

**ORDER OF THE****WEST BENGAL ELECTRICITY  
REGULATORY COMMISSION****In Case No. T.P. 5 of 2002 - 03****IN RE THE TARIFF APPLICATION OF  
WEST BENGAL POWER DEVELOPMENT  
CORPORATION LTD. (WBPDC)  
UNDER SECTION 22  
OF THE ERC ACT, 1998  
FOR THE YEAR 2002 - 03****Present:**

Shri A. K. Jain, Member (Finance & Accounts).  
Shri N. C. Roy, Member (Technical).

**For the petitioners:**

Shri B. K. Paul, Managing Director,  
Shri S. Mahapatra, Executive Director, Operations,  
Shri A. K. Chatterjee, Management Consultant of M/s. S. R. Batliboi & Co.,  
Shri Someswar Chatterjee of M/s S. R. Batliboi & Co.

**For the objectors who had prayed for and were permitted to join the hearing:**

Shri Dipak Ganguly, Member, Operation,  
Shri M. K. Ray, Chief Engineer, Commercial,  
Dr. S. C. Bhattacharjee, Superintending Engineer,  
Shri T. K. Chakraborty, Divisional Engineer,  
all from WBSEB.  
Shri Satyen Bhattacharya of All Bengal Electricity Consumers' Association.

Objectors who had filed written objections within the stipulated dates for 2002-03:

West Bengal State Electricity Board (WBSEB).  
Eastern India Textile Mills' Association.

Dated: 22nd January, 2003.

**CHAPTER - 1: INTRODUCTION**

1.1 The West Bengal State Electricity Regulatory Commission, constituted u/s 17 of the Electricity Regulatory Commissions Act, is empowered to determine tariff of power utilities in the State u/s 22(1) of the ERC Act, 1998. The Commission consists of three Member including Chairperson, Justice (Retd.) S. K. Phaujdar, out of whom Chairperson retired on 20th December, 2002 after the present matters were heard.

1.2 The West Bengal Power Development Corporation Ltd. is one constituted in 1985 under the Companies Act, 1956 and is normally referred to as WBPDC. It 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 WBPDC had initially started with the Kolaghat Thermal Power

Station (KTPS). This KTPS was initiated by the WBSEB and stood transferred to WBPDCCL on 1st April, 1986. Different units of KTPS started commercial 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 and it is having 5 units of 210 MW capacities only first 3 units having been commissioned till date.

1.3 For the KTPS of the WBPDCCL two tariff petitions T.P. 5/00-01 and T.P. 4/01-02 were submitted before the Commission for the financial years 2000-01 and 2001-02 respectively and after hearing an order was recorded by the Commission on 12th July, 2001 determining the tariff for the concerned years.

1.4 For the Bakreswar unit (BKTPS) also 2 separate applications were submitted subsequently which were registered as T.P. 6/00-01 and T.P. 6/01-02 and after hearing the Commission determined provisionally allowed adhoc tariff for infirm and firm power in the absence of CEA's approval for project cost and issued directions for realization as per the Commission's order dated 27.2.2002.

1.5 In addition to the KTPS and BKTPS, the WBPDCCL acquired 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 and the deemed effective date of transfer was notified to be 1st April, 2001. This transfer was made, as submitted by WBPDCCL, as a part of the Government policy to bring all the generating stations under one umbrella. The present tariff petition by WBPDCCL relates to all these 4 units of the WBPDCCL for the year 2000-03.

1.6 It is worth mentioning at this juncture that the Commission has been empowered by the State Government u/s 22(2)(p) of the ERC Act and under this conferment of power the State Government has referred for advice of the Commission a question of revaluation of Bandel and Santaldih Thermal Power Stations on transfer from WBSEB to WBPDCCL.

1.7 The advice was sought as the government rightly felt that the question of revaluation would affect tariff fixation and as such the advice of the Commission on this point was necessary.

1.8 The revaluation was done by M/s. S.R. Batliboi & Co. and the Commission thought it proper to have a public hearing on the question of advising the government on the above point as the matter was directly related to tariff fixation and question regarding tariff fixation is to be decided after public hearing as per the Act, Rules and Regulations.

1.9 The instant application was presented as far back as in March, 2002 and the Commission had notified a date of hearing on the application and had called for objections, if any, from interested persons and had notified public hearing allowing participation of all concerned subject to Regulations made by the Commission.

1.10 Before the hearing could be taken up, there had been an order by the Calcutta High Court on 14.5.2002 in FMAT 2 of 2002 (CESC Vs. WBERC) in which, a Division Bench of the Calcutta High Court observed, amongst others, that the Regulations of the Commission regarding public hearing and participation of consumers are not proper and there had been a direction for making proper amendments in terms of the High Court Judgement. There were further observations by the Division Bench in the aforesaid appeal regarding validity of other Regulations framed by the Commission.

1.11 The Commission took up the matter for amendment of Regulations in terms of the direction of the High Court and in the meantime withdrew the notifications for public hearing in the instant matter and also appealed to the Supreme Court with a Special Leave Petition against the aforesaid order of the Division Bench and the appeal was disposed of on 3.10.2002 with observations, amongst others, that the Regulations made by the Commission were not improper. The Supreme Court remanded back the CESC matter to the Commission for a decision in terms of directions given in the Judgement.

1.12 Only after receipt of the aforesaid order of the Supreme Court a further notification was issued supplementing the earlier notification for public hearing, participation of consumers subject to Regulations and calling upon interested parties to file objections.

1.13 The present order for fixation of tariff for 2002-03 is being recorded keeping in view the directives of the Supreme Court on the interpretation of the relevant provisions of laws.

1.14 The latest notification also indicated that the question of advising the State Government on the revaluation of Bandel and Santaldih Thermal Power Stations would also be taken up along with public hearing and everybody interested was entitled to join this issue as well. The advice to the Govt. on revaluation of Bandel and Santaldih Thermal Power Stations will be given separately to the Govt. of West Bengal after the receipt of the clarifications sought from the G.O.W.B.

## **CHAPTER - 2: THE CASE OF WEST BENGAL POWER DEVELOPMENT CORPORATION LTD. (WBPDC)**

2.1 The petition for revision of tariff has been filed under regulation 43 of the Conduct of Business Regulations (CBR), the Electricity Regulatory Commissions Act, 1998 and the Electricity (Supply) Act, 1948 for the year 2002-03. The utility further stated since the Commission has not prescribed separate tariff regulations, the determination of cost and tariff have been done in accordance with section 29 of the Electricity Regulatory Commissions Act, 1998.

2.2 In the tariff petition the WBPDC indicated the unit-wise rated capacity of its 4 thermal power stations together with the dates of its commercial operation.

2.3 It was indicated that the WBPDC had installed a transmission system for evacuation of power from BKTPS and the expenditure for installation was excluded from the computation of project cost for this station. It was mutually agreed between WBSEB and WBPDC, as per the tariff petition, that this transmission system would be maintained by the WBSEB on behalf of the WBPDC for which operation and maintenance charges would be reimbursed by WBPDC.

2.4 This Commission had, while determining tariff for BKTPS for 2000-01 and 2001-02, advised the WBPDC to come up with tariff proposal for the above transmission system separately after settling relevant issues with the WBSEB. It was indicated that the issues were yet to be finally settled and the WBPDC prayed for additional time for submission of transmission tariff proposal. As per the tariff petition, the instant prayer has been submitted for station-wise tariff for its power stations with audited accounts for the FY 2000-2001.

2.5 It was indicated in the tariff petition that the present tariff structure, now in force for 2001-02 was grossly inadequate to meet the Annual Revenue Requirements of the company resulting a shortfall in respect of both fixed and variable expenses. According to WBPDC the tariff proposal sought to recover the cost inclusive of the Reasonable Return for 2002-03.

2.6 On the question of Reasonable Return the tariff petition 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 running of the generating stations gets affected. According to the petitioners the Reasonable Return to be given to a generating company was primarily meant to make its obligations to the investors and for future capital requirement failing which the company would not be in a position to meet its payment obligations and its essential routine capital expenditure etc.

2.7 It was indicated in the tariff petition 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 WBPDC.

2.8 The petitioners further stated that although by 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 section 43(A)(2) of the 1948 Act. The petitioners submitted that there had been no directions in this respect from this Commission.

2.9 It was insisted by the WBPDC that the rate of return to them should be 16% on the subscribed equity.

2.10 The petitioners indicated the power station-wise investment in equity by the Government of West Bengal for the WBPDC. This is subject to the Commission's advice on the revaluation of Bandel and Santaldih Thermal Power Stations. For BKTPS it was indicated in terms of the earlier tariff order of the Commission dated 27.2.2002 that the Central Electricity Authority (CEA) had already been approached for approval of the final project cost of the first 3 units of BKTPS and the fixed cost has been computed on an assumption that the CEA would concur on the cost projected by the BKTPS. In respect of BKTPS it was stated that on the request of WBPDC the Government of West Bengal had agreed to convert 70% of the project cost as soft loan at 2% interest and also agreed for conversion of 30% of project cost as equity. The present tariff petition, according to the petitioners is based on calculation of return on equity as per the above agreement.

2.11 So far Bandel and Santaldih Power Stations are concerned it has been indicated that WBPDC had approached the WBSEB for audited accounts in respect of BTPS and STPS which has been taken as the basis for computation of fixed cost for the present proposal. It was submitted that in case it is determined subsequently that the aforesaid BTPS and STPS would be transferred to WBPDC by the WBSEB at a price other than that of the book value as on 31.3.2001, the effect of the same, as per prayer should be allowed to pass on to the tariff.

2.12 In the tariff petition WBPDC had set out its norms for consumption of fuel and indicated the Plant Load Factors achieved in the past several years as also auxiliary consumption for the past and instant year and the reasons why normative station heat rates cannot be maintained.

2.13 A prayer was made to say that all the available information had been attempted to be supplied but full compliance in terms of directions of the Commission could not be made due to incomplete computerization and a soft approach in this respect prayed for.

2.14 In the prayer it was indicated that cost estimated for power generation is based on existing coal and oil prices and if at all any revision in coal and oil prices during hearing the same might be considered. There has been a further prayer for allowing the WBPDC to pass through any tax liability during the year. There is a further prayer that WBSEB be directed to settle the receivables at WBPDC's end as on 31.12.2001.

2.15 A prayer has been made to consider review of tariff order dated 12.07.2001 for the years 2000-2001 and 2001-2002 on the basis of actual expenditure incurred as per the information provided.

2.16 In the prayer the basis of assumption for working out various costs and other expenses has been indicated.

2.17 The WBPDC has given a summary of the tariff proposal in a tabular form for the two financial years of 2001-02 and 2002-03 for all the four sub-stations.

### **CHAPTER - 3: OBJECTIONS AGAINST THE TARIFF PETITION.**

3.1 As stated in the last chapter, a notification was issued in November 2002 after the Supreme Court Judgement fixing a date of hearing on the instant petition and requiring objections from interested parties by 27th November, 2002.

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

3.3 Objection was raised by West Bengal State Electricity Board (WBSEB) and Eastern India Textile Mills Association.

3.4 In their objection the WBSEB indicated that they are a statutory body constituted by section 5 of the Electricity (Supply) Act, 1948 and they are purchasing electricity from WBPDC from their different power stations. While WBSEB has formal agreement for purchase of electricity from Kolaghat Thermal Power Station (KTPS) but the formal agreement for purchase of electricity from Bakreswar, Bandel and Santaldih Thermal Power Stations is yet to be executed.

3.5 The WBSEB indicated that the installed capacity of KTPS is 6 X 210 MW i.e. 1260 MW and the PLF for the plant should not be less than 68.5% which is generally accepted for the thermal power stations owned by generating company. The WBPDCCL has taken generation at 6732 M.U i.e. at annual PLF of 60.99% and recovery of the fixed cost on this PLF should not be allowed. Similarly, the Auxiliary Consumption at this PLF should be 9.5% and not 10%.

3.6 The WBSEB 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 2001-02 considered the heat rate of 2650 Kcal/Kwh which is marginally higher than normative heat rate admissible as per GOI notification. The normative heat rate for 2002-03 should be based on 2650 Kcal/Kwh and not 3200 Kcal/Kwh as prayed by WBPDCCL.

3.7 The WBSEB further prayed that the interest on Govt. loans in respect of KTPS for 2000-01 and 2001-02 has been clubbed with interest liability for 2002-03 which may not be allowed.

3.8 The WBSEB pointed out that the final project cost for Bakreswar Thermal Power Station (BKTPS) has not been approved by CEA which is an important parameter for fixation of tariff and is a statutory requirement u/s 29 of the Electricity (Supply) Act, 1948. Pending receipts of approval of CEA, the tariff of BKTPS be decided provisionally at 80% of the admissible fixed charge.

3.9 The WBSEB further prayed that the heat rate for BTPS should be fixed at 2500 Kcal/Kwh as per GOI notification instead of heat rate of 2750 Kcal/Kwh as prayed by WBPDCCL. The auxiliary consumption should also be kept at 9.5% instead of 10%.

3.10 The WBSEB further stated that the employees cost and the O&M cost has increased by 20% and 40% respectively over the previous year and the same is unreasonable, as the petitioner has not assigned any reason for such abnormal increase.

3.11 The WBSEB further pointed out that the expenses under different heads for Bandel Thermal Power Station (BTPS) and Santaldih Thermal Power Station (STPS) is abnormally high.

3.12 The Eastern India Textile Mills Association (EITMS) raised objections on the tariff petition and pointed out that as WBSEB's power purchase cost is almost 70% of the total energy rate, the interest of consumers of WBSEB are badly effected by increase in tariff of WBPDCCL, from whom WBSEB purchases the bulk of its power.

3.13 The EITMS further pointed out that the Plant Load Factor of the WBPDCCL for all the stations is too low in comparison to normative standard of 68.5% fixed by the Commission in its last order and they requested that while calculating the tariff only standard PLF is to be considered to recover the fixed costs.

3.14 The EITMS further indicated that the auxiliary consumption rate as assumed by the WBPDCCL is higher than the normative standard fixed by the Commission and requested the reasonable auxiliary consumption should be considered.

3.15 The EITMS further prayed that the heat rate assumed by WBPDCCL is higher than the normative standard and while fixing tariff, standard heat rate should only be considered.

3.16 The EITMS indicated that the WBSEB has assumed lower purchase of power from WBPDCCL and as WBPDCCL's power is cheaper than other sources and WBPDCCL is a source within the state, the WBPDCCL should be directed to supply its entire generation to WBSEB and export to other states may only be permitted after meeting total demand of WBSEB.

3.17 The EITMS also indicated that the frequency system disturbances are substantial and the generation of power has been lower because of disturbances resulting into higher cost of generation. It has been requested that the loss on account of such disturbances, which is due to negligence of WBPDCCL, should not be passed on to the WBSEB.

#### **CHAPTER - 4: OBJECTION RAISED AT THE HEARING.**

4.1 Out of the two objectors who have filed written objections only one (WBSEB) made its submissions during hearing and one more objector (All Bengal Electricity Consumers' Association), who had not filed objection in writing has been also permitted to join hearing.

4.2 On behalf of WBSEB, Shri M. K. Ray, Chief Engineer, Commercial highlighted the points raised in the written objections and criticized the claims of WBPDCCL to conclude that fixation of tariff is to be made on realistic basis.

4.3 All Bengal Electricity Consumers' Association (ABECA) represented by Shri Satyen Bhattacharjee pointed out that as WBPDCCL is unable to submit the total documents in support of their tariff proposal their tariff proposal should be rejected.

4.4 The ABECA further prayed that WBPDCCL being a generating company should not be allowed to get 16% reasonable return and it should be treated like WBSEB and 3% return may be allowed in their favour.

4.5 The ABECA further pointed out that the Bakreswar cost has not been approved by the CEA, so its tariff may not be fixed. They also objected of selling of 30% of equity shares of the project cost as it may lead to privatization.

4.6 The ABECA also raised the issue that the Plant Load Factor is not in accordance with the norm of CEA and the depreciation of BTPS is very high.

4.7 The ABECA also requested that no employee should be retrenched from Bandel and Santaldih Thermal Power Stations.

4.8 The Commission desired to know from the WBSEB whether the WBSEB would be able to absorb all the power that the WBPDCCL wanted to supply. Shri M. K. Ray of WBSEB informed that they are ready to absorb all the power that would be available from WBPDCCL.

4.9 Shri S. Mahapatra of WBPDCCL and Shri B. K. Paul, Managing Director of WBPDCCL clarified the objections raised during hearing.

4.10 Dr. S.C. Bhattacharjee of the WBSEB raised their points on the rejoinders of the WBPDCCL and requested the Commission to accept the project cost of Bakreswar Thermal Power Station to the extent of 80% and the proposed cost, auxiliary consumption and heat rate should be based on CEA's norms and PLF for Kolaghat Thermal Power Stations should be at 68.5%.

4.11 At the hearing points has been raised on behalf of the Commission and the WBPDCCL was permitted to reply to those points within 15 working days. The points and the replies thereto shall be taken up in the next chapters.

## **CHAPTER - 5: POINTS RAISED ON BEHALF OF THE COMMISSION**

5.1 It has been indicated that the WBPDCCL was asked to generate at a PLF of 68.5% from Kolaghat Thermal Power Station (KTPS) but it appears from their petition that they will achieve the PLF of 61% only. They were required to explain/justify the PLF of 61%.

5.2 Further details are required in regard to designed heat rate for KTPS, grade of coal, designed rate of the coal for the boilers.

5.3 The WBPDCCL is required to explain the discrepancies of the total expenditure to ash pond as shown in the petition and as the basis on the capitalization of the expenditure.

5.4 Further details sought for reasons for substantial time taken in overhauling unit no. 5 of Bandel Thermal Power Station (BTPS) which is a new unit and which was overhauled during the financial year 2001-02. The reasons for taking up for overhauling the unit no. 5 after lapse of 6 months also sought for.

5.5 Further details sought for BTPS relating to discrepancies in the value of Work-in-progress as also the details break up of actual value of Work-in-progress along with the respective heads

under which such Works-in-progress have been capitalized.

5.6 On the question of PLF of Bakreswar TPS, it was pointed out that the station has got only 2 no. of ID Fan for each unit of which is capable to cater 60% of the rated full load and there is no transmission standby ID Fan. It has been further pointed out that the tripping/breakdown of auxiliaries, vital in nature may cause abrupt reduction in generation. This needs to be justified.

5.7 Further information sought on the status of CEA approval of Bakreswar TPS as also a copy of the CEA's techno-economic clearance of Rs. 2400 crores for three units of Bakreswar Thermal Power Station which was mentioned during public hearing.

5.8 Details sought on the designed heat rate for KTPS and BTPS and the designed grade of coal for the boilers.

5.9 The reasons for not considering the BOBR wagons as part of the project cost (in the capital base of Bakreswar TPS) and non-inclusion of the income derived therefrom in the other income.

5.10 Further questions raised on computation of cost of fuel for Santaldih Thermal Power Station (STPS) and amount of claim of recovery from insurance companies in respect of fire hazards.

5.11 WBPDCCL has been asked to come with petitions for transmission charges without any further delay.

5.12 WBPDCCL has been asked to give actual cost of employees incurred in BTPS and STPS upto the end of November, 2002 and estimated expenses for the balance period of the financial year 2002-03, break-up of estimated other fuel related cost for all the power stations.

5.13 WBPDCCL has been asked to obtain and give boiler fitness certificate from Boiler Inspector, Government of West Bengal in respect of safe and efficient operation of each boiler of all the plants and obtain system back down certificate from the competent authority.

5.14 The reasons and justification for including the interest charges for earlier years in the tariff for 2002-03.

5.15 The reasons also sought for not including the late payment surcharge from the WBSEB in other income and details of work-in-progress in BTPS.

5.16 WBPDCCL to give figure of normative expenses entitlement including normative O&M expenses based on norms, vis-à-vis expenses claimed, in case return on equity as claimed based on GOI norms/Central Generating Company, is accepted by the Commission.

5.17 If return (reasonable return) is allowed to WBPDCCL as per Schedule Sixth then what will be the impact of the same on the tariff and the necessary details pertaining to capital base in terms of Schedule Sixth of E.S. Act, 1948.

5.18 Details sought on maximum generation achieved by WBPDCCL giving in the details relating to the capability actually achieved and reasons of shortfall against the capability, if any, both in terms of megawatt and energy output.

5.19 A question has been posed to WBPDCCL whether it can supply the full power as per its capacity in case WBSEB is in a position to absorb the same.

## **CHAPTER - 6: FURTHER REPLIES BY WBPDCCL.**

6.1 The WBPDCCL submitted point-wise reply to written objections filed by objectors (WBSEB). They also gave replies to some of the points raised by the Commission vide their letters no. WBPDCCL/F&A/AB/540 dated 23.12.2002 and further gave on 7.1.2003 but no reply was given on the objection by another objector, Eastern India Textiles Mills' Association.

6.2 As regards the objections by the WBSEB, the WBPDCCL in their reply dated 23rd November, 2002 stated that they claimed the fixed cost with respect to 61% PLF for KTPS on the basis of

existing bulk power supply agreement dated 4.5.1991. They further contended that the amount of generation by KTPS during evening peak hours might be considered as the capability of the power station and they were not able to achieve normative PLF due to worst off-peak demand of the WBSEB's system.

6.3 They further indicated that due to wide peak and off-peak load variation, the sustained rated operation of the unit did not generally happen which results auxiliary consumption on higher side and they further pointed out the recommendations of the heat rate committee constituted by the Government of West Bengal.

6.4 The WBPDCCL further stated that the Heat Rate of KTPS is high as the coal supply to it is not dedicated to any particular colliery of India, various grades of coal are received. Moreover, adverse peak and off-peak variation of load, system frequency excursion beyond normative level, frequent outages of machines because of the adverse operating conditions add to the high heat rate of KTPS.

6.5 As regards the objection relating to Government loan which could not be claimed in tariff petition for 2000-01 and 2001-02 for KTPS, they contended that the tariff petition for this year was prepared based on the loan sanctions received from the Government at that time whereas the loan order which came subsequently has been claimed in this year petition. They claimed that further loan sanction was given by the Government subsequently.

6.6 They further stated that the approval of CEA for the project cost of Bakreswar Thermal Power Station (BKTPS) is in advance stage of consideration but there is some constraints of CEA in view of Government notification No. 744 dated 20.8.2002 according to which power project cost which is below Rs. 2500 crore are beyond the purview of CEA. They prayed that the 100% fixed cost of Bakreswar be allowed.

6.7 They further indicated that the employees' cost for BKTPS is more as because of full year commercial operation for unit no. 3 in 2002-03 and normal increase of 10% in the employees' expenses. For O&M for Bakreswar TPS it has been contended that the unit no. 1 was declared for commercial operation on 29.11.2000 and as per the norm the unit has to go for overhauling in 2002-03 in addition to increase in normal O&M expenditure.

6.8 They further stated that the comparative statement of expenditure shown for BTPS and STPS by WBSEB is not tallying with the figures by the WBSEB in the last year's tariff petition and they further gave the details of such discrepancies.

6.9 On the written objection filed by Eastern India Textile Mills' Association, the WBPDCCL stated that they could not obtain the copy of the objection, which was filed on 27.11.2002, and they would obtain a copy of the objection and give the reply on the same at an early date. The reply of which has still not been given by the WBPDCCL.

6.10 On the information of the clarification sought by the Commission, the WBPDCCL gave a reply by their letter dated 23rd December, 2002 covering some points and vide affidavit received on 7.1.2003.

6.10.1 They contended that they have claimed fixed cost with respect to 61% PLF for KTPS on the basis of existing bulk power supply agreement dated 4.5.1991. They further contended that the generation by KTPS during evening peak hours may be considered as capability of power station and if computation is made on this basis of capability the achievement of 68.5% PLF can be achieved considering 24 hours generation. The normative PLF is not being achieved due to worst off-peak demands of the WBSEB system.

6.10.2 WBPDCCL gave details/information relating to designed heat rate for KTPS, designed rate of coal for the boilers for the KTPS and BKTPS.

6.10.3 They further indicated the correct position of original cost of ash pond and stated that the error will be rectified while submitting the tariff petition for the year 2003-04.

6.10.4 For interest of the loan for earlier years they gave the details and stated that the loan order which were received after submission of the tariff petition for the earlier years has been included in 2002-03 and gave the required details of the same. They further stated that for some loan sanctions for the 2001-02 was not included due to reasons that it does not contain the interest clause and as such no interest was considered in the tariff petition for 2001-02. However after receipt of modified orders from the GOWB, the interest have been claimed. They also enclosed the copy of the relevant loan orders.

6.10.5 As regards the adequacy of the auxiliaries and the ID Fan it has been contended by them that the plant has been designed as per standard norms prevalent in our country and with 2 ID Fan, it is generally possible to maintain desired PLF if there is no breakdown in the system.

6.10.6 As regards approval of Bakreswar TPS by the CEA they contended that they had approached the CEA's for its approval by submitting all the relevant documents and their application is in advance stage of consideration. However, there is a confusion in terms of GOI notification no. 744 dated 20.8.2002. The power projects the cost of which is below Rs. 2500 crores need not be referred to CEA for TEC. However as regards copy of the TEC for clearance for Rs. 2400 crores for 3 units of BTPS as stated in the hearing they have not given a copy but referred to reply as stated above. WBPDCCL indicated that they have kept expenditure on BOBR wagons outside the purview of project cost of BTPS and as such no expenses or income have been claimed through this petition.

6.10.7 They indicated that their proposal for transmission charges will be submitted within 31.12.2002.

6.10.8 As regards overhauling of various units of BTPS they stated that after dismantling of the unit during overhauling the work content was found to be much higher than the standard estimate as such standard timing could not be maintained. They further contended that WBPDCCL has proposed short-term capital R&M work on the basis of past experience and not on RLA basis. They also contended that during overhauling certain other bulk changes were not taken up due to fund constraint and system requirement.

6.10.9 They also gave the detail break-up of actual value of Works-in-progress and also indicated that such capital Works-in-progress could not be finalized for want of relevant details from WBSEB.

6.10.10 They gave the figures of fuel cost statement for STPS and indicated that differences are due to rounding off of the figures.

6.10.11 As regards insurance claim they stated that as fire broke out in the August 2002 when the power station was under the WBSEB's control, the amount of claim and recovery thereof, if any, is available with the WBSEB.

6.10.12 As regards boiler fitness certificate from the Boiler Inspector, Government of West Bengal, they stated that all the boilers are registered with West Bengal Boiler Inspection Department excepting unit no. 3 and 4 of STPS and they will submit the copy of the certificate after obtaining the revalidation of the validity periods.

6.10.13 They further submitted the actual employees' cost from April 2002 to November, 2002 and estimate for December, 2002 to March, 2003 for BTPS and STPS and contended that enhancement of Dearness Allowance as was estimated did not materialize till November, 2002. They further gave the detailed break-up of estimated fuel related cost.

## **CHAPTER - 7: POINTS FOR CONSIDERATION AND DIRECTIONS ALREADY GIVEN.**

7.1 While dealing the tariff petitions of WBPDCCL for the Kolaghat Thermal Power Station vide T.P. No. 5/00-01 and T.P. No. 4/01-02 and for Bakreswar Thermal Power Station vide T.P. No. 6/00-01 and T.P. No. 6/01-02, 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 cheap power from WBSEB particularly when more expensive power is imported from outside the state both in peak and off-peak hours.

7.2 The WBPDCCL has again requested a reasonable return of 16% on equity and has quoted section 28 of the ERC Act which they contended should be taken as a supplement to the deletion of erstwhile section 43A(2) of the Electricity Supply Act, 1948. They have also enclosed a communication in this regard of Ministry of Power, Government of India dated 15.10.1998 in which return of equity was increased to 16% w.e.f. 1.11.98 for the various power stations of NTPC. They have also stated in their petition that the determination of cost, revenue and tariff had been done in accordance with the section 29 of the ERC Act, 1998. However they have not given in details based on normative expenses as are applicable to NTPC (CGC) as was required from them during hearing.

7.3 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 provision of section 29 of the ERC Act and the procedure indicated in the CBR to guide the Commission towards determination of tariff for Kolaghat Thermal Power Station of the WBPDCCL for the two years of 2000-01 and 2001-02. The Commission also noted that the letter dated 15.10.98 is only applicable in the projects of NTPC and it appears on the endorsement that the tariff revision will be subject to CERC's guidelines. Also the section 28 of the ERC Act, quoted by WBPDCCL, is only applicable for tariff to be determined by the Central Commission for regulating the tariff of the utilities falling u/s 13 of the ERC Act, 1998 whereas the tariff of WBPDCCL is to be fixed by the State Commission u/s 29 of the ERC Act, 1998.

7.4 The Commission, while deciding the tariff for Kolaghat Thermal Power Station for the year 2000-01 and 2001-02 in para 8.7 to 8.10 after discussing the various provisions relating to fixation of tariff under the Electricity Supply Act and the ERC Act, 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 Sixth Schedule of the Electricity Supply Act, 1948 will be applicable for fixation of the tariff. Since the WBPDCCL has not given the relevant details of the capital base and only requested for tariff based on 16% return of equity a working formula was found out to give the WBPDCCL a reasonable return that do 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 Kolaghat Thermal Power Station as a special case and this deviation was made only for these two years and was not to be used as precedence for the future years. Unfortunately, the Commission noticed that the WBPDCCL has still not complied the requirements and given the necessary details of capital base for the consideration of the Commission for fixation of tariff as per Sixth Schedule and normative O&M expenses entitlement vis-à-vis expenses claimed. The information was sought from the WBPDCCL during public hearing but the information is yet to be received. For the purpose of tariff fixation the point will be taken and dealt at appropriate place.

7.5 The Government of West Bengal vide notification no. 558-Power/IV dated 28.06.2001 has made over the Bandel and Santaldih Thermal Power Stations to WBPDCCL from WBSEB with effect from 1.4.2001. The transfer price of the stations to WBPDCCL is yet to be settled and there is a proposal of revaluation of assets of these two power stations for which the Government of West Bengal has sought the advice of the Commission. The Commission has already invited objections and heard in the hearing the objections of the various parties on the proposal of the revaluation of the assets including the report of M/s S. R. Batliboi & Co. The advice to the Government in this regard will be given separately after receipt of reply from them and for the purpose of this tariff fixation the point will not be considered at this stage.

7.6 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 its 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.

7.7 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 further directed that the difference of cost, if any, incurred by the WBSEB for import of high cost of energy will be deductible from the return to be allowed to WBPDCCL as such cost cannot be allowed to be passed on to the consumers of West Bengal by the WBSEB and the Commission also has directed the WBSEB that if the power has been exported from Kolaghat Thermal Power Station in deviation of the order of the Commission the difference of cost will not be paid by the WBSEB to WBPDCCL. The necessary documents and details in this regard are not given in the petition. The WBPDCCL has still not complied with the directions of the Commission in this regard and has contended that the export of power is against the WBPDCCL but has not given the complete relevant details and documents regarding export of power. This was also noted by the Commission that Power during peak hours is also exported by WBPDCCL and WBSEB has reconfirmed during hearing that they are able to absorb full power from WBPDCCL. It is not in the interest of consumers to pay for costly power when cheaper power is exported. The objectors also have pointed out that it is not in the interest of consumers that WBPDCCL exports the cheaper power and simultaneously WBSEB imports power at higher rates. The Commission therefore does not feel the necessity of changing its earlier order and the same shall be applicable during this year also. The issue will also be appropriately discussed and decided at the time of working out Revenue Requirement, Generation, Sales, PLF etc. for WBPDCCL and also in WBSEB.

### CHAPTER - 8: GENERATION AND AUXILIARY CONSUMPTION FOR THE YEAR 2002-03.

8.1 The WBPDCCL meets the requirements of its consumer, the WBSEB by generating power from its thermal power generating stations. The WBPDCCL also contended that they are exporting surplus power outside the State after meeting the requirements of the WBSEB.

8.2 The WBPDCCL has thermal stations of the following capacities:

Kolaghat Thermal Power Station - 6 X 210 MW = 1260 MW  
 Bakreswar Thermal Power Station - 3 X 210 MW = 630 MW  
 Bandel Thermal Power Station - (4 X 80 + 1 X 210) MW = 530 MW  
 [derated]  
 Santaldih Thermal Power Station - 4 X 120 MW = 480 MW

**T o t a l                      2900 MW**

8.3 For the concerned year the WBPDCCL has projected a gross generation indicating the Plant Load Factors of individual power station. It has been observed in the projection for the year 2002-03 that plant-wise PLF and generation is less than from the last year without assigning any valid reason in case of Kolaghat and Bandel TPS. The Commission directs the WBPDCCL to maintain generation at least at the same level as was directed by the Commission in its earlier tariff orders except for Santaldih whose control and instrumentation of Unit-I and II got damaged due to fire hazards and Repair and Maintenance yet to be completed. It is noted that Santaldih's actual generation for FY 2000-01 was 1053.223 MU and actual (9 months) and projected (3 months) for FY 2001-02 was 1106.496 MU. Hence the Commission allows the WBPDCCL to generate 1200 MU at Santaldih for FY 2002-03 only instead of 1500 MU allowed by the Commission for FY 2001-02. We present hereunder the Plant Load Factors and generation as projected by the WBPDCCL and as admitted by the Commission.

	Kolaghat TPS	Bandel TPS	Bakreswar TPS-	Santaldih TPS	Total
Plant Capacity (MW)	1260	530	630	480	2900
Plant Load Factor (%)					
Projected.....	61.0	35.38	68.5	26.04	
Admitted.....	68.5	47.39	68.5	28.54	
Generation (MU)					
Projected.....	6732	1642.5	3780.378	1095	13249.878

Admitted.....	7560.756	2200	3780.378	1200	14741.134
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8.4 The WBPDCCL has shown following auxiliary consumption against the 4 (four) stations keeping in view the relevant norms as specified and admitted by the Commission in its earlier tariff order, the Commission allows the following auxiliary consumption rate in percentage for the stations of WBPDCCL as shown below:

Kolaghat Thermal Power Station	9.5%
Bandel Thermal Power Station	10.5%
Bakreswar Thermal Power Station	9.5%
Santaldih Thermal Power Station	10.5%

8.5 The Commission will adopt the admitted plant-wise Plant load factors, generation and auxiliary Consumption as stated in above paragraphs for the purpose of fuel cost, sales etc. for the year 2002-03 in subsequent chapters.

8.6 The Commission likes to reiterate its earlier directions that the cheap power should not be exported out of the State of West Bengal and that too as a first charge basis both during peak and off-peak hours when more expensive power is imported from outside the State both in peak and off-peak hours. The WBPDCCL should give all the required power to WBSEB and as the latter have already confirmed and reconfirmed that they are in a position to absorb the full power from WBPDCCL, the Commission directs that any power going outside the State will be only from the Bakreswar Project or any other station generating costlier power than the Bakreswar provided that the same does not lead to import of power at a higher cost by WBSEB from outside the State. The difference in cost, if any, incurred by the WBSEB for such import of high cost power will be deducted from the return to be allowed to the WBPDCCL. As such cost cannot be allowed to be passed on to the consumers of West Bengal by the WBSEB as it is not in their interest.

## CHAPTER - 9: FIXED COST.

9.1 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.

### 9.2.1 Employees' Cost

The projected expenses on this head for the concerned year is as under for the various projects:

	Rs. in lakhs
Kolaghat Thermal Power Station	3318.89
Bakreswar Thermal Power Station	1265.65
Santaldih Thermal Power Station	2418.82
Bandel Thermal Power Station	3477.89

The WBPDCCL has indicated that they have claimed the average increase in the employee's cost @10% in respect of all the power stations except in respect of Bakreswar TPS in which the increase is also taken into account for full year commercial operation for the 3rd unit and due to this the employees' cost has been enhanced by 20% for Bakreswar TPS. The objectors have already raised objections regarding high employees' cost of the WBPDCCL and also the Commission has sought clarification in this regard. Based on such query, the WBPDCCL has reduced the employees' cost of Bandel TPS from 3477.89 lakhs to Rs. 2510.47 lakhs and for Santaldih TPS from Rs.2418.82 lakhs to Rs.2079.61 lakhs. The Commission, in its last tariff order for Kolaghat TPS, pointed out the high overtime payment to the employees and directed for making adequate attempts to contain the expenditure on employees' cost and overtime allowances. The steps taken in this regard by the WBPDCCL has not been intimated. The Commission also noted that the WBPDCCL has asked for 16% return on equity on the parallel of central generating units and on the same analogy the total O&M to be given to them including employees' cost should not exceed 2.5% of the capital cost plus escalation. The WBPDCCL has neither given the details of such

normative expenses which they can claim/entitled to nor the Commission has agreed to their contention of allowing return based on norms for central generating stations.

9.2.2 Under the position as explained above, we proceed to assess the employees' cost of the WBPDCCL and approve the following employees' cost. For the Kolaghat TPS the amount admitted by the Commission for 2002-03 is as approved for 2001-02 plus 6% over that towards normal increase. For Bakreswar, Bandel and Santaldih TPS the Commission accepts the figures as projected by the WBPDCCL and subsequently revised in case of Santaldih and Bandel TPS.

9.2.3 The employees' cost as approved by the Commission comes as under:

	Rs. in lakhs
Kolaghat Thermal Power Station	3175.76
Bakreswar Thermal Power Station	1265.65
Santaldih Thermal Power Station	2079.61
Bandel Thermal Power Station	2510.47

### 9.3 Operation and Maintenance - O&M Charges

9.3.1 Under this head, the WBPDCCL has claimed the following stationwise expenditure towards operation and maintenance including insurance charges and consumable stores during the year 2002-03

	Rs. in lakhs
Kolaghat Thermal Power Station	5000
Bakreswar Thermal Power Station	2500
Santaldih Thermal Power Station	2000
Bandel Thermal Power Station	3600

The WBPDCCL during the hearing has tried to justify its projected expenditure but the objectors have raised the observations on high O&M charges which were not supported by any details. The objectors (WBSEB) also disputed the projected comparative statement of O&M expenses pertaining to Santaldih TPS and Bandel TPS, which the WBPDCCL has refuted pointing out the discrepancy in the statement of the WBSEB.

9.3.2 While examining the claims of the WBPDCCL for Repairs and Maintenance expenses pertaining to KTPS for the year 2001-02, the Commission allowed Rs. 5108 lakhs as against their claims for Rs. 7416 lakhs based on analysis of the trend of the actual expenses incurred during past periods. This time the WBPDCCL has asked for Rs. 50 crores for Kolaghat TPS which the Commission approves. For Bakreswar TPS the Commission is not fully satisfied with the claims of Rs. 2500 lakhs, particularly when the power station is new and has got the initial spares. In the absence of the full details the Commission, however, does not propose to reduce the amount and agrees for Rs. 2500 lakhs but directs the WBPDCCL to provide all the necessary details and justification for such expenditure for new project. The WBPDCCL claimed Rs. 3600.00 lakhs for Bandel TPS as against actual expenditure of Rs. 1526.62 lakhs in the year 2000-01. No proper explanation/justification for going up R&M expenditure to such an extent has been advanced and no detail programme for carrying out any special maintenance has been given. We, therefore, allow 40% increase over the actual expenditure of 2000-01 as a special case including for special repairs in view of the poor health of the old plant which needs proper maintenance and admit the same for Rs. 2136.40 lakhs. So far Santaldih TPS is concerned, the projected expenditure is Rs. 2000.00 lakhs as against actual of Rs. 1394.10 lakhs in 2000-01. It has, however, been stated that during the financial year 2000-01 a fire accident occurred at Santaldih TPS causing devastating damages in the control room and other vital instruments for Unit 1 and 2 for which restoration job was undertaken by the WBSEB. Though most of the expenditures in this regard were made during the financial year 2001-02 a provision of Rs. 1364.09 lakhs have been kept in the projected expenditure towards R & M of plant and Machinery. In view of advancing such clarifications we allow the projected expenditure of Rs. 2000.00 lakhs towards R & M of Santaldih.

#### 9.4 Rent, Rates and Taxes

The expenditures projected under this head for the various power stations are as under:

	Rs. in lakhs
Kolaghat Thermal Power Station	15.87
Bakreswar Thermal Power Station	9.75
Santaldih Thermal Power Station	1.32
Bandel Thermal Power Station	35.31

The projections are not much in variance with the actual expenditure incurred under this score in earlier years and are, therefore, admitted.

9.5 The WBPDCCL has claimed legal and professional expenses for the various projects as under:

	Rs. in lakhs
Kolaghat Thermal Power Station	11.97
Bakreswar Thermal Power Station	0.49
Santaldih Thermal Power Station	10.80
Bandel Thermal Power Station	0.35

The projected expenditures are found reasonable and are, thus, admitted.

#### 9.6 Audit Fees

The Commission allows the audit fees and expenses as claimed by the WBPDCCL and shown hereunder:

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

#### 9.7 Interest

9.7.1 The WBPDCCL had provided sources of loan, the amount of outstanding at the beginning of the year, amount repayable during the year and interest chargeable during the year. In the absence of other required details relating to scheduled dates of payment etc. the claims could not be fully verified. However it has been observed from the statement of loan and calculation of interest thereon that the rate of interest on certain loans is very high and the fresh loans also are being raised between 14.5% to 15.75% which in the changed scenario seems to be quite high. In the copy of the loan order submitted in their clarification, it has been observed that the rate of interest has not been indicated in some of the orders. Also it has been noticed that the rate of interest of 14.5% indicated in some other orders also has a provision for rebate of 2.5% for timely payment whereas while calculating the interest no such credit for timely payment of interest appears to have taken into consideration. It has also been observed that the loans sanctioned by the State Government for Kolaghat TPS since 1998 are only for discharging the liability on account of outstanding dues of certain Public Sector Units, primarily for supply of fuel cost and railway freights etc., by way of adjustment against Central Assistance to State for plan schemes.

9.7.2 The Commission also observed that in their Tariff Petition for the year 2001-02 for Kolaghat, the WBPDCCL had shown total outstanding balance of loans from different sources as on 1.4.2001 as Rs. 638.92 crores of which Rs. 77.36 crores were stated to be from the WBSEB. On the basis of the objections lodged by the WBSEB on this stated loan from them and interest claimed thereon, the projected total loan was revised to Rs. 561.56 crores and WBPDCCL's interest claims came down to Rs. 77.98 crores. The total amount due for repayment during 2001-02 is shown as Rs. 93.82 crores and hence, the outstanding balance of loan in the accounts of Kolaghat TPS should

have been Rs.467.74 crores as on 1.4.2002 as against Rs. 779.83 crores now being shown by the WBPDC. The difference of Rs. 312.09 crores are mainly due to projected increase in the loan from LIC-I and Government of West Bengal. Outstanding balance from LIC-I as on 1.4.2002 has been shown as Rs. 25.28 crores as against Rs. 7.13 crores as per last year's tariff petition. Similarly, the outstanding balance of loan from Government of West Bengal has been shown Rs. 404.38 crores as against Rs. 117.19 crores as per earlier petition and the difference is stated to be due to sanction of additional loans which are for discharging liabilities in revenue accounts and are supposed to be discharged out of revenue receipts. However, in view of huge outstanding dues recoverable towards supply of power, the Commission, as a special case, considers the difference of Rs.287.19 crores as temporary financial accommodation from Government in line with the provisions in Sixth Schedule of E.S. Act 1948 read with the Electricity Rules of 1956 and allows 14% interest for one year only which comes to Rs. 40.21 crores on this amount. The WBPDC is being urged to speed up the recovery of outstanding dues towards power supply and to repay the borrowings towards such temporary accommodation.

9.7.3 The interest being allowed in the accounts of Kolaghat TPS is calculated as under with reference to data submitted in earlier year and with the above referred cost of temporary financial accommodation from the Government.

RS. IN CRORES				
Sources of Loan	Outstanding balances as on 1.4.2002	Rate of Interest (%)	Due for Repayment during 2002-03	Interest Allowed
IDBI	129.51	14	44.85	15.00
IFCI	13.53	14	4.66	1.57
LIC -I	7.13	14	7.13	0.50
PFC	102.31	Average 14.63%	44.57	11.70
LIC -II	4.08	14	1.61	0.46
Bond (2007)	47.00	13	-	6.11
Bond (2003)	47.00	13.5	47.00	3.17
GOWB	117.1	Average 14.19		16.73
Guarantee Fee				2.14
	467.75		149.42	47.38
Add: Cost of Temporary financial accommodation received from Govt.				40.21
				87.59

Explanatory Notes:-

- 1) Outstanding balance at the beginning of the year was considered as per projections in the Tariff Petition of 2001-02.
- 2) As multiple rates have been mentioned against loans from PFC and GOWB, the average of the rates have been adopted.
- 3) Amounts due for repayments have been considered as per information provided in the tariff petition of 2002-03.
- 4) As due dates for repayments have not been provided those have been considered at the mid of the year.

9.7.4 As regards interest of Bakreswar TPS, the Commission admits the interest charges of Rs. 39.06 crores excluding Rs. 2 crores for working capital loan as funds for that is to be made out of working capital and included in Capital Base and return allowed.

9.7.5 On account of interest and finance charges of Bandel TPS the actual for 2001-02 has been shown Nil whereas it has been projected as Rs. 1 crore for working capital requirement. The same is not admitted as the claim is towards working capital which is included in Capital Base.

9.7.6 The Commission also admits the interest of Rs. 260.39 lakhs for Santaldih TPS as was for the last year, as no details for increase along with justification has been given.

#### 9.8 Fuel related cost

The WBPDCCL has asked for Rs. 4250.00 lakhs towards fuel related cost for the year 2002-03 for the following projects against the estimated expenditure of Rs. 3867.23 lakhs in the year 2001-02. In view of the additional expenditure requirement for disposal of ash and also being all the three units of Bakreswar TPS in operation, the Commission admits the figures as projected.

	Rs. in lakhs
Kolaghat Thermal Power Station	3000.00
Bakreswar Thermal Power Station	300.00
Santaldih Thermal Power Station	150.00
Bandel Thermal Power Station	800.00
	4250.00

#### 9.9 Other Administrative, General and Miscellaneous Charges

The WBPDCCL has claimed Rs. 1394.56 lakhs as other administrative, general and miscellaneous charges against various projects as indicated below for the financial year 2002-03 against the estimated actuals of 2001-02 totaling to Rs. 1226.88 lakhs.

	Rs. in lakhs
Kolaghat Thermal Power Station	487.52
Bakreswar Thermal Power Station	602.16
Santaldih Thermal Power Station	127.53
Bandel Thermal Power Station	132.35
	1349.56

The Commission approves the projected expenditure.

#### 9.10 Depreciation

The WBPDCCL has claimed depreciation in regard to different power stations with them as under:

	Rs. in lakhs
Kolaghat Thermal Power Station	12139.10
Bakreswar Thermal Power Station	17960.75
Santaldih Thermal Power Station	515.13
Bandel Thermal Power Station	1057.83
	Total 31672.81

Depreciation calculated as per the provisions of Electricity (Supply) Act, 1948 has been admitted by us.

#### 9.11 Reasonable Return

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

### Equity Capital Returns claimed

	Rs. in lakhs	
Kolaghat Thermal Power Station	83329.40	13332.70
Bakreswar Thermal Power Station	70919.00	11347.04
Santaldih Thermal Power Station	5046.97	807.52
Bandel Thermal Power Station	392.58	62.81

Equity capital as shown for Kolaghat TPS is as per the equity subscribed by and issued to the Government of West Bengal and that for Bakreswar TPS is taken as per the capital restructuring proposal approved by the Government. But the projected equity capitals of Santaldih and Bandel TPS are the assumed figures on the basis of the Book Value of assets and liabilities as on 31.03.2001 and are subject to settlement of the transfer value of the power stations and fixation of equity investment by the Government of West Bengal.

9.11.1 WBPDCCL was asked to submit the statement of Capital Base in each of their Power stations in the same line as defined in the Sixth Schedule of the Electricity (Supply) Act, 1948 read with the provisions of section 29 of the ERC Act, 1998 which they have not done and given the required date and figures but prayed for allowing Reasonable Returns as applied for by them. As already earlier stated WBPDCCL though is praying for Return as applicable to Central Sector Generating Companies but is not willing to follow the other operating, financial and expenditure norms.

9.11.2 The Commission, has, however, derived the Capital Base for all the four concerned power stations based on the stationwise data as could be extracted from the petition as they have not given the requisite information. The stationwise Capital Bases as at the end of financial year 2002-03 are arrived as under. But in the absence of details from the WBPDCCL the age-wise bifurcation of the Capital Base could not be done and return calculated accordingly.

### STATEMENT OF CAPITAL BASE (RS. IN LAKHS)

	Kolaghat TPS	Bakreswar TPS	Santaldih TPS	Bandel TPS
1) Original Cost of Fixed Assets	172538.33	243612.00	20471.83	21965.56
2) Cost of Capital Works-in-progress	1014.84	29935.00	NIL	NIL
3) Working Capital				
(a) Stores & Spares	887.23	872.99	612.70	1004.19
(b) Cash & Bank Balance	15.63	3.76	34.34	9.18
Total (A)	174456.03	274423.75	21118.87	22978.93
Less:				
4) Accumulated Depreciation	111891.23	25782.84	13185.81	18588.42
5) Loans	313.93	165477.00	2328.90	NIL
Total (B)	112209.16	191259.84	15514.71	18588.42
6) Net Capital Base (A - B)	62246.87	83163.91	5604.16	4390.51

Notes:-

1) Original cost of assets of Kolaghat TPS as per original petition was shown Rs. 169553.18 lakhs and subsequently revised to Rs. 172538.33 lakhs on pointing out calculation mistake.

2) Outstanding loans at year end have been considered on the basis of loans admitted for allowing interest as indicated in para 9.7.

9.11.3 The matter relating to allowing Reasonable Return has been earlier discussed and decided particularly in chapter 7 and 9.11.

#### 9.11.4 Other Income

Income from other sources, as projected by WBPDCCL for different power stations are as under:-

	Rs. in lakhs
Kolaghat Thermal Power Station	253.00
Bakreswar Thermal Power Station	1.96
Santaldih Thermal Power Station	70.00
Bandel Thermal Power Station	95.00

No headwise detail break-up of such other income has been provided. Santaldih and Bandel TPS newly came on transfer to WBPDCCL from the WBSEB and the projected other incomes from these two stations are not less than the actual such income in 2000-01. We, therefore, admit those. So far Kolaghat TPS is concerned, the projected incomes are more than the amount assessed by the Commission for the year 2001-02. The projected figure for Kolaghat also, therefore, is admitted. We, however, do not agree with the projections made for Bakreswar TPS. The projected amount does not include income derived from BOBR wagons and Simulator package which were procured in the accounts of Bakreswar project. It is understood that BOBR wagons have already been deployed. The status of the commissioning of Simulator package has not been intimated. In its earlier Tariff order for Bakreswar TPS, the Commission asked WBPDCCL to give complete account for income and expenditure separately from BOBR wagons and Simulator package so that a final decision in this regard can be taken. Instead of providing the same, WBPDCCL repeated their earlier plea for not taking into account of the income and expenditure derived/incurred on those in the Tariff Petition. The Commission, therefore, like earlier years, assess the Net Income on this account @ 10% of the Capital cost which, according to submission, is Rs. 3556.49 lakhs for BOBR wagons and Rs. 581.97 lakhs for Simulators training Package. The assessed income on this account comes to Rs. 413.85 lakhs. Adding this amount to the projected other income of Rs. 1.96 lakh we consider Rs. 415.81 lakhs for Bakreswar TPS.

9.11.5 While making assessment of the other incomes in foregoing paragraphs the Commission has not considered the Delayed Payment Surcharge recoverable from the WBSEB. In their Tariff Petition, WBPDCCL stated that the outstanding dues from WBSEB stood at Rs.2037 crores as on 31.12.2001 and prayed for issuing a directive to WBSEB to settle dues at the earliest. It has, however, made not clear what part of this outstanding amount pertains to claims towards Delayed Payment Surcharge. In this regard Commission likes to point out that once the power tariff for the year 2000-01 and 2001-02 had been fixed by the Commission and appropriate directions had been given for realization /adjustment of dues from the WBSEB on the basis of such tariff, WBPDCCL should lodge claims for delayed payment surcharge in terms of the agreements between the parties. Commission, therefore, directs WBPDCCL to intimate whether any claim towards recovery of delayed payment surcharge had so far been lodged and if so, how much of such claim had been recovered up to the end of financial year 2002-03. It is felt necessary to mention that in one hand huge power dues are lying unrealized and on the other hand, loans are being taken from the State Government for meeting up current liabilities in Revenue Account. Such a position is not a healthy sign for the organization.

## **CHAPTER - 10: VARIABLE COST AND EXPENDITURE.**

### 10.1.1 Fuel Cost

Fuel Cost represents cost of coal and oil incase of WBPDCCL for their Kolaghat, Bakreswar, Bandel and Santaldih Thermal Power Stations. The cost of coal depends on the quantum of coal consumption as well as the price of coal. Quantum of coal consumption, in turn depends on the useful heat value of grade of coal being used and the heat rate of the generating units.

10.1.2 In the order dated 12.7.2001, the Commission had allowed heat rate of 2650 Kcal/Kwh for Kolaghat TPS. The tariff for Bakreswar TPS has been provisionally fixed and the heat rate allowed was 2500 Kcal/Kwh as per order dated 27.2.2002. For Bandel and Santaldih TPS, the Commission allowed heat rate of 2800 Kcal/Kwh & 2900 Kcal/Kwh respectively vide order on WBSEB dated 7.12.2001.

10.1.3 For the current year i.e., 2002-03, WBPDCCL in their tariff projected heat rate for various power stations as below:

Kolaghat Thermal Power Station	3200 Kcal/Kwh
Bakreswar Thermal Power Station	2750 Kcal/Kwh
Bandel Thermal Power Station	3120 Kcal/Kwh
Santaldih Thermal Power Station	3497 Kcal/Kwh

Though the WBPDCCL has given the reasons for high heat rate but the Commission is of the opinion that the reasons given are not satisfactory and commensurate with the heat rate required and projected by the utility. The receipt of various grades of coal at the power stations from different collieries of coal companies is normal for power utilities particularly in the State and they are not dedicated to one specific colliery of Coal India Limited. On the contrary, the WBPDCCL is in a better position as they have own coal mine through a joint venture with BECML. The worse peak and off-peak variation in demand and non-availability of quality coal are not unique for the WBPDCCL in the state. In case of the technical requirements for supply of coal, the WBPDCCL can take up with the higher authorities in Coal India and Linkage Committee. WBPDCCL has own coal mines in collaboration with BECML and also own BOBR wagons and therefore in better position than other utilities to pursue appropriate quality and quantum of coal from such mines to meet their technical necessities.

10.1.4 The WBPDCCL can also coordinate generation plan with increased cooperation of WBSEB which is sole buyer of WBPDCCL's power to have a better mix of peak and off-peak power. In this regard it may be added that the WBSEB has repeatedly confirmed that they are in a position to absorb the entire power from Kolaghat TPS. Therefore, the question of system demand for Kolaghat TPS will hardly arise and there is a scope for improvement in PLF. Similarly, the scope of maximum absorption of power from Bakreswar TPS by the WBSEB is there as in the petition the PLF has been assumed at a normative parameters of 68.5% which takes into account the peak and off-peak ratio disparity and down-time for forced and planned maintenance but WBSEB has expressed their reservation regarding WBPDCCL's ability to supply such power to WBSEB while giving clarification on Board's Tariff Petition of 2002-03. Since normative PLF of 68.5% has been taken for Bakreswar by WBPDCCL and the plant is new, there is no justifiable reason for such increase in heat rate which is also not in the interest of consumers.

10.1.5 The WBPDCCL has taken useful heat value of coal and oil for the various stations as under:

Kolaghat Thermal Power Station	3920 K.cal/kg (coal) and 9350 K.cal/lit. (oil)
Bandel Thermal Power Station	4950 K.cal/kg (coal) and 10400 K.cal/lit. (oil)
Bakreswar Thermal Power Station	4800 K.cal/kg (coal) and 10500 K.cal/lit. (oil)
Santaldih Thermal Power Station	5100 K.cal/kg (coal) and 10400 K.cal/lit. (oil)

The WBPDCCL has not indicated the basis of calculation of above heat values of coal and oil.

10.1.6 The weighted average of useful heat value of coal has been taken as 4849 Kcal/Kwh for Bakreswar TPS, 3787 Kcal/Kwh for Kolaghat TPS, 4726 Kcal/Kwh for Bandel TPS & 4610 Kcal/Kwh for Santaldih TPS. This is derived on the minimum useful heat value of respective grade of coal and the grade mix subsequently furnished by WBPDCCL on 7.1.2003.

10.1.7 It is observed by the Commission that the heat value of the oil adopted for Kolaghat TPS is 9350 Kcal/litre, which is less than they claimed during the last year and allowed by the Commission. The Commission has allowed 10562 Kcal/litre during 2001-02. It was also observed

that GCV of the oil for Bakreswar TPS has been taken at 10500 Kcal/litre and no reasons has been given for deterioration of GCV of oil in Kolaghat TPS and adoption of such different GCV for Bakreswar and Kolaghat TPS. The Commission has, therefore, taken the GCV of oil for both Kolaghat and Bakreswar TPS at 10500 Kcal/litre.

10.1.8 The utility has not given proper and complete information relating to the basis of weighted average price of oil including freights and corresponding weighted average of GCV with reference to the price even though it is a requirement of the Commission and therefore, the Commission is not able to judge the accuracy of the weighted average price and its relevant GCV of oil.

10.1.9 The heat rate for Bandel TPS has been admitted at 2800 Kcal/kwh based on last year against WBPDC's claim of 3120 Kcal/kwh. Similarly, the specific oil consumption has been admitted at 4.5 ml/Kwh as projected by them. Their actual consumption, revealed from the petition, for FY 2000-01 and FY 2001-02 (up to December, 2001) was between 5.95 and 4.61 ml/kwh. However, they are directed to optimize the oil consumption as it is on the higher side. The auxiliary consumption against their claim of 11% has been admitted to 10.5% of gross generation as was allowed to them during last year. The WBPDC has projected a gross generation of 1642.5 MU at 35.38% PLF during the year whereas in 2001-02 the generation allowed by the Commission was 2200 MU. It was also observed that the actual generation achieved for 9 months and projected for 3 months during 2001-02 is 2002 MUs. There is no valid reason for substantial decrease in the generation projected by the WBPDC and the gross generation adopted for 2002-03 is, therefore, 2200 MUs. For Santaldih TPS against the projected heat rate of 3497 Kcal/kwh the Commission has accepted 2900 Kcal/kwh as approved for the last year. Similarly, for specific oil consumption of 4.73 ml/kwh, the Commission allowed the same with a view to carry out trial run of Unit - I and II after repair of the Control & Instrumentation of the above units. The auxiliary consumption was approved for 10.5%, as was last year against their claim of 14%. The gross generation as projected by the WBPDC is 1095 MU at 26.04% PLF. Against this projected generation, the last year generation (actual for 9 months & projection for 3 months) was 1106.496 MU. The Commission, has therefore, adopted 1200 MU as specified in clause 8.3.

10.1.10 In the absence of the complete relevant details and documents for GCV and price of oil, we at present provisionally have taken the following figures of oil for Bandel & Santaldih TPS at par with those projected for Bakreswar TPS.

	GCV of coalKcal/Kwh	GCV of oilKcal/Litre	Weighted average price of coal(Rs./Mt. Ton)	Weighted average price of oil(Rs/K.litre)
Kolaghat TPS	3787	10500	1109.20	14,500.00
Bakreswar TPS	4849	10500	1528.56	14,500.00
Bandel TPS	4726	10500	1495.05	14,500.00
Santaldih TPS	4610	10500	1571.25	14,500.00

With the above figures the cost of fuel of the WBPDC for the financial year 2002-03 has been given in tabular form in table 1 to 4 for the above four power stations.

Commission noted that WBPDC are not getting any coal from BECML for their Santaldih Plant. They are advised to explore the possibility of getting BECML coal on which they get 19.5% discount. This will reduce the fuel cost for Santaldih.

On production of documentary evidence for any price variation in fuel, those will be admitted at actuals during FSC claim for the concerned period.

10.1.11 It is noted from the petition of WBPDC that they have computed fuel cost on actual consumption basis which means the grade slippage and transit loss are included in it. They have neither indicated the percentage of grade slippage and transit loss nor furnished any document in their support. WBPDC is therefore directed to indicate the grade slippage and transit loss along with relevant documents while filing their petition for FSC claim for the respective year.

10.1.12 As it is statutory to obtain periodical clearance certificate from the Boiler Inspector of Government of West Bengal in respect of safe and efficient operation for each boiler for all the plants owned by the utility, the Commission directs the WBPDCCL to furnish the copy of the clearance certificate from the Boiler Inspector in respect of safe and efficient operation of each boiler of the plants owned by the WBPDCCL along with the claims for Fuel surcharge for the year 2002-03.

10.1.13 The Commission has already directed to install in-motion weigh bridge at entry point to measure the quantum of coal and arrange joint sampling for assessment of grade slippage in order to enable the Commission to arrive at exact fuel cost for thermal generation of WBSEB - for Bandel and Santaldih for financial year 2002-03 onwards. The project has now been transferred to WBPDCCL w.e.f. 1.4.2001 and the status on compliance on this direction has not been indicated in the petition. The WBPDCCL should indicate the same while coming up with their claim for FSC.

## CHAPTER - 11: REVENUE REQUIREMENTS & 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 WBPDCCL for the year 2002-03 for each of the four power stations separately. We are also arriving at average rate of recovery of power charges per unit for all the four power stations herein:

### KOLAGHAT TPS STATEMENT OF REVENUE REQUIREMENT FOR 2002-03

		RS. IN LAKHS	
		AS PROJECTED	AS ADMITTED
A.	VARIABLE COST		
1.	COST OF FUEL		
	(a) Coal	68737.63	8737.63
	(b) Oil	2608.65	2608.65
	Total (A)	71346.28	62616.74
B.	FIXED COST		
2.	Employees' cost	3318.89	3318.89
3.	Repairs & Maintenance	5000.00	5000.00
4.	Admn. & General Expenses		
	(a) Rent, Rates and Taxes	15.87	15.87
	(b) Legal & Professional Charges	11.97	11.97
	(c) Audit Fees	1.05	1.05
	(d) Travel & Other Management & Administrative Expenses	487.52	487.52
5.	Other Fuel related cost	3000.00	3000.00
6.	Interest & Finance Charges	16121.00	16121.00
7.	Depreciation	12139.10	12139.1
	Total Fixed Cost (B)	40095.40	32590.27
8.	Total Cost (A+B)	111441.68	95207.01

9.	Reasonable Return	13332.70	7469.62
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**BAKRESWAR TPS  
STATEMENT OF REVENUE REQUIREMENT FOR 2002-03**

		RS. IN LAKHS	
		AS PROJECTED	AS ADMITTED
A.	VARIABLE COST		
1.	COST OF FUEL		
	(a) Coal	32177.51	31582.96
	(b) Oil	1370.39	1370.39
	Total (A)	33547.90	32953.35
B.	FIXED COST	1265.65	1265.65
2.	Employees' cost	2500.00	2500.00
3.	Repairs & Maintenance		
4.	Admn. & General Expenses		
	(a) Rent, Rates and Taxes	9.75	9.75
	(b) Legal & Professional Charges	0.49	0.49
	(c) Audit Fees	0.90	0.90
	(d) Travel & Other Management & Administrative Expenses	602.16	602.16
5.	Other Fuel related cost	300.00	300.00
6.	Interest & Finance Charges	3905.95	3705.95
7.	Depreciation	17960.75	17960.75
	Total Fixed Cost	26545.65	26345.65
8.	Fixed Cost allowable (90% pending approval of CEA to the final project cost) (B)	23891.09	23711.09
9.	Total Revenue Requirement (A+B)	57438.99	56664.44
10.	Reasonable Return	11347.04	9979.67
11.	Other Income	1.96	415.81
12.	Net Revenue Requirement (9 + 10 - 11)	68784.07	66228.30
13.	Saleable Units (MU)	3402.340	3421.242
14.	Average Cost of Sale (Paise/Kwh)	209.97	193.58

Note: The Commission has restricted the final cost as derived for the BKTPS to the equivalent of 90% of the admissible fixed cost. The balance cost as may be decided to be admissible will be refunded/recovered after receipt of final approval of the CEA as per this order and other details as may be required by the Commission.

**SANTALDIH TPS  
STATEMENT OF REVENUE REQUIREMENT FOR 2002-03**

		RS. IN LAKHS	
		AS PROJECTED	AS ADMITTED
A.	VARIABLE COST		
1.	COST OF FUEL		
	(a) Coal	11843.55	11775.69
	(b) Oil	802.80	823.02
	Total (A)	12646.35	12598.71
B.	FIXED COST	2418.82	2079.61
2.	Employees' cost	2000.00	2000.00
3.	Repairs & Maintenance		
4.	Admn. & General Expenses		
	(a) Rent, Rates and Taxes	1.32	1.32
	(b) Legal & Professional Charges	10.80	10.80
	(c) Audit Fees	0.84	0.84
	(d) Travel & Other Management & Administrative Expenses	127.53	127.53
5.	Other Fuel related cost	150.00	150.00
6.	Interest & Finance Charges	360.39	360.39
7.	Depreciation	515.13	482.40
	Total Fixed Cost	5584.84	5112.89
8.	Total Cost (A+B)	18231.18	17711.60
9.	Reasonable Return	807.52	672.50
10.	Misc. & Other Income	70.00	70.00
11.	Net Revenue Requirement (8 + 9 - 10)	18968.70	18314.10
12.	Saleable Units (MU)	941.700	1074.000
13.	Average Cost of Sale (Paise/Kwh)	201.43	170.52

**BANDEL TPS  
STATEMENT OF REVENUE REQUIREMENT FOR 2002-03**

		RS. IN LAKHS	
		AS PROJECTED	AS ADMITTED
A.	VARIABLE COST		
1.	COST OF FUEL		
	(a) Coal	16315.90	17284.78
	(b) Oil	1145.64	1435.50
	Total (A)	17461.54	18720.28
B.	FIXED COST	3477.89	2510.47

2.	Employees' cost	3600.00	2136.40
3.	Repairs & Maintenance		
4.	Admn. & General Expenses	35.31	35.31
	(a) Rent, Rates and Taxes	0.35	0.35
	(b) Legal & Professional Charges	0.87	0.87
	(c) Audit Fees	132.35	132.35
	(d) Travel & Other Management & Administrative Expenses	800.00	800.00
5.	Other Fuel related cost	100.00	NIL
6.	Interest & Finance Charges	1057.83	1057.83
7.	Depreciation		
	<b>Total Fixed Cost</b>	<b>9204.60</b>	<b>6673.58</b>
8.	<b>Total Cost (A+B)</b>	<b>26666.14</b>	<b>25393.86</b>
9.	Reasonable Return	62.81	526.86
10	Misc. & Other Income	95.00	95.00
11.	Net Revenue Requirement (8 + 9 - 10)	26633.95	25825.72
12.	Saleable Units (MU)	1461.825	1969.000
13.	Average Cost of Sale (Paise/Kwh)	182.20	131.16

## CHAPTER -12: TARIFF ORDER.

### 12.1 Average cost of supply.

We shall now work out the average cost of supply for 2002-03 for the various stations of the WBPDC. The average cost of supply for WBPDC for 2002-03 is as under:

	Paise/Kwh
Kolaghat Thermal Power Station	149.69
Bakreswar Thermal Power Station	193.58
Santaldih Thermal Power Station	170.52
Bandel Thermal Power Station	131.16

12.2 The Commission fixes the tariff for all categories of consumers at the average rate of supply as determined in para 12.1. There shall be FPPCA over the above for increase in price of fuel or purchases as considered in this order. The reimbursements will not exceed the actuals and will be further limited to the approved norms and parameters and deductions stipulated in this order as per the formula given at the end as Annexure-1.

12.3 As the tariff for the year 2002-03 is to take effect from 1.4.2002, the Commission directs that the above rate of tariff shall be applicable from 1.4.2002.

12.4 The Commission is aware that the arrears to be recovered is for more than 9 months, but it will not be a much difficult task for the utility to recast its bill as it has got one sole consumer i.e., WBSEB and at the same time it will be a practical difficulty for WBSEB to pay more now, under this order at the enhanced rate and at the same time to clear the arrears at that rate.

12.5 Keeping this aspect in mind, the Commission feels that the arrears is to start from the billing month of April, 2003 and shall be spread over a period of 6 months from that date in equal

monthly installments. The implementation of the tariff for the purpose of the billing at the enhanced rate will start from the billing month of February, 2003.

12.6 The Commission further directs that no interest shall be paid to or by the utility for any realization/adjustment.

12.7 The Commission further directs that incase the sale exceeds the figures adopted in this order for respective power stations, than the amount realizable from the additional sales over the figures based on average cost of supply minus the associated fuel cost based on the approved norms, will be kept separately in an account and will be taken care of and decided in the next tariff petition.

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

12.9 The utility will publish the gist of this order in the leading newspapers of the area for which they will submit the draft of the gist within a week of the date of receipt of this order along with the names of the newspapers in which the gist is proposed to be published. The gist of the order will be published in such newspapers within 7 days of the receipt of approval from the Commission for the publication of the gist.

Sd/- 22.1.2003 (N.C. Roy) Member (Technical)

Sd/- 22.1.2003 (A. K. Jain) Member (F&A)

**Table 1**  
**Cost of Fuel For WBPDC (Kolaghat) For FY 2002-03.**

Sl. No.	Item.	Unit.	Projected by WBPDC.	Allowed by Commission.
1	Gross Generation	MU	6732	7560.756
2	Auxiliary Consumption.	MU	673.2	718.272
3	Ex-Bus Generation (1-2)	MU	6058.8	6842.484
4	Heat Rate.	K.Cal/kwh.	3200	2703
5	Total Heat Required (1*4)	M.K.Cal.	21542400	20436723
6	GCV Of Oil	K.Cal/Lit.	9350	10500
7	Specific Consumption Of Oil.	ml/KWH.	2.5	2.5
8	Oil consumed (1*7).	KL.	16830	18902
9	Average Price Of Oil.	Rs./KL.	15500	14500
10	Cost of Oil (8*9)	Rs. (lac).	2608.65	2740.79
11	Heat Generated From Oil (6*8).	M.K.Cal.	157360.5	198471
12	Heat Generated From Coal. (5-11).	M.K.Cal.	21385039.5	20238252
13	GCV Of Coal (Weighted Average).	K.Cal/Kg.	3920	3787
14	Coal Required (12/13).	MT.		5344138.4
15	Coal Required. (Including 1% Transit Loss)/ Actual Coal Consumption.	MT.	5455367	5398120
16	Weighted Average Price Of Coal Including Rly. Freight.	Rs./MT.	1260	1109.2
17	Cost of Coal. (15*16).	Rs. (lac).	68737.63	59875.95
18	Total Fuel Cost. (10+17).	Rs. (lakhs).	71346.28	62616.74
19	Energy (Variable) Cost Per Unit Of Ex-Bus Generation (18/3).	Paise/kwh.	117.8	91.51

**Table 2**  
**Cost of Fuel For WBPDC (Bakkreswar) For FY 2002-03.**

Sl. No.	Item.	Unit.	Projected by WBPDC.	Allowed by ommission.
1	Gross Generation	MU	3780.378	3780.378
2	Auxiliary Consumption.	MU	378.038	359.136
3	Ex-Bus Generation (1-2)	MU	3402.34	3421.242
4	Heat Rate.	K.Cal/kwh.	2750	2650
5	Total Heat Required (1*4)	M.K.Cal.	10396039.5	10018001.7
6	GCV Of Oil	K.Cal/Lit.	10500	10500
7	Specific Consumption Of Oil.	ml/KWH.	2.5	2.5
8	Oil consumed (1*7).	KL.	9450.95	9450.95
9	Average Price Of Oil.	Rs./KL.	14500	14500
10	Cost of Oil (8*9)	Rs. (lac).	1370.39	1370.39
11	Heat Generated From Oil (6*8).	M.K.Cal.	99235	99235
12	Heat Generated From Coal. (5-11).	M.K.Cal.	10296804.5	9918766.7
13	GCV Of Coal (Weighted Average).	K.Cal/Kg.	4800	4849
14	Coal Required (12/13).	MT.		2045528.3
15	Coal Required. (Including 1% Transit Loss)/ Actual Coal Consumption.	MT.	2145168	2066190.2
16	Weighted Average Price Of Coal Including Rly. Freight.	Rs./MT.	1500	1528.56
17	Cost of Coal. (15*16).	Rs. (lac).	32177.51	31582.96
18	Total Fuel Cost. (10+17).	Rs. (lakhs).	33547.9	32953.35
19	Energy (Variable) Cost Per Unit Of Ex-Bus Generation (18/3).	Paise/kwh.	98.6	96.3

**Table 3**  
**Cost of Fuel For WBPDC (Santalidih) For FY 2002-03.**

Sl. No.	Item.	Unit.	Projected by WBPDC.	Allowed by Commission.
1	Gross Generation	MU	1095	1200
2	Auxiliary Consumption.	MU	153.3	126
3	Ex-Bus Generation (1-2)	MU	941.7	1074
4	Heat Rate.	K.Cal/kwh.	3497	2900
5	Total Heat Required (1*4)	M.K.Cal.	3829215	3480000
6	GCV Of Oil	K.Cal/Lit.	10400	10500
7	Specific Consumption Of Oil.	ml/KWH.	4.73	4.73
8	Oil consumed (1*7).	KL.	5179.35	5676
9	Average Price Of Oil.	Rs./KL.	15500	14500
10	Cost of Oil (8*9)	Rs. (lac).	802.8	823.02
11	Heat Generated From Oil (6*8).	M.K.Cal.	53865.24	59598
12	Heat Generated From Coal. (5-11).	M.K.Cal.	3775349.76	3420402
13	GCV Of Coal (Weighted Average).	K.Cal/Kg.	5100	4610
14	Coal Required (12/13).	MT.		741953
15	Coal Required. (Including 1% Transit Loss)/ Actual Coal Consumption.	MT.	740265	749447

16	Weighted Average Price Of Coal Including Rly. Freight.	Rs./MT.	1600	1571.25
17	Cost of Coal. (15*16).	Rs. (lac).	11844.24**	11775.69
18	Total Fuel Cost. (10+17).	Rs. (lakhs).	12647.04**	12598.71
19	Energy (Variable) Cost Per Unit Of Ex-Bus Generation (18/3).	Paise/kwh.	134.3	117.3

\*\* Claimed Rs. 11843.55 lacs and Rs. 12646.35 lacs respectively.

**Table 4  
Cost of Fuel For WBPDC (Bandel) For FY 2002-03.**

Sl. No.	Item.	Unit.	Projected by WBPDC.	Allowed by Commission.
1	Gross Generation	MU	1642.5	2200
2	Auxiliary Consumption.	MU	180.675	231.0
3	Ex-Bus Generation (1-2)	MU	1461.825	1969.0
4	Heat Rate.	K.Cal/kwh.	3120	2800
5	Total Heat Required (1*4)	M.K.Cal.	5124600	5513200.0
6	GCV Of Oil	K.Cal/Lit.	10400	10500
7	Specific Consumption Of Oil.	ml/KWH.	4.5	4.5
8	Oil consumed (1*7).	KL.	7391.25	9900
9	Average Price Of Oil.	Rs./KL.	15500	14500
10	Cost of Oil (8*9)	Rs. (lac).	1145.64	1435.5
11	Heat Generated From Oil (6*8).	M.K.Cal.	76869	103950.0
12	Heat Generated From Coal. (5-11).	M.K.Cal.	5047731	5409250.0
13	GCV Of Coal (Weighted Average).	K.Cal/Kg.	4950	4726
14	Coal Required (12/13).	MT.		1144573
15	Coal Required. (Including 1% Transit Loss)/ Actual Coal Consumption.	MT.	1019744	1156134
16	Weighted Average Price Of Coal Including Rly. Freight.	Rs./MT.	1600	1495.05
17	Cost of Coal. (15*16).	Rs. (lac).	16315.9	17284.78
18	Total Fuel Cost. (10+17).	Rs. (lakhs).	17461.54	18720.28
19	Energy (Variable) Cost Per Unit Of Ex-Bus Generation (18/3).	Paise/kwh.	119.5	95.08

Annexure I

**FORMULA FOR FUEL AND POWER PURCHASE COST ADJUSTMENT (FPPCA)**

Fuel and power purchase cost adjustment charge per unit of energy sold during adjustment period shall be in terms of the following formula:

$$(FC + PPC) - CD - \pm A \quad fc + ppc$$

$$FPPCA (p/kwh) : \text{-----} \times 100$$

$$(Gown + Eimp) \times (1 - L) \quad (gown + eimp) \times (1-L)$$

FC (Rs.) : Fuel cost of generation as per Normative parameters fixed by the Commission and /or

on actual basis (whichever is lower) during the adjustment period.

PPC (Rs.) : Total cost incurred including the cost for fuel for power purchase from different sources during the adjustment period.

CD (Rs.) : Cost disallowed/disallowable by the Commission as having been incurred in breach of its economic generation/purchase obligation, or of order/ direction of the Commission, if any, or for any other reason during the adjustment period.

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 periods.

Gown (KWH) : Total energy sent out from utility's generating stations during the adjustment period based on normative or actual auxiliary consumption whichever is less.

Eimp(KWH) : Total energy purchased at the sent out bus from different sources during the adjustment period.

L : Normative T & D loss fixed by the Commission.

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

ppc : Power purchase cost allowed by the Commission for the relevant adjustment period in the tariff order.

gown : Sent out own generation as admitted in the tariff order by the Commission corresponding to the adjustment period.

eimp : Power purchase at sent out bus as admitted by the Commission in the tariff order corresponding to the adjustment period.

The proposal for adjustment shall be submitted to the Commission and subject to its approval. Once the proposal is approved, it should be reflected in the consumers' bill in a separate entry for their information. At the end of each adjustment period, which can be half-yearly, the WBPDC shall calculate the FPPCA as per approved formula based on approved parameters, costs and consumption. The complete details along with the cost data, quantitative details and the relevant information / documents, duly certified for the subject matter revisions and duly audited for the whole year for the March revision, shall be submitted to the Commission for approval.

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