity. In lodging this claim, it has relied on latest communication in this respect from the MoP, GOI (dated 15.10.1998) and it has also given the details of amount in equity invested by the Government of West Bengal in each power station of WBPDCCL. The petitioner has further stated that the equity investment in Bandel Thermal Power Station (BTPS) and Santaldih Thermal Power Station (STPS) is subject to settlement of transfer price.

2.8 The petitioner has further stated that it has already approached the CEA for sanctioning of the revised capital cost of BKTSPS for unit no. 1, 2, 3 and their application is in advance stage of

consideration.

2.9 The petitioner has further stated that recently Government of West Bengal has informed the WBPDCCL that the Government is reviewing the capital structure of BKTPS along with the applicable rate of interest on loan content and on getting the necessary administrative orders from the Government of West Bengal, the WBPDCCL shall revise the tariff computation in respect of BKTPS which it intends to do by filing its revised tariff application. The petitioner further informed that the expenditure on BOBR wagons procured by WBPDCCL has been kept outside the purview of the project cost and accordingly no expenditure or receipt pertaining to the wagons has been taken in the revenue requirement. The petitioner has further stated that the expenditure on BKTPS includes expenditure on fixed assets pertaining to unit no. 4 and 5 and the same have been kept outside the purview of project cost of BKTPS.

2.10 So far Bandel and Santaldih Power Stations are concerned, it has been indicated that the proposal has been prepared on the basis of book-value of the assets and liabilities as per the information received from the WBSEB as on 1.4.2001 and in case it is decided that these will be transferred at a price other than that of the book-value as on 31.3.2001 the effect of the same shall be allowed to be passed on to tariff.

2.11 In the tariff petition the WBPDCCL gave detailed picture of its problems relating to supply of coal of required quality, quantity, non-dedicated colliery, peak off-peak variation of load demand and subsequent in-station rated operation and also has given reasons for differences between operating conditions of the WBPDCCL and Central Generating Stations etc along with the frequency profile in the region. The petitioner prayed that in view of the above reasons computation of the fuel cost be made on actuals.

2.12 The petitioner has further given reasons and justifications for Plant Load Factors along with the dates relating to the maximum PLF achieved during the last four years and contended that it is not possible to generate at a PLF beyond 61%.

2.13 The petitioner has also submitted for consideration of Commission, the actual auxiliary consumption keeping in view the trend of the auxiliary consumption for earlier years, and has contended that it goes beyond the norms due to wide fluctuations of grid frequency which is beyond the control of the WBPDCCL.

2.14 A prayer has also been submitted to the effect that all the available information had been attempted to be supplied by full compliance of the directions of the Commission, but it could not be achieved due to incomplete computerization and a soft approach in this respect has been prayed for. The petitioner further stated that it will provide further data that the Commission may require.

2.15 In the prayer it was indicated that costs estimated for power generation is based on existing coal and oil prices, and if at all any revision of coal and oil prices is to be accommodated, the same may be considered by the Commission while considering the revised tariff. The petitioner has further prayed to be allowed on any tax liability during the year, if there be any.

2.16 The petitioner has further stated that the interest on loan has been computed on the basis of loan orders received till the date of submission of the petitions and in case any further loan is issued or terms of the existing loans are changed which will be applicable for the financial year 2002-03, the petitioner may be allowed to claim the same in next tariff proposal.

2.17 A prayer has also been made that, as WBPDCCL is to receive Rs. 2348.59 crores (as on 31.3.2002) from the WBSEB, the Commission may direct WBSEB to settle this dues at the earliest.

2.18 The WBPDCCL has given a summary on tariff proposal in a tabular form for the financial year of 2002-03 and projected for 2003-04 for all the four sub-stations. The petitioner has also given the figures and data in the format for the financial years of 2001-02, 2002-03 and 2003-04 along with the basis and assumptions. The petitioner has further stated that the data for 2000-01 is audited.

## **CHAPTER – 3: OBJECTIONS AGAINST THE TARIFF PETITION AND REPLIES OF WBPDC. (2003-04)**

3.1 A notification was issued in January 2003 requiring objections from the interested parties/objectors/consumers etc. to file the objections if any to the tariff proposals by 28th January 2003.

3.2 In response to this notification published in four widely circulated newspapers published from Kolkata two objectors put forward their objections and in the following paragraphs we shall indicate the gist of their objections and replies of WBPDC thereon if any.

3.3.1 A number of objections have been raised by West Bengal State Electricity Board (WBSEB) and in its objections, the WBSEB has indicated that it is a statutory body constituted by section 5 of the Electricity (Supply) Act, 1948 and it is purchasing electricity from WBPDC from the latter's different power stations. While WBSEB has formal agreement for purchase of electricity from Kolaghat Thermal Power Station (KTPS), similar formal agreements for purchase of electricity from Bakreswar, Bandel and Santaldih Thermal Power Stations are yet to be executed.

3.3.2 WBSEB has pointed out that the petitioner has stated that installed capacity of KTPS is 1260 MW and will generate energy of 6133 MU at a PLF of 61% during the year 2003-04 whereas the Commission in its tariff order for 2002-03 has considered only generation of KTPS at 68.5% PLF. The reasons assigned by the petitioner for non-generating PLF of 68.5% are not acceptable to Board, and the normative PLF of 68.5% has been generally accepted in respect of thermal power stations owned by generating company. WBSEB feels that the realization of fixed cost of KTPS should be allowed based on PLF at 68.5% not at 61%. Similarly, the Auxiliary Consumption at this PLF should be 9.5% and not 10% as taken by the petitioner.

3.3.3 The WBSEB has further indicated that in KTPS the petitioner has calculated the fuel cost on actual and not on normative figures whereas the Commission in its tariff order for 2000-01 and 2002-03 considered the heat rate of 2650 Kcal/Kwh and 2703 Kcal/Kwh respectively which are higher than the heat rate admissible as per. GOI notification. The WBSEB further stated that the normative heat rate for 2003-04 for KTPS should be taken at 2703 Kcal/Kwh and not 3000 Kcal/Kwh as claimed.

3.3.4 The WBSEB has also raised objection on the heat rate and auxiliary consumption taken for BKTPS as and stated that since this station has completed its stabilization period, the normative heat rate in respect of BKTPS should reasonably be fixed at 2500 Kcal/Kwh as is admissible as per GOI notification and not 2700 Kcal/Kwh.

3.3.5 The WBSEB also feels that the tariff for STPS should be 147 Paise/Kwh instead of 223.32 Paise/Kwh as claimed by the petitioner and has given its basis of computation.

3.4.1 The WBPDC has submitted its rejoinders to the objections filed by the WBSEB.

3.4.2 On the objection of WBSEB it is claimed by WBPDC that the amount of generation by KTPS during evening peak hours should be considered as the capability of power stations. The computation in this behalf should not be made based on the rated capability of plant and normative PLF of 68.5% worked out accordingly for although the later which could be achieved and maintained round the clock but not achievable in off-peak period due to vast fall in off-peak demand in the WBSEB system. In the event WBSEB failed to take normative generation, the gap between the actual generation and the normative generation should be compensated by the WBSEB to WBPDC, and the same concept of deemed generation has been duly considered by the Commission in its tariff order dated 12.7.2001 for the financial year 2001-02.

3.4.3 The WBPDC has further stated that due to peak / off-peak load variations the sustained rated operation of the unit does not generally happen which results in higher auxiliary consumption WBPDC has supported its arguments with the recommendations of the heat rate committee constituted by the GOWB.

3.4.4 On station heat rate the WBPDCCL reiterated the reasons for non-achieving normative heat rate and the major reasons according to it are that these stations are not connected to any dedicated colliery, they received different grades of coals adverse peak and off-peak variations of load demand, there are severe operational problems due to quality of coal, high frequency exertion beyond normative level in view of the non-connection with the central grid adverse peak / off-peak variations of system etc.

3.4.5 On the points relating to tariff for STPS, the WBPDCCL stated that WBSEB has not provided the basis of the calculations for arriving at stations heat rate, GCV etc. which in turn support of calculations on tariff and in view of the same they cannot provide any clarifications on tariff which has been arbitrarily arrived by WBSEB. As regards of WBSEB's suggestions on reasonable return, WBPDCCL does not agree with the WBSEB's concept of 3% return on net fixed assets which is applicable to Boards only.

3.5 West Bengal State Electricity Board Workmens' Union indicated that that the Union is a registered trade union representing most of the employees of West Bengal State Electricity Board and West Bengal Power Development Corporation Ltd. and they have filed their objection being a registered union of the WBPDCCL. The Union has felt that the tariff petition is an arbitrary one and the union, which has to safe guard the interest of the workers or the employees, has not been consulted in this matter. They further felt that they came forward with a lot of suggestions towards cost control, performance, efficiency and organization development but very limited suggestions has been accepted by WBPDCCL. The Union feels that there is scope for reduction of cost of generation. It has give certain points relating to declaration of parameters, development of atmosphere of competition, non-availability of correct measurement of fuel and other consumables, claims for adverse peak and off-peak variations from CESC, scope for reduction of cost of fuel, cost of auxiliary consumption, levy of charges and passing on of the same to WBSEB which has to bear burden the huge transmission loss towards wheeling.

3.6 On the comments of WBSEB's Workmen's Union, the WBPDCCL has contended that it has got no control on transmission system of WBSEB and any portion of loss on this account cannot be borne by WBPDCCL. The latter has further indicated that WBPDCCL is very cautious of cost control aspects. WBPDCCL is always working for improvement of plant performance to achieve target parameters with a view to reduce the cost of generation to the extent possible.

#### **CHAPTER – 4: OBJECTIONS RAISED AT THE HEARING.**

4.1 The two objectors who had filed written objections have made their submission during the hearing and one more objector (All Bengal Electricity Consumers' Association), who had not filed any objection in writing has been also permitted to join the hearing.

4.2 At the outset, the Chairperson informed the WBPDCCL that the information/clarifications/ suggesting revision etc. submitted by the WBPDCCL to the Commission after notified date would not be taken into consideration by the Commission as the same was not available to the objectors for filing their objections. However, the WBPDCCL is permitted to raise those points during the hearing if they choose so.

4.3 Shri S. Mahapatra, Executive Director of WBPDCCL presented the tariff proposal before the Commission on behalf of the Company.

4.3.2 WBPDCCL gave an account of the present installed capacity at their existing four power stations and stated that the construction of the IVth and Vth unit of Generators with 210 MW capacity each at Bakreswar, an extension unit of 250 MW capacity at Santaldih and also of two units of 250 MW capacity at Sagardighi are under consideration with total capacity addition target for 1170 MW in Tenth Plan.

4.3.3 WBPDCCL represented to the Commission that the tariff fixed by the Commission for the year 2002-03 was inadequate to meet the Annual Revenue Requirement of the Company resulting a shortfall in respect of both fixed cost and variable cost. He confined his deliberation in support of the projected Plant Load Factors (PLF), Auxiliary Consumption, Heat Rate and Calorific Value of Coal and Oil, grade slippages and also on the transit loss of coal, non-inclusion of BOBR Wagon and Simulator Package and requested the Commission to accept the projected parameters.

4.3.4 With regard to Reasonable Return, he submitted that WBPDCCL was a Generating Company and should be allowed 16% return on the equity capital as in the case of a Generating Company instead of reasonable return as per the provision of Schedule VI of the E.S. Act 1948 which was meant for Licensees.

4.3.5 WBPDCCL also explained the background of the construction of the transmission system including the substations by WBPDCCL for evacuation of Bakreswar Power with the loan assistance from the Japan Bank for International Co-operation (JBIC) the transmission system was under the operation and maintenance of WBSEB. The spokesperson of company advanced the points in favour of charging depreciation, interest and reasonable return on the value of transmission assets which were in its books in addition to the loan liabilities (payment of interest and repayment of loan) which were also with them.

4.4 WBSEB was represented by Shri M. K. Roy, Chief Engineer (Commercial). Shri Roy, with the permission of the Commission, submitted different points in opposition to the Tariff Petition of WBPDCCL. He confined his deliberation within the points already raised in the written objections to the tariff petitions submitted by WBSEB within the time specified and notified by the Commission. The points related specially to PLF, Auxiliary Consumption, Station heat rate and transit loss of coal.

4.5 At this point of hearing Member (Finance and Accounts) asked WBSEB to submit the followings to the Commission.

i) The copies of the Government of India Notification regarding operating norms for the Thermal Power Plants for the year 2002-03 and for the year 2003-04 as stated in the hearing.

ii) WBSEB's projected purchase of power from different power stations under the operation of WBPDCCL vis-à-vis generation figures stated by WBPDCCL – and how that suits the norm of Merit Order Purchase from various stations of WBPDCCL particularly keeping in view the variable cost.

iii) WBSEB was also to state clearly whether WBSEB was in a position to absorb full power from WBPDCCL, if the latter's plants were operated as per the operational norms fixed by the Commission and as per the norms fixed by the Government of India. WBSEB was asked to submit the desired information within 15 working days from their date of hearing.

4.6 All Bengal Electricity Consumers' Association was permitted to raise their objections against the Tariff Petition of WBPDCCL even though no written objection was earlier received from them within the specified date notified by the Commission. This Consumers' Association, registered with the Commission, was represented by Shri Sanjit Biswas and he expressed their views as under:-

i) The Electricity Consumers, though not having any direct dealing with the WBPDCCL, are affected by the power tariff being allowed to them.

ii) The principle of commercial operation of power plants are not always in the interest of the consumers and WBPDCCL should be allowed Reasonable Returns @ 3% on net asset value in operation.

iii) He raised the question of the utility of transferring Bandel and Santaldih Power Stations to WBPDCCL when the operational efficiency of those plants had not improved after their transfer.

iv) He opposed the proposed hike in the O & M and General Charges and pointed out that the variable cost of power generation in case of WBPDCCL should be lower in view of their having captive coal mines.

v) The objections were also raised on PLF, variation in peak / off-peak, Load Management, proper load planning, coal consumption, transit loss of coal.

vi) The objections were also registered on the basis of parameters indicated in Section 29(2)(c), 29(2)(d) and 29(2)(e) of the ERC Act and the judgement of the Hon'ble Supreme Court dated 3.10.2002 in Civil Appeal No 4037 of 2002.

4.7 A written objection was received from W. B. State Electricity Board Workmen's Union within the last date specified for receiving such objections. The Union was represented by Shri Kanchan Mukherjee, Secretary. It was made clear to Shri Mukherjee that the Commission was to hear the consumers and any other person / persons affected by the proposed revision of power tariff and Shri Mukherjee could not be heard simply as a representative of a Workmen's Union. However, as a member of the consumers of WBSEB he might raise only those points which are related to consumers' interest. Shri Mukherjee admitted that he was not a consumer of WBPDCCL and raised only the general points relating to efficient operation of power plants.

4.8.1 The points were raised on technical and financial aspects on behalf of the Commission. The Commission directed WBPDCCL to submit its written replies to the observations within 15 working days from the date of conclusion of the hearing if it was not able to give the reply in course of the hearing itself.

4.8.2 Further details and price lists were required for purchase of coal and oil showing separately base price including taxes and duties and railway freight for respective grade along with GCV, the grade mix and names of the oil companies for each power stations.

4.8.3 Information was sought on high level of forced and planned shut down for the financial year 2002-03 for BKTPS, which had recently been commissioned. The WBPDCCL was also asked to complete and give the information pertaining to forced and planned shut down and major repairs at BKTPS for the financial years 2002-03 and 2003-04 the basis of calculation of the plant availability of 85% for BKTPS was sought as it was not matching with the forced and planned shut down. Similar information was also asked for KTPS.

4.8.4 Information was sought on the projected generation of STPS at 1250 MU for the financial year 2003-04 along with the details and information and the basis relating to the RLA study for the station.

4.8.5 Further information and documents were asked for fitness certificate for each boiler, status of installation of In-motion Weigh Bridge and joint sampling for coal, quality of water fed to boilers in unit No. 3 of KTPS. Again details were sought for on ID Fan of the BKTPS and whether due to same there was any forced shut down or planned shut down for the financial year 2001-03 and between (upto January, 2003) along with the relevant details and similar information for other vital auxiliaries.

4.8.6 Further details were sought for O&M cost for BKTPS for 2002-03 and 2003-04. Further details were sought regarding transportation of coal, non-use of BOBR wagons for own transportation. Information was also sought on the difference between plant availability factor and plant load factor, grade slippage and transit loss of coal, low generation in KTPS and STPS, minimum generation in MW for each plant on four specified dates and status of the insurance claims against fire in STPS.

4.8.7 Further information was sought regarding the status of the CEA's approval for BKTPS and data relating to BOBR wagons, actual sale of power outside the State of West Bengal from BKTPS, position of the staff of BTPS and STPS who have not opted for absorption in WBPDCCL.

4.8.8 Further information was sought on arrears of salary of staff arising due to pay revision, interest allowed thereon and claims of expenditure of tour, expenditures towards bonus, leave encashment, relating to the period before its take over of BTPS and STPS.

4.8.9 Further details were sought for the estimated employees' cost, R&M expenses, total loan, interest charges etc.

4.8.10 WBPDCCL was asked to indicate whether it agreed with all the applicable norms of central generating company as fixed by the CERC so that the Commission can examine the request of WBPDCCL for parity with the rate of return based on Central Generating Company.

4.8.11 Information was sought for on the capability of WBPDCCL (in MW) in peak hours against their installed capacity of 2900 MW and views of WBPDCCL in recovery of fixed costs linked with the

plant availability instead of PLF and formation of a committee to review and set operating norms and parameters for the various power stations under its operation.

4.8.12 Information was also sought for on the action taken for RLA and LEP in BTPS and STPS and its techno-economic feasibility.

4.9 Shri B. K. Paul, the Managing Director of WBPDCCL gave reply to the objections to their Tariff Proposal. He replied in conformity with rejoinders submitted by WBPDCCL earlier. Shri. B. K. Paul also raised point relating to allowable Heat Rate after RLA of Bandel and Santaldih.

4.10 Member (Finance & Accounts) urged WBPDCCL to come up also with their replies on the following points: -

(a) How they will like to have a broad based committee set up to examine and suggest on the operational parameters of their all the four power stations?

(b) To submit a Miscellaneous Petition wherein Residual Life Assessment and Life Extension Programme from the point of Techno-Economic benefits for Bandel and Santaldih along with other documents / details / data etc. in case they wanted the Commission to give its decision on investment on such work of the station.

(c) Whether the CERC norms as applicable to Central Generating Co. as acceptable to WBPDCCL including Rate of Return, as well as O & M Expenses, Depreciation, PLF, Plant Availability etc.

4.11 Member (Technical) asked WBSEB whether they had got any points of disagreement with the WBPDCCL on method of working out Plant Load Factor (PLF).

4.12 Dr. S. C. Bhattacharjee, Superintendent Engineer of WBSEB stated that PLF was to be calculated with reference to well-set norms. As regards applicability GOI notification, he felt that the 1992 order as amended is still applicable even after abolition of Sub-Section (2) of Section 43-A of E.S. Act, 1948.

## **CHAPTER – 5: FURTHER CLARIFICATIONS BY WBPDCCL.(2003-04)**

5.1 The WBPDCCL has submitted replies to the written objections filed by objectors which have already been stated in the earlier chapters. WBPDCCL also gave replies to the points raised by the Commission vide their letter no. WBPDCCL/F&A/A&B/232 dated 19.03.2003. WBPDCCL has stated that coal price notification of 17th August, 2002 was the latest and has also given the break up of coal price of Mahanadi Coal Field and the latest price as revised by IOC, HPC along with the GCV of oil. It has further given the element-wise break up of cess, taxes and duties etc. but has contended that quantity wise, grade wise and supplier wise estimated receipt of coal has been furnished by them to the Commission earlier on 21.02.2003. Commission has informed WBPDCCL in the hearing that this letter was not taken on record as it was received after the last date of the submission of the objections by the objectors.

5.2 The WBPDCCL has further given details relating to railway freight paid by it against coal purchased during the first six months of 2002-03.

5.3 As regards high forced/plant shut down in BKTPS it has been stated by WBPDCCL that it had to restore to forced shut down due to high grid frequency exceeding the safe operating limit, and in case of planned outages, the units could not be synchronized after maintenance as no permission from CLD was received due to low system demand. It has furnished the details in this regard.

5.4 WBPDCCL has stated that the planned maintenance schedule for BKTPS unit no. 2 is November, 2003 and has further stated that it has taken 25% of non-availability of plant capacity in KTPS against planned and forced outages as per previous figures and due to unforeseen outages of load bearing equipment. It has further contended that PLF is low comparing to plant availability due to low demand during off-peak hours, non-availability of load bearing equipment of the units, unforeseen forced outages and non-drawal of power by the grid and similar reasons.

5.5 WBPDCCL has also given details regarding actual transit loss based on In-motion Weigh Bridge in KTPS, BKTPS and BTPS and has indicated that it has already considered the grade slippage while working out quantity of coal, grade wise and supplier wise, and that further analysis of grade slippage is not required separately.

5.6 WBPDCCL has maintained its stand as given in the petition and explained in the hearing relating to generation at 61% PLF in KTPS and has also given the reasons of low generation in STPS in view of the R&M works on the basis of RLA study. WBPDCCL has also given the status of sanction of CEA for BKTPS. WBPDCCL has indicated that the boiler fitness certificate will be given with FSC claims as required by the Commission and has given the status of installation of In-motion Weigh Bridge and arrangement of Joint Sampling for coal. WBPDCCL has also furnished the reasons of quality of DM water and acid cleaning.

5.7 WBPDCCL has stated that it has no information on the claims lodged by the WBSEB with the insurance companies on the loss of assets of STPS.

5.8 WBPDCCL has submitted the information needed for generation, information relating to ID fan of BKTPS and other important auxiliaries, estimated requirement of maintenance expenses, combined demand curve and transportation of coal and grades of coal. WBPDCCL has submitted the details relating to BOBR wagons, reasons for non-using the wagons for own transportation, export of power from WBPDCCL, status of employees in BTPS, STPS, status of implementation of short-term R&M in BTPS and STPS, details relating to arrears of salary of staff, bonus, leave encashment etc., estimate of employees cost in 2002-03, estimate of R&M expenses, financing cost, loan etc.

5.9 WBPDCCL has also submitted their views on the acceptability of norms applicable to Central Generating Company, recovery of fixed costs linked with plant availability, review and set of operating norms of different power plants.

5.10 WBPDCCL has also given the status of action on the remaining life assessment and life extension programme in BTPS and STPS.

## **CHAPTER – 6: POINTS FOR CONSIDERATION AND DIRECTIONS ALREADY GIVEN.**

6.1 While dealing the tariff petitions of WBPDCCL for the year 2000-01, 2001-02 and 2002-03 the Commission has recorded its findings on certain points of law and also had given some other directions particularly relating to obtaining techno-economic clearance and approval of CEA for project cost of Bakreswar, Return on equity, inclusion of income derived from BOBR wagons and Simulator Package and export of cheaper power particularly when more expensive power was imported from outside the state both in peak and off-peak hours and increasing the plant availability and PLF of the power stations.

6.2.1 The WBPDCCL has again requested for a reasonable return of 16% on equity and has stated that the Government is silent on the replacement of the provisions contained in erstwhile section 43(A)(2) of the Electricity (Supply) Act, 1948 and further that there is no direction from the Hon'ble Commission in respect so far. It has enclosed a communication in this respect by MoP, GOI relating to return in respect of generating companies. The letter so enclosed was earlier examined and decided that it was applicable to the power stations of NTPC. Moreover, WBPDCCL has not given specific, clear and detailed reply relating to acceptability of all the norms as are applicable to Central Generating Company so that the Commission can examine and consider whether it should exercise its power for relaxation u/s 30 of the ERC Act as presently tariff for all the utilities is to be fixed as per the provision of the sections 29 of the ERC Act, 1998. The WBPDCCL has again quoted their letter of 21.2.2003 which was not taken on record, as already informed in the hearing, as it was received after the last date of receipt of objections by the consumers and was not available to the consumer for giving their objections if any.

6.2.2 The Commission has already decided in its order dated 12.7.2001 that in view of the provisions of section 29, 51 and 52 of the ERC Act, 1998 and notification of the Central Government u/s 51 of the Act, whereby section 43(A) of the 1948 Act has been omitted w.e.f. 11.9.2000, so far as the State of West Bengal is concerned, it cannot rely upon a deleted provision only for the purpose of return and it had indicated the reasons why the Commission would follow

the provisions of section 29 of the ERC Act and the procedure indicated in the CBR to guide the Commission towards determination of tariff for Kolaghat TPS of the WBPDCCL for the two years of 2000-01 and 2001-02. The same principle applies for other power stations of WBPDCCL and for Kolaghat TPS for 2001-02. The Commission has also noted that the quoted letter of GOI dated 15.10.1998 is applicable only to the projects of NTPC and it appears from the endorsement that the tariff revision will be subject to CERC's guidelines whereas the tariff of WBPDCCL is to be fixed by the Commission u/s 29 of the ERC Act, 1998. The higher return on equity without keeping in view the ceiling on various claims for expenses and other operational parameters is also not in the interest of the consumers.

6.2.3 The Commission, after discussing the various provisions relating to fixing of tariff under the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commission's Act, 1998, has come to conclusion that the tariff of the WBPDCCL is to be fixed u/s 29(2)(A) of the ERC Act, 1998 and the Sixth Schedule of the Electricity (Supply) Act, 1948 will be applicable for fixation of the tariff, as was done in earlier order pertaining to WBPDCCL for fixation of the tariff. Since the WBPDCCL has not given the relevant details of the capital base and other relevant information and only requested for tariff based on 16% return of equity a working formula was devised to give the WBPDCCL a reasonable return that would not abruptly change due to historical reasons. Accordingly, the Commission has departed from section 29 of the ERC Act as permissible u/s 30 of the said act and allowed 12% return on equity invested in the power stations of the WBPDCCL as a special case. Unfortunately, the Commission noticed that the WBPDCCL has still not complied with the requirements and given the necessary details of capital base for the consideration of the Commission towards fixation of tariff as per Sixth Schedule, and normative O&M expenses entitlement vis-à-vis expenses claimed. The Commission again directs the WBPDCCL to give the required information in its next tariff petition failing which its tariff petition for revision of tariff will not be considered by the Commission in future.

6.3 The WBPDCCL has not included the income derived from the BOBR wagons and Simulator Package even though directed by the Commission to do so in order dated 27.2.2002 at paragraph 11.2 in case of Bakreswar project. Non-compliance of this order will also be taken at the time of deciding the relevant expenditure and income.

6.4 The Commission in its order dated 27.2.2002 at Para 11.3, has directed that the power exported outside the State will be only from the Bakreswar Project or any other station whose power is costlier than the Bakreswar, provided there is no import of power at a higher cost by WBSEB from outside the State. The Commission has also given further direction relating to bearing of cost of such power so exported outside the State.

The Commission has noted that the WBPDCCL has pointed out that it exports power from its total pool and not from Bakreswar Thermal Power Station alone and the actual sales i.e., the export from the system during 2001-02 is 807.832 MU and the estimated sales during 2002-03 is 829.079 MU out of which 612.014 MU is in peak and only 217.065 MU is in off-peak. The Commission also noted that the peak power was exported at 178.43 paise/Kwh and off-peak power at 175.50 paise/Kwh during 2002-03 (from July, 2002) whereas it was 170.50 paise/Kwh in 2001-02 and upto July, 2002. The rate as prevalent for July 2002 to March 2003 is also proposed to be prevalent upto June, 2003 and therefore the rate is to be decided after introduction of ABT in the Eastern region. The Commission further notes the WBPDCCL's statement that it has maintained the supply to WBSEB as per latter's requirement. The Commission also notes the objections raised by the WBSEB in this regard, the rejoinders of the WBPDCCL and discussion in the hearing on the plant availability, Plant Load Factor, sale of power and export of power from the WBPDCCL's station. The Commission also observes that WBSEB has to pay the substantial amount to WBPDCCL towards the power supplied. The Commission also has noted that there already existed a substantial gap even in 2002-03 of the power projected by WBPDCCL for generation, generation approved by the Commission and the power purchase (lower side) as projected by the WBSEB.

Similarly, it has been observed by the Commission that net sent out power projected by WBPDCCL in 2003-04 is 12611 MU. The WBSEB has only shown purchase of 11095 MU – which itself is unlikely. Even if the Commission agrees with the generation projected by WBPDCCL, it appears that the WBSEB will not be able to purchase the 1516 MU from WBPDCCL (this is without scrutiny of the projected power purchased plan of the WBSEB by the Commission). Any increase in generation based on the PLF as contended by WBSEB and other objectors or as per the earlier orders of the Commission will further increase the gap and the Commission therefore has to have a relook at

the contention of the WBSEB that the latter will be in a position to absorb the full power of the WBPDCCL even with the higher Plant Load Factor. However, it is not in the interest of the consumer to pay for costly power when cheaper power is exported by the WBPDCCL as has been pointed out by some of the objectors. It appears to the Commission that it is not the WBPDCCL which is not able to sell the power to the WBSEB but it is WBSEB which is not able to absorb the full power being projected by the WBPDCCL even at the reduced PLF. Also there may be a problem of export of power as WBSEB is also contemplating the export of 1450 MU of power during 2003-04 apart from export of power by WBPDCCL and others in the region. WBPDCCL and WBSEB could not sustain fully and produce firm commitment for export of power even to the above extent and past trend is not encouraging. The issue will be appropriately discussed and decided at the time of working out of the Revenue Requirement, generation, sales, PLF etc. for WBPDCCL and also while working out the purchase of the WBSEB.

6.5 The WBPDCCL has stated in its petition that it has obtained techno-economic clearance from the CEA for unit no. 4 to 5 for Bakreswar Thermal Power Station and financial closure with JBIC is in final stage. The WBPDCCL has not filed detailed documents and sought the approval of the Commission for the purpose of determination of tariff and the Commission will like to put on record that keeping in view the judgement of the Hon'ble Supreme Court in case of WBERC Vs CESC in Civil Appeal No 4037 of 2002, where the Hon'ble Supreme Court in its order dated 3.10.2002 has held that the cost as determined by the CEA is not binding on the Commission as the Commission is also bound to look into the interest of the consumers and efficiency of the company and the object of determination of the cost as directed by the CEA and fixation of the tariff by the Commission are not entirely the same. It is, therefore, in the interest of the WBPDCCL to properly submit such documents and records in time in the petition so that it can also be seen and commented upon by the objectors/consumers before the Commission gives the decision while determining the tariff and avoid future disallowances keeping in view the above.

6.6 The capital cost of the Bakreswar Project Stage 1 is yet to get the techno-economic clearance and approval of the CEA and also it has to be accepted by the Commission in view of the reasons stated in the above para. The approval of CEA has been given subsequently in separate proceedings. However, the Commission has not yet taken any view on the same and will be decided separately. Meanwhile, the cost withheld is likely to be sufficient to take care of any re-assessment. The difference if any will be adjusted subsequently.

6.7 WBPDCCL has stated in the petition that the Government of West Bengal has informed the WBPDCCL that the Government of West Bengal is reviewing the capital structure of Bakreswar Thermal Power Station along with the applicable rate of interest on loan component and on getting the necessary administrative order from the GOWB, the WBPDCCL shall revise the tariff computation in respect of Bakreswar Thermal Power Station for which revised tariff application will be submitted before the Hon'ble Commission. Similarly the transfer value of Bandel and Santaldih is yet to be decided as issue of Revaluation of Assets is under consideration. The Commission has looked into these aspects and is of the opinion that the revision of the project cost, revision of the tariff, revaluation of assets, revised tariff application, review of the capital structure to increase the capital cost is to be examined in a transparent manner and after considering the consumers' interest, efficiency of the company and other parameters and factors indicated u/s 29 of the ERC Act, 1998 by following the due process of the law. The Commission therefore is not recording its final finding on the matter but will only record that the statement as stated is not acceptable to the Commission and the same will be examined at the appropriate time by following the due process of the ERC Act, 1998 read with other applicable acts and final decision will be taken accordingly.

6.8 The WBPDCCL has stated that the Commission has not prescribed separate tariff Regulations, the determination of the costs, revenue and tariff have been done in accordance with section 29 of the ERC Act, 1998. The Commission is of the opinion that the CBR framed by the Commission may be referred to which in chapter IV provides the methodology and terms and condition for fixation of tariff. Guidelines were also issued under CBR for filing of Annual Revenue/Tariff proposals. The ERC Act, 1998 under section 29(2) only required laying down terms and conditions for fixation of tariff by Regulation and the same has been provided in the CBR.

6.9 The other points and issues relating to determination of tariff along with working of Revenue Requirement and determination of tariff have been dealt in the subsequent chapters.



of auxiliary consumption norms required by the WBPDCCL and has calculated the normative auxiliary consumption on the basis of the Government of West Bengal norms in this behalf for the individual unit of each power station. The auxiliary consumption works out as under:

<b>Power Station</b>	<b>Claimed by WBPDCCL(MU)</b>	<b>Allowed by the Commission (MU)</b>
Kolaghat	673.30	706.96
Bakreswar	378.03	370.10
Bandel	229.79	224.78
Santaldih	210	165

7.5 The Commission will like to again re-iterate its earlier direction that the cheap power shall not be exported outside the State of West Bengal and that too on a first charge basis, particularly during peak hours when more expensive power is being imported from outside the State both in peak and off-peak hours. The WBPDCCL should give the required power to WBSEB as per their plan and also try to increase the same to the extent possible subject to system constraint and the power, if any, to be exported should be the costliest power or the power which has not been drawn by WBSEB. In case WBSEB is not able to draw the power as per the above sent out plan then they will have to pay the deemed generation fixed cost to WBPDCCL after accounting for the impact of power exported.

## **CHAPTER – 8 : FIXED COST.**

8.1 Under this head, the Commission is to look to the several aspects to determine the fixed cost and different components of the same are taken up one by one.

### **8.2 EMPLOYEES' COST**

8.2.1 The WBPDCCL has claimed an increase of 10% in the employees' cost over the previous year as under. During the hearing certain observations on the projection of employees' cost were raised and the WBPDCCL was asked to submit fair estimate of actual expenditure incurred in different power stations on this account for the year 2002-03. It appears from the subsequent information provided that the provisional actual employees' cost at different stations has been reduced substantially. The Commission considers the above provisional expenses for 2002-03 and after allowing a normal increase of 6%, the employees' cost for various stations comes as under :

<b>Power Stations</b>	<b>Originally Claimed by WBPDCCL (Rs. in Lakhs)</b>	<b>Allowed by the Commission (Rs. in Lakhs)</b>
Kolaghat	3580.09	3113.87
Bakreswar	986.24	870.86
Bandel	2915.73	2661.10
Santaldih	2336.79	2204.39

8.2.2 The Commission, however, noted that the employees' cost at both Bandel and Santaldih Power Station are very much on higher side and not commensurate with their generating capacities and actual generation. Similarly, the employees' cost at Kolaghat is high in comparison to employees' cost of Bakreswar. The Commission also noted that 1079 number of WBSEB employees who have not yet opted for absorption in WBPDCCL are yet to be withdrawn and are being paid by WBPDCCL. The Commission directs both WBSEB and WBPDCCL to speed up the process of re-deployment of excess manpower from these stations for gainful purposes so that cost of supply of power from these stations gets a correct reflection. The Commission has allowed the cost of such employees to WBPDCCL in this tariff, but will like to review the same in the next tariff petition and the cost of such employees should be recovered by WBPDCCL from WBSEB if no settlement is arrived by the next tariff petition. The Commission also directs the WBPDCCL to contain and reduce the employees' cost particularly in Bandel and Santaldih and gives detail action plan in this regard in its next tariff petition.

### 8.3 OPERATION AND MAINTENANCE COST

8.3.1 The WBPDCCL has given detail break-up of expenses projected by them towards operation and maintenance cost of different power stations during 2003-04. The actual audited expenditure on operation and maintenance incurred by WBPDCCL during 2001-02 was Rs. 11068.14 lakhs against their claim of Rs. 11730.13 lakhs for 2003-04, which is around 5.98% over the actual expenditure during 2001-02. The Commission admits the operation and maintenance cost as projected by WBPDCCL as under: -

	Rs. in Lakhs				
	Kolaghat	Bakreswar	Bandel	Santaldih	Total
(a) Buildings, Roads & Others	430.18	142.78	289.23	246.99	1109.18
(b) Plant & Machinery	1522.62	1054.76	2560.97	1568.70	6707.05
(c) Consumption of Stores & Spares	1765.75	515.13	406.38	189.46	2876.72
(d) Insurance	195.77	373.69	29.01	23.18	621.65
(e) Hydraulic Works	--	13.77	--	--	13.77
(f) Vehicles	9.82	--	9.77	11.83	31.42
(g) Office Equipment	9.26	9.05	4.31	1.42	24.04
(h) Others	66.60	--	21.28	258.42	346.30
<b>Total</b>	<b>4000.00</b>	<b>2109.18</b>	<b>3320.95</b>	<b>2300.00</b>	<b>11730.13</b>

### 8.4 RENT, RATES AND TAXES

8.4.1 The expenditure projected under this head for different power stations was scrutinized and it was seen that though there is not much variation in Kolaghat and Bakreswar Station, but in Bandel and Santaldih the projected expenditure are much higher than the expenses incurred in earlier years. The steep hike in the projected expenditure has not been adequately justified by the utility for these stations and therefore, we restrict the projected expenditure to the extent allowed in the previous year plus 6% escalation thereon in case of Bandel and Santaldih. The expenditure claimed and allowed is as under: -

Power Stations	Expenditure Claimed by WBPDCCL (Rs. in Lakhs)	Expenditure Allowed by the Commission (Rs. in Lakhs)
Kolaghat	17.46	17.46
Bakreswar	10.72	10.72
Bandel	86.51	37.43
Santaldih	67.54	1.40

### 8.5 LEGAL AND PROFESSIONAL CHARGES

8.5.1 Legal and Professional Charges claimed by WBPDCCL for different power stations is based on 10% escalation over the provisional actual expenditure incurred during 2002-03. The provisional actual for 2002-03 for Kolaghat is Rs. 37.20 lakhs and 10% escalation thereon comes to Rs. 40.92 lakhs and not Rs. 55.80 lakhs as claimed. The Commission, therefore, admits the legal and professional expenditure for different power stations as under:

Power Stations	Expenditure Claimed by WBPDCCL (Rs. in Lakhs)	Expenditure Allowed by the Commission (Rs. in Lakhs)
Kolaghat	55.80	40.92
Bakreswar	2.18	2.18
Bandel	2.02	2.02

Santaldih	11.88	11.88
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## 8.6 AUDIT FEES

8.6.1 The Commission admits the audit fees and expenses as claimed by WBPDCCL as under :

	Rs. in lakhs
Kolaghat	1.05
Bakreswar	0.90
Bandel	0.87
Santaldih	0.85

## 8.7 FUEL RELATED COST

8.7.1 WBPDCCL has asked for Rs. 4118.15 lakhs towards fuel related cost for the year 2003-04 and gave the stationwise break-up. The claim of WBPDCCL is less than the amount allowed by the Commission during the last year amounting to Rs. 4250 lakhs. The Commission feels that amount claimed may not be sufficient to meet out the fuel related cost including ash disposal charges and allowed Rs. 4643 lakhs by taking about 6% escalation except in case of Santaldih where additional amount has been provided as claimed with the following break-up. The Commission directs WBPDCCL to take all the required effective steps for disposal of Ash etc.

Power Stations	Claimed by WBPDCCL (Rs. in Lakhs)	Admitted by the Commission (Rs. in Lakhs)
Kolaghat	3000.00	3180
Bakreswar	118.15	318
Bandel	700	845
Santaldih	300	300

## 8.8 OTHER ADMINISTRATIVE, GENERAL AND MISCELLANEOUS CHARGES

8.8.1 WBPDCCL has claimed Rs. 1549.91 lakhs as other administrative, general and miscellaneous charges of their different power stations which are approximately 15% higher than the total expenditure projected and admitted for the year 2002-03. The projected expenditure is on higher side particularly in case of Bakreswar and Santaldih and no adequate reasons has been given for claiming such additional expenditure. It was noted by the Commission that there is some difference in the estimated actual expenditure as reported for 2001-02 in the last year and the actual audited expenditure for the same period in this tariff petition particularly in case of Kolaghat, Bakreswar and Santaldih. The Commission noted that though the percentage for increase is higher, but keeping in view the total amount of administrative, general and miscellaneous charges claimed by WBPDCCL, the Commission approves the projected expenditure of Rs. 1549.91 lakhs as per following details.

	Rs. in lakhs
Kolaghat	687.19
Bakreswar	442.29
Bandel	159.90
Santaldih	260.53

The Commission, however, would like WBPDCCL to exercise control over such expenses.

## 8.9 INTEREST AND FINANCE CHARGES

8.9.1 WBPDCCL has claimed total interest and finance charges amounting to s. 21205.95 lakhs giving break-up of interest and other finance charges and interest on working capital.

8.9.2 The Commission noted that the projected claims are not supported by the Statement of Loans and Calculation of Interest thereon in the format prescribed by the Commission and

communicated to them in this regard. The Commission also notes certain disparities in the statement of outstanding balance as on 31.3.2003 of loan from different sources. The Commission also notes differences in actual interest charges incurred in 2001-02 as shown in the tariff petition and as per the audited accounts. Some of the discrepancies noted relates to outstanding balance of loans of IDBI, LICI and GOWB. The total outstanding loan as per the tariff order of last year based on the projection of WBPDCI was Rs. 317.93 crores excluding temporary accommodation for Kolaghat whereas in this year tariff petition the opening balance as on 1.4.2003 on capital, O & M account excluding temporary accommodation is Rs. 653.33 crores and the reasons of differences has not been adequately and fully explained with proper reconciliation. Similarly, the total projected expenditure for 2001-02 on interest including working capital is Rs. 21601.16 lakhs against Rs. 16693.7 lakhs in the audited accounts. The stationwise figures of audited accounts by and large matches with figures of interest on term loans and therefore, it can be concluded that perhaps no interest on working capital has been paid as shown in the tariff petition. The Commission therefore, again directs WBPDCI to give complete, comprehensive and correct details in regard to total loan, interest claimed, repayment amount and dates, rate of interest, bifurcation of loan with reference to rate of interest and the basis of calculation of interest separately for each power station to enable the Commission to check the accuracy of interest being asked.

8.9.3 In view of the position explained above, the projected claims of WBPDCI towards interest and financing charges appear to be most unreliable and, hence, there is no option available to the Commission other than to work out the admissible charges towards interest and finance charges based on categorization of loans done in the audited Balance Sheet as on 31st March, 2002. The workings of the admissible interest and financing charges are shown hereunder for each of the four power stations.

(i) Kolaghat

<b>STATEMENT OF LOAN &amp; INTEREST ALLOWED THEREON</b>						
<b>Rs. in Lakhs</b>						
<b>Sources of Loan</b>	<b>Outstanding Balance as on 01.04.03</b>	<b>Rate of Interest</b>	<b>Amount due for Repayment</b>	<b>Interest Claimed</b>	<b>Interest Allowed</b>	<b>Remarks</b>
CAPITAL A/C IDBI	8121.00	14%	5177.00	823.00	774.55	As due date for repayment has not been mentioned, that has been considered as mid of the year
IFC	886.00	14%	529.00	95.00	87.01	-DO-
LIC-I	NIL	14%	NIL	NIL	NIL	In the Tariff Petition for 2002-03, the balance outstanding at the close of the year was shown Rs. 632.00 lakhs. But in the petition for 2003-04, the opening outstanding balance has shown NIL.
P.F.C	5773.00	16.75% & 12.5%	1612.00	895.00	895.00	The interest at average rate on the average outstanding balance has been restricted to the amount claimed.
L.I.C.-II	247.00	14%	161.00	23.00	23.00	Interest on average

						outstanding balance has been restricted to amount claimed.
Bonds (2003)	NIL	13.5%	NA	399.00	NIL	As the Bonds has been redeemed in the previous year, no interest is allowed in 2003-04.
Bonds (2007)	4700.00	13%	--	611.00	611.00	
G.O.W.B.	54.55	14%	--	--	7.64	As per audited accounts for 2001-02, this loan is other than for operation and maintenance. Interest has been allowed @ 14% provisionally.
Total A	19781.55		7479.00	2846.00	2398.20	
O&M A/C G.O.W.B - (B)	45551.45	12.5 14.0 14.5 15.5	NIL	6565.00	5466.17	Being in the form of temporary financial accommodation interest @ 12% has been allowed as special case.
Guarantee Fee (C)				160.00	160.00	
Total (A+B+C)	65333.00		7479.00	9571.00	8024.37	

## (ii) Bakreswar

The interest and financing charges claimed by the WBPDCCL for their Bakreswar Power Station is Rs. 3309.54 lakhs @ 2% on the JBIC loan of Rs. 165477.00 lakhs allocated towards the capital cost of Unit No.: 1, 2 & 3. They, however, have not claimed any interest on the amount of JBIC Loan utilized for the procurement of BOBR wagons and desired that neither the income from these wagons nor the expenditures incurred thereon should be taken into consideration while fixing power tariff from the Station. The Commission does not agree on this point as discussed in earlier Tariff Orders and earlier and proceeds to ascertain the power tariff of Bakreswar accordingly taking the income from and reasonable expenditure on the BOBR wagons into consideration. As per the information provided subsequently in response to query raised during public hearing the JBIC loan allocated for the procurement of the referred wagons is Rs. 3665.00 lakh. The Commission allows interest on this amount of JBIC loan @ 2%. The interest, thus, being allowed in the accounts of Bakreswar Power Station comes to Rs. 3382.84 lakh.

## (iii) Bandel

Though the WBPDCCL claimed Rs. 100.00 lakhs towards interest and financing charges in the accounts of Bandel Power Station, no detail in regard to sources, terms and purpose to projected loan was mentioned. No supporting computation in this regard also was provided. However, it was later on stated that the claim of Rs. 100.00 lakhs towards interest and financing charges were in fact the projected interest payable to the employees on their arrear salary arising due to pay revision. The same is accordingly admitted. However, this may not be taken as precedence in future.

## (iv) Santaldih

As per the information submitted in replies to the points raised during the public hearing of the Tariff Petition, it comes out that the amount of Rs. 75.00 lakhs claimed towards interest and financing charges is the interest provision on the arrear salary due to the employees. We are accordingly allowing the amount but it may not be taken as precedence in future.

8.9.4 We are not allowing any separate interest on working capital for any of the power stations and practically the claims in this regard were not supported by any details. We, however, have considered working capital in the same line as provided in Sixth Schedule of the Electricity (Supply) Act 1948 as part of the capital employed and allowed return thereon. This has been dealt with in appropriate place separately hereafter.

8.9.5 The Commission also noted that the rate of interest on some of the existing loans and fresh loan being raised is quite high particularly in the present interest rates scenario where prevailing rate of interest is around 9% to 11%. The WBPDCCL is directed that they should explore all possibilities to pre-pay the costly loans and substitute it by cheaper loans. The WBPDCCL should avoid taking loans with unusual high rate of interest from any source and Commission noted that even rate of interest on Government of West Bengal loans is very high in the present market scenario.

#### 8.10 DEPRECIATION

8.10.1 The WBPDCCL has claimed depreciation in regard to their different power stations as under:

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	Rs. in lakh
Kolaghat	12081.98
Bakreswar	17960.75
Bandel	710.11
Santaldih	111.35
Total	30864.19

8.10.2 The projected depreciation in regard to Bakreswar Power Station is net of the amount to be charged on the capital cost of transmission system and also on the cost of BOBR Wagons. The WBPDCCL stated that the capital cost of BOBR Wagons was Rs. 4642.15 lakhs. But as per the audited accounts, the same is Rs. 3785.60 lakhs only and we allow depreciation on that value @ 7.84% for one year which comes to Rs. 296.79 lakhs. Thus, the amount of depreciation we admit for Bakreswar Power Station is Rs. (17960.75 + 296.79) lakhs i.e. Rs. 18257.54 lakhs. For other power stations we admit the projected depreciation. The depreciation charges admitted by us, thus, come as under: -

	Rs. in Lakh
Kolaghat	12081.98
Bakreswar	18257.54
Bandel	710.11
Santaldih	111.35
Total	31160.98

#### 8.11 REASONABLE RETURN

8.11.1 The WBPDCCL claimed 16% return on the equity capital deployed at different power stations. Their claims are as under: -

	Rs. in Lakh	
	Equity Capital	Return Claimed
Kolaghat TPS	83329.40	13332.70
Bakreswar TPS	83046.68	11347.04
Bandel TPS	392.58	62.81
Santaldih TPS	5046.97	807.52
Total		25550.07

Equity capital as shown for Kolaghat is as per the Equity subscribed by and issued to the Government of West Bengal and that for Bakreswar is taken as per the capital restructuring proposal approved by the Government. But the projected equity capitals for Bandel and Santaldih are the assumed figures stated to be on the basis of the Book value of assets and liabilities as on 31st March 2001 and are subject to the settlement of the transfer value of the power stations and the fixation of Equity Investment by the Government of West Bengal.

8.11.2 As stated in para 6.2.3 of this order the Commission decides to allow 12% return on the Net Capital Base and for that purpose, the Net Capital Base separately for each of the four power stations has been worked out as under on the basis of data provided in the petition of WBPDC.

<b>STATEMENT OF CAPITAL BASE AT THE END OF 2003-04 AND RETURN ALLOWED</b>					
		<b>Kolaghat</b>	<b>Bakreswar</b>	<b>Bandel</b>	<b>Santaldih</b>
		<b>(Figures in Rs. Lakhs)</b>			
1.	Original cost of Fixed Assets	164525.15	247397.60	20692.55	14271.85
2.	Cost of Capital Work-in-Progress	8527.82	Nil	2971.91	6103.57
3.	Working Capital				
	a) Stores & Spares	7193.72	3037.30	1892.16	1388.48
	b) Cash & Bank Balance	547.99	253.03	506.63	399.01
	<b>Total (A)</b>	<b>180794.68</b>	<b>250687.93</b>	<b>26063.25</b>	<b>22162.91</b>
	Less :				
4.	Accumulated Depreciation	123973.21	44040.38	19298.53	18699.77
5.	Outstanding Loans	12302.55	169142.00	Nil	Nil
	<b>Total (B)</b>	<b>136275.76</b>	<b>213182.38</b>	<b>19298.53</b>	<b>18699.77</b>
6.	<b>Net Capital Base (A-B)</b>	<b>44518.92</b>	<b>37505.55</b>	<b>6764.72</b>	<b>3463.14</b>
7.	Return allowed @12% on (6) above	5342.27	4500.67	811.77	415.58

## 8.12 OTHER INCOME

8.12.1 Income from other sources, as projected by WBPDC for different stations are as under :-

Rs. in lakhs

Kolaghat	355.00
Bakreswar	78.00
Bandel	14.00
Santaldih	27.67
<b>Total</b>	<b>474.67</b>

Above projected income from other sources excludes delayed payment surcharge recoverable from WBSEB. As it appears from the audited accounts of WBPDC for the year 2001-02, the outstanding Sundry Debtors of them as on 31st March 2002 had been for an amount of Rs. 234858.39 lakhs and the delayed payment surcharge accounted for the year 2001-02 was Rs. 8321.77 lakhs as other income. WBPDC has not proposed any amount receivable towards such surcharge during 2003-04. It has been noted with great concern that the utility is borrowing heavily from the State Government that too at very high rate of interest to meet up their payment obligations in the revenue account and asking for recovery of interest burden through the power tariff while substantial amount towards power supply bills remained unrecovered from the WBSEB. The Commission again directs WBPDC to provide complete details in regard to their unpaid supply bills and the amount of delayed payment surcharge billed and recovered so far along with

action taken to recover the amount in their next tariff petition so as to enable the Commission to take appropriate view in this regard.

8.12.2 However, as a special case, the Commission accepts the projected other Incomes for Kolaghat, Bandel and Santaldih. So far other income of Bakreswar is concerned, the Commission does not agree with the views of WBPDCI in regard to exclusion of the lease rent receivable from the BOBR Wagons from the pervue of the power tariff. Commission's view in this regard had already been expressed in earlier orders. We have allowed depreciation and return on the original cost of BOBR Wagons as stated in para 9.10 and para 9.11. The estimated income towards rental charges of BOBR Wagons we consider at the 2001-02 level of Rs. 835.44 lakh.

8.12.3 The Income from Other Sources as are being admitted by us for different power stations are as under: -

	Rs. in lakh
Kolaghat	355.00
Bakreswar	913.44
Bandel	14.00
Santaldih	27.67
Total	1310.11

## **CHAPTER – 9: VARIABLE COST AND EXPENDITURE.**

### **FUEL COST**

9.1 Fuel cost represents cost of coal and oil. The cost of coal depends on the quantum of coal consumption as well as price of coal. Quantum of coal consumption, in terms depends on the useful heat value of coal being used and the heat rate of the generating units.

9.2 WBPDCI in its tariff petition has requested for being allowed the actual heat rate for various power stations and justified the same on the basis of different grades of coal being received from large number of collieries, peak and off-peak variation of load demand which do not allow sustained rate of operation, difficulty in maintaining boiler combustion on stable regime, system frequency excursion beyond normative level thrust upon operating units which necessitate WBPDCI to resort to oil firing and boilers are operated under combination firing. The WBPDCI also gave a data of first six months of 2002-03 of the frequency profile of the eastern region showing the percentage of time when the frequency was in various ranges including below 48 HZ and above 51.5 HZ.

9.3 Government of West Bengal set up an Expert Committee in November 1996 to advise the Government on the station heat rate, secondary fuel consumption and auxiliary consumption for various thermal stations in the State under WBSEB, CESC, DPL and DPSCI having capacity of 60 MW and above. The Government of West Bengal accepted part of the recommendation relating to heat rate, auxiliary consumption and secondary oil consumption.

9.4 The Commission feels that the recommendation of the Committee is more than 6 years back and there are lot of changes in the operational requirements including change in load and demand situation and look into various change in laws and environment in power sector. Also a fresh look is required keeping in view the various provisions of the Electricity Act 2003. The Commission is already in the process of fixing fresh norms for operational parameters and efficiencies and the penalty and reward thereon. It will take some time before regulations in this regard are notified. The Commission also observes that some of the observation raised by the utility needs consideration in view of the changed scenario. A utility should only be penalized where they can be proved inefficient and they should not be penalized for any stated inefficiency for which they have no control. Similarly, the Commission is aware of the fact that in case utility is able to perform better and show improvement over laid down parameters then they may get incentive for such efficient operation that will be in the interest of the consumer as well as the utility. However, as stated above, the working of the performance parameters norms will take some time and presently the Commission therefore, will adopt the norms as were adopted by the Government of West Bengal on overall basis for the utility. However, the Commission may deviate from such

norm if the utility is able to fully justify any higher heat rate or higher rate of consumption of coal / oil based on data, document and justifiable reasons which are beyond the control of the utility.

9.5 As regards GCV of the coal and price thereof the Commission noted that the supporting data provided for working of the average coal price is not sufficient and correct. The coal price was revised in August, 2002 and based on the stationwise, gradewise, coal company wise quantity given for the coal consumption, average price of the coal has been worked out by the Commission after taking into account weighted average price of freight as per details given by WBPDCCL itself for earlier year with an escalation of 6% thereon. It has been noted that the price as worked out by the Commission in that manner and the price as claimed by the utility is substantially different from each other, and the latter is higher than the former.

9.6 The Commission, therefore, has adopted the coal price and oil price as has been worked out by the Commission based on the relevant available data provided by the WBPDCCL in the tariff petition. Difference, if any, will be adjusted at the admissible cost in FPPCA claim after WBPDCCL gives detail break-up and all the relevant data and documents in this regard.

9.7 As regard transit loss of coal, the Commission noted that earlier they have allowed transit loss of coal @ 1% whereas GOWB norm is upto 4%. As indicated above, the Commission has worked out the fuel cost based on the normative parameters Approved by the GOWB including transit loss and restricting it to actual expenses, if claimed less.

9.8 Based on the above findings, the Fuel Cost of the power stations of WBPDCCL have been computed at Annexure 1 to 4 in subsequent pages.

<b>COST OF FUEL FOR WBPDCCL (KOLAGHAT) 2003-04</b>				
<b>Sr. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>As projected by WBPDCCL</b>	<b>As allowed by Commission</b>
1.	Gross Generation	MU	6733	6733
2.	Auxiliary Consumption	MU	671.3	706.96
3.	Ex-bus Generation (1-2)	MU	6059.69	6026.04
4.	Heat Rate	Kcal/kwh	3000	2735
5.	Total Heat Required (1x4)	M. Kcal	20199000	18414755
6.	GCV Oil	Kcal/lit.	9350	9350
7.	Specific Consumption of Oil	MI/kwh	3	6.5
8.	Oil Consumed (1x7)	KL	20199	43764.5
9.	Average Price of Oil	Rs./Kl	15500	19771
10.	Cost of Oil (8x9)	Rs.(Lakh)	3130.84	8652.68
11.	Heat Generated from Oil (6x8)	M/Kcal	188860.65	409198.07
12.	Heat Generated from Coal (5-11)	M/Kcal	20010139.35	18005556.93
13.	GCV of Coal (weighted Average)	Kcal/Kg	3900	3900
14.	Coal Required (12/13)	MT	5130804.96	4616809.47
15.	Coal required (including transit loss)	MT	5130804.96	4801481.85
16.	Weighted average price of Coal including Rly. Freight	Rs./MT	1380	1218.01
17.	Cost of Coal (15x16)	Rs.(Lakh)	70805.11	58482.53
18.	Total Cost of Fuel (10+17)	Rs.(Lakh)	73935.95	67135.21
19.	Energy (variable) cost per unit of Expenditure-bus Generation (18/3)	Paise/Kwh	122.01	111.41

**COST OF FUEL FOR WBDCL (BAKRESWAR) 2003-04**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>As projected by WBDCL</b>	<b>As allowed by Commission</b>
1.	Gross Generation	MU	3780.37	3780.37
2.	Auxiliary Consumption	MU	378.03	370.10
3.	Ex-bus Generation (1-2)	MU	3402.34	3410.27
4.	Heat Rate	Kcal/kwh	2700	2664.76
5.	Total Heat Required (1x4)	M. Kcal	10207021	10073778
6.	GCV Oil	Kcal/lit.	10500	10330
7.	Specific Consumption of Oil	MI/kwh	1.5	5.4
8.	Oil Consumed (1x7)	KL	5670.567	20414.00
9.	Average Price of Oil	Rs./Kl	15054	19971
10.	Cost of Oil (8x9)	Rs.(Lakh)	853.65	4076.88
11.	Heat Generated from Oil (6x8)	M/Kcal	59541	210876.62
12.	Heat Generated from Coal (5-11)	M/Kcal	10147480	9862901.38
13.	GCV of Coal (weighted Average)	Kcal/Kg	4850	4850
14.	Coal Required (12/13)	MT	2092264	2033587.91
15.	Coal required (including transit loss)	MT	2092264	2114931.43
16.	Weighted average price of Coal including Rly. Freight	Rs./MT	1642.66	1450.3
17.	Cost of Coal (15x16)	Rs.(Lakh)	34368.71	30672.85
18.	Total Cost of Fuel (10+17)	Rs.(Lakh)	35222.36	34749.73
19.	Energy (variable) cost per unit of Expenditure-bus Generation (18/3)	Paise/Kwh	103.50	101.90

**COST OF FUEL FOR WBDCL (BANDEL) 2003-04**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>As projected by WBDCL</b>	<b>As allowed by Commission</b>
1.	Gross Generation	MU	2089	2089
2.	Auxiliary Consumption	MU	229.79	224.78
3.	Ex-bus Generation (1-2)	MU	1859.21	1864.22
4.	Heat Rate	Kcal/kwh	3150	2854.22
5.	Total Heat Required (1x4)	M. Kcal	6580350	5962465
6.	GCV Oil	Kcal/lit.	10400	10300
7.	Specific Consumption of Oil	MI/kwh	4.15	6.5
8.	Oil Consumed (1x7)	KL	8669.35	13578.5
9.	Average Price of Oil	Rs./Kl	14000	19971
10.	Cost of Oil (8x9)	Rs.(Lakh)	1213.71	2711.76
11.	Heat Generated from Oil (6x8)	M/Kcal	90161.24	139858.55
12.	Heat Generated from Coal (5-11)	M/Kcal	6490188.76	5822606
13.	GCV of Coal (weighted Average)	Kcal/Kg	4600	4600
14.	Coal Required (12/13)	MT		1265783.9
15.	Coal required (including transit loss)	MT	1401901.6	1316415.25
16.	Weighted average price of Coal including Rly. Freight	Rs./MT	1750	1440.86
17.	Cost of Coal (15x16)	Rs.(Lakh)	24690.94	18967.70

18.	Total Cost of Fuel (10+17)	Rs.(Lakh)	25904.65	21679.46
19.	Energy (variable) cost per unit of Expenditure-bus Generation (18/3)	Paise/Kwh	139.3	116.29
<b>COST OF FUEL FOR WBPDC (SANTALDIH) 2003-04</b>				
<b>Sr. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>As projected by WBPDC</b>	<b>As allowed by Commission</b>
1.	Gross Generation	MU	1500	1500
2.	Auxiliary Consumption	MU	210	165
3.	Ex-bus Generation (1-2)	MU	1290	1335
4.	Heat Rate	Kcal/kwh	3674	2932.63
5.	Total Heat Required (1x4)	M. Kcal	5511000	4398945
6.	GCV Oil	Kcal/lit.	10400	10300
7.	Specific Consumption of Oil	MI/kwh	4	6.5
8.	Oil Consumed (1x7)	KL	6000	9750
9.	Average Price of Oil	Rs./Kl	15035.67	19971
10.	Cost of Oil (8x9)	Rs.(Lakh)	902.14	1947.17
11.	Heat Generated from Oil (6x8)	M/Kcal	62400	100425
12.	Heat Generated from Coal (5-11)	M/Kcal	5448600	4298520
13.	GCV of Coal (weighted Average)	Kcal/Kg	4620	4620
14.	Coal Required (12/13)	MT		930415.58
15.	Coal required (including transit loss)	MT	1179350.65	967632.20
16.	Weighted average price of Coal including Rly. Freight	Rs./MT	1750	1533.58
17.	Cost of Coal (15x16)	Rs.(Lakh)	20638.64	14839.41
18.	Total Cost of Fuel (10+17)	Rs.(Lakh)	21540.78	16786.58
19.	Energy (variable) cost per unit of Expenditure-bus Generation (18/3)	Paise/Kwh	167	125.74

## CHAPTER – 10: REVENUE REQUIREMENT & COST OF POWER SUPPLY

Based on the analysis of the facts, figures and Commission's decisions recorded in the earlier chapters, we now proceed to present the summarized Statement of Revenue Requirements of the WBPDC for the year 2003-04 for each of their four power stations separately. We are also arriving at average rate of recovery of power charges per unit for all the four power stations as under: -

<b>KOLAGHAT TPS</b>			
<b>STATEMENT OF REVENUE REQUIREMENT FOR 2003-04</b>			
		<b>Rs. in Lakh</b>	
<b>Sl. No.</b>	<b>Particulars</b>	<b>As Projected</b>	<b>As Admitted</b>
A.	Variable Cost		
1.	Cost of Fuel	73935.95	67135.21
2.	Total (A)	73935.95	67135.21
B.	Fixed Cost		
3.	Employees' Cost	3580.09	3113.87
4.	Repairs & Maintenance	4000.00	4000.00

5.	Rent, Rates and Taxes	17.46	17.46
6.	Legal & Professional Charges	55.80	40.92
7.	Audit Fees	1.05	1.05
8.	Fuel and Ash handling charges	3000.00	3180.00
9.	Administrative, General & Misc. Charges	687.19	687.19
10.	Interest on Term Loans	13367.91	8024.37
11.	Other Interest Charges & Financing Charges		
12.	Depreciation	12081.98	12081.98
13.	Total Fixed Cost (B)	36791.48	31146.84
14.	Reasonable Return	13332.70	5342.27
15.	Gross Revenue Requirement	124060.13	103624.32
16.	Other Income	355.00	355.00
17.	Net required from sale of Power (15-16)	123705.13	103269.32
18.	Saleable Units (MU)	6059.699	6026.04
19.	Average Cost of Supply (Paise/Kwh)	204.14	171.37

<b>BAKRESWAR TPS</b>			
<b>STATEMENT OF REVENUE REQUIREMENT FOR 2003-04</b>			
		<b>Rs. in Lakh</b>	
<b>Sl. No.</b>	<b>Particulars</b>	<b>As Projected</b>	<b>As Admitted</b>
A.	Variable Cost		
1.	Cost of Fuel	35222.36	34749.73
2.	Total (A)	35222.36	34749.73
B.	Fixed Cost		
3.	Employees' Cost	986.24	870.86
4.	Repairs & Maintenance	2109.18	2109.18
5.	Rent, Rates and Taxes	10.72	10.72
6.	Legal & Professional Charges	2.18	2.18
7.	Audit Fees	0.90	0.90
8.	Fuel and Ash handling charges	118.15	318.00
9.	Administrative, General & Misc. Charges	442.29	442.29
10.	Interest on Term Loans	5374.84	3382.84
11.	Other Interest Charges & Financing Charges		
12.	Depreciation	17960.75	18257.54
13.	Total Fixed Cost (B)	27005.25	25394.51
14.	Reasonable Return	11347.04	4500.67
15.	Gross Revenue Requirement	73574.65	64644.91
16.	Other Income	78.00	913.44
17.	Net required from sale of Power (15-16)	73496.65	63731.47
18.	Saleable Units (MU)	3402.341	3410.27
19.	Average Cost of Supply (Paise/Kwh)	216.02	186.88

<b>BANDEL TPS</b>			
<b>STATEMENT OF REVENUE REQUIREMENT FOR 2003-04</b>			
		<b>Rs. in Lakh</b>	
<b>Sl. No.</b>	<b>Particulars</b>	<b>As Projected</b>	<b>As Admitted</b>
A.	Variable Cost		
1.	Cost of Fuel	25904.65	21679.46
2.	Total (A)	25904.65	21679.46
B.	Fixed Cost		
3.	Employees' Cost	2915.73	2661.10
4.	Repairs & Maintenance	3320.95	3320.95
5.	Rent, Rates and Taxes	86.51	37.43
6.	Legal & Professional Charges	2.02	2.02
7.	Audit Fees	0.87	0.87
8.	Fuel and Ash handling charges	700.00	845.00
9.	Administrative, General & Misc. Charges	159.90	159.90
10.	Interest on Term Loans	1364.09	100.00
11.	Other Interest Charges & Financing Charges		
12.	Depreciation	710.11	710.11
13.	Total Fixed Cost (B)	9260.18	7837.38
14.	Reasonable Return	62.81	811.77
15.	Gross Revenue Requirement	35227.63	30328.61
16.	Other Income	14.00	14.00
17.	Net required from sale of Power (15-16)	35213.63	30314.61
18.	Saleable Units (MU)	1859.210	1864.22
19.	Average Cost of Supply (Paise/Kwh)	189.40	162.61

<b>SANTALDIH TPS</b>			
<b>STATEMENT OF REVENUE REQUIREMENT FOR 2003-04</b>			
		<b>Rs. in Lakh</b>	
<b>Sl. No.</b>	<b>Particulars</b>	<b>As Projected</b>	<b>As Admitted</b>
A.	Variable Cost		
1.	Cost of Fuel	21540.78	16786.58
2.	Total (A)	21540.78	16786.58
B.	Fixed Cost		
3.	Employees' Cost	2336.79	2204.39
4.	Repairs & Maintenance	2300.00	2300.00
5.	Rent, Rates and Taxes	67.54	1.40
6.	Legal & Professional Charges	11.88	11.88
7.	Audit Fees	0.85	0.85

8.	Fuel and Ash handling charges	300.00	300.00
9.	Administrative, General & Misc. Charges	260.53	260.53
10.	Interest on Term Loans	1099.11	75.00
11.	Other Interest Charges & Financing Charges		
12.	Depreciation	111.35	111.35
13.	Total Fixed Cost (B)	6488.05	5265.40
14.	Reasonable Return	807.52	415.58
15.	Gross Revenue Requirement	28836.33	22467.56
16.	Other Income	27.67	27.67
17.	Net required from sale of Power (15-16)	28808.66	22439.89
18.	Saleable Units (MU)	1290	1335
19.	Average Cost of Supply (Paise/Kwh)	223.32	168.09

### **CHAPTER-11: The Case of West Bengal Power Development Corporation Ltd. (WBPDC) 2004-05.**

11.1 West Bengal Power Development Corporation Ltd (WBPDC) has submitted a petition containing a proposal for revision of tariff for the year 2004-05 in accordance with Section 43(1) and 43(2) of the Commission's conduct of Business Regulations, 2000 under the Electricity Regulatory Commission Act. 1998, as the new regulations in this behalf under the Electricity Act. 2003, was not in place when this tariff petition was filed.

11.2 The petitioner has introduced itself, described how it started with one thermal power station in 1986, how subsequently four more thermal power stations were annexed to it, how it installed a transmission system for evacuation of power from one of those thermal power stations etc. These have already been mentioned in chapter 1 and therefore are not repeated here.

11.3 The petitioner has also repeated that the State Govt. of West Bengal has not yet finalized the purchase considerations of the power plants at Bandel and Santaldih and therefore, the petitioner has built up in the tariff petition a deemed transfer of the assets of these power stations at book value.

11.4 The petitioner has again come up with its plea that the reasonable return to the petitioner company should be based on equity, that the equity should be computed on the paid up and subscribed capital relating to a generating unit, and that the said reasonable return should be 16% of such capital.

11.5 WBPDC has asked for interest on working capital on the basis of normative parameters as per norms declared by the Central Government in this behalf.

11.6 The petitioner wants that expenditures on works and services or those beyond original scope of work, undertaken after the Commercial Operation Date should be taken into account as additional capitalization on annual basis.

11.7 The instant tariff petition seeks incentives payable at 0.7% of paid up and subscribed capital for each percentage point increase of P.L.F. above the normative level of 68.5% per year.

11.8 It has further been prayed that the charges towards depreciation and interest as well as income estimated from lease rental charges from BOBR wagons, on which a notional income has been assumed by the Commission while working out the revenue requirement of WBPDC in earlier years, should be included in the computation of tariff.

11.9 The petitioner has explained that it is not possible to maintain the Station Heat Rate at normative level because the petitioner's stations receive a variety of quality of coal from a number

of collieries. The petitioner therefore wants the Station Heat Rate of its stations to be computed on actual basis.

11.10 WBPDCCL has drawn the attention of the Commission to the fact that its generating units are tied up with the power grid and those forces upon these units' system frequency excursions beyond normative level. These units have thus to resort to both oil firing and combination firing and therefore it is often not possible to operate within the norms of heat rate and auxiliary power consumption.

11.11 The petitioner has prayed that changes in the prices of coal and oil, which may take place between the submission of the petition and determination of tariffs, may be taken into consideration while tariff is determined.

11.12 The petitioner has also prayed that it should be allowed to claim interest on further loans that may be taken by it after submission of the instant petition, or interest arising out of changes in the terms of the existing loans, in the next tariff petition

11.13 It has prayed that any tax liabilities that may arise during the course of the year should be allowed as a pass through.

11.14 The petitioner has further come up with a prayer to the effect that the Commission should direct WBSEB to settle the huge outstanding dues at the earliest.

11.15 WBPDCCL has explained why the current tariff rates will not yield the revenue which will be necessary to run its power stations efficiently and with a reasonable amount of return they are entitled to, and has moved the Commission to allow the tariffs proposed by it in the instant petition to be made applicable from 01/04/2004.

11.16 WBPDCCL has also prayed for consideration of the effects of the changes, if any, after settlement of the value of fixed assets and transfer price at which the power stations at Bandel and Santaldih will be transferred to WBPDCCL as well as determination of equity portion in respect of these power stations and the reasonable return thereon.

## **CHAPTER 12: OBJECTION AGAINST THE CASE OF WEST BENGAL POWER DEVELOPMENT CORPORATION (2004-05)**

12.1 A notification-dated 04.02.2004 was issued by West Bengal Power Development Corporation Ltd., (i.e. WBPDCCL) as per direction of the Commission, providing the gist of the tariff petition of the Corporation and seeking objections etc. from all interested parties within a given time. The notification was published in 4 (four) leading dailies of Kolkata. In response to the notification, 3 (three) objectors have submitted their respective objections in writing to the Commission within the given time. The objections of these objectors are discussed below:

12.2 A number of objections have been recorded by West Bengal State Electricity Board (i.e. WBSEB), which is a statutory body constituted in term of Sec. 5 of the Electricity (Supply) Act, 1948. WBSEB has been purchasing electricity from WBPDCCL's thermal power station at Kolaghat in accordance with an agreement of May, 1991. WBSEB is also purchasing power from the latter's thermal power stations at Bakreswar, Bandel and Santaldih though formal agreements on this score are yet to be made between the Board and the Corporation.

12.3 WBSEB points out that WBPDCCL, in its tariff petition, has projected its sent out generation from KTPS as 6060 MU. But according to WBSEB, the same should be 6842 MU on the basis of 68.5% PLF and 9.5% auxiliary consumption which were stipulated by the Commission in the tariff order for KTPS for 2002-03.

12.4 WBSEB also refers to a statement of WBPDCCL, made in its tariff petition, to the effect that WBSEB has reportedly indicated a total demand of 12040 MU of power from WBPDCCL taking into account a sent out generation of 5900 MU from KTPS. WBSEB points out that its above projection of demand was based on performance of the power station of WBPDCCL from April 2003 till

September 2003. This projection would have given a higher figure, has the thermal power stations of WBPDCCL generated as per stipulations of the Commission laid down in its tariff orders of previous years.

12.5 WBSEB also objects to calculation of fuel cost for KTPS on the basis of a heat rate of 2925 Kcal / Kwh and points out that the heat rate of KTPS was fixed at 2703 Kcal / Kwh by the Commission in the 2002-03 tariff order.

12.6 WBSEB also objects to calculation of tariff for Bakreswar on the basis of 9.8% auxiliary consumption, because the latter has been fixed at 9.5% by the Commission in the tariff order for 2002-03.

12.7 Similarly, WBSEB objects to calculation of fixed cost in respect of Bakreswar on the basis of station heat rate of 2700 Kcal/Kwh and points out the normative heat rate of Bakreswar has already been fixed at 2650 Kcal/Kwh by the Commission.

12.8 WBSEB has additionally suggested that incentive for availing the benefit of higher PLF from Bakreswar should not be fixed at 68.5%. but at 80%.

12.9 It was also pointed out that WBPDCCL has assumed in its tariff petition, an auxiliary consumption of 14% and of 11% for Santaldih and Bandel TPSs respectively. Similarly station heat rates of 3800 Kcal/Kwh and of 3100 Kcal/Kwh for Santaldih and Bandel TPSs respectively have been assumed. WBSEB has disagreed with these assumed rates, and has suggested that the auxiliary consumption for both TPSs should be 10.5% and station heat rate for both should be 2800 Kcal/Kwh, as were fixed by the Commission in one of its earlier order.

12.10 WBSEB disputes the figure of 2757.57 crores quoted by WBPDCCL representing receivables from WBSEB, and submits that this figure should be 2024.46 crores only.

12.11 WBSEB has also disputed the station-wise claims of WBPDCCL for administration and general expenses on the ground of being too high.

12.12 WBSEB has also challenged the justifiability of taking loans from financial institutions bearing high rates of interest varying between 12.5% and 16.75%.

12.13 It has also been submitted by WBSEB that while computing working capital, maintenance spares concerning plants and machinery only should be taken into consideration.

12.14 WBSEB has also submitted that 13% interest on working capital is on the higher side as at present the rate of interest of commercial banks is getting reduced significantly.

12.15 West Bengal State Electricity Board Workmen's Union (i.e. WBSEBWU), a registered trade union said to be representing most of the employees of WBSEB and WBPDCCL, has come up with a set of observations / suggestions on the tariff petition in question.

12.16 The Union has stated that the tariff petition of WBPDCCL for 2004-05 is an arbitrary one and further that the management failed to consult the union before submission of the said petition. The Union believes that there is ample scope of reduction of costs of generation.

12.17 The Union is of the view that WBPDCCL should have claimed that perfect measurement of consumption of fuel and other consumables are not available in vintage power stations and therefore tariff should be determined on the basis of declaration in this behalf made by WBPDCCL, which in turn would be based on such consumptions in 2003-04.

12.18 The Union has further stated that while plant wise generation targets have already been declared, there is no declared target for cost reduction at the floor level in WBPDCCL. According to the Union, this aspect of the matter should be given due attention.

12.19 The Union has stated that WBSEB is forced to bear a huge loss in transmitting power to the remotest corners of the State and suggests that a certain percentage of the loss incurred by WBSEB in transmission should be shared by the generating companies / licensees operating in the State, irrespective of whether they are in the public sector or private sector and whether they are Central Govt. utilities or State Govt. utilities.

12.20 The third objector is All Bengal Electricity Consumers' Association (i.e. ABECA). This association, representing the electricity consumers, has a number of criticisms to offer / objections to register.

12.21 The first point this association makes is that since the tariff petition is in accordance with the Electricity Regulatory Commission Act, 1998, but relief is claimed on the basis of the Electricity Act, 2003, and since the Central Govt. has not yet declared the National Electricity Policy and tariff policy, and further since WBPDCCL has failed to follow the provisions of Sec. 18A of the Electricity (Supply) Act, 1948 as also of Sec. 61(a) and (e) of the Electricity Act, 2003, the tariff proposal should be rejected.

12.22 The Association is of the view that since the valuation of the assets and liabilities of the thermal power stations at Bandel and Santaldih have not yet been finalized, it would be erroneous and unjust to determine the tariff for these stations on the basis of disputed and undecided valuation.

12.23 ABECA opposes the mutually agreed arrangement whereby WBPDCCL formally owns the transmission system that evacuates power from Bakreswar, but the same is maintained by WBSEB. According to ABECA, this is not in accordance with the provision of Sect. 18A of the Electricity (Supply) Act, 1948. Besides, in ABECA's opinion such an arrangement will automatically increase the cost of supply, as both WBPDCCL and WBSEB will seek separate return on these transmission assets.

12.24 According to ABECA, the tariff proposal in question seeks to recover the increased costs over the provisional tariff pertaining to 2003-04, which was awarded by the Commission through an interim order. The association finds this to be highly irregular and unjustified.

12.25 ABECA also does not find any merit in the proposed thermal power station wise determination of tariff.

12.26 ABECA is also apprehensive of a possible hike in tariff simply because of transfer of Bandel and Santaldih from WBSEB to WBPDCCL because the latter will now claim reasonable return @ 16%.

12.27 The association also opposes the claim of WBPDCCL for a reasonable return @ 16%, as the latte was fixed when the Bank rate was above 10%, but now the Bank rate itself has gone down substantially. The Return on Equity, in the opinion of ABECA should be only 8% of the paid up and subscribed capital.

12.28 ABECA recommends rejection of the instant tariff petition of WBPDCCL as the latter has failed to comply with the earlier directions or has failed to furnish various data required by the Commission.

12.29 ABECA has opposed WBPDCCL's proposal for an incentive @ 0.7% of the paid up and subscribed capital for each percentage point increase in the PLF beyond 68.5% on the ground that the cut off level is very low and prescribes that the cut off level should be at least 80% of PLF if such an incentive is to be given.

12.30 ABECA has objected to computation of various cost elements on the basis of actuals. It has strongly recommended application of norms alone in allowing station heat rate, fuel cost, O&M charges and auxiliary consumption. However, the association has objected to the claim of WBPDCCL on account of interest on working capital as the item has neither been finally decided by CERC, nor the code / regulations of the SERC has been dealt with it conclusively.

12.31 ABECA has also objected to inclusion of income from wagon rentals and insulator package in computation of tariff, which WBPDCCL has done inspite of deduction of a notional income from the revenue requirement on this account by the Commission in earlier years.

12.32 Further the association has also opposed the claims of interest for various loans in the absence of explanations about the purpose of the loan, any techno-economic benefit analysis and any cost analysis for the same.

12.33 It has also objected to a 10% increase in administrative expenses after charging a 10% increase in employees' cost. In the view of the association, this is not supported by justifiable reasons. It recommends allowing only actuals that are justified.

### **CHAPTER - 13: POINTS FOR CONSIDERATION IN THE TARIFF PETITION OF WBPDCCL FOR 2004-05 AND OBJECTIONS AGAINST THE SAME.**

13.1 A number of important points concerning legal niceties and guiding principles have already been covered in Chapter – 6. A few more points have come to the fore from the tariff petition of 2004-05 and observations / objections arising therefrom. They are being dealt with in the following paragraphs.

13.2 One such point is whether it is permissible that the tariff application on the one hand follows the format given by the ERC Act 1998 and along with the same, the VIth schedule pertaining to the Electricity (Supply) Act, 1948, but it seeks on the other hand the relief in terms of the Electricity Act, 2003. The Commission has already noted that for earlier years the tariff for WBPDCCL was to be determined under Section 29(2)(a) of the ERC Act, 1998. The transitory arrangement for shifting from ERC Act, 1998 to the Electricity Act, 2003 has been provided by the proviso to Sec. 61 of the latter Act which lays down that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commission's Act, 1998 and the enactment specified in the Schedule to the Electricity Act, 2003, as they stood immediately before the appointed date shall continue to apply for a period of one year or till the terms and conditions of tariff under the Electricity Act, 2003 are in place.

13.3 Another point relates to the issue of reasonable returns. This matter has already been dealt with quite exhaustively in chapter 6. No new factor has since been brought into the records necessitating any change in the view so far held by the Commission in this behalf. In the absence of the relevant data, the Commission while refusing to allow a tariff based on 16% return on equity, has partly accommodated the tariff petitioner by allowing as a special case, a 12% return on equity.

13.4 The Commission is aware that the issue meanwhile, has been examined, among others, by a Task Force appointed by the Central Government and that the Task Force has recommended a post tax rate of return for generation projects of 14% of the equity (share capital and free reserves including share premium). The policy also lays down certain other parameters and also certain operating and other parameters has been laid down by CERC for generating companies. However, there has been no policy Prescription in this behalf from the Central Government in the shape of any national policy. Therefore, the said recommendation of the said Task Force is not yet applicable to any Commission including the WBERC. The Commission thus reiterates its earlier decision of allowing a 12% return on equity to WBPDCCL for tariff for the year under consideration.

13.5 Another point of consideration is whether the process of determination of tariff is adversely affected by the absence of the National Electricity Policy and Tariff Policy, which inter-alia, are to guide, as laid down by Sec. 61 of the Electricity Act, 2003, the appropriate Commission in specifying the terms and conditions of tariff. This point does not appear to be relevant at the moment for the instant tariff petition being dealt with by the proviso to Sec. 61 of the Electricity Act, 2003. In any case, the National Electricity Policy and Tariff Policy, if not in existence at any point of time, cannot be taken into consideration for the purpose of determination of any tariff at that juncture of time.

13.6 Other relevant points have been dealt with while working the revenue requirement and determination of tariff.

**CHAPTER: 14 GENERATION AND AUXILIARY CONSUMPTION 2004-05****14.1** WBPDCCL has thermal power station of the following capacities

Kolaghat	6X210 MW	= 1260 MW
Bakreswar	3X210 MW	= 630 MW
Santaldih	4X120 MW	= 480 MW
Bandel	(4X80+1X120) MW	= 530 MW
	(derated)	_____
	Total:	2900 MW

**14.2** Plant Load Factor (PLF) and Gross Generation projected by WBPDCCL for the year 2004-05 are as under: -

	PLF (%)	Gross Generation (MU)
Kolaghat	61	6732.936
Bakreswar	68.50	3780.378
Santaldih	30	1261.440
Bandel	38.72	1797.753

Such projections are said to be made basically based on demand of WBSEB as communicated to WBPDCCL Vide WBSEB's letter no; CWBPDCCL/4349A dated 29.10.2003. They have submitted the copy of the referred letter to the Commission and it has been noted therefrom that WBSEB desired to have 5900 MU, 3600 MU, 1600 MU and 949 MU from Kolaghat, Bakreswar, Bandel and Santaldih respectively. It has also been noted from the submission of WBSEB that the Govt. of West Bengal decided that entire power of WBPDCCL would be purchased by WBSEB from April 2003 and any surplus power available in WBSEB – WBPDCCL system including WBSEB's admissible share from Central Sector Power Station would be marketed by WBSEB only. The Commission also noted that the fuel cost of Bakreswar TPS is the minimum and the plant is new. Also there is substantial gap between PAF and PLF and if there is requirement in the system more power from Bakreswar be generated as additional power from Bakreswar is cheaper than even Kolaghat. Commission, therefore, finds no reason for imposing any restriction on the utilisation of plant capacity be WBPDCCL and feels that they should exert to maximize the PLF particularly in the relatively new plant at Bakreswar. WBPDCCL itself has expressed that the capacity to generate power at Bakreswar is at 72% PLF which should be further increased if system demands it. If there is less demand then WBPDCCL may even consider to reduce generation from Santaldih, Bandel and Kolaghat, in that order, subject of course keeping in view the requirement during peak.

**14.3** Considering the facts as stated above, the Commission fix the target PLF's and generation at different power stations for the year 2004-05 as under:

	PLF (%)	Gross Generation (MU)
Kolaghat	61	6732.93
Bakreswar	72.00	3973.536
Santaldih	30	1261.440
Bandel	38.72	1797.753

**14.4** Auxiliary Consumption rates projected by WBPDCCL for different power stations are as under:

-

Kolaghat	10.00%
Bakreswar	9.80%
Santaldih	14.00%
Bandel	11.00%

The projections are stated to be made on the trend of Auxiliary Consumption has gone beyond the

norms, which is mainly due to wide fluctuation of system demand. It is felt that with that assured drawal of entire power of WBPDCCL by WBSEB and export of off peak power to the later to other region, the system demand will improve. It has however been noted that the rates of Auxiliary Consumption at different power stations Projected by the WBPDCCL in the previous year except that for Santaldih station where the rate has been assured for 14% i.e. the rate actually come as per the copy of audited accounts for 2002-03 submitted along with petition. We accept the rate of auxiliary consumption on the basis of Govt of West Bengal norms.

Kolaghat	--	10.5%
Bakreswar	--	9.5%
Santaldih	--	11%
Bandel	--	10.74%

## CHAPTER – 15 : VARIABLE COST (COST OF FUEL)(2004-05)

15.1 The variable cost in the case of WBPDCCL is cost of coal and oil. Such cost depend upon the following factors:

- 1.) Station Heat Rates
- 2.) Specific Consumption of Secondary fuel, i.e. oil
- 3.) Gross caloric Value (GCV) of oil
- 4.) Gross Caloric Value (GCV) of coal
- 5.) Weighted average price of oil.

The projections made by WBPDCCL on all these factors for different power stations sre being analyzed by use hereunder.

### 15.2 Station Heat Rate (Kcal/kwh)

The Station Heat Rates projections by WBPDCCL for their different power stations are as below: -

Kolaghat	2728 Kcal/kwh
Bakreswar	2664 Kcal/kwh
Santaldih	3800 Kcal/kwh
Bandel	3100 Kcal/kwh

Considering all the facts brought out by WBPDCCL, the Commission now fixes the normative Station Heat Rates for all the four power stations in operation in 2004-05 based on Government of West Bengal norms pending determination of performance norms by the Commission.

Kolaghat	2735.38 Kcal/Kwh
Bakreswar	2650.00 "
Santaldih	2934.00 "
Bandel	2845.57 "

### 15.3 Specific Consumption of Oil

The station wise specific consumption of secondary fuel, i.e. oil as projected by WBPDCCL and as being allowed by us based on data of actual consumption vis-à-vis actual generation during the first sis months of 2003 –2004 submitted along with the tariff petition. However, in the absence of the Commission's own norms we are, for the present, following the norms laid down by the Govt. of West Bengal in this behalf.

	Projected	Allowed
	(ml/Kwh)	
Kolaghat	3.00	6.5
Bakreswar	2.00	5
Santaldih	4.75	6.5
Bandel	4.15	6.5

**15.4 G. C. V of Oil**

The projected G.C.V. of oil for different power stations are admitted by us.

Kolaghat	9960 Kcal/Its
Bakreswar	9660 "
Santaldih	9568 "
Bandel	9246 "

**15.5 G. C. V. of Coal**

WBPDCCL has provided the estimated grade wise and source wise consumption of coal at different power stations during 2004-2005. Considering the lower limit of declared G. C. V. of each grade, the weighted average has been arrived at by us. The projected G. C. V of coal claimed by WBPDCCL and the same worked out by us are as under: -

	Projected	(Kcal/Kg)	Allowed
Kolaghat	3900		3905
Bakreswar	4900		4907
Santaldih	5000		4793
Bandel	4800		4996

**15.6 Weighted Average Price of Oil**

The weighted average prices of oil (Rs./Klt) (including transportation charges) for different power stations admitted by us based on data relating to first half of 2003-04 submitted along with the petition are as under: -

	Projected	Admitted
Kolaghat	17500.00	17370.17
Bakreswar	17500.00	17500.00
Santaldih	16500.00	16079.91
Bandel	17500.00	16703.30

**15.7 Weighted Average Price of Coal**

Weighted average price of coal claimed by WBPDCCL for different power stations are as under: -

	Rs/MT
Kolaghat	1380.00
Bakreswar	1625.00
Santaldih	1880.00
Bandel	1775.00

The above projected prices are said to be inclusive of Rly. freight. No separate estimation per MT Rly freight has been provided. It is noted from the petition that WBPDCCL computed fuel cost on consumption basis absorbing the transit loss and grade slippage therein. The rate of transit loss has not been specified. Based on the projected source wise and grade wise supply of Coal at different power stations and the price notifications issued by ECL, MCL and BECML in August 2002, the coal price (excluding freight) comes as per our computation as under: -

Kolaghat	Rs. 842.14 per MT
Bakreswar	Rs. 1283.13 "
Santaldih	Rs. 1531.66 "
Bandel	Rs. 1457.97 "

The average Rly freight up to the concerned power stations are estimated Rs. 316 for Kolaghat, Rs. 105 for Bakreswar, Rs. 180 for Bandel and Rs. 118 for Santaldih. The station wise weighted average prices of Coal as per our computation, thus, come as under: -

Kolaghat	Rs. 1158.14 per MT
Bakreswar	Rs. 1388.13 "
Santaldih	Rs. 1649.66 "
Bandel	Rs. 1637.97 "

We allow the coal per MT as above – subject to admission of Fuel cost adjustment claims on submission of related information. We shall however, allow maximum 4% transit loss provisionally subject to adjustment the same to the lower side if so achieved by WBPDCCL from their Fuel Cost Adjustment Claims for which WBPDCCL is to provide proper audited information along with their such claims.

### 15.8 Computation of Fuel Cost

Based on our analysis and admissions made in Chapter 8 and 9 above, we now compute the fuel cost for different power stations as under: -

#### Cost for Fuel of WBPDCCL (Kolaghat) 2004-05

Serial No.	Particulars	Unit	As Projected by WBPDCCL	Allowed by Commission
1	Gross Generation	MU	6732.93	6732.93
2	Aux. Consumption	MU	673.29	706.96
3	Ex. Bus Generation (1-2)	MU	6059.64	6025.97
4	Heat Rate	Kcal/Kwh	2925	2735.38
5	Total Heat Required (1X4)	Mkcal	19693837.8	18417122.06
6	GCV of Oil	Kcal/Litre	9960	9960
7	Specific Oil Consumption	ml/kwh	3	6.5
8	Oil Consumed (1X7)	KL	20198.808	43764.045
9	Average Price of Oil	Rs/KL	17500	17370.17
10	Cost of Oil (8X9)	Rs(Lakh)	3534.79	7601.88
11	Heat Generated from Oil (6X8)	MKcal	201180.128	435889.88
12	Heat Generated from Coal (5-11)	Mkcal	19492657.67	179812321.18
13	Wtd. Average GCV of Coal	Kcal/KG	3900	3905
14	Coal Required (12/13)	MT		4604668.9
15	Coal required (including transit loss) / Actual coal consumption	MT	4998117.35	4788855.69
16	Wtd. Avg. price of coal including Rly Freight	Rs./MT	1380	1158.14
17	Cost of Coal (15X16)	RS(Lakh)	68974	55461.65
18	Total cost of Fuel (10+17)	RS(Lakh)	72508.81	63063.53
19	Energy (variable) cost per unit of expenditure-bus Generation (18/3)	Paise/Kwh	119.70	104.65

#### Cost for Fuel of WBPDCCL (Bakreswar) 2004-05

Serial No.	Particulars	Unit	As Projected by WBPDCCL	Allowed by Commission
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1	Gross Generation	MU	3780.378	3973.536
2	Aux. Consumption	MU	370.477	377.486
3	Ex. Bus Generation (1-2)	MU	3409.901	3596.05
4	Heat Rate	Kcal/Kwh	2700	2650
5	Total Heat Required (1X4)	Mkcal	10207021	10529870.4
6	GCV of Oil	Kcal/Litre	9660	9660
7	Specific Oil Consumption	ml/kwh	2	5
8	Oil Consumed (1X7)	KL	7560.756	19867.66
9	Average Price of Oil	Rs/KL	17500	17500
10	Cost of Oil (8X9)	Rs(Lakh)	1323.13	3476.84
11	Heat Generated from Oil (6X8)	MKcal	73036	191921.79
12	Heat Generated from Coal (5-11)	Mkcal	10133985	10337948.61
13	Wtd. Average GCV of Coal	Kcal/KG	4900	4907
14	Coal Required (12/13)	MT		2106775.75
15	Coal required (including transit loss) / Actual coal consumption	MT	2068159.93	2191046.78
16	Wtd. Avg. price of coal including Rly Freight	Rs./MT	1625	1388.13
17	Cost of Coal (15X16)	RS(Lakh)	33607.60	30414.58
18	Total cost of Fuel (10+17)	RS(Lakh)	34930.73	33891.42
19	Energy (variable) cost per unit of expenditure-bus Generation (18/3)	Paise/Kwh	102.43	94.25

### Cost for Fuel of WBPDC (Santalih) 2004-05

Serial No.	Particulars	Unit	As Projected by WBPDC	Allowed by Commission
1	Gross Generation	MU	1261.44	1261.44
2	Aux. Consumption	MU	176.602	138.75
3	Ex. Bus Generation (1-2)	MU	1084.838	1122.69
4	Heat Rate	Kcal/Kwh	3800	2934
5	Total Heat Required (1X4)	Mkcal	4793472	3701064.96
6	GCV of Oil	Kcal/Litre	9568	9566
7	Specific Oil Consumption	ml/kwh	4.75	6.5
8	Oil Consumed (1X7)	KL	5991.84	8199.36
9	Average Price of Oil	Rs/KL	16500	16079.91
10	Cost of Oil (8X9)	Rs(Lakh)	988.65	1318.44
11	Heat Generated from Oil (6X8)	MKcal	57329.92	78451.47
12	Heat Generated from Coal (5-11)	Mkcal	4736142.07	3622613.49
13	Wtd. Average GCV of Coal	Kcal/KG	5000	4793

14	Coal Required (12/13)	MT		755813.37
15	Coal required (including transit loss) / Actual coal consumption	MT	947228.41	786045.90
16	Wtd. Avg. price of coal including Rly Freight	Rs./MT	1880	1649.66
17	Cost of Coal (15X16)	RS(Lakh)	17807.89	12967.08
18	Total cost of Fuel (10+17)	RS(Lakh)	18796.54	14285.52
19	Energy (variable) cost per unit of expenditure-bus Generation (18/3)	Paise/Kwh	173.30	127.24

### Cost for Fuel of WBPDCCL (Bandel) 2004-05

Serial No.	Particulars	Unit	As Projected by WBPDCCL	Allowed by Commission
1	Gross Generation	MU	1797.753	1797.753
2	Aux. Consumption	MU	197.753	193.079
3	Ex. Bus Generation (1-2)	MU	1600.00	1604.674
4	Heat Rate	Kcal/Kwh	3100	2845.57
5	Total Heat Required (1X4)	Mkcal	557.3034	5115632
6	GCV of Oil	Kcal/Litre	9246	9246
7	Specific Oil Consumption	ml/kwh	4.15	6.5
8	Oil Consumed (1X7)	KL	7460.675	11685.394
9	Average Price of Oil	Rs/KL	17500	16703.3
10	Cost of Oil (8X9)	Rs(Lakh)	1305.61	1951.82
11	Heat Generated from Oil (6X8)	MKcal	68981.40	108043.15
12	Heat Generated from Coal (5-11)	Mkcal	5504052	5007588.85
13	Wtd. Average GCV of Coal	Kcal/KG	4800	4996
14	Coal Required (12/13)	MT		1002319.63
15	Coal required (including transit loss) / Actual coal consumption	MT	1151264.46	1042412.42
16	Wtd. Avg. price of coal including Rly Freight	Rs./MT	1775	1637.97
17	Cost of Coal (15X16)	RS(Lakh)	20434.94	17074.40
18	Total cost of Fuel (10+17)	RS(Lakh)	21740.55	19026.25
19	Energy (variable) cost per unit of expenditure-bus Generation (18/3)	Paise/Kwh	135.87	118.57

### CHAPTER - 16 : FIXED COST (2004-05)

**16.1** In this part of our order, we are taking up different components of fixed cost by claimed WBPDCCL for their different power stations for examination and to decide upon such that can reasonably be allowed.

### 16.2.1 EMPLOYEES' COST

Employees' cost includes payment of salaries, contribution to provident and other funds, other allowances, expenses towards medical and staff welfare etc. the employees' cost claimed by WBPDCCL for different power stations considering an average 10% increase over the estimated expenses in 2003-04 are as under: -

	Rs in lakh
Kolaghat	4062.95
Bakreswar	1012.57
Santaldih	2294.44
Bandel	3040.40
Total:	10410.36

**16.2.2** Above projection of employees cost appears to have been done on thumb rule basis without doing any spread work on ground reality. All the elements of employees cost do not have generally 10% annual increment. On verification of submitted statement of accounts it has been noted that employees cost of WBPDCCL as whole come down to Rs 7698.26 lakhs in 2002-03 from Rs. 7867.47 lakhs in 2001-02 and that may be due to withdrawal of some of the WBSEB staff from Santaldih and Bandel Stations.

The process of withdrawing excess manpower from the two power stations is still in progress. The actual employees' cost incurred by WBPDCCL in different power station during the year 2002-03 came under:

	Rs in lakh
Kolaghat	3031.95
Bakreswar	777.57
Santaldih	1741.44
Bandel	2151.43

Considering average 6% annual increase over the actual of 2002-03, we allow employees cost for different power stations fro 2004-05 as under

	Rs in lakh
Kolaghat	3406.70
Bakreswar	868.94
Santaldih	1956.78
Bandel	2417.35
Total:	8649.77

### 16.3.1 RUNNING AND MAINTENANCE EXPENSES

Repair & Maintenance expenses claimed by WBPDCCL for their different power stations are as under

	Kolaghat	Bakreswar	Santaldih	Bandel	Total
Repair & Maintenance	2378.20	1578.75	2011.84	2499.70	8468.40
Consumable	2300.00	1149.75	660.00	1320.00	5429.70
Insurance	230.00	262.50	25.50	33.00	551.00
	4908.20	2991.00	2697.34	3852.70	14449.10

**16.3.2** WBPDCCL was asked to justify their projections with more details. In reply they stated that the projections were made on the basis of estimated expenditure for 2003-04 at different station with addition for normal price increase. They also provided items wise detail break up of operation and maintenance works at different stations. Considering the details provided and vintage of Santaldih and Bandel plants we admit the amounts claimed. However, the Commission directs WBPDCCL to increase the machine availability and PLF of at least at Bakreswar and Kolaghat plants.

#### **16.4 RENT, RATES & TAXES**

The expenditures projected under this head for different power station are as under:-

	Rs in lakh
Kolaghat	27.50
Bakreswar	9.68
Santaldih	22.00
Bandel	55.00
Total:	114.18

For Kolaghat, Bakreswar and Bandel, the projected expenditure are not in much variance with the actual expenditures incurred during 2202-03 and estimated expenditures during 2003-04. So for Santaldih Power Station is concerned, it has been noted that no expenditure was actually incurred under this head during 2002-03 and upto September in 2003-04. No justification has been given for incurrence of such expenditure in 2004-05. We, therefore admit only a nominal amount of Rs. 5.00 for Santaldih on this account. With this change the amounts are admitted as under:

	Rs in lakh
Kolaghat	27.50
Bakreswar	9.68
Santaldih	5.00
Bandel	55.00
Total:	97.18

#### **16.5 LEGAL AND PROFESSIONAL CHARGES**

Legal and Professional charges claimed by WBPDCCL are Rs. 24.50 lakhs for Kolaghat, Rs. 105.76 lakhs for Bakreswar, Rs.13.07lakhs for Santaldih, and Rs. 3.85 lakh for Bandel. Clarifications and justifications were sought in regard to charges claimed for Bakreswar which is a recently commissioned project. It has been clarified that M/S FUJI Ltd., the original equipment manufacturer has been engaged for providing technical advisory services in connection with first time opening of the machines after commissioning for thorough check up and ascertain any deviations form initial settings. In view of such clarifications given we admit the projected expenditure under the concerned head.

#### **16.6 AUDIT FEES**

The Commission admits the Audit fees as claimed by WBPDCCL with the following stain wise break up

	Rs in lakh
Kolaghat	1.63
Bakreswar	0.99
Santaldih	0.84

Bandel	0.89
Total:	4.35

### 16.7 OTHER ADMIN & MANAGEMENT EXPENSES

Other administrative, general and miscellaneous charges including for security and education facilities claimed for different power station are as under

	Rs in lakh
Kolaghat	660.00
Bakreswar	546.89
Santaldih	260.53
Bandel	192.50
Total:	1659.92

The total expenditure claimed under this score is not much in variance with the total actual expenditure incurred during 2002-03. We, therefore, admit the amount claimed.

### 16.8 ASH HANDLING & FUEL RELATED COST

WBPDCCL asked for Rs. 3939.25 lakhs towards ash handling and fuel related cost with the following station wise break up :-

	Rs in lakh
Kolaghat	3000.00
Bakreswar	89.25
Santaldih	150.00
Bandel	700.00
Total:	3939.25

It has been clarified that evacuation of settled ash, picking of stones, unloading & sizing of coal, sample testing, maintenance of weigh bridge, railway siding and shunting charges etc. are the expenditures claimed under this head. We admit the projected claims.

### 16.9.1 INTEREST & FINANCE CHARGES

The interest and finance charges claimed by WBPDCCL for different power stations are as under:  
Rs in lakh

Stations	Finance charges	Interest on working capital	Total
Kolaghat	11666.77	3377.92	15044.69
Bakreswar	4090.97	2190.19	6281.16
Santaldih	--	768.01	768.01
Bandel	--	927.90	927.90
	15757.74	7264.02	23021.76

The finance charges represent interest on term loans for Kolaghat and Bakreswar Power Station from different sources including Government of West Bengal. No such interest has been claimed for Santaldih and Bandel Power Stations, which were transferred to WBPDCCL from WBSEB with effect of 1st April 2001. Interest on Working Capital separately claimed for different power station @ 13% p.a on normative working capital arrived at considering estimated fuel cost for one month,

reasonable fuel stock for 7 days, O & M expenses for one month, maintenance spares at actual subject to a maximum of 1% of capital cost but not exceeding one year's requirement and receivable equivalent to two months average billing. Such claims for interest on working capital are not linked with any existing or proposed working capital loans. For instance, as per the submission the interest claim on working capital for 2002-03 worked out on the norms stated above comes to Rs. 7862.99 lakhs. The audited accounts of the WBPDCCL for the year 2002-03 shows total charge of Rs. 144.71 lakhs only on borrowings other than on term loans and Bonds. The cash credit balance, as at the end of 2002-03 was Rs. 3553.41 lakhs. No projection for the requirement of cash credit in 2004-05 has been presented. The observations of the Commission in para 8.9.4 is also relevant and applicable for this year also. We, therefore, do not allow any charges towards interest on working capital worked out on such basis. We are, however as a special case allowing interest on outstanding balance of loans Rs. 71 lakh taken on from Government of West Bengal for operation and maintenance and included in term loan against Kolaghat Power Station.

**16.9.3** Interest charges claimed by WBPDCCL are Rs. 11666.77 lakhs for Kolaghat and Rs. 4090.97 lakhs for Bakreswar Power Stations. The loans for Kolaghat Power Station are from IDBI, IFCI, PFC, LIC, and Government of West Bengal and through issuance of Bonds. The rate of interest ranges from 12.5% to 16.75% average coming to 13.83%. It has been noted from their submission that total loans drawn from the Government of West Bengal since 1994 in the accounts of Kolaghat are for Rs. 71393.49 lakhs with interest rate varying from 15.75% to 13.50%. the repayment period for the loans is for 20 years and repayments are to be made in 20 equal instalments commencing from first anniversary date of drawal of loans. A rebate of 2.50% is admissible for timely payment of principle and interest. It appears that the State Government loans are not being repaid in time to avail of the admissible rebate. We find little justification for WBPDCCL's carrying such long-term loans with such high rates in this low interest regime and not availing of the admissible rebate. The weighted average rate in interest on the loans taken from the State Government is coming to 14.10% and if 2.5% admissible rebate is availed of the same should come to 11.60% only. However to allow breathing time to WBPDCCL for making arrangement to serve State Government loans in time we allow average 12% interest on outstanding State Government loans of Rs 71303.49 lakhs for the year 2004-05 which comes to Rs 8567.22 lakhs as against the claims for Rs. 10069 lakhs. With this reduction, the amount of interest for Kolaghat comes to Rs 10164.99, say Rs 10165.00 lakhs. The Commission also noted that no repayment of the loan during 2004-05 has been shown. However as net impact may be marginal in view of the basis of return considered by the Commission and hence ignored.

**16.9.4** The amount of interest claimed by WBPDCCL for Bakreswar Power Station is Rs 4090.97 lakhs with the following break up. The entire loan is from the Government of West Bengal.

Purpose of Loan	Loan amount Rs in lakh	Rate of Interest (%)	Amount of interest claimed Rs in lakh
1.For construction cost	165477	2	3310.00
2. For BOBR Wagons	2960	14.5	429.00
3. For Simulation Package	2429	14.5	352.00
Total	1708666	--	4091.00

The State Government loans shown towards construction cost of the Bakreswar Power Station is said to have been worked out by WBPDCCL based on restructuring of the financing pattern ordered by the State Government., As per submission, total finance received by WBPDCCL from the State Government for generation project is Rs 2363.96 crores (Rs. 1868.96 crores out of OECF financing and Rs 495.00 crores non OEC Fund). 30% of this amount, i.e. Rs 709.19 crores has been treated as equity capital and the balance 1654.77 crores as loans bearing interest @ 2%. WBPDCCL asked for returns on the amount of equity capital @ 16%. As certain doubts arose in regard to interpretation of the State Government order in this regard, WBPDCCL was asked to submitted copy

of the relevant order which they complied. It has been stated therein, "30% of the project cost which is equivalent to Rs 709.19 crores shall be converted into equity over a span of five years on pro-rata basis during the tenth plan period commencing from 2002-03". In accordance with this order (No: 60-Power/II/1B-11/2001 dated 23rd February 2004), the equity capital in 2004-05 in Bakreswar project will be Rs 425.51 crores and the balance of the total financing of Rs 2363.96 crores, i.e., Rs 1938.45 crores bearing interest @ 2% p.a. We, therefore, allow interest charges in Bakreswar Project as under: -

		Rs. in Lakh
(i)	2% on Rs 193845 lakhs towards construction cost of generation project	3876.90
(ii)	14.5% on Rs 2960 lakhs for BOBR wagons	429.20
(iii)	14.5% on Rs 2429 lakhs for Simulation package	352.21
	Total	4658.31

The issue relating to their entitlement of returns in being examined separate paragraph.

### 16.10 DEPRECIATION

The depreciation claimed by WBPDCCL for their different power station as stated hereunder, is agreed by us: -

	Rs in lakh
Kolaghat	11425.42
Bakreswar	19359.14
Santaldih	577.80
Bandel	983.12
Total:	32345.48

### 16.11.1 REASONABLE RETURN

WBPDCCL claimed 16% return on the stated equity capital deployed at different power stations.

	Equity (Rs. in Lakhs)	Return Claimed
Kolaghat	83329.40	13332.70
Bakreswar	70919.00	11347.04
Santaldih	5046.97	807.52
Bandel	392.58	62.81
Total:	159687.95	25550.07

Santaldih and Bandel Power Stations came on transfer to WBPDCCL from WBSEB with effect from 1st April 2001. The projected equity capitals for those two power stations are assumed figures on the basis of the book value of assets and liabilities as on 31.3.2001 and are subject to settlement of the transfer value of the power station and fixation of equity investment by the Government of West Bengal. The Company did not provide workings of their capital base and stated that return on equity should be allowed to them @ 16% as per the notification dated 30.3.1992 issued by the Government of India. WBPDCCL though is praying for Return as applicable to Central Sector Generating Companies, is not willing to follow the other operating, financial and expenditure norms at par with those companies.

**16.11.2** The Commission therefore decides to allow 12% return on capital employed in different power station as could be worked out from the data provided in the petition and considering a reasonable level of working capital. The capital employed worked out for different power stations and returns allowed thereon are as under: -

### STATEMENT OF CAPITAL EMPLOYED & RETURNS

(Rs in lakh)

	Kolaghat	Bakreswar	Santaldih	Santaldih
1. Original Cost of Fixed Assets	167503.95	261448.58	20222.67	21685.10
2. Cost of Capital works- in-progress	8250.42	32267.13	200.00	1891.05
3. Working Capital				
(a) Stock of fuel	5498.84	2692.56	1136.18	1583.84
(b) Other Stores & Consumables	2300.00	1149.75	660.00	1320.00
(c) Cash & Bank balance	2432.13	865.69	1105.89	1475.57
<b>Total A</b>	<b>185985.34</b>	<b>298423.71</b>	<b>23324.74</b>	<b>27955.56</b>
Less				
4. Accumulated Depreciation	133696.18	65266.62	13122.85	19212.44
5. Outstanding loans	12944.00	199234.00	-----	-----
<b>Total B</b>	<b>146640.18</b>	<b>264500.62</b>	<b>13122.85</b>	<b>19212.44</b>
6. Net Capital employed (A – B)	39345.16	33923.09	10201.89	8743.12
7. Return @ 12% of Net Capital Employed	4721.42	4070.77	1224.23	1049.17

Notes: 1) Original cost of fixed assets, cost of capital works-in-progress and accumulated depreciation has been considered as projected by WBPDCCL.

2) Value of the stock of fuel included in the working capital has been considered for one month's requirement.

3) Value of other consumables stores have been considered for one year's requirement as projected.

4) Cash and Bank balances have been considered one fourth of the cash revenue expenses excluding fuel charges, interest and cost of consumables.

## 16.12 OTHER INCOME

Income from other sources projected by WBPDCCL for different Power Stations are: -

Rs in lakh

Kolaghat	58.00
Bakreswar	555.00

Santaldih  
Bandel

27.67  
53.00

Total 693.67

Other receipt in Bakreswar includes Rs. 525.00 lakh towards BOBR Wagon lease rental charges. We agree for such projected other income for adjustment in Revenue Requirement of respective Power Station.

### CHAPTER -17 : REVENUE REQUIREMENTS & COST OF POWER SUPPLY (2004-05)

Based on the analysis of the facts, figures and Commission's decisions recorded in the earlier chapters, we now proceed to present the summaries statements of Revenue Requirements of WBPDCCL for the year 2004-05 for each of the four power stations separately. We also arrive at average rate of recovery of power charges per unit for all the four power stations here under: -

#### KOLAGHAT STATEMENT OF REVENUE REQUIREMENT (2004-05)

Rs. in Lakh

Sl No	Particulars	As Projected	As admitted
A.	Variable Cost		
1.	Cost of fuel	72508.81	63063.53
2	Total (A)	72508.81	63063.53
B	Fixed Cost		
3	Employees' Cost	4062.95	3406.70
4	Repairs & Maintenance	4908.20	4908.20
5	Rent, Rates & Taxes	27.50	27.50
6	Legal & Professional charges	24.20	24.20
7	Audit Fees	1.63	1.63
8	Fuel & Ash Handling Charges	3000.00	3000.00
9	Administrative, General & Miscellaneous Charges	660.00	660.00
10	Interest on Terms Loans	15044.69	10165.00
11	Other Interest Charges & Financing Charges		71.00
12	Depreciation	11425.42	11425.42
13	Total Fixed Cost (B)	39154.59	33689.65
14	Reasonable Return	13332.70	4721.42
15	Gross Revenue Requirement (2+13+14)	124996.10	101474.60
16	Other Income	58.00	58.00
17	Net Required from Sale of Power (15-16)	124938.10	101416.60
18	Saleable Units (MU)	6059.642	6025.97
19	Average Cost of Supply (Paise/Kwh)	206.18	168.30

#### BAKRESWAR STATEMENT OF REVENUE REQUIREMENT (2004-05)

Sl No	Particulars	As Projected	As admitted
A.	Variable Cost		
1.	Cost of fuel	34930.73	33891.42
2	Total (A)	34930.73	33891.42
B	Fixed Cost		
3	Employees' Cost	1012.57	868.94
4	Repairs & Maintenance	2991.00	2991.00
5	Rent, Rates & Taxes	9.68	9.68
6	Legal & Professional charges	105.76	105.76
7	Audit Fees	0.99	0.99
8	Fuel & Ash Handling Charges	89.25	89.25
9	Administrative, General & Miscellaneous Charges	546.89	546.89
10	Interest on Terms Loans	6281.16	4658.31
11	Other Interest Charges & Financing Charges		
12	Depreciation	19359.14	19359.14
13	Total Fixed Cost (B)	30396.44	28629.96
14	Reasonable Return	11347.04	4070.77
15	Gross Revenue Requirement (2+13+14)	76674.21	66592.15
16	Other Income	555.00	555.00
17	Net Required from Sale of Power (15-16)	76119.21	66037.15
18	Saleable Units (MU)	3409.90	3596.05
19	Average Cost of Supply (Paise/Kwh)	223.23	183.36

**SANTALDIH  
STATEMENT OF REVENUE REQUIREMENT (2004-05)**

Rs. in Lakh

Sl No	Particulars	As Projected	As admitted
A.	Variable Cost		
1.	Cost of fuel	18796.54	14285.52
2	Total (A)	18796.54	14285.52
B	Fixed Cost		
3	Employees' Cost	2294.44	1956.78
4	Repairs & Maintenance	2697.34	2697.34
5	Rent, Rates & Taxes	22.00	5.00
6	Legal & Professional charges	13.07	13.07
7	Audit Fees	0.84	0.84

8	Fuel & Ash Handling Charges	150.00	150.00
9	Administrative, General & Miscellaneous Charges	260.50	260.50
10	Interest on Terms Loans	768.01	--
11	Other Interest Charges & Financing Charges		
12	Depreciation	577.80	577.80
13	Total Fixed Cost (B)	6784.03	5661.36
14	Reasonable Return	807.52	1224.23
15	Gross Revenue Requirement (2+13+14)	26388.09	21171.11
16	Other Income	27.67	27.67
17	Net Required from Sale of Power (15-16)	26360.42	21143.44
18	Saleable Units (MU)	1084.83	1122.69
19	Average Cost of Supply (Paise/Kwh)	242.99	188.32

**BANDEL  
STATEMENT OF REVENUE REQUIREMENT (2004-05)**

Rs. in Lakh

Sl No	Particulars	As Projected	As admitted
A.	Variable Cost		
1.	Cost of fuel	21659.15	19026.25
2	Total (A)	21659.15	19026.25
B	Fixed Cost		
3	Employees' Cost	3040.40	2417.35
4	Repairs & Maintenance	3852.70	3852.70
5	Rent, Rates & Taxes	55.00	55.00
6	Legal & Professional charges	3.85	3.85
7	Audit Fees	0.89	0.89
8	Fuel & Ash Handling Charges	700.00	700.00
9	Administrative, General & Miscellaneous Charges	192.50	192.50
10	Interest on Terms Loans	927.90	--
11	Other Interest Charges & Financing Charges		
12	Depreciation	983.12	983.12
13	Total Fixed Cost (B)	9756.36	8205.41
14	Reasonable Return	62.81	1049.17
15	Gross Revenue Requirement (2+13+14)	31478.32	28280.83
16	Other Income	53.00	53.00

17	Net Required from Sale of Power (15-16)	31425.32	28227.83
18	Saleable Units (MU)	1600.00	1604.67
19	Average Cost of Supply (Paise/Kwh)	196.41	175.91

## CHAPTER –18: TARIFF ORDER

**18.1** On the basis of the revenue requirements for each of the thermal power stations of WBPDCCL for the year 2004-05 as worked out in Chapter 17, we now proceed to determine the average cost of supply for these stations in 2004-05, the said average costs of supply have been determined by adjustment of the revenue requirement of each of these stations in 2004-05 with the excess or shortfall of the revenue earned during 2003-04, which in turn have been determined on the basis of the tariff rates that were applicable in the latter year, inclusive of the ad hoc increase of 12p/kwh awarded by the interim order of the Commission in 2003-04. From the adjusted amount recoverable in 2004-05, the average rate of the recovery for each of the power stations in question has been arrived at. The statement given below will clarify the matter.

### Statement showing Final Average Rates of Supply from the thermal power stations of WBPDCCL at Kolaghat, Bakreswar, Santaldih and Bandel 2003-04 and 2004-05

Sl. No	Particular	Kolaghat	Bakreswar	Bandel	Santaldih
1	Average rate of supply in 2002/03(p/kwh)	145.63	193.58	141.66	170.52
2	Add: ad hoc increase in the rate for 2003-04	12.00	12.00	12.00	12.00
3	Rate charged during 2003-04 (paise)	157.63	205.58	153.66	182.52
4	Saleable Units (MU)	6026.04	3410.27	1864.2	1335.00
5	Amount Charged (3X4) during 2003-04 (Rs. in lakh)	94988.46	70108.33	28645.30	24366.42
6	Net Revenue required for 2003-04 (Rs. in lakh)	103269.32	63731.47	30314.61	22439.89
7	Amount adjustable with the Revenue Requirement of 2004-05 (6-5) (Rs. in lakh)	(+) 8280.86	(-) 6376.86	(+) 1669.31	(-) 1926.53

### Statement Showing Final Average Rates of Supply from the Thermal Power Stations of WBPDCCL at Kolaghat, Bakreswar, Santaldih and Bandel, 2003-04 & 2004-05 (contd.)

Sl. No	Particular	Kolaghat	Bakreswar	Bandel	Santaldih
1	Net Revenue Required in 2004-05 (Rs in lakh)	101416.60	66037.15	28227.84	21143.44
2	Adjustment for earlier year (Rs. in lakh)	(+) 8280.86	(-) 6376.86	(+) 1669.31	(-) 1926.53
3	Adjusted Amount recoverable	109697.46	59660.29	29897.15	19216.91

	in 2004-05 (Rs. in lakh)				
4	Saleable units in 2004-05(MU)	6025.97	3596.05	1604.67	1122.69
5	Average cost of supply (paise)	182.04	165.91	186.31	171.17

**18.2** The Average cost of supply for WBPDCCL applicable to 2004-05 shall be as under:

Kolaghat Thermal power Station	--	182.04 p/ kwh
Bakreswar Thermal Power Station	--	165.91 p/ kwh
Santaldih Thermal Power Station	--	171.17 p/ kwh
Bandel Thermal Power Station	--	186.31 p/ kwh

**18.3** The tariff shall be applicable from 01.04.2004 and shall remain in force for a period of one year unless amended or revoked, or unless it is extended beyond the said period of one year.

**18.4** The adjustment to be made, because of excesses or shortfalls in collection in 2003-04 will be done in course of the rest of the months of 2004-05 in equal monthly instalments. However, since WBSEB is the principal customer of the power generated from WBPDCCL, there should not be much difficulty in achieving the said adjustments.

**18.5** No interest shall be paid, for the purpose of these adjustments, either by WBSEB to WBPDCCL or by WBPDCCL to WBSEB.

**18.6** The fixed cost i.e. Net Revenue Requirement including adjustable amount minus Fuel Cost as determined in the Revenue Requirement by the Commission shall be recovered in 12 monthly equal instalments. The energy charge will be charged separately based on the energy drawal. The fixed cost to be recovered shall be adjustable if the approved Plant Load factor is not achieved due to the reasons attributable to generating company. This adjustment will be done every quarter on rolling month basis. However, the PLF for Kolaghat may be adjusted downward provided the Bakreshwar Plant Load factor is increased by twice of such lower adjustment. Similarly inter plant adjustment of PLF between Bandel and Santaldih with Bakreshwar is also allowed, provided further that the recovery of total fixed cost should not exceed the amount allowed by the Commission.

**18.7** In addition to the tariff already fixed, WBPDCCL would further be entitled to added sum towards the enhanced cost of fuel after the date of effect of this tariff structure. The formula to be applicable for such adjustment in cost is given at Annexure – I. It is however, clarified that the amount to be reimbursed under this formula shall not exceed in any case the additional amount proportionately incurred on fuel cost based on various normative parameters and limits, if already laid down and within the direction of the Commission. It is also made clear that for reimbursement of additional fuel cost, only the basic fuel cost plus applicable taxes and levies plus railway freight plus road transportation cost, wherever required, will be considered.

**18.8** Any proposal for adjustment shall be subject to the approval of the Commission and once the proposal is approved, the same should be reflected in a separate entry in the bill. At the end of each adjustment period, WBPDCCL shall calculate the FCA as per the formula given at Annexure – I, based on the approved parameters, cost and consumption. Complete details along with cost data, quantitative details and relevant information / document duly certified by WBPDCCL for the subject matter revision, and thereafter duly audited for the whole year for the March revision should be

submitted to the Commission for approval within six months of the close of the period or within four months from the cause of action whichever is later. In case of any delay without adequate and justified reasons, the Commission may disallow wholly or partially the increase in FCA, or in case of refund suitable compensations by way of interest.

**18.9** It is further directed that in case the sale proceeds exceed the figures adopted in this order for respective power stations, the amounts realizable from the additional sales over the figures based on the average cost of supply less the associated fuel cost based on the approved norms shall be kept separately in an account and will be appropriately considered in the next tariff petition.

**18.10** The interim order of this Commission dated 23-04-2003 whereby an interim and ad hoc increase of 12 paise/kwh had been awarded, will no longer be operative. Accordingly no interim amount is separately payable with effect from 01-04-2004.

**18.11** Before conclusion, we indicate clearly that in addition to the tariff, whatever is legally chargeable in the bills should be charged as usual. The existing terms and conditions and charges shall stand modified to the relevant extent in terms of the instant orders.

**18.12** It is open to the State Government to grant any subsidy in the tariff determination by the Commission. If at all any such subsidy under the provisions of the Act is intimated to WBPDC and to the Commission by the Government of W.B and the amount of subsidy is paid in advance as has been specified, the tariff shall be deemed to have been reduced accordingly as has been indicated by the Government of W.B. However, such direction of the Government of W.B shall not be operative if the payment is not made in accordance with the provisions of the Act and Regulations made thereunder and the tariff as fixed by the Commission shall be applicable.

**18.13** The utility will present to the Commission, a gist of this order along with the names of at least three leading dailies (at least one of which will be in English and at least two of which will be in Bengali), within two days from the date of receipt of this order for approval of the Commission, and on receipt of the approval shall publish the approved gist in those newspapers within five days from the date of receipt of approval of the Commission.

**Sd/- 03.06.04**

**Sd/- 03.06.04**

**Sd/- 03.06.04**

**(N.C. Roy)**

**(A.K. Jain)**

**(S.N. Ghosh)**

**Member (Technical)**

**Member (F&A)**

**Chairperson**

**ANNEXURE – I**

### **Formula for fuel cost adjustment (FCA)**

a) Fuel cost adjustment charge per unit for energy sold during adjustment period shall be in terms of the following formula :

$$\text{FCA (p/kwh)} : \frac{\text{FC} - \text{CD} \pm \text{A}}{\text{Gown}} \quad \frac{\text{fc}}{\text{gown}}$$

FC (Rs.): Fuel cost of own generation as per Normative parameters fixed by the Commission and / or on actual basis (in absence of any norm) for actual level of sales during the adjustment period.

CD: Cost disallowed by the Commission as having been incurred in breach of its economic generation or of order / direction of the Commission, if any, or for any other reason during the adjustment period and adjusted corresponding to actual level of sales.

A (Rs.): Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel and power purchase cost in the past adjustment period based on directions / orders of the Commission.

$G_{own}$  (KWH): Total energy sent out from utility's generating stations during the adjustment period based on normative or actual auxiliary consumption whichever is less, corresponding to actual level of sales.

fc: Fuel cost of generation as allowed by the Commission in the tariff order corresponding to relevant adjustment period.

$g_{own}$ : Sent out own generation as admitted in the tariff order by the Commission corresponding to the adjustment period.

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