



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

**Case No. T.P. - 6 of 2000-01  
and  
Case No. T.P. - 6 of 2001-02**

**IN RE THE TARIFF PETITION OF THE WEST BENGAL POWER DEVELOPMENT CORPORATION LTD. FOR THEIR BAKRESWAR THERMAL POWER STATION FOR THE YEARS 2000-01 & 2001-02 UNDER SECTION 22(1) OF THE ERC ACT, 1998.**

**Present :**

Justice (Retd.) S. K. Phaujdar, Chairperson  
Shri A. K. Jain, Member (Finance & Accounts)

**For the petitioners :**

Shri B. K. Paul, Managing Director  
Shri S. Mahapatra, Executive Director, Operations  
Shri A. Mukherjee, General Manager (P & A)  
Shri B. Banerjee, Deputy General Manager  
Shri A. Bhattacharya, Manager (F & A)  
Shri S. Ganguly, Manager (F & A), all from WBPDC  
Shri G. L. Ghosh, Advocate for the WBPDC

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

Shri M. K. Roy, Additional Chief Engineer  
Dr. S. C. Bhattacharjee, Superintending Engineer  
Shri P. K. Bagchi, Superintending Engineer  
Shri A.K. Sinha Roy, Sr. Manager (F & A)  
Shri A. Bandhopadhyaya, Manager (F & A)  
Shri T. K. Chakrabarty, Divisional Engineer (Commercial),  
all from WBSEB.

Objectors who had filed written objections within the stipulated dates for 2000-2001 & 2001-2002  
:

West Bengal State Electricity Board (WBSEB)

Dated The 27th February, 2002.

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CHAPTER 1: THE COMMISSION AND THE PRESENTATION OF THE PETITION FOR BAKRESWAR THERMAL POWER STATION.

1.1 The West Bengal State Electricity Regulatory Commission has been formed by the State Government under section 17 of Act 14 of 1998 and the Commission consists of three members including the Chairperson out of whom the erstwhile Member, Technical has since retired in October 2001 and the new incumbent joined only on 4.2.2002, after the present matters were heard.

1.2 On applications on behalf of the WBPDCCL for fixation of their tariff for their Kolaghat Thermal Power Station for the years 2000-01 and 2001-02, the Commission registered two petitions Nos. T.P. 5/00-01 and T.P. 4/01-02 and, after a consolidated hearing recorded a single order on 12.7.2001 covering both the petitions.

1.3 It was clearly indicated in chapter 6 of the said order dated 12.7.2001, at paragraph 6.2 that "it would be open for the WBPDCCL to approach the Commission with the tariff proposal for the supply from Bakreswar TPP and seek approval of any PPA and it is for the Commission again to decide the maintainability of such prayer". An extension of time was allowed by the Commission for presentation of tariff petition for the years 2000-01 and 2001-02 for the Bakreswar TPP and in terms of the order and the extended time the present petitions have been filed by the WBPDCCL.

1.4 The tariff petition for the Bakreswar Thermal Power Station for the year 2000-01 has been registered as T.P. 6/00-01 and the one for the year 2001-02 has been registered as T.P. 6/01-02.

1.5 After the two petitions had been admitted due notification was published in the print media calling upon interested parties to come up with objections, if any, by 26.12.2001. In response to such notification only the WBSEB came forward with two separate objections for the concerned two years.

1.6 After the last date of receipt of objections the Commission was of the view that as the matters related mostly to a past period, the hearing should be expedited and as the matters are correlated for both the years and as two petitions for the Kolaghat TPS for the concerned years were heard together, it is desirable that the present two petitions be also heard together.

1.7 A corrigendum was filed by WBPDCCL during hearing and the Commission also directed certain additional information to be submitted. This has also been taken into consideration in the present order.

1.8 The matters having been heard by only the Chairperson and the Member (F & A), the order is being recorded by them only.

## CHAPTER 2: TARIFF PETITION OF WBPDCCL FOR THE BAKRESWAR THERMAL POWER STATION FOR THE YEAR 2000-01.

2.1 As stated in the last chapter the concerned tariff petition has been registered as petition No. T.P. 6/00-01.

2.2 The WBPDCCL indicated in their application that they were a generating company within the meaning of Clause (4A) of Section 2 of Electricity (Supply) Act, 1948 and were in the business of generation of electricity. They relied on the provisions of regulations 43(1) and 43(2) of the Conduct of Business Regulations of the Commission as also the ERC Act 1998 and the aforesaid 1948 Act. They proposed to determine the costs, revenue and tariff in accordance with section 29 of the ERC Act, keeping in view the directions of the Commission in regulation 42 of the CBR.

2.3 The WBPDCCL indicated in the present petition the norms for their proposed tariff in various categories. It was indicated that the first three units of 210 MW capacity each of the Bakreswar Thermal Power Station had been commissioned with the loan assistance of Overseas Economic Cooperation Fund (OECF)/Japan Bank International Cooperation (JBIC, Japan). The first unit had been put on commercial operation on 29.11.2000, the second on 1.4.2001 and the third on 11th October, 2001.

2.4 It was indicated that the entire project of Bakreswar Thermal Power Station was financed through loan capital from the above two agencies as also from the Government of West Bengal and it was suggested that tariff requirements per unit of electricity to be sold would be on the higher side primarily due to high interest burden and Operation and Maintenance expenses on the project cost. They indicated that in order to arrive at a tariff at a reasonably affordable level they had requested the Government of West Bengal to restructure the funding pattern of the project to avoid the full amount of loan content in the capital cost of the project by way of conversion of 30% of the project cost as equity and the rest 70% of the project cost as soft loan at 2% rate of interest. It was stated that the proposal was accepted by the Government of West Bengal and upon such acceptance the present tariff proposal had been put forward.

2.5 It was pointed out by WBPDCCL that in recognition of differences in local operating conditions, the Govt. of West Bengal constituted a committee to consider the issues of station heat rate, secondary fuel oil consumption and auxiliary consumption for coal based thermal power plants in West Bengal. They relied on these norms.

2.6 It was further indicated that by virtue of enactment of Section 51 of the ERC Act, Section 43(A)(2) of the 1948 Act stood deleted and there was no replacement of the provision in Section 43(A)(2) of the 1948 Act in the new Act. It was stated that under these conditions the guiding factors for assessing reasonable return would be Section 43(A)(2) of the 1948 Act despite its deletion.

2.7 They further indicated that as per the latest government notification in this respect the WBPDCCL, a generating company, was entitled to 16% return on the equity subscribed.

2.8 The WBPDCCL, for their Bakreswar Thermal Power Station, for the year 2000-01 indicated the costs under various heads as per the table below indicating the total revenue required.

Figures in Rs. Crores

Particulars	2000-2001
Generation Charges	303616643
O&M expenses	4301087
Employees Costs	6052545
Admin. & Other expenses	26345059
Interest on Government Loans	35011287
Depreciation & Related Debits	0
Surplus Required (Proportionate on 709.19 Crores @ 16%)	191695410
<b>Total Revenue Required</b>	<b>567022031</b>

2.9 They also indicated the expected revenue from the proposed tariff charges as per another table as shown below:

Figures in Rs. Crores

Particulars	2000-2001
Total Revenue Required	567022031
Non-Operating Income	0
Revenue required from Sale of Power	567022031
Proposed Tariff (Paise/Unit)	198.637
Revenue from Proposed Tariff (Rs. Crores)	567022031
Net Deficit after Proposed Tariffs	0

2.10 In the tariff proposals in three volumes the WBPDCCL not only gave a summary of the tariff proposals but also supplied copies of their Annual Accounts as also some of the necessary notifications, communication and other relevant papers.

2.11 They prayed for acceptance of the tariff proposal for infirm power generated and sold between the date of synchronization and its declaration of commercial operation, for firm power generated from units No. 1 from the date of declaration of commercial generation and for recording a final order in the facts and circumstances of the case.

2.12 They indicated the operational performances, the costs involved, and other details each of which shall be indicated when the individual items are taken up.

2.13 On a subsequent corrigendum submitted under oath on 10th December, 2001. WBPDCCL requested that "Figures in Rs. crores" be read as Rupees only and the word "crores" to be considered as deleted.

### CHAPTER 3: OBJECTION OF WBSEB IN RESPECT OF TARIFF PROPOSAL FOR THE BAKRESWAR TPS FOR 2000-01.

3.1 In its objection the WBSEB (Board, in short) indicated that it is a statutory body constituted under Section 5 of the Electricity Supply Act and it has been purchasing electricity from the Bakreswar Thermal Power Station of the WBPDCCL though a formal agreement by and between the WBPDCCL and the WBSEB was yet to be executed.

3.2 It was indicated by the objector that the first three 3 units of Bakreswar Thermal Power Station were taken up for construction for a total capacity of 630 MW. While unit No. 1 went into commercial operation with effect from 29.11.2000, unit No. 2 synchronized in 2000-01 could not come into commercial operation during that year.

3.3 It was further stated that the three units were having 210 MW capacity each and were developed with loan assistance from OECF/JBIC. It was not in dispute that the funding pattern was restructured with 30% of the project cost to be taken as equity and the rest 70% be taken as soft loan by the Govt. of West Bengal at a rate of interest of 2%. The objector further stated that the decision of the State Government in respect of equity and loan had not been placed with the tariff petition.

3.4 It was further indicated that in terms of section 29 of the 1948 Act a generating company was required to obtain approval of a project cost by the Central Electricity Authority (CEA). It was stated that the actual project cost approved by the CEA for the Bakreswar TPS had not been indicated in the tariff petition and no document conveying the approval has been placed with the instant tariff petition. It was stressed that the project cost as approved by the CEA was an important parameter for fixation of Tariff in respect of any generating station and unless such information was available no action could be initiated towards finalisation of the tariff of the generating station. They demanded that the papers be made available to the Commission.

3.5 It was also pointed out that the petitioner had made typographical errors in describing the cost and where the sums were described in terms of Rs. Crores it should merely be read as Rs. It was also pointed out that while the proposal came in three volumes only, the tariff petition indicated four volumes.

3.6 The claim of WBPDCCL that the PLF of unit No. 1 was 53% was challenged in view of the actual generation figures and it was stated that the average PLF worked out at 51% only.

3.7 Objection was taken on the computation of fuel cost which, according to the objectors, related to the periods of pre-stabilisation and post-stabilisation. The objectors questioned the heat rate figures and secondary fuel consumption figures given by the WBPDCCL.

3.8 On the question of equity capital, the objectors pointed out that the same figure has been shown for both the years under consideration but the detailed computation had not been indicated. It was stated that unless schedule of flow of funds on account of equity was indicated it would be difficult to compute the equity capital for the respective years and for assessing the admissible reasonable return.

3.9 The objectors took exception to the proposed tariff for infirm supply prior to the period of commercial operation. The objector demanded that the WBPDCCL should have shown separately the variable charges and fixed charges in the tariff computation as the realization of fixed charge would depend on normative PLF of the power plant. Objection was taken on the computation of capital cost and the projected original cost of fixed assets.

3.10 Objection was raised on the points of non-imposition of penalty on the contractors who failed to complete the work within the time schedule.

3.11 Objection was taken on the high administrative cost as projected.

3.12 Prayers were made to direct the WBPDCCL to come up with the papers indicated in the objection and for a further direction upon them to finalise all the fixed charges of the WBSEB on the basis of project cost approved by the CEA or the capital cost actually incurred by the petitioner. It was also prayed that fixed charges should be finalized on the normative PLF of 68.5%.

3.13 Reply of the WBPDCCL against the above objections.

3.13.1 It was submitted by the WBPDCCL that a draft power purchase agreement had been submitted to the WBSEB through letter dated 6.4.2001 awaiting comments from that.

3.13.2 It was stated that commercial operation of unit no. 1 commenced on 29.11.2000, unit no. 2 on 1.4.2001 and unit no. 3 on 11.10.2001.

3.13.3 It was indicated that the decision of the Government of West Bengal regarding funding pattern had been communicated by the Power Department by a letter dated 5.10.2001 and a copy of the letter was also annexed.

3.13.4 It was stated that the project cost of Bakreswar TPS was approved by the Central Electricity Authority by a letter dated 15.3.1993 for a sum of Rs. 3052.53 and a copy of the letter was annexed. Subsequently, due to non-availability of loan from erstwhile Soviet Union financial closure was not possible, then the JBIC was approached for financing the project and the MOD was signed in presence of the Ministry of Power and Ministry of Finance, GOI on 30.4.1993 for units 1 and 2 and on 26.5.1994 for unit no. 3. The project cost as per MOD for units 1 and 2 was Rs. 2873 crores and for unit no. 3 Rs. 944 crores.

3.13.5 The WBPDCCL indicated that the typographical mistakes were sought to be corrected through corrigendum filed on affidavit.

3.13.6 Regarding differences in PLF the norms of auxiliary consumption was taken as 9.5% and the gross generation of firm power was also indicated.

3.13.7 It was pointed out in reply to the objections further that the fuel cost indicated in the petition was for the period of commercial operation only and it was clarified that annexure at page 18 of the petition would clarify the situation. It was indicated further that the station heat rate, secondary fuel consumption and other parameters have been based on the norms set by the Commission in the tariff petition for Kolaghat TPS.

3.13.8 The WBPDCCL submitted, in reply, that loanwise formal orders specifying rebate for timely payment, if any, payment of interest and repayment schedule were supported by documents enclosed with the reply.

3.13.9 It was asked that since the Financial Year 2000-01 was over, average of cost of coal had been arrived at on actual basis. It was indicated that during the year 2000-01 entire supply of coal was made from Eastern Coal Fields Limited for the year 2001-02, however the procurement of coal had been estimated on the basis of supply from ECL and Bengal Emtar Coal Mines. The variable charges and fixed charges had been shown separately for overall determination of tariff.

3.13.10 They expressed that they had excluded the cost of coal consumed for the trial run. It was further indicated that the projected original cost of Fixed Assets included the cost of 1) transmission system, 2) transformer and sub-station and 3) B.O.B.R. wagons.

3.13.11 It was pointed out that orders have been placed on the contractors on firm price basis for all packages.

3.13.12 Expenditure under the head travel, other management and administration expenses of Rs. 2.63 crore was only for the commercial operation period.

#### CHAPTER 4 : CLARIFICATION SOUGHT FOR BY THE COMMISSION AND CORRIGENDUM OF THE WBPDCCL.

4.1 On receipt of the tariff application and on scrutiny of the same the Commission thought it proper to seek certain clarifications from the WBPDCCL and accordingly the WBPDCCL was asked to submit the clarifications. This exercise was taken up even prior to the receipt of objection by the WBSEB.

4.2 The corrigendum submitted by the WBPDCCL and the informations given in reply to the queries from the Commission had been kept open for inspection/copies and for objection, if any. The WBSEB made additional submissions in respect of the clarifications and the corrigendum and after hearing of the matters sought to be corrected, the information supplied and of the objection thereto have also been kept on record for final consideration of the Commission.

4.3 In reply to the letter for additional information / clarification the WBPDCCL came up with their points submitted through affidavit. They indicated the actual costs incurred upto 31.3.2001 and again from 1.4.2001 to 31.10.2001. They referred to the paper in annexure 3 to indicate conversion of 30% of project cost as Equity and the balance 70% was taken as a soft loan on 2% interest. They also submitted that the Government of West Bengal has not waived the amount of interest during construction.

4.4 They gave the designed data / technological parameters of generating units. They also indicated the capitalized cost of each generating unit.

4.5 On foreign loan it was stated that the actual recipient of the loan was the Government of India who in term transfer the sum to the Government of West Bengal and finally it was the Government of West Bengal that had passed on the loans to WBPDCCL. Answers were given on the question of interest, chargeable to revenue account and on the question of conversion of loan to equity.

4.6 They offered explanations sought from them regarding fuel cost and calorific value of fuel, consumption of coal, employees cost, administrative and general expenses, repair and maintenance cost as also on treatment of abnormal losses. They had their own say regarding power purchase agreement.

#### CHAPTER 5 : TARIFF PETITION OF WBPDCCL FOR THE BAKRESWAR THERMAL POWER STATION FOR THE YEAR 2001-02.

5.1 The concerned tariff petition has been registered as petition No. T.P. 6/01-02.

5.2 Similar averments have been made by the WBPDCCL in the tariff petition for the present year as were there for the previous year. Here also they relied on the provisions of Regulations 43(1) and 43(2) of the Conduct of Business Regulations of this Commission and the provisions of the ERC Act 1998 and the Electricity (Supply) Act 1948. They proposed to determine the costs, revenue and tariff in accordance with section 29 of the ERC Act, keeping in view the directions of the Commission enunciated in Regulation 42 of the CBR.

5.3 They indicated in the present petition the norms for their proposed tariff in various categories in the same line as they had done for the previous year showing the loan assistance received by them and the dates on which different units became ready for commercial operation.

5.4 Here also the WBPDCCL had indicated how the funding pattern was to be restructured by way of conversion of 30% of project cost as equity and the rest 70% as soft loan at 2% rate of interest.

5.5 They spoke of formation of the committee as has been indicated in paragraph 2.5.

5.6 They also indicated in the present petition, as in paragraph 2.6, the provisions for assessment of reasonable return.

5.7 In a line similar to that indicated in paragraph 2.7, the WBPDCCL claimed a return on 16% on the equity subscribed.

5.8 For the instant year, for its Bakreswar Thermal Power Station, WBPDCCL placed in a tabular form the costs under various heads (stabilized operations only).

**Figures in Rs. Crores**

<b>Particulars</b>	<b>2001-2002</b>
Generation Charges	2819234667
O&M expenses	350000000
Employees Costs	100000000
Admin. & Other expenses	50000000
Interest on Government Loans	280954000
Interest and finance charges on others	30000000
Depreciation & Related Debits	971020350
Surplus Required	1134704000
<b>Total Revenue Required</b>	<b>5735913017</b>

5.9 The WBPDCCL also indicated the revenue they expected from the proposed tariff charges, again in a tabular form, as follows :

Figures in Rs. Crores

<b>Particulars</b>	<b>2001-2002</b>
Total Revenue Required	5735913017
Non-Operating Income	0
Revenue required from Sale of Power	5735913017
Proposed Tariff (Paise/Unit)	201.08
Revenue from Proposed Tariff (Rs. Crores)	5735913017

5.10 In the tariff proposals in three volumes the WBPDCCL not only gave a summary of the tariff proposals but also supplied copies of their Annual Accounts as also the necessary notifications, communications and other relevant papers.

5.11 The WBPDCCL prayed for acceptance of their tariff proposal for infirm power generated and sold between the date of synchronization and its declaration of commercial operation, for firm power generated from all the 3 units from the date of declaration of commercial generation and for recording a final order in the facts and circumstances of the case.

5.12 The WBPDCCL brought on record their operational performances, the costs involved, the financial analysis and other details and the same shall be indicated when the individual items are taken up.

5.13 WBPDCCL, however, requested that "Figures in crores" be read as "Rupees only" through the corrigendum as referred in para 2.13.

**CHAPTER 6 : OBJECTIONS OF WBSEB IN RESPECT OF THE TARIFF PROPOSAL FOR THE BAKRESWAR TPS FOR 2001-02.**

6.1 The WBSEB (in short, the Board) stated how it has been constituted and indicated that it was purchasing electricity from the Bakreswar Thermal Power Station of the WBPDCCL although no formal agreement between the Board and the WBPDCCL had not yet been executed.

6.2 The objector indicated in the present objection the dates of commercial operation of the first 2 (two) units and asserted that although the 3rd unit was scheduled to come into commercial operation from October, 2001, the actual date of commercial operation of this unit was not indicated in the present tariff petition.

6.3 On the question of loan assistance and funding pattern similar objections were taken as were there for the previous year. The WBSEB maintained that the decision of the State Government in respect of equity and loan had not been brought on record through the tariff petition.

6.4 An objection was raised on the point of absence of information regarding project cost of Bakreswar Thermal Power Station as approved by the CEA as no document in this respect was annexed with the petition. It was stated that the project cost approved by CEA is an important parameter for fixation of tariff in respect of any generating station. In the absence of information no action would be initiated towards finalisation of the tariff of the generating station for the concerned year. They demanded furnishing by the WBPDCCL the actual project cost as approved by the CEA.

6.5 They pointed to the different typographical mistakes or negligent mistakes occurring in the petition and demanded correction thereof.

6.6 The objectors raised objection regarding the assertion by the WBPDCCL on the point of supply of power by them outside the eastern region grid through the Power Trading Corporation of India and asserted that the Kolaghat Thermal Power Station of the WBPDCCL generated the cheapest source of power available to the WBSEB and accordingly such power must not be supplied outside the state from the Kolaghat Thermal Power Station. The WBSEB further asserted that if at all supply of power outside the state was felt necessary it could be done only from the Bakreswar Thermal Power Station and that too with the consent of the Commission, subject always to availability of surplus power from Bakreswar Thermal Power Station after meeting the demands of the power system in West Bengal.

6.7 Objections were taken on the computation of fuel cost as proposed by WBPDCCL. Such fuel cost related to the periods under pre-stabilisation and post-stabilisation. In the computation of fuel cost an amount of Rs. 2 crores on account of other fuel related cost has been taken into account by the WBPDCCL. The Board referred to the view of the Commission in the earlier tariff order for Kolaghat to say that the fuel related cost should be included in the fixed cost and not in fuel cost.

6.8 On the question of equity capital, objection as indicated in paragraph 3.8 had been raised for the instant year also.

6.9 It was further the objections of the Board that for stabilized operation the WBPDCCL proposed an overall tariff at 201.077 paise/kwh and they should have shown separately the variable charges and fixed charges in the tariff computation as the realization of fixed charge would depend on the normative PLF of the power station to be decided upon by the Commission. Objections were taken on the heat rate as projected, as the sum was higher than the one admissible for Central Sector Generating Stations.

6.10 It was further stated that the capital cost of a project should normally include the entire cost to be incurred on the project prior to commercial operation including cost associated with testing, trial run and the like. In case the petitioner was permitted to realize the fuel cost against infirm supply, the fuel cost so realized must be deducted from the capital cost of the project on the basis of which admissible operation and maintenance cost, interest, depreciation, return on equity etc. were to be worked out for the purpose of finalisation of fixed charge of the generating station. On the projected original cost of the fixed assets for the concerned year amounting to Rs. 2954.46 crores it was stated that the installed capacity of the Bakreswar Thermal Power Station was 630 MW. The cost worked out at Rs. 4.7 crore per MW. This cost, according to the Board, appeared to be high and the Commission was requested to compare the sum with the project cost approved by



the CEA and that cost, as approved by CEA may only form the basis for determining the fixed charge payable by the Board to the WBPDCCL.

6.11 On the project cost of generation it was stated that there had been a computational error and the cost of generation on the basis of different elements of cost indicated in the table, worked out to a higher figure and this, according to the Board required clarification / correction.

6.12 Objections were raised on the ground of delayed execution of the project work of the Bakreswar Thermal Power Station as the delay caused escalation of cost and the Contractor in charge of building the project should have been penalized.

6.13 It was indicated further that Balance Sheet of a generating station is a primary document for the purpose of assessment of assets and their pattern of funding, but no Balance Sheet was made available as an annexure of the tariff petition.

6.14 Gross fixed asset was projected at Rs. 2954 crores plus, at a rate of 4.74 per MW. The Board expressed its doubt if such cost excluded the net revenue for sale of power generated during trial stage and also the cost of transmission of assets for evacuation of power from Bakreswar Thermal Power Station.

6.15 The Board asserted that the order of the Government of West Bengal in respect of soft loan at a rate of interest of 2% had not been brought on record and as per accounting procedure the fixed assets could not be more than Rs. 985 crores as on 31.3.2000. Consequently, the depreciation of such assets could not be more than Rs. 64.68 crores.

6.16 The Board prayed for clarification by the WBPDCCL on the points indicated in the objection and finalisation of fixed charge on the basis of project cost approved by the CEA and to advise the WBPDCCL to rectify the defects.

6.17 Reply to the above objections.

6.17.1 The replies were almost of the same nature as were advanced for the objections for the previous year.

6.17.2 It was specifically pleaded that the sale of power outside the Eastern Regional Grid through Power Trading Corporation of India started on and from 12th June, 2001. At the time of submission of tariff proposal for Kolaghat TPS for FY 2001-2002 the sale of power outside the Eastern Region was not considered and accordingly the Commission did not consider this aspect. The order of the Government of West Bengal permitting the WBPDCCL to sale power outside the Eastern Regional Grid did not mention any such stipulation. It was pointed out that it was decided in a meeting held on 23.5.2001 at EREB, amongst the representatives of the State Power Utilities that export from WBPDCCL outside the Eastern Regional Grid would be scheduled on first charge basis from the available generation of WBPDCCL and the balance would be booked for WBSEB.

6.17.3 It was stated that regarding fuel related cost they wanted to follow the dictum of the Commission on the tariff petition of KTPS.

6.17.4 It was contended that in FY 2000-01 only unit no. 1 was under commercial operation and at the time of computation of surplus requirement proportionate share of equity capital had been considered. It was stated that the point raised in objection no. 16 was not disputed and there was a mistake in the addition of the column, but it was stated that the mistake would not have any impact in computation of tariff.

6.17.5 It was also pointed out that no additional cost was payable to the contractors for time overrun.

6.17.6 It was stated further that the accounts for the FY 2000-01 was adopted in a meeting dated 18.10.2001.

6.17.7 It was further stated that none of the units were capitalized during the FY 1999-2000 and the depreciation of assets which were already put into use would never be Rs. 64.68 crores as

contended.

## CHAPTER 7 : CLARIFICATION SOUGHT FOR BY THE COMMISSION AND CORRIGENDUM OF THE WBPDC.

7.1 As indicated in Chapter 1 and 4 clarifications had come for the tariff petition for the year 2001-02 also.

7.2 The clarifications and corrigendum had been kept open for inspection/copies and for objection, if any. The WBSEB made additional submissions in this respect and after hearing of the matters sought to be corrected, the information supplied and of the objection thereto have been kept on record for final consideration by the Commission.

7.3 The clarifications that were advanced covered the present year also.

## CHAPTER 8 : POINTS RAISED DURING HEARING.

8.1 After due notification the hearing was taken up on 15.1.2002. The WBPDC and the WBSEB took part in the hearing.

8.2 Shri S. Mahapatra, Executive Director (Operation) of the WBPDC made its opening submissions to press the points indicated in the tariff petition. On that date itself clarifications sought for by the Commission was submitted on affidavit and the corrigendum filed earlier was also pressed.

On the submission on behalf of WBSEB the matter stood adjourned for the WBSEB to go through the clarifications and corrigendum submitted by WBPDC to enable to come up with comments. The matter was taken up again on 18.1.2002 even the WBSEB submitted their comments.

8.3 Shri Mahapatra dealt with the objections by the WBSEB and recorded its comments thereon. It was submitted that for tariff calculations for the three units already commissioned, the project cost was estimated at Rs. 2436 crores and the formal approval by the CEA was awaited.

8.4 It was indicated that per mega watt cost for the Bakreswar project was Rs. 3.87 crores and this was far less than the other contemporary projects in the country. However, it was conceded that the project costs of other projects were not brought on record through an affidavit. In response to the comments from WBSEB that in the absence of a final verdict from the CEA regarding project cost, the WBPDC, for the Bakreswar Thermal Power Station, for the concerned two years may be given provisionally 80% of the admissible fixed charges, the WBPDC claimed 100% of the project cost even without the formal approval by the CEA.

8.5 On the operative norms like heat rate etc. it was stated that the norms fixed by the Committee set up by the West Bengal Government may be acted upon and it was stated that the All India norms was not applicable in West Bengal as the operative conditions were different. It was stated that while the Central Generating Agencies are at the privilege of getting a uniform quality of coal, WBPDC had to face a wide variation in the grade of coal and as such utmost oil support was necessary for generation.

8.6 It was stated that under the operation system and under the nature of assessment and distribution, the peak / off peak ratio was adversed and the boilers were required to run under odd circumstances. It was, therefore, difficult to follow the standard of central utilities.

8.7 It was submitted on behalf of WBPDC further that during the year 2000-01 coal from ECL was only used and that raised the average fuel cost. On question by the Commission however, it was accepted that during the commissioning days one or two rakes of coal from other sources were also used for the Bakreswar Thermal Power Station.

8.8 Regarding objections by the WBSEB on the question of sale outside the state, the WBPDC stated that this sale had to be made under compelling circumstances as the WBPDC produced extra power during off-peak period and unless sold outside they would face serious fund crunch.

8.9 It was submitted on this point that the State Government had approved the sale of power outside the state in 2000-2001 and electricity upto a limit of 200 MW was to be first charged to Power Trading Corporation and the rest would be sold to SEB. When questioned about direction to them from this Commission to approach the CERC for permitting sale outside the state, it was submitted that the CERC had directed for a bi-lateral agreement in the absence of regulations in this regard. The letter from the Power Trading Corporation although dated 14.1.2002 spoke of an order recorded in 1999 in connection with some other case. The WBPDCCL had been directed, during hearing, to come up with detailed information on peak and off-peak demand, non-accounting of Revenue from such sale in the petition, why and how first charge has been accepted for such sale to Power Trading Corporation against the requirement of the State, reasons of diversion of power from Kolaghat against the directions of the Commission, the Tariff Rate of sale and how the difference in sale rate to PTC and sale rate of WBPDCCL has been accounted. Also when WBSEB has to purchase expensive power from other parties due to non-availability of cheaper power of WBPDCCL then how / from whom this excess cost will be charged ?

8.10 It was indicated that the T & D installation made by Bakreswar Thermal Power Station as per requirement by JBIC (the lenders), were made over to SEB for operation and maintenance and a transmission tariff should be fixed for transmission through this installations. Regarding employees' cost and repair and maintenance it was indicated that the first half of 2000-01 only two units had been commissioned while the 3rd was commissioned in the 2nd half.

8.11 Arguments in support of the depreciation claimed and in support of capitalization of interest the WBPDCCL submitted that loan was sanctioned only for generation and they are directed to bring on record the full loan details.

8.12 In reply, the WBSEB insisted that for assessment of any project cost for any generating station, approval by the CEA was pre-requisite before determination of tariff.

8.13 It was submitted that in the power purchase agreement there is no indication of the project cost.

8.14 Accordingly, it was insisted that the tariff might be fixed provisionally 80% of the fixed charges. In this regard an order of the CERC was referred to as a precedent.

The SEB took up an objection that fuel costs had been charged for stabilization although no stabilization was there during 2000-01.

8.15 For sale of power, the SEB raised a point that WBPDCCL consists of the Kolaghat Thermal Power Station, Bakreswar TPS and certain other units recently made over to them. The WBSEB have been receiving cheap power from KTPS and any supply outside the state would adversely affect the interest of the WBSEB and the consumers in West Bengal as a consequence.

8.16 In question of the operative norms it was submitted by the WBSEB that the concerned committee was set up by the State Government in 1996, but the Bakreswar TPS was a newly constructed Thermal Power Station and operating condition / norms better than the ones fixed by the committee should be expected and demanded. The SEB, when questioned on the point, if generation in WBPDCCL was less due to less consumption by WBSEB, agreed to come up with written explanation in this regard.

8.17 The two Jt. Directors of this Commission also made their analysis of the tariff petitions and raised certain points for consideration by the Commission.

8.18 The Jt. Director, Tariff (Finance), Shri D. Chakraborty wanted to know what was accounting system and requested the audited copy of the accounts of the Bakreswar Thermal Power Station. It was stated that the three units were commissioned on different dates and unit-wise costs should have been placed. He questioned the correctness of the costs in revenue account. It was pointed out by him that the capital fund was to be deducted from the capital cost and project cost should be reduced. Whether the cost of initial spares was included in the cost of Fixed Assets and if yes, the amount thereof, should be indicated.

8.19 He submitted that it was necessary to explain what is Bakreswar Suspense under sundry liability. He also submitted that an explanation was necessary as to nature and how pre-commissioning expenses were included in fixed assets and he referred to the CAG report at para 1(ii). He also raised a question as to how depreciation was calculated as the fixed asset register of Bakreswar Project is not complete.

8.20 On the question by the Commission to WBPDCCL that the techno-economic clearance by the CEA was given on the Japan package (JBIC) and not on the USSR package as contended, WBPDCCL agreed to examine and come up with a detailed reply.

8.21 The Commission wanted to know what was the Exchange rate conversion in the MOD, contract, actual expenditure and what rate was considered by the CEA and who would bear the future foreign exchange rate variation, the copy of Loan agreement with the G.O.W.B. and loan repayment schedule and the basis of calculating interest chargeable to Revenue account and Capital account. The WBPDCCL was also required to explain as to who would come up for tariff so far the transmission system of WBPDCCL is concerned which was made over to WBSEB and maintenance done by them. Attention of the WBPDCCL was drawn to annexure 3 of their tariff petition and they were asked to explain the estimated project cost of Rs. 2363.96 crores when two units were still to be commissioned. WBPDCCL was also required to explain that against one stated approval of project cost of Bakreswar how and why separate Tariff petition is proposed for Generation portion, Transmission portion and how BOBR wagons and simulator package will be dealt with. How the income from BOBR wagons and simulator package will be accounted for along with estimated expenditure incurred, if any.

8.22 The Jt. Director, Tariff (Engineering) also raised certain points after analysis of the tariff petitions.

8.23 He wanted to know if weighment facility was available, what was the actual loss in transit. He drew attention to annexure B of the audit report. He wanted to know why higher-grade coal was used. According to him, there was no break up given for the railway freight and basis and calculation of arriving average cost of coal and GCV calculation against such weighted average price of coal.

8.24 There was, according to him, discrepancy in R & M in the first half and 2nd half of the concerned year and why R & M expenses are so high for the new Plant. Similarly the nature and actual amount of total pre-commission expenditure was sought.

8.25 It was indicated by him that regarding the actual price of coal used and Generation figures, there was differences between the audit report and the tariff petition. According to documents in the petition, the oil price had gone down in 2001, but it was shown as raised in Revenue Requirement for the concerned period.

8.26 He further raised a question if any action was taken against the contractors for the delay in the project work including commercial operation.

8.27 WBPDCCL's PLF is low due to stated demand constraint, but Auxiliary consumption for FY 2001-02 indicates constant demand. WBSEB's demand may not be only criteria for system back down. Impact of I.D. fan due to its break down on generation, if any, may be given. The actual generation, Auxiliary consumption, Heat rate, specific oil consumption, PLF, Plant availability, back down due to system/demand constraint for F.Y. 2000-01 and April 2001 to September 2001 may be given. Please also indicate what is the peak, normal and off peak demand of WBSEB.

8.28 In answer to all these discussions, Shri B. K. Paul, Managing Director, WBPDCCL submitted that as they had projected the actual cost there could not be any cut by 20% as suggested by WBSEB.

8.29 He supported the sale of power outside the state on competitive basis at a rate of 182 p./unit less wheeling charges and for wheeling loss payable to WBSEB the negotiation are still not over and thereafter approval of the Commission will be sought. The Commission however sought details relating to the demand in MW and MU supplied during peak, normal and off peak period till

December 2001 and expected for balance period of 2001-02 and how the difference in sale rate and tariff including FSC will be taken / adjusted.

8.30 It was submitted by him that due to lack of demand, the units were functioning for full generation only for 4 hours while for the rest 20 hours it could not function for full generation.

8.31 It was submitted by him that the targeted PLF was difficult to achieve. He explained that as in May 2001 the situation did not take a firm shape, the proposal of sale of power was not brought to the notice of the Commission while the tariff petition for KTPS was under hearing.

8.32 Shri B. K. Paul, Managing Director, WBPDCCL submitted that WBPDCCL will submit detailed reply to various points and queries raised by the Commission and its officers along with the necessary documents by 31.1.2002. The information was submitted on some of the points and no information or incomplete information was given on other points.

## CHAPTER 9 : POINTS FOR CONSIDERATION AND DIRECTIONS ALREADY GIVEN

9.1 While dealing with the tariff petition of WBPDCCL for the Kolaghat Thermal Power Station vide TP No. 5/0001 and TP No. 4/0102 the Commission had recorded its findings on certain points of law and the same need not be discussed or decided again in this order.

9.2 It was clearly indicated in the earlier order dated 12.7.2001 that the WBPDCCL could file the tariff proposal for the supply from Bakreswar TPP and seek approval of any PPA and the Commission decided maintainability of such prayer.

9.3 The Commission has also decided in the order dated 12th July, 2001 by a majority view that in view of the provisions of sections 29, 51 and 52 of the ERC Act 1998 and the notification of the Central Government under section 51 of the Act, whereby section 43(A) of the 1948 Act has been omitted w.e.f. 11.9.2000 so far the state of West Bengal is concerned, it could not rely upon a deleted provision only for the purpose of return and it had indicated the reasons why the Commission will 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 the two years 2000-01 and 2001-02 for Kolaghat station of WBPDCCL.

9.4 We have already indicated in the order dated 12th July, 2001 that revision of tariff may be allowed only once for any financial year and it is not important whether the order of revision is passed after the passage of any particular financial year. It is relevant to note here that no objection in this regard has been raised in the written objection of the WBSEB, but we feel we should indicate our line of approach in the instant order also for information of all concern.

## CHAPTER 10 : TECHNO-COMMERCIAL POINTS FOR DETERMINATION.

10.1 The Commission is to determine what are the fixed costs, what next are the fuel costs and once these two costs are assessed, the Commission is to look to the return that may be permissible to the WBPDCCL to be covered under Fixed Costs for the two years separately and once that exercise is over, the Commission is to determine the mode of recovery / realization. The Commission will give necessary directions to the WBPDCCL to achieve efficiency and to diminish the costs.

10.2 The fixed costs are to be judged on (a) interest on loan capital and finance charges, (b) depreciation, (c) employees cost, (d) repair and maintenance cost, (e) administrative and general expenses, (f) fuel related cost and (g) Reasonable return.

10.3 For determination of fuel cost, the Commission is to consider  
(a) heat rate of the Station,  
(b) gross calorific value of coal and oil,  
(c) specific oil consumption,  
(d) transit loss of coal,

- (e) total coal requirement,
- (f) prices of coal and oil,
- (g) gross generation,
- (h) permissible auxiliary consumption.

10.4 Besides consideration of the above parameters for the determination of the fuel cost, other important issues to be addressed by the Commission are

- (i) determination of the price of infirm power (at fuel cost only) generated during the pre-commercial operation period,
- (ii) identification of pre-commercial period of operation for each unit,
- (iii) identification of stabilization period.

These issues need consideration as the cost of infirm power which needs to be credited to project cost has a bearing on the completion cost of the station and the norms for different operating factors mentioned in earlier paragraph varies from stage to stage of operation in the initial days of the commission of the power station. These issues will be examined and decided upon in chapter 12 while working out the cost of fuel.

## CHAPTER 11 : FIXED COST FOR 2000-01.

11.1 Techno-economic clearance and sanction of Central Electricity Authority under the provisions of the Electric Supply Act, 1948 is a statutory requirement for establishment of power projects of value above the limits specified in the Act. In reply to the query of the Commission, WBPDCCL in their clarification dated 15th January, 2002 have indicated that the CEA had approved the project cost of Rs. 3052.53 crores with Soviet Union assistance and copy of the same has been included with the clarification given. Subsequently, while submitting further additional clarification based on the information sought during hearing, WBPDCCL changed their stands and indicated that approach was made to JBIC in the year 1993 and techno-economic clearance was obtained from CEA and on the basis thereof MOD was signed in April, 1993. The letter of the CEA filed along with clarification dated 15th January, 2002, however, is based on OECF (JAPAN) Financing and clearly mentioned that the "concurrence of CEA will be issued on receipt of the investment sanction for the scheme. This letter is being issued to you for your advance information". This letter, therefore, cannot be taken as a sanction of CEA under section 29 of the Electric Supply Act 1948 and the objection of the WBSEB in this regard is correct. The actual expenses claimed for the generation portion is Rs. 2436.12 crores with IDC and Rs. 2349.17 crores without IDC against the figure of Rs. 1727.28 crores (excluding IDC) based on 3 units derived from the advance information letter of CEA. Thus, the actual expenses excluding IDC incurred in excess of the above CEA letter is about Rs. 622 crores. Since the basic requirement of above project cost / concurrence of CEA under section 29 is not there both for the original cost as well as the revised cost, the petition should have been rejected. Since the rejection of the petition will create problems as WBPDCCL has already started supplying power to WBSEB and in the absence of any provisional rate, the billing and payment to/from the WBSEB can not be accounted for. The Commission therefore wants to take a more realistic approach. In addition, the WBPDCCL has not given full information as required from them vide our letter no. ERC/B-2/367 dt. 14.12.2001 and also during public hearing. The Commission is therefore of the opinion that the petition of WBPDCCL may not be rejected on either of the two grounds and a workable solution may be found keeping in view the ground position. The Commission, therefore, directs and includes 80% of the fixed cost as claimed by WBPDCCL subject to adjustment of clerical and other apparent mistakes and allow the same to be included in the revenue requirement purely as a provisional measure which shall be reviewed and adjusted upward or downward after the receipt of concurrence of CEA under the Electric Supply Act and detailed scrutiny will also be made after receipt of sanction. The Commission will like to clarify here that it has not gone into detail admissibility of the various claims made by WBPDCCL in the fixed cost and the same will be reviewed later on.

11.2 The Commission do not agree with the WBPDCCL that the income derived from BOBR wagons and simulator package have to be taken separately as WBPDCCL is a generating company and its activities are related to generation of energy and it can not be said that running of wagons and simulator package is a separate activity particularly when the items has been purchased out of the loan agreement signed for Bakreswar project. The WBPDCCL should rather run this wagon for transportation of its coal and save to the maximum extent in the railway freight as well as for a assured supply of coal. Since the required information had not been given relating to income from

the BOBR wagons and expenses pertaining to the interest and depreciation has not been charged, the Commission decides to take into other receipts 10% of the capital cost as net income and this aspect will be reviewed when complete information is received at the time of adjustment to be made under para 11.1 of the order. Similar decision will be followed in case of simulator package after its commissioning. The Commission hereby once again directs the WBPDCCL to give the complete account of income and expenditure separately from the BOBR wagons and simulator package.

11.3 The Commission has gone through the question of exporting power through PTC at a tariff rate of 182 p./kwh which includes the wheeling charges and wheeling loss to be paid for the WBSEB system. The fuel surcharge, if any, is in-built and no extra payment will be made by PTC on this account. The WBPDCCL has not shown the income pertaining to this sale based on this rate separately, nor have they disclosed how the difference between the income and expenditure, will be adjusted in the accounts. The WBPDCCL has also not given the total MU of energy exported separately during peak hours and off peak hours upto December, 2001 even though this was also asked by the Commission during open hearing. The WBPDCCL has again given the information in MW and for MU stated that the sale varies in a day between 1.33 MU and 3.707 MU. The WBPDCCL has also not referred the matter to the CERC as they have earlier contended that this transaction falls under the inter-state transfer even though the Commission have given them direction in this regard. The Commission is also not able to appreciate that how WBPDCCL and WBSEB have agreed that the export from WBPDCCL to Haryana and Delhi will be on first charge basis from the available generation of WBPDCCL in the meeting held on 23rd May, 2001 between EREB, ERLDC, WBPDCCL, WBSEB and PTC. This is obviously not correct and against the interest of the consumers of West Bengal that a cheap power is being allowed to be exported to outside the state that too at a first charge basis during peak and off peak hours when more expensive power is being imported from outside the state both in peak and off peak hours. The Commission also do not agree with the contention of the WBPDCCL that there was no direction of the Commission to sell the power of Kolaghat to WBSEB as WBSEB has been the sole consumer of WBPDCCL. The tariff has been fixed taking WBSEB as consumer for Kolaghat and the Commission has also given directive that the amount being determined by the Commission should be returned to WBSEB or adjusted. The WBPDCCL has not given any submission during petition / hearing or subsequently that the power is being given by WBPDCCL for export from Kolaghat and the petition and the subsequent submission indicated that the power was to be sold to WBSEB and that is why WBSEB during the hearing has agreed to pay the part of the balance fixed charges if they are not able to take power that can be generated by WBPDCCL from Kolaghat. The Commission, therefore, again directs that any power to outside the state will be only against the Bakreswar project or any other station, which has power costlier than the Bakreswar, provided there is no import of power at a higher cost by WBSEB from outside the state. The Commission cannot allow the import of costlier power both during peak and off peak periods and simultaneously get the power exported from WBPDCCL at a cheaper rate particularly during peak hours. The difference in cost, if any, incurred by WBSEB for such import of high cost will be deductible from the return to be allowed to WBPDCCL as such cost can not be allowed to be passed to the consumers of West Bengal by WBSEB. The Commission further directs that if any power has been exported from Kolaghat in deviation of the orders of the Commission dated 12.7.2001, the differences in cost will not be paid by WBSEB to WBPDCCL.

## CHAPTER 12 : VARIABLE COST.

12.1 As mentioned in the para 10.4, the Commission is to identify the pre-commercial operation period and stabilization period of each generating unit for allowing appropriate norms of the factors involved in ascertaining the variable cost i.e. fuel cost. The date of synchronization and date of achieving full load and the date of commercial operation of different units, as submitted by WBPDCCL as additional information sought by the Commission were shown as under :-

Unit No.	Date of synchronization	Rated Load achieved on	Date of commercial operation
I	17.07.1999	26.01.2000	29.11.2000
II	20.05.2000	30.09.2000	01.04.2001
III	21.03.2001	23.08.2001	11.10.2001



It is observed from the above, that declaration of dates for commercial operation took unusual longer time with respect to the dates of synchronization. As per norms set by the Government of India for Central Generating Stations, the date of commercial operation of individual thermal unit shall be reckoned not exceeding 180 days from the date of synchronization and stabilization period commencing from the date of commercial operation should be 180 days. There has to be a reasonable period for declaring commercial operation of a unit from the date of synchronization. The Commission is inclined to follow these norms for identification of the period of different stages of operation. The cut off dates for commercial operation and the date of commencement of stabilized operation, as set by the Commission with respect to the date of synchronization, are as under :-

Unit No.	Date of synchronization	Date of mmercial operation	Date of commercial operation
I	17.07.1999	13.01.2000	11.07.2000
II	20.05.2000	16.11.2000	15.05.2001
III	21.03.2001	17.09.2001	16.03.2002

12.2 In regard to other operational parameters and price of coal and oil, the Commission decides as under :-

(a) Heat rate of Machine

Norms set by the Government of India for the Central Generating Stations have been allowed.

(b) Gross calorific value of oil

As projected by WBPDCCL has been adopted.

(c) Gross calorific value of coal

Weighted average gross calorific value of coal has been arrived at considering the declared lower use value/heat value of respective grade of coal from different sources used by WBPDCCL during 2000-2001 and upto September of 2001-2002 as provided by them in the form of additional information.

(d) Specific oil consumption

On this parameter the projected figures for firm power for 2000-01 and 2001-02 are 5.6 and 3.0 respectively while that for infirm power for 2001-02 is 5.0 and the WBPDCCL has not shown the specific oil consumption for infirm power for 2000-01. However, from gross generation figures and actual oil consumption figures for infirm power for 2000-01 we get the specific oil consumption at 4.34 ml/kwh. The last mentioned figure is less than even the normative specific oil consumption for firm generation during the stabilization period. Keeping in view this variation as projected by WBPDCCL we propose to fix the specific oil consumption rate for the infirm generation period @ 5 ml/kwh for both the years for the periods before the date of commercial operation and during the stabilization period. We have preferred to go to a higher rate than projected keeping in view the fact that the frequency of tripping of boiler during the period of infirm generation is higher than that during firm generation during stabilization period. Once the units attain stabilization, there is a norm and we may go by that norm of 3.5 ml/kwh so far the year 2000-01 is concerned. For the next year however although the norm is the same 3.5 ml/kwh, the WBPDCCL have projected the figure at 3.0 ml/kwh only and we go by their asking as it is a claim below the normal speaking of their efficiency.

(e) Transit loss of coal

4% transit loss of coal as claimed by WBPDCCL is considered too high and the same has been restricted to 1%.



## (f) Price of coal

Weighted average price of coal per MT has been arrived at with reference to price lists of ECL dated 20.04.2000 and 31.01.2001 and of BECML based on sourcewise, gradewise and quantitative details of use of coal at the power station during 2000-01. As actuals have been calculated and allowed the WBPDCCL will not be permitted to claim any further fuel surcharge for this year. For 2001-02, however, the weighted average price as claimed by WBPDCCL is allowable subject to the actual price paid, grade and quantity used and the like which may be adjusted as fuel surcharge, if any.

It may be mentioned here itself that the WBPDCCL has laid a claim of Rs. 2 crores towards other fuel related costs for the FY 2001-02. This cost, in the view of the Commission, is not a fuel cost and must be taken into consideration as a part of fixed cost and the same has already been considered in the relevant chapter under the relevant table.

## (g) Gross generation

In the two tariff petitions for the concerned two years the WBPDCCL has provided a break up of generation (actual or projected), unitwise for the periods under consideration. It has already been indicated that they have exceeded the norms of the time period for commercial operation from the date of synchronization as also the period of stabilization from the date of commercial operation. It is also found for unit I only that the synchronization period was over prior to 1.4.2000. Accordingly and as per our findings in paragraph 12.1 we apportion the generation of the 3 units in 3 different stages depending on the number of days falling within the concerned year - pre-commercial operation period (A), stabilization period (B) and stabilized period (C). The following tables will elaborate our approach.

Table - 1

Unit No.	Generation (FY 2000-01) in MU during			
	Period A	Period B	Period C	Total
I	Not considered	278.27	717.5	995.77
II	159.109	119.331	Not considered	278.44
III	0.282	Not considered	Not considered	0.282
Grand Total	159.391	397.601	717.500	1274.492

Table - 2

Unit No.	Generation (FY 2000-02) in MU during			
	Period A	Period B	Period C	Total
I	Not considered	Not considered	1260.126	1260.126
II	Not considered	155.358	1104.768	1260.126
III	449.112	475.53	39.628	964.27
Grand Total	449.112	630.888	2404.522	3484.522

## (h) Auxiliary consumption

The auxiliary consumption as projected in percentage by WBPDCCL for generation of in-firm power during both 2000-2001 and 2001-2002 has been allowed. For the generation of firm power, the allowances have been made as per norms set for Central Generating Stations by the Government of India i.e. 10% during stabilization period and 9.5% thereafter.

12.3 The Commission observed that the projected fuel cost for infirm power for 2000-01 is very high in comparison to firm power and also infirm power cost for 2001-02. The Commission has re-worked out the generation for various stages in the absence of authenticated relevant data on the basis indicated above, calculated fuel cost accordingly and therefore, subject to adjustment along

with the review as may be stipulated in subsequent chapters of this order provided the complete authenticated data for generation as well as fuel consumption are furnished for different stages i.e. pre-commercial period, stabilization period and stabilized period as discussed in para 12.1.

12.4 The fuel cost for the year 2000-01 as claimed by WBPDCCL and as allowed by the Commission as per earlier discussions in this chapter are shown in a tabular form hereunder in the next page.

### CHAPTER 13: DETERMINATION OF REVENUE REQUIREMENT FOR 2000-01.

13.1 As highlighted in Chapter 11 the Commission directs and includes 80% of the fixed cost as claimed by WBPDCCL subject to adjustment of clerical and other apparent mistakes and allow the same to be included in the revenue requirement purely as a provisional measure in the absence of project cost sanctioned by the CEA under the Provisions of Electricity (Supply) Act. The Commission also decided to consider 10% of the capital cost of BOBR wagons as net income and other receipts. Now with the variable cost as worked out and allowed in the previous chapter, we proceed to direct the revenue requirement for the year 2000-2001 as under:-

#### 13.2 STATEMENT OF REVENUE REQUIREMENT FOR 2000 - 2001

Rupees in Lakhs

Sl.No.	Particulars	Pre - commercial Operation Period		Commercial Operation Period	
		As claimed by WBPDCCL	As admitted by commission	As claimed by WBPDCCL	Asmitted by Commission *
<b>VARIABLE COST</b>					
1	Fuel Cost (A)	10439.87	1479.21	3036.17	8464.25
<b>FIXED COST</b>					
2	Repair & Maintenance Cost			43.01	43.01
3	Employees Cost			60.53	60.53
4	Admin & other expenses			263.45	9.27
5	Interest & other finance charges			350.11	350.11
6	Fuel related cost				
7	Depreciation				
8	Return on Equity			1916.95	1916.95
9	Total Fixed Cost			2634.05	
10	Fixed Cost Allowable (A+B)			2634.05	1903.90
11	Gross Revenue Requirement (A+B)	10439.87	1479.21	5670.22	10368.15
12	Other receipts				356.50
13	Net Revrnue Requirement	10439.87	1479.21	5670.22	10011.65

\* Provisionally for fixed cost

13.3 As per subsequent submission by WBPDCCL, total administration and other expenses at Bakreswar project during 2000-01 came to Rs. 1016.16 lakhs. It is apparent from the audited accounts of WBPDCCL for the same period that the total, amounting to Rs. 1006.89 lakhs out of Rs. 1016.16 lakhs, had been charged to capital account leaving only Rs. 9.27 lakhs to be charged to Revenue Account. This apparent mistake has been corrected.

13.4 The normative sale i.e. Generation minus normative Auxiliary consumption has been taken as under:-

Infirm Power (pre-commercial operation period) 139.1870 MU

Firm Power (in commercial operation period) 1007.1785 MU

The tariff for infirm power will 106.28 p/kwh and firm power 99.40 p/kwh.

13.5 The fuel cost for the year 2001-02 as claimed by WBPDC and as allowed by the Commission as per earlier discussions in this chapter are shown in a tabular form hereunder in the next page.

#### CHAPTER 14: REVENUE REQUIREMENT AND TARIFF FOR 2001 - 02.

14.1 The points for consideration for this year would be the same as were for the past year and our stands in regard to fixed cost and variable cost for this year also were elaborated in chapter 11 and 12.

14.2 The computation of variable cost, i.e., the cost of fuel for the year 2001-02 has been shown at the end of chapter-13. We may now proceed to determine the revenue requirement separately for pre-commercial operation and commercial operation periods.

#### 14.3 STATEMENT OF REVENUE REQUIREMENTS FOR 2001-2002.

Rupees in lakhs

Sl.No.	Particular	Pre-commercial Operation Period		Commercial Operation Period	
		As claimed by WBPDC	As admitted by commission	As claimed by WBPDC	Admitted by Commission *
<b>VARIABLE COST</b>					
1	Fuel Cost (A)	3038.47	3981.61	27992.35	24083.03
<b>FIXED COST</b>					
2	Repair & Maintenance Cost			3500.00	3500.00
3	Employees' Cost			1000.00	1000.00
4	Admin & other expenses			500.00	500.00
5	Interest & other finance charges			3109.54	2581.00
6	Fuel related cost			200.00	200.00
7	Depreciation			9710.20	8614.16
8	Return on Equity			11347.04	9455.87
9	Total Fixed Cost			29366.78	25851.03
10	Fixed Cost Allowable (B)			29366.78	20680.82
11	Gross Revenue Requirement (A+B)			57359.13	44763.85
12	Less Other receipts				356.50
13	<b>Net revenue Requirement</b>			<b>57359.13</b>	<b>44407.35</b>

\* Provisionally for fixed cost.

14.4 Apparent mistakes of WBPDC in the projections of fixed costs under different heads have been adjusted as under :

(a) The depreciation claimed includes provision for depreciation on transmission system, BOBR wagons and value of assets not owned by the power station. As the cost of transmission system and BOBR wagons are not included by WBPDCCL in the capital cost of the generation project and the value of assets not in the ownership are to be treated differently, the projected provision has been reduced by Rs. 1096.04 lakhs on this account.

(b) The interest calculated on the basis of 70% of actual capital expenditure incurred upto October (as provided by WBPDCCL) and projected for the period from November 2001 to March 2002 at the rate of 2% p.a. comes to Rs. 3177.00 lakhs out of which Rs. 596 lakhs are chargeable to Capital Account. The balance Rs. 2581.00 lakhs are only to be charged to Revenue Account.

(c) The third generating unit of the project was put on operation for approximately for half year. As such, the proportionate return on equity capital of Rs. 70919 lakhs comes to Rs. 9455.87 lakhs.

14.5 The normative sale, i.e. projected gross generation minus normative auxiliary consumption during the pre-commercial operation period and during commercial operation period, as shown in the statement referred in para 14.2 comes as under:

Pre-commercial operation	406.446 MU
Commercial operation	2743.891 MU

14.6 The tariff for Infirm power is 97.96 paise/kwh.  
The tariff for Firm power is 161.84 paise/kwh.

14.7 As discussed earlier, above tariff is provisional and subject to review and adjustments on receipt of sanction of the project cost by the CEA under the provision of the Act and other details as required from WBPDCCL.

#### CHAPTER 15 : DIRECTIONS FOR REALISATION.

15.1 The total bills for 2000-01 may be determined by WBPDCCL based on the above calculation and the amount excess/short taken from WBSEB be returned/ adjusted against current bills/outstanding bills.

15.2 The WBPDCCL may recalculate the outstanding amount from 1st April, 2001 to January, 2002 and over-billing/over-realisation may be returned/adjusted or under-billing/under-recovery may be recovered from WBSEB. We also direct that the new bills w.e.f. February, 2002 onwards may be raised in the new tariff.

#### CHAPTER-16 : FUEL SURCHARGE FORMULA

Cost of fuel is a variable one and not under the control of the utility. It is the norm in the power sector to take into account the cost of fuel at the beginning of the year for determination of tariff and also to provide for compensation for any variation in costs of coal and oil in the intervening period and the same may be adjusted every six months. For adjustment of this variation in the cost we are prescribing the following formula with the following explanation of the abbreviations used in the formula -

Fuel Cost Adjustment charge in paise/KWH	FCA
Fuel cost of generation as per normative parameters fixed by the Commission for actual generation of energy during adjustment period.	FC
Cost disallowed by the Commission for breach of economic generation obligation, or on order/directive of the Commission, if any, or any other reason.	Cd
Fuel cost already realised through basic tariff and associated FCA for the relevant adjustment period.	Cr
Adjustment to be made in the current period to account for any excess or shortfall in recovery in the past adjustment period, if any.	A
Total energy sent out from generation station for the adjustment period based on actual or normative (whichever is less) auxiliary consumption	G

$FCA = FC - Cd - Cr \pm A$   
(P/KWH) G

The adjustment period will be every six months, i.e. on 30.9.2000, 31.3.2001, 30.9.2001 and 31.3.2002, and the utility shall be entitled to realise the cost as per above formula in addition to tariff already fixed subject to approval of this Commission and subject to a separate entry in the bill for information of the consumer. The normative parameters fixed by the commission and the costs taken have been appropriately dealt in this order. At the end of each adjustment period WBPDCCL shall calculate the FCA as per approved formula and based on approved parameters, costs and consumption. The complete details along with the cost data along with supporting documents, quantitative details and the relevant information/ documents, duly certified for the September revision and duly audited for the whole year for the March revision, shall be submitted to the Commission for its approval. It may, however, be clarified that the amount to be reimbursed under the formula shall not exceed in any case the additional amount properly incurred on Fuel costs based on various normative parameters and limits laid down in this order and within the directions of the Commission.

**Sd/- 27.02.2002 (A. K. Jain) Member  
(F&A)**

**Sd/- 27.02.2002 (S. K. Phaujdar)  
Chairperson**

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