TARIFF ORDER OF DPL FOR THE YEARS 2002-03, 2003-04 & 2004-05

- **ORDER**

ORDER OF THE

WEST BENGAL ELECTRICITY REGULATORY COMMISSION
IN

Case No. T.P. - 01/01-02 of 2002 - 03

Case No. T.P. - 7/02-03 of 2003 - 04

Case No. T.P. - 12/03-04 of 2004 - 05

IN RE THE TARIFF PETITION OF DURGAPUR PROJECT LIMITED (DPL)UNDER SECTION 64(3) READ WITH 62 OF THE ELECTRICITY ACT 2003, FOR THE YEARS 2002-03,2003-04 AND 2004-05.

Hearing on the Tariff Petition for 2002-03 and 2003-04:

Present :

Shri S.N.Ghose, IAS (Retd.), Chairperson
Shri A.K. Jain, Member (Finance &Accounts)
Shri N.C. Roy, Member(Technical)

For the Petitioners:

Shri A.K. Dubey, Chairman & Managing Director, DPL

Objectors who had joined the hearing :

Shri M.N. Pal, for Durgapur Chemicals Ltd.
Shri K.P Roy, for Durgapur Industrial Power Consumers' Association.
Shri M.K. Roy, for WBSEB.
Shri K. Talukder for Corporate Ispat Alloys Ltd.

Objectors who had filed objections :

Jai Balaji Sponge Limited
Nagarik Suraksha Committee, Durgapur.
Durgapur Chemicals Limited.
Durgapur Industrial Power Consumers' Association.
W.B. State Electricity Board.

Dated : The 9th June, 2004

CHAPTER-1 : INTRODUCTION

1.1 The West Bengal State Electricity Regulatory Commission has been formed under section 17 of the Electricity Regulatory Commission Act, 1998 (Act 14 of 1998) in the year 1999. The Commission could be fully functional from the second half of the year 2000 after framing its Regulations and the Rules by the State Govt.

1.2 The Commission is now constituted by the Chairperson Shri S.N. Ghose, IAS (Retd), Shri A.K. Jain, Member (Finance & Accounts), and Shri N.C. Roy, Member (Technical).

1.3 In terms of the Commission's Conduct of Business Regulations and the Guidelines made thereunder, the Durgapur Projects Ltd. submitted the tariff revision petition for the year 2002-03 which was registered as petition no T.P-01/01-02.On preliminary examination of the petition it was noted that DPL had not furnished some vital information and they were advised to send the same which they supplied only with the tariff revision petition for 2003-04 in December,2002 when both the petitions were admitted. Petition for 2003-04 was registered as TP-7/02-03.

DPL submitted the tariff petition for 2004-05 on 30.12.2003 which was admitted and registered as petition no. TP-12/03-04.

1.4 Filing of the petitions for 2002-03 and 2003-04 was duly notified in prominent newspapers of Kolkata calling upon all concerned to file objections against the proposed revision of tariff. Under the regulations interested parties were afforded opportunities to inspect the petitions and take copy thereof.

Petition for 2004-05 in an abridged form approved by the Commission was published by the petitioner in two prominent newspapers of Kolkata and two widely circulated

local dailies of Durgapur calling upon all concerned to file written objections / comments against the proposed revision of tariff. Interested parties were afforded opportunities to inspect the petition and take copy thereof.

1.5 Hearing of the petitions for 2002-03 and 2003-04 was taken up together for avoiding unnecessary exercise on same or similar matters in dispute. No hearing was held on petition for 2004-05 which was processed as per section 64 of the Electricity Act, 2003.

1.6 Not only the petitioner and the objectors who filed written objections, hearing was allowed to all who proposed to join. Hearing was held on 26.2 2003 and completed on the same day. The petitioner was allowed 15 working days for submitting the replies to the additional information asked by the Commission Officials during hearing. The replies were received on 17.3.2003.

CHAPTER - 2: CASE OF THE DURGAPUR PROJECTS LIMITED.

2.1 Claim for the year 2002-03

2.1.1 According to the petition in question, the DPL is a sanction holder under section 28 of the Indian Electricity Act,1910.The sanction was granted by the GOWB on 28.6.1964. As per condition of the sanction, DPL, after meeting the need of the consumers in the area for which the sanction was given, is to provide the surplus power to the WBSEB.

2.1.2 DPL have contended in the petition that they had appealed before the Hon'ble High Court at Kolkata against the tariff order dtd. 21.9.2001.passed by the Commission for the FY01 & FY 02 in Case Nos. T.P.4 of 2000-01 and T.P.5 of 2001-02 respectively and also filed an interim application for Stay of Operation of the Commission's said tariff order. DPL have, therefore, been charging their consumers the tariff that was prevailing immediately before 21.9.2001.

2.1.3 DPL have further asserted that their tariff was last revised in May,1999, and since then costs of DPL's power plant operations have increased substantially and according to their projection the uncovered gap between ARR for 2002-03 and the projected revenue based on existing tariffs is around Rs. 5549.32 lakhs.

2.1.4 The DPL have proposed a hike in tariff by about 16.6% and given the following break-up of the total revenue requirement:

	FY2002-03 (Rs.- Lakhs)
Cost of generation	23693.75

Stores	851.11
Utilitites : Water	892.12
Purchase of Power	0.00
Employees' cost	1661.07
Ash disposal	10.00
Repairs and Maintenance	688.30
Miscellaneous Expenditure written off	27.66
Administrative & General expences	2332.03
Auditors fees	0.10
Rent, rates & taxes	1.00
Insurance	75.00
Guarantee fees	308.11
Provision for Doubtful Debts	22.06
Depreciation	3773.07
Interest	4704.36
Total Expenditure	39039.74
Reasonable Return	272.30
Special Appropriations	0.00
Aggregate Revenue Requirement	39312.04

The expected revenue from the current tariffs and the proposed tariffs were as follows:

		2002-03 (Rs.- Lakhs)
1	Aggregate Revenue Requirement	39312.04
2	Government subsidy	0.00
3	Net Revenue Requirement (1-2)	39312.04
4	Rebate availed by the consumers (cash)	0.00
5	Other Income	334.50
6	Revenue required from sale of Power (3+4-5)	38977.54
7	Revenue from sale of Power at existing tariffs	33428.22
8	Incremental revenue from proposed tariff Revision(6-7)	5549.32
9	% Increase in Tariffs sought (8/7)	16.60

1.5 They have indicated that they have based their calculations following the financial principles enshrined in the Sixth Schedule to the Electricity Supply Act,1948. They have claimed that they have attempted to reduce cross-subsidy and rationalize the tariffs structure by proposing to reduce the number of basic tariff rates in the HV category from five to two. They have also emphasized their efforts to reduce T&D loss.

2.1.6 They have sought to introduce the concept of fixed charges to certain categories of consumers. They have also proposed to withdraw the minimum charge for the LV consumers. Revision in concession rate have also been proposed.

2.1.7 They have indicated that the generating units which were programmed for RUM are expected to be fully stabilized during 2002-03 and achieve an overall PLF of 60% at which full fixed cost recovery have been

requested.

2.1.8 They have requested to look at any omissions or shortcomings in submissions of data sympathetically and accept the tariff proposal.

2.2 Claim for the year 2003-04

2.2.1 According to the petition in question, the DPL is a sanction holder under section 28 of the Indian Electricity Act,1910.The sanction was granted by the GOWB on 28.6.1964.As per condition of the sanction, DPL, after meeting the need of the consumers in the area for which the sanction was given, is to provide the surplus power to the WBSEB.

2.2.2 DPL have contended in the petition that they have appealed before the Hon'ble High Court at Kolkata against the tariff order dtd. 21.9.2001.passed by the Commission for the FY01 & FY 02 in Case Nos. T.P.4 of 2000-01 and T.P.5 of 2001-02 respectively and also filed an interim application for Stay of Operation of the Commission's said tariff order. DPL have, therefore, been charging their consumers the tariff that was prevailing immediately before 21.9.2001.

2.2.3 DPL have further asserted that their tariff was last revised in May,1999, and since then costs of DPL's power plant operations have increased substantially and according to their projection the total uncovered gap between ARR for 2003-04 and the projected revenue based on existing tariffs is around Rs. 8747.15 lakhs.

2.2.4 The DPL have proposed a hike in tariff by about 30.5 % and given the followingbreak-up of the total revenue requirement :

	FY 2003-04 (Rs.- Lakhs)
Cost of generation	22574.87
Stores	900.00
Utilitites : Water	1202.08
Purchase of Power	0.00
Employees' cost	1710.65
Ash disposal	12.00
Repairs and Maintenance	957.22
Miscellaneous Expenditure written off	3.31
Administrative & General expences	2279.07
Auditors fees	0.15
Rent, rates & taxes	1.00
Insurance	80.00
Guarantee fees	142.43
Provision for Doubtful Debts	29.09
Depreciation	3017.04
Interest	4243.79
Total Expenditure	37152.69
Reasonable Return	201.99
Special Appropriations	264.27
Aggregate Revenue Requirement	37618.96

The expected revenue from the current tariffs and the proposed tariffs are as follows:

		2003-04 (Rs.- Lakhs)
1	Aggregate Revenue Requirement	37618.96
2	Government subsidy	0.00
3	Net Revenue Requirement (1-2)	37618.96
4	Rebate availed by the consumers (cash)	0.00
5	Other Income	233.04
6	Revenue required from sale of Power (3+4-5)	37385.92
7	Revenue from sale of Power at existing tariffs	28638.76
8	Incremental revenue from proposed tariff Revision(6-7)	8747.15
9	% Increase in Tariffs sought (8/7)	30.5

2.2.5 They have indicated that they have based their calculations following the financial principles enshrined in the Sixth Schedule to the Electricity Supply Act,1948. They have claimed that they have attempted to reduce cross-subsidy and rationalize the tariffs for the various classes of consumers by proposing to bring the average tariff closer to the cost of supply. They have also emphasized their efforts to reduce T&D loss.

2.2.6 They have sought to introduce the concept of fixed charges to certain categories of consumers. Revision in concession rate have also been proposed.

2.2.7 They have requested to look at any omissions or shortcomings in submissions of data sympathetically and accept the tariff proposal.

2.3 Claim for the year 2004-05

2.3.1 According to the petition , the DPL is a sanction holder under section 28 of the dian Electricity Act 1910.The sanction was granted by the GOWB on 28.8.1964. After meeting the requirement of the consumers in the area for which the sanction was given the DPL is to sell the surplus power to the WBSEB. As per section 14 of the Electricity Act,2003, the DPL is a deemed licensee now.

2.3.2 DPL filed the petition in accordance with the Conduct of Business Regulations (CBR) of the Commission, The Electricity Regulatory Commission Act, 1998 and the Electricity Supply Act, 1948 in terms of the proviso to Section 61 of the Electricity Act, 2003.

2.3.3 DPL's tariff order passed by the Commission for 2000-01 and 2001-02 has been set aside by the Hon'ble High Court, Calcutta and remanded back to the Commission for re-determination as per the Court order. DPL is charging its consumers at the tariff rate approved in May, 1999 by the GOWB and has submitted the calculation and computation of the tariff proposal for the financial year 2004-05 on the basis of May,1999 tariff rate.

2.3.4 It has been contended that the total costs of DPL's power plant operations have increased substantially since the last tariff revision in May, 1999 and if the existing tariffs are not increased DPL's financial position would worsen.

2.3.5 The DPL has proposed a hike in tariff by about 8.9% and has given the following break-up of the total revenue requirement :

		FY2004-05 (Rs.- Lakhs)
1	Cost of generation (fuel)	20905.53
2	Stores	559.50
3	Utilitites : Water	1137.70

4	Purchase of Power	0.00
5	Employees' cost	1868.05
6	Repairs and Maintenance	1305.79
7	Ash disposal	426.82
8	Miscellaneous Expenditure written off	31.61
9	Administrative & General expences	1851.19
10	Auditors fees	0.16
11	Rent, rates & taxes	0.83
12	Insurance	65.00
13	Guarantee fees	116.53
14	Provision for Doubtful Debts	42.60
15	Depreciation	3147.64
16	Interest	6304.78
17	Total Expenditure	37763.63
18	Add: Surplus /Resonable Return	181.98
19	Add Special Appropriations Contingincy Reserve	266.05
20	Revenue Requirement	38211.66

The expected revenue from the current tariffs and the proposed tariffs are as follows:

		2004-05 (Rs.- Lakhs)
1	Aggregate Revenue Requirement	38211.66
2	Government subsidy	0.00
3	Net Revenue Requirement (1-2)	38211.66
4	Non Tariff income	305.42
5	Revenue required from sale of Power (3-4)	37906.24
6	Revenue from sale of Power at existing tariffs	34811.00
7	Incremental revenue from proposed tariff Revision(5-6)	3095.24
8	% Increase in Tariffs sought (7/6)	8.89%

2.3.6 It is stated that DPL has followed the financial principles enshrined in the Sixth Schedule of the E. S. Act 1948 for calculation of its reasonable expenditure including return. They have claimed that they have attempted to reduce the cross-subsidies and rationalize the tariffs for the different classes of consumers. By taking appropriate actions they have indicated to have been able to reduce the T&D loss from 21% in the FY 2000-01 to about 7% during the FY 2003-04 and proposes to maintain the same during the year 2004-05.

They have sought to introduce fixed charges in certain categories of consumers. They have proposed to revise the concession rates to new as well as existing industries and restrict it to industries having load factor above 75%.

2.3.7 They have indicated to have incurred a loss of Rs.8300 .70 lakhs during the years 2001-02 and 2002-03 as disclosed in their Audited Accounts and has requested to allow it as special appropriations in the ARR for 2004-05 and convert it into Regulatory Asset to be amortised in 2/3 years.

2.3.8 They have proposed that the actual performance be compared with the projection at the year end and any deviations arising out of factors beyond the control of DPL may be allowed to be recovered through tariff in subsequent years. According to them such a mechanism is crucial for financial viability of a utility.

2.3.9 They have prayed for acceptance of their tariff proposal and condonation of the omissions or shortcomings in submissions of data.

CHAPTER 3 : OBJECTIONS IN WRITING.

3.1 Objections on the Petitions for 2002-03 and 2003-04 :

3.1.1 Objections by Nagarik Suraksha Committee

The objector has indicated that it is a Society registered under the West Bengal Societies Registration Act, 1961 and a Consumers Association. It has applied for registration with the Commission.

It has pointed out that as per DPL's own admission the loss in the 11 KV network will be in the range of 3-9% yet nearly 75% of the cost of the lost units are being passed on to the HV consumers. Thus DPL have made no attempt to reduce cross subsidy in the tariff proposal of 2001-02 in contrary to their claims and are, therefore, against the principles of the ERC Act and the CBR.

It has claimed that there exists no occasion for upward revision in tariff for 2001-02 on the contrary it should be reduced if the cost of coal requirement is calculated as per heat rate (2902 Kcal/kwh) and grade of coal (grade D) indicated to be achieved after RUM of the generating units.

DPL are traditionally reporting the T&D loss in the range of 3-9% in its system so DPL's claim of T&D loss of 20% in the tariff petition of 2001-02 is unjust and arbitrary because of small length of transmission and distribution network. The sub- stations are located within 3-4 KM area from the generating station. Moreover, the domestic consumers are properly metered. For failure of DPL to check pilferage/theft, metered consumers can not be penalized.

Although located in the coal belt area, DPL are procuring coal from distant places like Orissa. PLF in 2001-02 have been projected as 34.56% against normative of 68.5%

DPL are supplying electricity to WBSEB at generating cost i.e. without any line loss and the loss is being recovered from other consumers.

The objector has contended that the facts/data/documents disclosed by DPL are insufficient, misleading, inconsistent and justified a reduction in the tariff.

3.1.2 Objections by Durgapur Chemicals Limited

The objector has stated that it is a wholly owned GOWB Undertaking and producing basic chemicals like Caustic Soda Lye etc. Presently the Company is unable to realize the fixed cost and dependent on Govt. assistance. Electricity is on of the major raw materials for production, claimed by the objector and electricity cost alone works out to Rs.8730 to produce one M.T. of Caustic Soda out of average price realization of Rs.11350 per M.T. So any substantial increase in power tariff will jeopardize the viability of the Company. So they are against any tariff hike of DPL applicable to them.

3.1.3 Objections by Durgapur Industrial Power Consumer's Association

The objector has stated that it is a society registered under the W.B. Society's Registration Act, 1961. It is the primary objection of the Association that the Commission have not framed regulations prescribing the manners for determining the charges as required under sections22,29, and 58D of the ERC Act.

Commission feels that this objection is frivolous as there are set of regulations in the CBR (as amended) as required under Section 29 of the ERC Act, 1998. The objection, therefore, needs no further consideration.

The objector has also mentioned about shortage of time allowed for filing objections.

Commission feels that ideally the power tariff of an utility should be fixed at the beginning of the financial

year and the utility is to submit their petition latest by 31st December of the preceding year. Hence, the entire process of fixing the tariff is required to be completed in 90 days. In the instant case, public notification inviting objections was published on 10th January, 2003 and last date of submitting objections was 28th January, 2003 which itself was adequately long. Time constraint would not permit longer periods for filing of objections by prospective objectors.

The objector has mentioned that non-implementation of Commission's tariff order dt.21.9.01 by the DPL is causing problems to the industries represented by the objector and is a punishable offence under the ERC Act, 1998.

Commission points out that the tariff order dt. 21.9.01 has been set aside by the Hon'ble High Court, Calcutta and the matter has been remanded back to the Commission for re-determination of the tariff as per court order. The same is now lying with the Commission.

The objector has stated that DPL have made neither economical use of the resources nor an optimum investment by doing RUM & LEP for augmenting the generation capacity when the existing demand is not more than 100 MW in DPL's command area.

The objector is against any form of cross subsidy in the tariff structure as the same is not permissible under the Act.
The Commission feels that this particular issue in another case is lying before the Hon'ble Supreme Court of India for decision and hence need not be taken up here.

The objector has emphasized that DPL are to operate its generating units at the minimum level of performance assured by them at the time of taking up RUM & LEP works. Average coal consumption of 0.635 kg / kwh, oil consumption of 3.5 ml / kwh, average heat rate of appropriate value and auxiliary consumption of 9.5% should be guiding parameters instead of what have been projected in the tariff proposal.

The objector has urged that normative PLF of 70% might be considered for recovery of full fixed charge as determined by CERC.

The objector is against loading of unjustified high loss to high voltage consumers as proposed in the tariff petition by DPL.

The objector feels that with the improving level of efficiency the tariff will be reduced from the level of 2001-02 instead of increase as proposed by the DPL.

3.1.4 Objections by WBSEB

The objector is purchasing power from DPL at 132/220 KV in an interconnected mode though no formal Aggrement for such transaction exists. The tariff chargeable to the objector in terms of the Commission's order dt. 21.9.2001 is 170 Paise / Kwh but the petitioner (DPL) is claiming @ 162 Paise / Kwh approved by the State Govt. in 1999. The petitioner have proposed a tariff of 200 Paise / Kwh chargeable to the objector for 2002-03 and 220 Paise/Kwh for 2003-04. According to the objector since their drawal of power is metered at the power station switchyard, the chargeable tariff to them should cover only the sent-out generation cost plus Reasonable Return and the same works-out at 159 Paise / Kwh for 2002-03 and 165 Paise/Kwh for 2003-04 on the basis of parameters given in their written objection. Fixation of any tariff higher than 159 Paise / Kwh or 165 Paise/Kwh will tantamount to extension of cross subsidy by the consumers of the objector to the consumers of the petitioner.The objector is also purchasing power from the petitioner at 33 KV and 11 KV. According to the objector the tariff proposed by the petitioner for 33 KV supply at 210 Paise / Kwh and for 11 KV supply at 216 Paise / Kwh for 2002-03 chargeable to the objector is unreasonable and should reasonably be fixed at 161 Paise / Kwh for 33 KV supply and 164 Paise / Kwh for 11 KV supply .For the year 2003-04 the tariff applicable to the objector should be 167 Paise/Kwh for 33 KV supply and 170 Paise/Kwh for 11 KV supply.

3.1.5 Points raised by Commission Officials :

DPL in the report for Renovation and Modernization indicated that the Plant availability will be minimum 80%. They also gave the following data in the report based on which approval from the competent authority was obtained :

Specific Consumption of Coal	0.635 Kg/KWH
Specific Consumption of Oil	3.5 ml/KWH
Availability factor	more than 80%
PLF	68.5%
Heat rate	2962 kcal/KWH
Auxiliary Consumption	9.5%
Generation	1746.17 MU
Cost of Generation per unit	108 paise
Extension of life	20 years.

They also indicated that for first 10 years, PLF will remain 68.5%, 11th year to 15th year 67.5% and at 20th year it would be 56%. They projected overall T& D loss as 2.5% and sale price at 125 Paise / Unit .

In the Petition for 2003-04 DPL have projected their Plant availability ranging between 60 and 84% and PLF ranges between 10 and 64.34 % for their Units after RUM.

It is found from the report on RUM and LEP that the Units have gone down after RUM and LEP which is supposed to improve for which expenditure to the tune of Rs.363.00 crores have been incurred. DPL is requested to intimate what action has been taken for defective design and / or poor quality of supply / workmanship?

It is observed in the Petition for FY 2003-04 that DPL requires 30% of grade B and 60% of grade C coal for their Boilers and Specific Consumption of coal has been projected as 0.70 kg/kwh. In their Project Report for RUM and LEP , requirement of coal was of grade D and Specific Consumption was 0.635 kg/kwh.The reason for such deviation may be explained.

Out of 20,000 domestic consumers, 600 defective domestic meters and 10 in public lighting have not been replaced. Why it cannot be completed within a year.

Projections for net sent -out generation for 2002-03 has been shown as 1896.9 MU in the tariff petition but the same has been projected as 1166.37 MU in the tariff petition for FY 2003-04. Why such huge difference in projection of same figure in the two petitions?

It is observed from the projection for T & D loss for 2002-03 that with the increase of sale in HT , the T & D loss is still to the tune 14.14% . DPL is requested to furnish Energy Audit Report , if carried out in the recent past.

3.1.6 Objections by Jai Balaji Sponge Limited

The objector felt that the tariff proposal submitted by the DPL was irrational.

DPL asked for 14% T&D loss for FY 04 which was higher than the level achieved in FY 02. The objector felt that T&D loss should be lower than the level already achieved.

The objector claimed that the Load Factor Concession be continued and Late Payment Surcharge be reduced from 2% to 1.25%.

3.2 Objections on the Petition for 2004-05:

3.2.1 Objections by WBSEB

The surplus power of DPL is sold to WBSEB at 132/220 KV in interconnected mode but no formal Agreement for the same exists The terms and conditions including tariff for the power supply which were decided by the GOWB in 1999 have been continuing till now as the tariff order dated 21.9.2001 of the Commission has been set aside by the Hon’ble High Court, Kolkata and remanded back to the Commission for re-determination.

The DPL has proposed a tariff of 211 Paise/Kwh for 2004-05 for power supply to WBSEB against 170 Paise/KWH fixed by the Commission in its order dated 21.9.2001 for 2001-02. WBSEB is of the opinion that since their drawal of power at 132/220 KV is metered at the power station switchyard of DPL the chargeable tariff should cover only the sent out generation cost plus Reasonable Return.

The Applicant is also purchasing power from the petitioner at 33 KV on radial mode for supply to its consumers. There is no Agreement for such supply and the petitioner is claiming at the rate 174 Paise/KWH i.e. the rate fixed by the GOWB in 1999. The petitioner has proposed a rate of 222 Paise/Kwh for the supply for 2004-05. Since this drawal of power is also metered at the petitioner's switchyard the Applicant proposes that the applicable tariff should cover only the sent-out generation cost plus a margin to cover the transmission loss and the admissible Return.

WBSEB has pointed out that the depreciation rate claimed by the petitioner is high compared to the previous years.

The Applicant is of the view that the proposal of the petitioner for allowing special appropriation for the losses incurred in 2001-02 and 2002-03 should not be considered as the tariff for the relevant years is yet to be finalized. Moreover, as the admissible amount for the different elements of revenue requirement is judiciously determined by the Commission the question of reimbursing the loss in subsequent year's tariff does not arise.

The Applicant has proposed that the accumulated interest and penal interest need be disallowed as interest burden claimed for 2004-05 is too high.

The expenses towards water and ash disposal charges estimated for 2004-05, according to WBSEB, is not consistent with the previous years.

CHAPTER-4 : REPLY OF DPL.

4.1 Reply to the Objections for 2002-03 and 2003-04

4.1.1 Reply to the objections of Nagarik Suraksha Committee

The objector used the figures of the tariff petition for 2001-02 which was not valid for tariff petition for FY 2002-03.

Regarding T&D loss of 3-9% traditionally reported as pointed out by the objector, the DPL replied that the T&D loss reflected in the tariff petition for 2002-03 was 19% of the energy input in the DPL system which was net of the energy supplied to WBSEB since sale to the latter happens at the bus bar. Traditionally for computation of T&D loss percentage, the total losses within the DPL system as a ratio of the total energy input into the system were assumed and hence the percentage was low. Since DPL had reflected on a new base for assessment of losses i.e. energy input in the DPL system (which being net of sale to WBSEB) different results of T&D loss were observed. However, DPL had taken several measures to check the commercial losses and steps initiated to augment & renovate the T&D network. Reported data indicated that the loss levels could be much less than projected for 2002-03, claimed by DPL.

On the observation made by the objector that 75% of the cost of units lost was being passed over to industrial consumers, DPL replied that it was not based on factual details. Cost of units lost did not reflect the extent of cross- subsidisation, it had been merely calculated to compute the cost at different voltage levels.

On the objection against using C grade coal, DPL replied that they were making efforts to source better grade coal for their renovated station to reduce the wear and tear of the plant and machinery. Moreover, lower grade coal had to be sourced from Orissa where losses in transit were very high.

On the cost of coal calculated by the objector, DPL pointed out that the station Heat Rate assumed by the objector was based on target set by DPL for its units after RUM but after completion of the RUM program it had been seen that the operational parameters as expected could not be fully achieved but generation had increased manifold and tremendous improvements observed in other operational parameters. DPL claimed that the RUM program was one of its kind in the country, with no prior experience of the likely improvements to be expected in the efficiency of the plant.

DPL claimed that they had already taken actions for 100% metering including installation of check meters for monitoring industrial consumption. This would reduce T&D loss. They were also stepping up raid programme to check pilferage of energy.

On the question of T&D loss on energy supplied to WBSEB, it was stated that supply to WBSEB was being metered at the generating station bus bar and billed accordingly and hence no transmission loss was involved.

4.1.2 Reply to the objections of Durgapur Chemicals Limited

Against the objection of DCL that any tariff increase would be injurious to its interest, DPL claimed that the operational cost of them had increased substantially since the last revision and hence if the existing tariffs were not increased their financial position would worsen and impact their ability to service their consumers.

4.1.3 Reply to the objections of Durgapur Industrial Power Consumers' Association

DPL did not agree to the contention of the objector that the expenditure on RUM was contrary to the principle of optimum investment. DPL claimed that (1) RUM was planned after carrying out a residual life study of the units, (2) RUM program was one of its kind in the country, with no prior experience of the likely improvements in the efficiency of the plant, (3) the entire program was carried out at almost one-fourth the capital cost of a new unit, (4) generation had increased manifold, (5) the consumers would continue to get supply at a relatively cheaper cost for another 20 years, (6) thus the capital expenditure on RUM program had been a success.

DPL justified capacity extension of the generating units through RUM by submitting that the local load in the DPL area was increasing tremendously resulting in shrinkage of surplus power being sold to WBSEB.

On the point of cross subsidy DPL submitted that they were gradually rationalizing the tariffs for various types of consumers.

As to the objections on levels of performance DPL submitted the same as in para 4.3.1 above. They added further that (1) the targets of operational parameters were ambitious as they were meant at par with new units, (2) the stringent targets on operational parameters as expected could not be fully achieved from the station, (3) however, tremendous improvements had been observed in other operational parameters.

Regarding irrational loading of high loss, DPL had submitted the same as in paragraphs 4.1.2,4.1.3 and 4.1.6.

4.1.4 Reply to the objections of WBSEB

On the point of cost of supply for sale to WBSEB, DPL clarified that the sent out generation cost along with the Reasonable Return formed the input cost for determination of tariff and no T&D loss had been assumed as the sale took place at generating station bus bar. However, according to them estimated generation cost was 200 Paise / Kwh. For sale at 33 KV and 11 KV, the tariff included a part of the transmission and service charges at 5% and 8% respectively.

On the operating parameters assumed by the objector for calculating the cost of supply, DPL submitted the same arguments as in earlier paragraph towards non achievement of expected improvement in the efficiency after RUM. Cost of generation for FY 2002-03 at 132 KV, according to DPL, was 200 Paise/Kwh and the tariff proposed for WBSEB was closely following the cost of supply.

4.1.5 Reply to the points raised by the Commission Officials.

DPL has already placed the latest facts on the renovation and modernization program. The RUM works were undertaken after carrying out a residual life study of the depreciated units. The program was one of its kinds in the country, with no prior experience of the likely improvements to be expected in the efficiency of the plant. However, DPL set a performance target to be achieved . The targets were ambitious as they were meant to be at per with new units. The entire RUM program was carried out at almost one-fourth the capital cost of a new unit. This meant that post the success of RUM program, DPL consumers would have the benefit of a generating capacity for another 20 years set up at much less cost than it takes to set up a new generating station. After completion of the RUM program it has been seen that the stringent target on

operational parameters as expected from the station could not be fully achieved. However, the generation has increased manifold and tremendous improvement have been observed in other operational parameters.

The operational parameters furnished by DPL were based on the assumption that quality of coal will be grade D whose GCV is 5000 to 5800 Kcal/Kg. However, the required quality and quantity of coal was never available. This has been also one of the major reasons for non- achievement of the specified parameters.

The oil consumption as envisaged in the report could not be achieved as continuous oil support had to be given to the Boiler as quality of coal was of inferior grade . Similarly for on account of feeding inferior grade of coal to the Boiler, the mill capacity was stretched to the maximum resulting in increase in the auxiliary consumption. This also impacted the Boiler efficiency and subsequently the Station Heat Rated.

In the projection for 2003-04, there is a wide gap between availability & PLF for the Units 1 & 2 . This is on account of inferior quality of coal available for generation in the renovated units than the quality of coal contractually prescribed for achieving generation equivalent to 68.5% PLF. In Units 3,4 & 5 a reasonable generation in the range of 54% to 64% has been projected, with lesser oil support in spite of the low grade of coal, due to the higher volume of the furnace in comparison to Units 1 & 2 . The lower volume of furnace makes it difficult to run the Boiler 1 & 2 without oil support (due to low grade of coal). Hence in spite of the high availability, the Units 1 & 2 cannot be run in a sustained manner and a low PLF has been projected.

DPL states that it does not agree with the contention that the renovated units have gone down after RUM & LEP. There has been definite improvement in PLF from the pre-RUM & LEP period, which was at 18.29% and enhanced to 36% during FY 2002-03. During FY 2003-04 the PLF has been projected at 51% .

The loss of generation was mainly in Unit-1 due to the accidental failure of its generator .As the contractor was not responsible for this accidental failure, DPL has lodged a claim of compensation from the Insurance Company through the contractor as per terms of the contract. DPL has received a part of the compensation and the balance is expected to be received soon.

In the contract with RUM & LEP contractor, there were clauses for imposition of penalties for non-achievement of guaranteed parameters. The imposition of penalty on the contractor, in respect of achieving guaranteed parameters, would be dependent on the PG test reports of all Units. DPL will apprise the Commission on the results of such tests and the penalty, if imposed.

DPL states that it has 20,000 domestic consumers which is increasing by about 500 nos. per year. Many of the connections are very old and meters at times are found defective due to aging. While DPL continues to replace defective meters, at the same time newer meters add to the defective category. Attempts are being made to minimize it to the extent possible through appropriate monitoring and procurement of new meters.

Regarding difference in the projection of sent out generation for FY 03 in the Petition for 2002-03 and 2003-04, DPL submits that the Tariff proposal for FY 03 was submitted in Dec'01 based on the available data at that point of time. However, in the Tariff Petition for FY 04, the sent out generation for FY03 was reassessed on the basis of latest available data.

On the question of high T&D loss projected in the Tariff petition for FY03, DPL states that it is under the command area of DVC and is compelled to supply power at 11 KV or below. Although most of the industrial consumers of DPL have a load demand above 1500 KVA calling for supply at 33 KV or above, power is supplied to these consumers at 11 KV resulting in increased loss. DPL is considering for carrying out an Energy Audit.

4.1.6 Reply to the objections of Jai Balaji Sponge Limited

DPL claimed that by increasing the tariff of subsidized categories by a larger extent, as compared to the tariff for subsidizing categories they had attempted to reduce the cross subsidy.

As regards T&D loss, DPL stated that technical loss in their system was high as they were required to supply power at 11 KV to high voltage consumers having more than 1500 KVA load because of restriction imposed by DVC Act. Their T&D network was developed 40 years back and hence needed renovation. They claimed to have undertaken several measures to reduce loss viz. strengthening of T&D network, installation of check meters, steps towards 100% metering, regular raid program etc.

Regarding Load Factor Concession, DPL was of the opinion that in a two part tariff no such concession was called for separately as the same was in built in the tariff.
DPL was against any downward revision of late payment surcharge.

4.1.7 Deliberations during hearing

During hearing CMD, DPL stated that the tariff application for 2002-03 was filed in December,2001. The various assumptions on operational parameters were based on the information available at that point of time. Many of such assumptions now differed on account of significant changes in the operating conditions. He pointed out that the RUM and LEP program though a success in many areas, could not reach the desired level as was expected for at the initial stages. In the tariff application for 2003-04, DPL had attempted to redraw the revenue requirement for the year 2002-03.

Commission asked DPL whether they proposed to continue concessional rates for industries. In reply, CMD, DPL, intimated that their tariff proposal was based on the assumptions of continuing the concessional rates but DPL would honour the decision of the Commission in this respect. Commission also raised questions on high water charges and huge outstanding dues and enquired about the quantum of penalty imposed and recovered from RUM and LEP contractor for non-fulfillment of agreed parameters/terms. On enquiry by the Commission WBSEB replied that they could draw only the off-peak power from DPL at variable cost. DPL was allowed 15 days' time for submission of their replies.

Representatives of Durgapur Chemicals Limited, Durgapur Industrial Power Consumers Association and W.B.S.E.B confined their deliberations within the points mentioned in their respective written objections.
Representative from M/s. Corporate Ispat Alloys Ltd, who did not submit any written objections, raised identical points as in paragraph 3 before and the replies from the CMD, DPL were also identical.

4.2 COMMISSION'S ANALYSIS ON THE PETITION FOR 2004-05.

4.2.1 Legal Issues :

DPL filed the tariff petition for 2004-05 on 29.12. 2003 when the Electricity Act, 2003 was in operation but they submitted the petition as per terms and conditions for determination of tariff under the Electricity Regulatory Commission act, 1998 and the Electricity Supply Act, 1948 as the Commission till then could not issue the terms and conditions for determination of tariff as per the Electricity Act, 2003. Now a question may arise whether the tariff petition of DPL, which had been submitted as per the Regulatory Commission act of 1998, can be processed under the new Act. Proviso to section 61 of the new Act has made the legal position clear in this matter. It says that the terms and conditions for determination of tariff under the Electricity (Supply) Act ,1948, the Electricity Regulatory Commission Act,1998 shall continue to apply for a period of one year or until the terms and conditions for determination of tariff under the new Act are specified, whichever is earlier. This being the legal position the Commission accepted the tariff petition filed by DPL for 2004-05 and issues this tariff order under the Electricity Act,2003

Tariff Orders of the Commission for FY01 and FY02 were appealed against by the DPL in the Hon'ble High Court, Calcutta and the Hon'ble Court setting aside the two orders has directed the Commission to re-determine the same on the basis of the Court Order. The tariff orders for those two years on the basis of directions of the Hon'ble Court have been issued separately.

4.2.2. Objections by WBSEB :

Regarding WBSEB's contention of fixing the tariff applicable to them on cost plus basis it can be stated that sale of energy in the DPL system is predominantly at high voltage and LT sale is less than 4% of the total projected sale of 1558 MU for 2004-05. Thus the element of cross-subsidy in the total tariff structure, if at all be there, will be insignificant and the HT tariff will practically approach cost of supply.

Regarding high rate of depreciation, increased interest burden and excess water and ash disposal charges projected by the DPL, as pointed out by the WBSEB, the matters have been dealt at the appropriate places.

WBSEB has rightly pointed out that since the tariff orders for FY 2001-02 and 2002-03 in respect of DPL have not yet been issued the question of incurring any loss in those years and allowing special appropriation for that in the tariff for 2004-05 does not arise.

CHAPTER-5 : REVENUE REQUIREMENT FOR 2002-03.

In this chapter, the Commission will assess revenue requirement for 2002-03.For determining the revenue requirement, the Commission will assess the variable cost relating to fuel and purchase of power, fixed cost and reasonable return.

5.1 Generation ,Sale and T & D loss .

Durgapur Projects Limited (DPL) is a sanction holder under section 28 of I.E.Act,1910 and supplies power in its command area of around 120 sq.km. in Durgapur City under West Bengal to different consumers at EHV,HV and LV.

5.1.1 GENERATION

DPL has a coal fired thermal power station at Durgapur which after meeting its local demand supplies the surplus power to the WBSEB. The station has six units of total installed capacity of 397 MW which was derated to 387 MW in 2000-01. Units 1 to 5 have an average vintage over 38 to 44 years while the sixth unit has been in operation for the past fifteen years. DPL had undertaken RUM&LEP work on the first five units in late 1998-99 to increase the life and capacity of the plant to 401 MW after the said work which was initially scheduled to be over by 31st.March, 2001. However, this was delayed due to various problems during stabilization period and DPL rescheduled the completion date to be by the end of 2001-02. The RUM program was expected to increase the station availability to more than 80%. It was also expected to improve efficiency in fuel consumption and auxiliary power consumption. DPL therefore projected a higher gross generation level of 2107 MU (at a PLF of 60%) for the financial year 2002-03. The auxiliary consumption was also projected to decline from 11.11% in 2001-02 to 10% in 2002-03. The details are shown in the following Table:

DPL Power Stn.	FY 2000-01(Actual) Generation (MU)	FY 2000-01(Estimate)		FY 2002-03(PROJ)	
		Gen. (MU)	PLF (%)	Gen. (MU)	PLF (%)
Unit No. 1	0.01	0.69	026%	93	35%
Unit No. 2	25.60	58.19	22.14%	100	38%
Unit No. 3	0.06	73.00	11.90%	414.4	61%
Unit No. 4	22.04	365.40	59.59%	418.26	62%
Unit No. 5	40.61	213.06	31.59%	425	63%
Unit No. 6	507.24	461.24	47.87%	660	68.5%
Gross Generation	595.56	1171.58		2107.65	
Aux. Consumption	14.17%	11.11%		10%	
Net Generation	511.15	1041.44		1896.89	
Plant Load factor (%)	25%	34.56%		60%	

DPL while submitting the tariff petition for 2003-04 revised their projection of generation for the year 2002-03 on the basis of latest figures of actual generation achieved which was far below the earlier expectation. DPL clarified that the achievements in 2002-03 were lower than expected mainly due to the non-availability of proper grade of coal and instances of outages due to technical reasons. The loss of generation was mainly in Unit –1due to the accidental failure of generator for which DPL has lodged a claim of compensation from the Insurance Company. .

As the year 2002-03 is already over the actual generation figures are available which are given below along with their revised estimate.

DPL Power Stn.	FY 2002-03(R.E)		FY 2002-03(Actual)	
	Gen. (MU)	PLF (%)	Gen. (MU)	PLF (%)
Unit No. 1	17.21	6.55%	18.24	6.94%
Unit No. 2	15.35	5.84%	17.14	6.52%

Unit No. 3	329.33	48.82%	277.19	41.09%
Unit No. 4	215.30	31.92%	251.68	37.31%
Unit No. 5	360.94	53.51%	353.63	52.43%
Unit No. 6	361.86	37.55%	441.12	45.78%
Gross Generation	1300		1359.00	
Aux. Consumption	10.76%		11.06%	
Net Generation	1160		1208.70	
Overall PLF(%)		38%		38.69%
Availability(%)		43%		56.99%

From the above it is seen that the actual performance is far below the projection submitted by DPL originally but more than their revised projection of 1300 MU. Actual generation has been obtained from the Audited Accounts submitted by the DPL along with their tariff petition for 2004-05. The actual generation exceeds the revised projection by about 4.5% on a small base of 1300 MU, as such for the purpose of tariff determination, actual generation of 1359 MU has been considered by the Commission. The actual aux. consumption of 11.06% is considered high especially since the units have just completed RUM&LEP work.

A number of objectors have pointed out that DPL has failed to achieve the level of performance indicated in the RUM/LEP report. The objectors urge that DPL should not be allowed full fixed cost for inefficient performance of their generating units. Commission also asked clarification from the DPL for non-achievement of the operational parameters as per the RUM / LEP report.

In reply, DPL has clarified that the RUM and LEP program is one of its kinds in the country, with no prior experience of the likely improvements to be achieved in the efficiency of the plant. However, DPL set a performance target in association with its contractors, in terms of the likely PLF to be achieved, heat rate improvement expected, specific coal/oil consumption, auxiliary consumption etc. The DPL has stated that the targets were ambitious as they were meant to be at par with new units. DPL has claimed that the entire RUM program has been carried out at almost one fourth of capital cost of a new unit. It means that post the success of RUM program DPL consumers will have the benefit of a generating capacity for another 20 years set up at much less cost than it takes to set up a new generating station. After completion of the RUM program, it has been observed that the stringent targets on operational parameters as expected from the station could not be fully achieved but the generation has increased manifold and tremendous improvements have been observed in other operational parameters as stated by them.

DPL further pointed out that in the RUM and LEP report, quality of coal assumed was of grade D but after commissioning of all the units, the required quality and quantity of coal as per project report and contract was never available. This had been another major reason for non-achievement of specified parameters as envisaged in the project report. Due to feeding of inferior grade coal to the boiler, station heat rate, oil consumption, auxiliary consumption increased. The generation from Units 1 & 2 was poor as they could not be run in a sustained manner without oil support on account of inferior quality of coal.

The Commission is not fully convinced at the explanation given by the DPL towards non- achievement of the operational parameters as per project report which was approved by the CEA. The Commission feels that the DPL should improve the efficiency of their power station so as to achieve the targeted parameters.

Commission cannot ignore the objections raised by many of the objectors that since DPL has carried out RUM & LEP at an investment of more than Rs.363 crores, the operational parameters that were targeted to be achieved in the RUM & LEP report should be considered for fixation of tariff. However,since the Commission has not yet finalized the operating parameters of the Power Stations through Regulations, the parameters as approved by the GOWB have been accepted for the present.

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5.1.2 ASSESSMENT OF SALE

The local load of DPL consists of industrial, domestic, commercial and public lighting supply within a command area of around 120 sq.Km. The H.T. Industrial load consist of around 86% of the total load excluding bulk sale to WBSEB.

DPL supplies power at 11KV to consumers with a contract demand of 50KVA and above and at medium /low voltage to consumers with a contract demand below 50KVA. In addition DPL also supplies energy to WBSEB at 220/132KV and 33/11KV. While the supply at 11 & 33KV meets the local demand of the area under WBSEB, the supply at 132/220KV is the sale of surplus energy generated by DPL and fed into the grid. The projected as well as actual sale of power for 2002-03 are shown below:

Category of Consumers	FY01(Actual) Sale in MU	FY02(Actual) Sale in MU	FY03(Projection) Sale in MU	FY03(Actual) Sale in MU
Domestic	28.17	31.01	35.01	33.43
Comml. & Public Lighting	9.14	11.57	11.75	11.99
Industrial LT Industries	3.22	3.33	3.55	4.09
Industrial HT Industries	233.98	419.44	596.09	726.57
Bulk Sale to WBSEB	131.33	364.19	1069.12	350.63
Interplant Transfer	23.35	22.37	23.12	26.88
Total	429.86	851.91	1738.64	1153.59

It is observed from the above that the actual local sale for 2002-03 was 811.46 MU (excluding 132/33 KV sales to WBSEB) in place of projected sale of 674.58 MU. The corresponding sale for 2001-02 was 493.15 MU. This means that there has been a load growth of 318.23 MU i.e.64.5% over that for 2001-02. The H.T. industrial load has increased by around 73%. The contract demand of HT industrial consumers availing TOD tariff has gone up to 116.1 MVA from 40.21MVA in 2000-01 and 70.09 MVA in 2001-02. Since FY03 is already over and actual sale figure is available from the audited accounts and since the same widely differs from the projection, the actual sales are considered for the purpose of tariff fixation.

5.1.3 POWER PURCHASE

DPL's own generation is normally sufficient to meet the local demand and the surplus power is sold to WBSEB. However in case of emergency, whenever the DPL units get tripped , power is sourced from WBSEB to meet the local demand as well as for start up of the units of the station. As per arrangement with WBSEB, sale by DPL is netted off against the purchased units from WBSEB on a monthly basis and the resultant treated as net sale or purchase, as the case may be, at the end of each month. As per audited accounts for 2002-03 there was a gross purchase of 6.25 MUs during the year.

5.1.4 T&D LOSS

DPL did not consider any T&D loss on the energy projected to be sold to WBSEB at 132 KV and 33KV as the metering for the same is done at the generating station bus. DPL projected a T&D Loss of 19% on local sales for 2002-03. As per audited accounts submitted by DPL it is observed that the actual T&D Losses during the years 2001-02 and 2002-03 have been around 13.22% and 7.02% respectively on local sale. We, therefore, consider the actual T&D loss of 7.02% on local sales for fixation of tariff for the year 2002-03.

5.1.5 ENERGY SUPPLY PLAN

Based on the actual generation, the energy supply plan for 2002-03 is given below considering normative auxiliary consumption of 11% as per GOWB norm and actual T&D Loss of 7.02%.

1	Gross generation	1359.0 MU
2	Normative Auxiliary Consumption @ 11%	149.49 MU
3	Energy sent out	1209.51 MU
4	Power purchase	6.25 MU
5	Total Energy available	1215.76 MU
6	Energy sold to WBSEB at 132/33 KV	342.21 MU
7	Energy available for local sale (5-6)	873.55 MU
8	Normative T & D loss @ 7.02% on (7)	61.32 MU

9	Actual local sales	811.46 MU
10	Unaccounted Energy(7-8-9)	0.77 MU

The total cost of unaccounted energy will be as follows:-

0.77 MU/0.93 = 0.83 MU @ 162 paise/Kwh = Rs. 13.45 lakh

5.1.6 FUEL COST

The energy generation projected by DPL for 2002-03 was 2108 MUs and the specific coal consumption and oil consumption had been projected as 0.85 kg/ kwh and 4.0 ml/kwh respectively. Since the year is already over the actuals have been received from the audited accounts which are shown bellow. It is observed that there has been a vast difference in the actual generation which is only 1359 MU against the projection of 2108 MU. The actual auxiliary consumption, specific consumption of coal have been higher than the targeted values given in the Project Report. However since it is the first year after the unit nos.1 to 5 have resumed generation after RUM & LEP there has been frequent forced outages/shutdowns due to teething troubles and it has taken quite a long time to stabilize the Units. Although the Units were supposed to have better performance after the RUM yet considering the teething problems which are usual during the initial year of operation after the renovation work the operating parameters as approved are shown in the following table:

Particulars	2001-02 Actual	2002-03 Projection	2002-03 Actual	2002-03 As Approved by Commission
Generation	1033	2108	1359	1359
Aux. Consumption	11.59%	10.0%	11.06%	11.0%
Stn. Heat rate Kcal /kwh	3183	N.A.	3310	2950
GCV of oil (Kcal/kg)	4807	N.A.	N.A.	4800
GCV of oil (Kcal/Lit)	9149	N.A.	9178	9178
Specific coal consumption kg/kwh	0.68	0.65	0.795	
Specific oil consumption ml/kwh	13.3	4.0	9.87	6.5

The auxiliary consumption, specific oil consumption and weighted average station heat rate have been based on GOWB norms. For units 1 & 2, which are rated 30MW capacity, there is no GOWB norms and considering the vintage of these non-reheat type units operating at a very low power factor an average heat rate of 3300 Kcal/Kwh have been considered. The weighted average heat rate of the station thus comes to 2950 Kcal/Kwh.

The weighted average GCV of coal and oil used have not been shown in the audited accounts. However, the weighted average GCV of coal calculated from the actual mix of different grades of coal used comes to 4800 Kcal/Kg and this has been accepted. The GCV of oil has been shown by DPL as 9178 Kcal/Litre which is accepted.

In the tariff petition for 2004-05 DPL has indicated that there was a transit loss of coal of around 5.2% in the year 2002-03 which they themselves admit to be on the higher side. As per GOWB norm the transit loss can be allowed upto 4% and we accept the same for the present as Commission is yet to fix the operating parameters of the power stations through regulation.
DPL has indicated in their tariff petition for 2004-05, that their actual oil consumption in 2002-03 was @ 9.87 ml/kwh which is also corroborated by the audited accounts of the said year. As per RUM & LEP Report the specific oil consumption after RUM will be less than 3.5 ml/kwh. DPL has contended that in the initial years during stabilization of the generating units lot of technical problems had been experienced resulting in frequent tripping out of the machines which caused higher oil consumption. As such, oil consumption in the year 2002-03 was as high as 9.87 ml/kwh. The Commission allows an oil consumption of 6.5 ml/kwh for 2002-03 as per GOWB norm.

The fuel cost as claimed by the DPL vis-a- vis as approved by the Commission are shown in the enclosed statement.

Cost of Fuel for DPL TPS for 2002-03

Serial No.	Item	Unit	Actuals for 2002-03	Allowed by Commission
1	Gross Generation	MU	1359	1359
2	Aux. Consupmtion	MU	150.31	149.49
3	Ex. Bus Generation	MU	1208.690	1209.51
4	Heat Rate	Kcal/Kwh	3310	2950
5	Total Heat Required	Mkcal	4498290	4009050
6	GCV of Oil	Kcal/Litre	9178	9178
7	Specific Oil Consumption	ml/kwh	9.87	6.5
8	Oil Consumption	KL	13413.33	8833.5
9	Average Price of Oil	Rs/KL	13471	13471
10	Cost of Oil	Rs(Lakh)	1806.91	1189.96
11	Heat Generated from Oil	MKcal	123107.54	81073.86
12	Heat Generated from Coal	Mkal	4375182.46	3927976.14
13	Wtd. Average GCV of Coal	Kcal/KG	4218	4800
14	Coal Required	MT	1037264.7	818328.4
15	Coal required with transit loss	MT	1091202.453	851061.50
16	Wtd. Avg. price of coal(with Rly Freight)	Rs./MT	1288	1288
17	Cost of Coal	RS(Lakh)	14689.00	10961.67
18	Total cost of Fuel	RS(Lakh)	16495.91	12151.63
19	Fuel Cost/Kwh sent out	Paise/Kwh	136.48	100.47

5.2 CAPITAL BASE & REASONABLE RETURNS.

5.2.1 In the tariff petition for 2002-03, DPL projected Net Capital Base as Rs.704.10 lakhs. Their projections were made following the principles laid down in the Sixth Schedule of the Electricity (Supply) Act 1948. In their subsequent submission of the tariff petition for 2003-04, they worked out the Net Capital Base at the end of the financial year 2002-03 as Rs.(-) 2031.79 lakhs. The statement showing different determinants of the Net Capital Base as projected earlier and revised later on is given hereunder:-

Statement of Net Capital Base (Rs. in lakhs)

Sl. No.	Particulars	As projected earlier	As revised later on
1	Original cost of Fixed Assets Less consumers' contribution.	52712.67 900.00 51812.67	50655.41 790.00 49865.41
2	Cost of Intangible Assets.	87.14	89.83
3	Capital works in progress.	4501.75	2559.59
4	Working capital:	3828.60	2897.66

	(a)Average cost of fuel stock and other consumables. (b)Average cash in hand Total A	570.08 60800.24	517.33 55929.82
5	Cumulative Depreciation at the end of the year.	17453.43	16746.77
6	Amount of Intangible Assets written off.	27.66	28.76
7	Loan from Govt./Institutions.	42490.04	41086.09
8	Amount of Security Deposits from consumers.	125.00	100.00
	Total(5 to8) - B	60096.13	57961.62
	Net Capital Base (A-B)	704.11	(-)2031.80

5.2.2 As clarified by DPL , working capital includes the value of stores and spares, stock of fuel and cash and bank balance. The value of stock of stores and spares has been considered for one year's consumption. With respect to the value of stock of fuel, DPL estimated an amount equal to 1/12th of its total cost of fuel. Cash and bank balance of DPL is maintained by its service unit and it does not operate a separate bank account for its power plant operations. Bank balance for the purpose of inclusion in working capital had been considered as 1/12th of the relevant expenses of DPL's power plant operations.

5.2.3 As by their own submission DPL is having a negative Capital Base by the end of 2002-03 and that makes them non-entitled for any return on capital base as per provision of Sixth Schedule to Electricity (Supply) Act 1948, we are not making any item-wise analysis of the different determinants of Capital Base. As per DPL, their Capital Base has been negative primarily due to the fact that the capital employed in the business has over the past few years been increasingly financed through the loans borrowed from various sources. But addition to the value of fixed assets and capital works in progress through borrowing cannot be the reason for turning a positive capital base to negative. The main problem with DPL, as we observe, is the failure to utilize the internal resources for capital expansion or replacement even to the extent of depreciation amount built in power tariff.

5.2.4 The outstanding amount of loan at the end of the financial year 2002-03 was Rs.39490.20 lakhs as per audited accounts. We allow reasonable return @ 0.5% on that amount as per provisions contained in the Sixth Schedule to the Electricity(Supply) Act 1948 and the amount comes to Rs.197.45 lakhs.

5.3 FIXED COST.

In this part of our order, we are analyzing the fixed cost claimed by DPL on different accounts to ascertain to what extent such costs can reasonably be admitted.

5.3.1 EMPLOYEES' COST.

Employees' costs comprise of salary & wages, contribution to terminal benefits and
P.F. of employees, bonus, leave salary and other staff welfare expenses. The projected claims on this account is for Rs.1661.07 lakhs. As stated in the submission, the total employees' strength was 1473 in 2001-02 and it was expected to rise to 1609 in 2002-03. The projection was made considering an average 9.1 increase over the expenditure of previous year (Ref: page 26-27/Vol-1/201.

It has, however, been noted by the Commission from their subsequent submission that the total number of employees came down to 1327 as on 31.03.2003 as against expected rise to 1609 numbers considered in the projection. Considering this reduction in the staff strength it appears that the claim of employees cost for 2002-03 is not based on proper estimation. The commission has also got a copy of the audited statement of accounts for the power plant of DPL for the year 2002-03 and it is seen therein that the actual employees cost charged to the revenue accounts came to Rs.1390.37 lakhs. We, therefore, admit the actual expenditure as incurred.

5.3.2 OPERATION & MAINTENANCE (INCLUDING COST OF CONSUMABLES).

The amount claimed by DPL towards operation and maintenance is as under :

	Rs. Lakhs
Cost of consumables	851.11
Other Repairs & Maintenance	688.30
Total	1539.41

Cost of consumables was estimated considering 105% growth in the generation over the level of previous year. As majority of the generating units were renovated recently, it was considered by them that repairs and maintenance need would significantly reduce. The estimated amount was coming to 1.31% of the value of gross fixed assets.

It has been noted from DPL's subsequent submission, that the actual generation during 2002-03 fell short of the target significantly and actual cost of consumable came to Rs.408.98 lakhs. The other repairs and maintenance cost came to Rs.837.37 lakhs. Taking both the figures of actual, we admit Rs.1246.35 lakhs as against the claims of Rs.1539.41 lakhs.

5.3.3 COST OF WATER.

DPL asked for Rs.892.12 lakhs towards cost of water. The projection of expenditure in this account is said to be based on assumptions that processed water requirement for generation would be 18 litres per Kwh and drinking water requirement would be 850 million litres. The cost of water was considered Rs.2.30 per KL. The total estimated cost was worked out considering target generation of 2107 M.U.

During the public hearing of tariff petition for the concerned year DPL was asked to submit the basis of valuing water supply from the sister division to the power plant with detail workings. In reply, it was submitted that DPL has a 41 MGD water works which is responsible for supplying water not only to other plants and township of DPL but also to all other industries, domestic consumers and other category of consumers in and around Durgapur. The selling price of water was fixed by DPL @ 2.10 per KL for domestic consumers and Rs.2.85/KL for industrial consumers using processed water. This rate had been in vogue since 1998. It was decided by the Board of Directors of the Company in September, 2002 to increase the selling price of water @ 5% every year since the financial year 1998. Accordingly, the price for supply of water for industrial use was revised to Rs.4.00 per KL. The inter plant transfer is also being done at the same rate. It is general commercial practice that the inter-plant transfer products are done at cost as a Company is not supposed to make profit by selling its own product to itself. DPL could not submit the cost of processed water per KL. In the absence of such cost data we are allowing @ Rs.2.30 per KL for the actual quantity of water used during 2002-03. The Commission has noted from their subsequent submission that actual consumption of processed water during 2002-03 was 19754886 KL for generation of 1359 MU working out to 14.5 litre per Kwh and other use of water for drinking etc. was 1400,000 KL. Total cost of such consumption @ Rs.2.30 per KL is coming to Rs.486.56 lakhs and we admit the same.

5.3.4 ADMINISTRATION & GENERAL EXPENSES.

Administration and General Expenses claimed by DPL for the year 2002-03 were as under:

		Rs. in lakhs.
(a)	Audit fees	0.10
(b)	Rent, Rates and Taxes.	1.00
(c)	Insurance	75.00
(d)	Other expenses including allocation of the expenses of Service Division and central workshop.	2332.03
	Total	2408.13

As against first three head of accounts mentioned above, the actual expenses came to Rs.0.13 lakhs for Audit fees, Rs.0.75 lakhs for Rent Rates and Taxes and Rs.55.73 lakhs for Insurance. We admit the expenses

as per actuals.

DPL is a multi-unit organization, have separate Service Department and Central Workshop which provide service to all the Divisions. The allocation of service department expenses towards power plant had been considered 56%. The expenses of service department mainly include employees cost which accounts for around 84%of the total expenses for that Department. The break- up of the amount claimed towards other Administrative and General Expenses were given as under:

		Rs. lakhs
(i)	Direct Misc. Expenses of Power Plant	91.26
(ii)	Allocation of Service Department expenses	2196.39
(iii)	Allocation of Central Workshop expenses.	44.38
	Total	2332.03

In actual, service department allocation came to Rs.1708.79 lakhs and that for Central Workshop came to Rs.35.53 lakhs as against the above estimated amount. We, therefore, admit Rs.1835.58 lakhs on this account including direct miscellaneous expenses as projected.

5.3.5 ASH DISPOSAL EXPENSES.

DPL asked for Rs.10.00 lakhs towards ash disposal expenses and we admit the amount so asked for.

5.3.6 MISCELLANEOUS EXPENSES WRITTEN OFF.

The write-off of Miscellaneous Expenses to the extent of Rs.27.66 lakhs as claimed by DPL is also admitted by us.

5.3.7 PROVISION FOR DOUBTFUL DEBTS

DPL asked for Rs.22.06 lakhs towards Provision for Bad and Doubtful Debts. The estimated amount is said to be 5% of Debtors outstanding more than three years reduced by the amount already provided earlier. The outstanding Debts had been Rs.14754.15 lakhs at the end of financial year 2000-01 of which Rs.1791.5 lakhs were outstanding more than three years. From their subsequent submission it came out that the balance of sundry debtors for supply of electricity as on 31.3.2003 was Rs.16657.03 lakhs and the amount of provision asked for is coming to 0.13% only. We admit the provision asked in this regard.

5.3.8 INTEREST & FINANCE CHARGES

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Interest & Finance Charges claimed by DPL for the year 2002-03 was for Rs.5012.47 lakhs with the following break up

		Rs. Lakhs
(i)	On loans from CEA	144.51
(ii)	On loans from PFC	3095.72
(iii)	On Borrowings through Bonds.	321.44
(iv)	On loans from Govt. of West Bengal.	1534.74
(v)	Guarantee Fees payable to GOWB.	308.11
	Total	5404.52
	Less capitalization	392.05
	Net chargeable to Revenue A/C	5012.47

The loans from CEA and PFC are specific for Capital Works in power plants. But the borrowings through

Bonds and from the Government of West Bengal are for the Company as a whole and the interest has been worked out on the portion of the said loans and borrowing allocated to Power Plant.

The Commission by this time received the audited accounts of DPL for the year 2002-03 and it has been noted that the interest and finance charges chargeable to the Revenue Account of the Power Plant came as under :

		Rs. lakhs
(i)	Interest on loans from CEA	144.51
(ii)	Interest on loans from PFC	2646.86
(iii)	Interest apportioned through Service Department of DPL to the power station.	1837.79
		4629.79

We, therefore, admit the actual charges as stated above.

5.3.9 DEPRECIATION

The total amount of Depreciation claimed by DPL was for Rs.3773.07 lakhs with the following break-up.

		Rs. lakhs
(i)	Power Plant Assets	3486.50
(ii)	Transmission & Distribution Assets.	249.30
(iii)	Metering Assets.	3.14
(iv)	Other Assets.	34.13
		3773.07

It has been noted from their subsequent submission and from the copy of audited power plant Accounts for the year 2002-03, that actual depreciation charges fell short of the projected charges mainly due to variations in the projected capitalisation of works in progress in the year 2001-02. We are going by the actuals and allow depreciation charges as under:-

		Rs. lakhs
(i)	Power Plant Assets	2575.36
(ii)	Transmission & Distribution Assets.	353.90
(iii)	Metering Assets.	8.99
(iv)	Other Assets.	29.95
		2968.20

5.3.10 OTHER NON-TARIFF INCOME.

The total amount of other income projected by DPL was Rs.334.50 lakhs which includes an amount of Rs.203.00 lakhs towards income from inter-unit transfer of steam from Power Plant. The actual amount of other receipts came to Rs.274.58 lakhs including the receipts of Rs.109.22 lakhs from supply of steam to other units of DPL. We are going by the actuals and adjust Rs.274.58 lakhs from the Gross Revenue requirement for ascertaining the Net Revenue Requirement.

5.3.11 NET REVENUE REQUIREMENT & AVERAGE COST OF SUPPLY FOR FY2002-03

On the basis of analysis done by us in the earlier chapters and in this chapter we, calculate the Statement of Net Revenue Requirement and the average cost of supply per unit of Energy.

STATEMENT OF REVENUE REQUIREMENT & AVERAGE COST OF SUPPLY:

		As per projection of DPL	As admitted by the Commission
		MU	MU
A-1	Generation	2107.66	1359.00
2	Auxiliary Consumption	210.77	149.49
3	Energy sent out	1896.89	1209.51
4	Purchase	0.00	6.25
5	Total Energy	1896.89	1215.76
6	T & D loss	158.25	61.32
7	Net energy for sale	1738.64	1154.44
8	Actual Sale		1153.67
9	Unaccounted Energy		0.77
		Rs. lakhs	Rs. lakhs
B-1	Fuel cost	23693.75	12151.63
2	Purchase of Power	0.00	101.28
3	Utilities(Water)	892.12	486.56
4	Employees' cost	1661.07	1390.37
5	Operation & Maintenance(including cost of consumables)	1539.41	1246.35
6	Administration & General expenses- a) Audit fees b) Rent, Rate & Taxes c) Insurance d) Others	 0.10 1.00 75.00 2332.03	 0.13 0.75 55.73 1835.58
7	Ash disposal Expenses	10.00	10.00
8	Misc. Expenses written-off	27.66	27.66
9	Provision for Doubtful Debts	22.06	22.06
10	Interest & Finance Charges	5012.47	4629.16
11	Depriciation	3773.07	2968.20
12	Total expenses (1 to 11)	39039.74	24925.46
13	Resonable Return	272.30	197.45
14	Gross Revenue Requirement(12+13)	39312.04	25122.91
15	Other Income	334.50	274.58
16	Unaccounted Energy		13.45
17	Net Revenue Required(14-15-16)	38977.54	24834.88
18	Average cost of supply(17/A-8)(Paise/kwh)	224.18	215.26
19	Revenue at the existing tariff	33428.22	22035.10
20	Deficit to be recovered(17-19)	5549.32	2799.78

CHAPTER-6: REVENUE REQUIREMENT FOR 2003-04.

In this chapter, the Commission will assess the revenue requirement of DPL for 2003-04. For determining the same, the Commission will assess the variable cost relating to fuel and purchase of power, fixed cost and reasonable return.

6.1 Generation, Sale and T&D loss.

Durgapur Projects Limited (DPL) is a sanction holder under section 28 of I.E.Act,1910 and supplies power in its command area of around 120 sq.km. in Durgapur City under West Bengal to different consumers at EHV,HV and LV including interconnection sale to WBSEB.

6.1.1 GENERATION

DPL has a coal fired thermal power station at Durgapur which after meeting its local demand supplies the surplus power to the WBSEB. The station has six units of total installed capacity of 397 MW which was de-rated to 387 MW in 2000-01. Units 1 to 5 have an average vintage over 38 to 44 years while the sixth unit has been in operation for the past fifteen years. DPL had undertaken RUM&LEP work of the first five units in late 1998-99 to increase the life and capacity of the plant to 401 MW after the said work which was initially scheduled to be over by 31st.March,2001. However this was delayed due to various problems during stabilization period and DPL rescheduled the completion date to be by the end of 2001-02. The RUM program was expected to increase the station availability to more than 80%. It was also expected to improve efficiency in fuel consumption and auxiliary power consumption.

DPL has projected a gross generation level of 1800 MU (at a PLF of 51.24%) for the financial year 2003-04. The auxiliary consumption has also been projected as 10% in 2003-04. The details are shown in the following table:

DPL Power Stn.	FY 2000-01(Actual)	FY 2002-03(Actual)		FY 2003-04(PROJ)	
	Generation (MU)	Gen. (MU)	PLF (%)	Gen. (MU)	PLF (%)
Unit No. 1	0.69	18.24	6.94	37.00	14.08
Unit No. 2	34.04	17.14	6.52	59.00	22.45
Unit No. 3	29.74	277.19	41.09	395.00	58.56
Unit No. 4	342.20	251.68	37.31	434.00	64.34
Unit No. 5	189.82	353.63	52.43	362.00	53.67
Unit No. 6	436.18	441.12	45.78	513.00	53.24
Gross Generation	1032.67	1359.00		1800.00	
Aux. Consumption	11.59%(119.73MU)	11.06%		10.00% (180MU)	
Net Generation	912.94	1208.70		1620.00	
PLF(%)	30.46%		38.69		51.24

It is observed that the generation projection of 1800 MU for 2003-04 is 32.45% more than what had actually been achieved during 2002-03. This means that DPL expects an appreciable improvement in generation during 2003-04. The projected gross generation of 1800 MU in 2003-04 is, therefore, accepted for tariff fixation.

6.1.2 ASSESSMENT OF CONSUMPTION (SALES)

The local load of DPL consists of industrial, domestic, commercial and public lighting supply within a command area of around 120 sq.Km. From the actual sale figure of 2002-03 it is observed that the H.T. Industrial load consists of around 90% of the total load excluding bulk sale to WBSEB.

DPL supplies power at 11KV to consumers with a contract demand of 50KVA and above and at medium /low voltage to consumers with a contract demand below 50KVA. In addition DPL also supplies energy to WBSEB at 220/132KV and 33/11KV. While the supply at 11 & 33KV meets the local demand for the area under

WBSEB licensed area, the supply at 132/220KV is based on the surplus energy generated by DPL and fed into the grid. DPL in its tariff petition for 2003-04 projected a sale of 1436.64 MU for the concerned year. The actual sales for FY02 and FY03 vis-à-vis projection for FY04 are shown below :

Category of Consumers	FY02(Actual) Sale in MU	FY03(Actual) Sale in MU	FY04 Sale in MU
Domestic	31.01	33.43	34.12
Comml. & Public Lighting	11.57	11.99	11.98
Industrial LT Industries	3.33	4.09	3.50
Industrial HT Industries	419.44	726.57	1041.04
Bulk Sale to WBSEB	364.19	350.63	319.00
Interplant Transfer	22.37	26.88	27.00
Total	851.91	1153.59	1436.64

It is observed from the above that the actual local sales for 2002-03 was 811.46 MU (excluding bulk sale to WBSEB at 132/33KV) in place of corresponding sale of 493.15MU in 2001-02. This means that there has been a growth of around 64.6 % in local sales during 2002-03. The corresponding local sales as per projection for 2003-04 is 1126.64 MU which indicates a growth of around 39%. The growth in HT industrial load during 2002-03 has been around 73% and the corresponding growth for 2003-04 has been indicated as 43%. We admit the sale projection given by DPL and assess the Revenue Requirement for achieving the projected sale of 1436.64 MU.

6.1.3 POWER PURCHASE

DPL's own generation is normally sufficient to meet the local demand and the surplus generation after meeting the local demand is sold to WBSEB. However in case of emergency, whenever the DPL units get tripped , power is sourced from WBSEB to meet the local demand as well as for start up of the units of the station. As per arrangement with WBSEB, sale by DPL is netted off against the purchased units from WBSEB on a monthly basis and the resultant treated as net sale or purchase, as the case may be, at the end of each month. During 2003-04 DPL expects a higher level of generation and hence no purchase of energy is envisaged.

6.1.4 T&D LOSS

DPL in their tariff petition for 2003-04 had projected a T&D Loss of 14% on local sales. As per audited accounts submitted by DPL it is observed that the actual T&D Loss on local sales has been 7.02% for 2002-03. .

DPL has undertaken schemes for strengthening and extending its T&D network. The work had already been started during ninth plan period at a total projected cost of around 36(thirty six) Crores. The cost of work in progress for renovation and augmentation of T&D network has been tentatively fixed at Rs. 656.0 lakhs during 2003-04.This will definitely help in improving the technical loss. In order to contain unauthorized consumption of power by hooking and tapping etc, DPL has taken several actions with the help of police and local administration. As per DPL this has improved the situation to a great extent. Moreover, check meters have been installed at the sub-station end to monitor the consumption of energy by the industrial consumers. Such meters have been installed in case of all dedicated feeders.

Considering all the above initiatives already taken by DPL the commission allows a T&D Loss of 6.5% on local sales for 2003-04.

Based on the approved generation of 1800 MU the energy supply plan for 2003-04 is given bellow considering normative auxiliary consumption of 11% as per GOWB norm, since the Commission is yet to fix its own norm through Regulation, and approved T&D Loss of 6.5%

1	Gross Generation	1800.00 MU
2	Normative Auxiliary Consumption	198.00 MU

3	Energy sent out	1602.00 MU
4	Power Purchase	NIL
5	Total Energy available for sale(3+4)	1602.00 MU
6	Energy sold to WBSEB at 132/33 KV	310 MU
7	Energy available for local sale (5-6)	1292 MU
8	Normative T & D Loss @ 6.50 % on (7)	83.98 MU
9	Projected local sales	1126.64 MU
10	Unaccounted Energy (7-8-9)	81.38 MU

The cost of unaccounted energy will be:
Cost of generation of 81.38 MU/0.935=87.04 MU
@106.77 paise/Kwh = Rs.929.33 lakh.

6.1.5 FUEL COST

DPL has submitted the following parameters for fuel consumption during 2003-04:

Specific coal consumption	0.70 kg/kwh
Specific oil consumption	5.0 ml/kwh
Cost of coal	Rs.1626.87/MT
Cost of oil	Rs.17376/KL

It is observed from the details of grade-wise percentage consumption of coal projected for the year 2003-04 that the actual weighted average GCV of coal comes to 5450 Kcal/Kwh and the weighted average cost of coal on the basis of present trend comes to Rs.1515.50/MT and these values have been considered for the calculation of coal cost. The GCV of oil has been considered as 9178 Kcal/litre as per actuals of 2002-03. It is also observed that a mix of FO/LDO in the ratio of 50:50 has been considered with the weighted average cost of oil as Rs.17376.00/KL. This also has been accepted for calculation of oil cost. The operating norms as per GOWB has been accepted for calculation of fuel cost. DPL should submit the actual fuel cost based on norms approved while submitting the FPPCA claim after the year is over. .

The fuel cost as approved is shown in the enclosed table.

Cost of Fuel for DPL TPS for 2003-04

Serial No.	Item	Unit	Projected by DPL	Allowed by Commission
1	Gross Generation	MU	1800	1800
2	Aux. Consupmtion	MU	200.52	198.00
3	Ex. Bus Generation	MU	1599.48	1602.00
4	Heat Rate	Kcal/Kwh		2955
5	Total Heat Required	Mkcal		5319000
6	GCV of Oil	Kcal/Litre		9178
7	Specific Oil Consumption	ml/kwh	5	6.5
8	Oil Consumption	KL	9000	11700
9	Average Price of Oil	Rs/KL	17376	17376
10	Cost of Oil	Rs(Lakh)	1563.84	2032.99
11	Heat Generated from Oil	MKcal		107382.60

12	Heat Generated from Coal	Mkal		5211617.40
13	Wtd. Average GCV of Coal	Kcal/KG	0.7	5450
14	Coal Required	MT	1260000.00	956260.1
15	Coal required with transit loss	MT	1291500.00	994510.5
16	Wtd. Avg. price of coal(with Rly Freight)	Rs./MT	1626.87	1515.50
17	Cost of Coal	RS(Lakh)	2101.03	15071.81
18	Total cost of Fuel	RS(Lakh)	22574.87	17104.80
19	Fuel Cost/Kwh sent out	Paise/Kwh	141.14	100.77

6.2 CAPITAL BASE & REASONABLE RETURN.

6.2.1 DPL had been a sanction holder under the provision of Section 28 of the Indian Electricity Act 1910. They projected the position of their Capital Base at the end of the financial year 2003-04 following the principles laid down in the Sixth Schedule to Electricity (Supply) Act 1948. The gist of their computation of Capital Base is as under :-

Rs. in lakhs.

1. Original cost of fixed Assets..... ..... 52854.46

Less consumers' contribution..... 840.00

52014.46

2. Cost of Intangible Assets 61.07

3. Capital Works in progress 3282.86

4. Working Capital :
   a) Fuel stock 1881.24
   b) Consumable stores
      & spares 1779.87

   c) Cash & Bank Balance.. 609.47

   4270.58

Total (A) 59628.97

Less:

5. Accumulated Depreciation..... 19763.80
6. Intangible Assets written off 3.31
7. Loans (in Capital Accounts) 40398.93
8. Security Deposits from consumers..... 125.00

Total (B) 60291.04

9. Net Capital Base (A – B) (-) 662.07

6.2.2 Above projection of Capital Base has been done on the basis of estimated Capital addition of Rs.2923.22 lakhs and net reduction of loans by Rs.687.16 lakhs (fresh drawal of loan of Rs.2630.00 lakhs as against projected repayment of Rs.3317.16 lakhs). So far working capital is concerned, need for consumable stores and spares has been considered Rs.1779.87 lakhs as against estimated annual consumption value of Rs.900.00 lakhs and fuel stock has been considered for the consumption value of one month. It has been stated that the break-up of stock of stores and spares and also of fuel in hand along with average period of consumption are not available at the end of each month, hence average could not be worked out for the month end. Therefore, in case of stock of stores and spares the year-end figure has been considered as representative for the average of the monthly stock held. DPL, being a multi divisional organization, cash and Bank Accounts of it are maintained centrally by its service unit and no separate bank account is being maintained for the power plant. The cash and bank balance for the purpose of inclusion in the Capital Base have been worked out as one twelvth of the total expenditure excluding fuel cost and purchase of energy, interest and non-cash expenses i.e. depreciation and misc.expenses written off.

6.2.3 As by their own submission DPL will be having negative Capital Base at the end of financial year 2003-04 it will not be entitled for any return at standard rates as specified in the provision contained in the Sixth Schedule to Electricity (Supply) Act 1948. We only allow 0.5% on the projected outstanding balance of loan at the end of the financial year and the amount comes to Rs.201.99 lakhs.

6.2.4 SPECIAL APPROPRIATION.

DPL asked for Rs.264.27 lakhs as a special appropriation towards contingency Reserve @ 0.5% on the original cost of fixed assets as per provision contained in Para IV of the Sixth Schedule of Electricity (Supply) Act 1948. They committed to invest this amount of special appropriation in the specified securities as per requirement of the Act. DPL has not created any such reserve in the past and no such investment has been made. We allow the amount asked for. The Commission will watch over the committed investment and any failure in this regard will be suitably dealt with while fixing their Tariff for 2005-06.

6.3 FIXED COST

The fixed cost claimed by DPL for the year 2003-04 under different heads of accounts are being analysed in this part of our order to ascertain the reasonability of such claims and to see to what extent those can be admitted.

6.3.1 EMPLOYEE COST.

DPL claimed Rs.1710.65 lakhs towards employee cost which comprises of salary, wages, bonus, contribution to P.F. and other funds, leave salary and other staff welfare expenses. They estimated an over-all increase in employee cost by 6.47% over the estimate of 2002-03 which was considered Rs.1606.68 lakhs. So far employees strength is concerned, total number of employees in the Power Plant and in distribution system of DPL was said to be 1440 of which 99 employees are due for retirement in 2003 and 2004 and they adopted the policy of restricting the recruitment against the vacancies arising out of retirement.

As we see the estimation of employees cost has not been done properly. The actual amount of employee cost charged to revenue account came to Rs.1390.37 lakhs only during 2002-03 as against Rs.1606.68 lakhs estimated earlier. Taking this amount of actual cost in 2002-03 we allow 6.47% increase as asked for 2003-04 and the admitted amount comes to Rs.1480.33 lakhs.

6.3.2 OPERATION & MAINTENANCE (INCLUDING COST OF CONSUMABLE).

The amount claimed by DPL towards operation and maintenance is as under :

	Rs. lakhs.
Consumable stores	900.00
Other Repairs & Maintenance	957.22
Total	1857.22

It has been stated the expenses under consumable stores for their age-old generating units depend on quantum of generation and paise 5 per Kwh was the average cost witnessed in the previous year. Repairs & maintenance expenses have been estimated to be Rs.857.22 lakhs for Plant and Machinery, Rs.25.00 lakhs for Buildings and Rs.75.00 lakhs for other assets. It has been highlighted that the sixth unit of the Power Plant was commissioned during 1985-86 and in 2003-04 it would reach its residual value. The estimated generation in the 6th unit during 2003-04 has been considered 513 MU at 53.24% PLF. To maintain such high PLF with this age- old unit they require to incur more R & M expenses. The total estimated R & M expenses claimed by them comes to 1.90% of the gross fixed assets at the beginning of the year.

The cost of consumables claimed by DPL appears to be on the higher side if it is viewed as variable with quantum of generation. We have noted that cost of consumable came to Rs.408.98 lakhs in 2002-03 as against actual generation of 1359 MU. On the basis of such actuals we allow Rs.568.78 lakhs for 2003-04 considering an average increase in cost by 5% on account of inflation factors etc. In view of highlighting the needs for attending special maintenance in Unit No. 6, we admit the amount claimed for other repairs and maintenance. The Operation and Maintenance cost including the cost of consumables, thus, comes to Rs.1526.00 lakhs and we admit the same.

6.3.3 COST OF WATER.

The cost of water has been claimed by DPL Rs.1202.08. As mentioned earlier, the water processing Plant of DPL supplies processed water to Power Plant and the rate of consumption of water in the process of generation has been estimated to be 14.4 litre per Kwh. The other use of water is 1400 million litre per year. So far cost is concerned, the estimation has been done @ Rs.4.40 per KL which is being charged from other consumers also. This rate include profit margin for the sister division and that is not allowable in the case of inter divisional transfer of product. In the absence of actual cost data we allow cost of water @ Rs.2.30 per KL as allowed in the earlier year. With this rate the cost of estimated consumption of 27320 KL comes to Rs.628.36 lakhs and we allow the same amount.

6.3.4 ADMINISTRATION & GENERAL CHARGES.

Administration and General Charges claimed by DPL for the year 2003-04 are as under:-

		Rs. in lakhs.
a)	Audit fees	0.15
b)	Rent, Rates & Taxes	1.00
c)	Insurance	80.00
d)	Other expenses including allocation of expenses of service Department and Central Workshop.	2279.07
		2360.22

We admit the amount of Audit Fees, Rent, Rates & Taxes and Insurance Charges as claimed by DPL. The amount of Rs.2279.07 lakhs claimed by them towards other expenses including allocation of the expenses of Service Department and Central Workshop includes an amount of Rs.30.00 lakhs provided for demurrage charges. We do not allow this provision as payment of any such charges can be avoided with better management. The claimed amount of Rs.2279.07 also includes Rs.2168.74 lakhs towards allocation of Service Department's expenses. In the previous year such allocation was only for Rs.1708.79 lakhs. We allow average 6% hike over the amount of actual expenses in the previous year and the amount comes to Rs.1811.32 lakhs. The Administration and General Charges admitted by us, thus, comes as under:-

		Rs. in lakhs.
a)	Audit fees	0.15
b)	Rent, Rates & Taxes	1.00
c)	Insurance	80.00

d)	Other expenses including allocation of expenses of service Department and Central Workshop.	1891.65
	Total	1972.80

6.3.5 ASH DISPOSAL EXPENSES.

The amount of Rs.12.00 lakhs claimed by DPL towards ash disposal expenses is admitted by us.

6.3.6 MISCELLANEOUS EXPENSES WRITTEN OFF.

The amount of Rs.3.31 lakhs claimed towards Miscellaneous Expenses to be Written Off is also admitted by us.

6.3.7 PROVISION FOR DOUBTFUL DEBTS.

DPL asked for Rs.29.09 lakhs towards provision for Bad Debts. Age-wise analysis of the outstanding Debtors for supply of electricity as on 31st. March 2002 has been provided by DPL. It has been shown that Rs.1932.09 lakhs remained unrealized for more than 3 years and it has been estimated that 5% of such debts may be bad. For the year 2003-04 they asked for provision for Rs.29.09 lakhs. We admit the same.

6.3.8 INTEREST & FINANCE CHARGES.

DPL raised loans from CEA, PFC, market borrowings through Bonds and from the State Government. The loans from CEA and PFC are specifically for the Power Plant. But the loans through market borrowing and from the State Government have been allocated to Power Plant on usages basis. The total interest for the year 2003-04 has been projected to be Rs.4536.11 lakhs out of which Rs.292.32 lakhs are to be capitalized. The balance amount of Rs.4243.79 lakhs is chargeable to Revenue Account. The detail workings of chargeable interest source- wise and loan wise have been provided by DPL. In addition to the interest payments, DPL is required to pay Guarantee Fees to the State Government for providing guarantee for the loans taken from PFC and through Bonds. The estimated amount of such guarantee fees (@ 0.5%) claimed by DPL is Rs.142.43 lakhs. We admit the amount of interest and guarantee fees claimed by DPL

It has been noted that in case of PFC loan No.50404008, which is under the Accelerated Generation and Supply Programme (AG & SP), DPL is eligible for certain rebate. It has been stated that the rebates so far actually received and actually passed on to DPL have been taken into consideration for working out the interest burden. For balance amount of this loan, interest has been worked out at normal lending rate of PFC. The amount of rebate, if so received in future, will be adjusted by the Commission from the Revenue Requirement of the next year.

6.3.9 DEPRECIATION.

The total depreciation charges claimed by DPL for the year 2003-04 is for Rs.3017.04 lakhs. The detailed computation of the depreciation following the rates and manner as notified by the Government under the provision Electricity (Supply) Act 1948 has been provided by DPL. We admit the amount of depreciation charges claimed.

6.3.10 NET REVENUE REQUIREMENT AND AVERAGE COST OF SUPPLY.

On the basis of analysis done by us in the earlier chapters and in this chapter we, calculate the Statement of Net Revenue Requirement and the average cost of supply per unit of Energy.

STATEMENT OF REVENUE REQUIREMENT & AVERAGE COST OF SUPPLY FOR FY 2003-04

		As per projection of DPL	As admitted by the Commission
		MU	MU
A-1	Generation	1800.00	1800.00

2	Auxiliary Consumption	180.00	198.00
3	Energy sent out	1620.00	1602.00
4	Purchase	0.00	NIL
5	Total Energy	1620.00	1602.00
6	T & D loss	183.36	83.98
7	Net energy for sale	1436.64	1518.02
8	Projectedl Sale	1436.64	1436.64
9	Unaccounted Energy	NIL	81.38
		Rs. lakhs	Rs. lakhs
B-1	Fuel cost	22574.87	17104.80
2	Purchase of Power	0.00	0.00
3	Utilities(Water)	1202.08	628.36
4	Employees' cost	1710.65	1480.33
5	Operation & Maintenance(including cost of consumables)	1857.22	1426.00
6	Administration & General expenses- e) Audit fees f) Rent, Rate & Taxes g) Insurance h) Others	0.15 1.00 80.00 2279.07	0.15 1.00 80.00 1891.65
7	Ash disposal Expenses	12.00	12.00
8	Misc. Expenses written-off	3.31	3.31
9	Provision for Doubtful Debts	29.09	29.09
10	Interest & Finance Charges	4386.22	4386.22
11	Depriciation	3017.04	3017.04
12	Total expenses (1 to 11)	37152.69	30159.95
		As per projection of DPL	As admitted by the Commission
		MU	MU
13	Resonable Return	201.99	201.99
14	Contingency Reserve	264.27	264.27
15	Gross Revenue Requirement(12+13+14)	37618.95	30626.21
16	Other Income	233.04	233.04
17	Unaccounted Energy	0.00	1046.83
18	Net Revenue Required (15-16-17)	37385.91	29346.34
19	Average cost of supply(18/A-8)(Paise/kwh)	260	204
20	Revenue at the existing tariff	28638.77	27439.82
21	Deficit to be recovered(18-20)	8747.16	1906.52

The cost of unaccounted energy will be:
Cost of generation of 81.38 MU/0.935=87.04 MU
@106.77 paise/Kwh = Rs.929.33 lakh.

6.1.5 FUEL COST

DPL has submitted the following parameters for fuel consumption during 2003-04:

Specific coal consumption	0.70 kg/kwh
Specific oil consumption	5.0 ml/kwh
Cost of coal	Rs.1626.87/MT
Cost of oil	Rs.17376/KL

It is observed from the details of grade-wise percentage consumption of coal projected for the year 2003-04 that the actual weighted average GCV of coal comes to 5450 Kcal/Kwh and the weighted average cost of coal on the basis of present trend comes to Rs.1515.50/MT and these values have been considered for the calculation of coal cost. The GCV of oil has been considered as 9178 Kcal/litre as per actuals of 2002-03. It is also observed that a mix of FO/LDO in the ratio of 50:50 has been considered with the weighted average cost of oil as Rs.17376.00/KL. This also has been accepted for calculation of oil cost. The operating norms as per GOWB has been accepted for calculation of fuel cost. DPL should submit the actual fuel cost based on norms approved while submitting the FPPCA claim after the year is over. .

The fuel cost as approved is shown in the enclosed table.

Cost of Fuel for DPL TPS for 2003-04

Serial No.	Item	Unit	Projected By DPL	Allowed by Commission
1	Gross Generation	MU	1800	1800
2	Aux. Consupmtion	MU	200.52	198.00
3	Ex. Bus Generation	MU	1599.48	1602.00
4	Heat Rate	Kcal/Kwh		2955
5	Total Heat Required	Mkcal		5319000
6	GCV of Oil	Kcal/Litre		9178
7	Specific Oil Consumption	ml/kwh	5	6.5
8	Oil Consumption	KL	9000	11700
9	Average Price of Oil	Rs/KL	17376	17376
10	Cost of Oil	Rs(Lakh)	1563.84	2032.99
11	Heat Generated from Oil	MKcal		107382.60
12	Heat Generated from Coal	Mkcal		5211617.40
13	Wtd. Average GCV of Coal/sp Coal consumption	Kcal/KG Kg/Kwh	0.7	5450
14	Coal Required	MT	1260000.0	956260.1
15	Coal required with transit loss	MT	1291500.0	994510.5
16	Wtd. Avg. price of coal(with Rly Freight)	Rs./MT	1626.87	1515.50
17	Cost of Coal	RS(Lakh)	21011.03	15071.81
18	Total cost of Fuel	RS(Lakh)	22574.87	17104.80
19	Fuel Cost/Kwh sent out	Paise/Kwh	141.14	106.77

6.2 CAPITAL BASE & REASONABLE RETURN.

6.2.1 DPL had been a sanction holder under the provision of Section 28 of the Indian Electricity Act 1910. They projected the position of their Capital Base at the end of the financial year 2003-04 following the

principles laid down in the Sixth Schedule to Electricity (Supply) Act 1948. The gist of their computation of Capital Base is as under :-

Rs. in lakhs.

1. Original cost of fixed Assets		52854.46
Less consumers' contribution		840.00
		52014.46
2 . Cost of Intangible Assets		61.07
3. Capital Works in progress		3282.86
4. Working Capital :		
a) Fuel stock	1881.24	
b) Consumable stores & spares	1779.87	
c) Cash & Bank Balance	609.47	
		4270.58
	Total (A)	59628.97
Less:		
5. Accumulated Depreciation		19763.80
6. Intangible Assets written off		3.31
7. Loans (in Capital Accounts)		40398.93
8. Security Deposits from consumers.		125.00
	Total (B)	60291.04
9. Net Capital Base (A – B)		(-) 662.07

6.2.2 Above projection of Capital Base has been done on the basis of estimated Capital addition of Rs.2923.22 lakhs and net reduction of loans by Rs.687.16 lakhs (fresh drawal of loan of Rs.2630.00 lakhs as against projected repayment of Rs.3317.16 lakhs). So far working capital is concerned, need for consumable stores and spares has been considered Rs.1779.87 lakhs as against estimated annual consumption value of Rs.900.00 lakhs and fuel stock has been considered for the consumption value of one month. It has been stated that the break-up of stock of stores and spares and also of fuel in hand along with average period of consumption are not available at the end of each month, hence average could not be worked out for the month end. Therefore, in case of stock of stores and spares the year-end figure has been considered as representative for the average of the monthly stock held. DPL, being a multi divisional organization, cash and Bank Accounts of it are maintained centrally by its service unit and no separate bank account is being maintained for the power plant. The cash and bank balance for the purpose of inclusion in the Capital Base have been worked out as one twelvth of the total expenditure excluding fuel cost and purchase of energy, interest and non-cash expenses i.e. depreciation and misc.expenses written off.

6.2.3 As by their own submission DPL will be having negative Capital Base at the end of financial year 2003-04 it will not be entitled for any return at standard rates as specified in the provision contained in the Sixth Schedule to Electricity (Supply) Act 1948. We only allow 0.5% on the projected outstanding balance of loan at the end of the financial year and the amount comes to Rs.201.99 lakhs.

6.2.4 SPECIAL APPROPRIATION.

DPL asked for Rs.264.27 lakhs as a special appropriation towards contingency Reserve @ 0.5% on the original cost of fixed assets as per provision contained in Para IV of the Sixth Schedule of Electricity (Supply) Act 1948. They committed to invest this amount of special appropriation in the specified securities as per requirement of the Act. DPL has not created any such reserve in the past and no such investment has been made. We allow the amount asked for. The Commission will watch over the committed investment and any failure in this regard will be suitably dealt with while fixing their Tariff for 2005-06.

6.3 FIXED COST

The fixed cost claimed by DPL for the year 2003-04 under different heads of accounts are being analysed in this part of our order to ascertain the reasonability of such claims and to see to what extent those can be admitted.

6.3.1 EMPLOYEE COST.

DPL claimed Rs.1710.65 lakhs towards employee cost which comprises of salary, wages, bonus, contribution to P.F. and other funds, leave salary and other staff welfare expenses. They estimated an over-all increase in employee cost by 6.47% over the estimate of 2002-03 which was considered Rs.1606.68 lakhs. So far employees strength is concerned, total number of employees in the Power Plant and in distribution system of DPL was said to be 1440 of which 99 employees are due for retirement in 2003 and 2004 and they adopted the policy of restricting the recruitment against the vacancies arising out of retirement.

As we see the estimation of employees cost has not been done properly. The actual amount of employee cost charged to revenue account came to Rs.1390.37 lakhs only during 2002-03 as against Rs.1606.68 lakhs estimated earlier. Taking this amount of actual cost in 2002-03 we allow 6.47% increase as asked for 2003-04 and the admitted amount comes to Rs.1480.33 lakhs.

6.3.2 OPERATION & MAINTENANCE (INCLUDING COST OF CONSUMABLE).

The amount claimed by DPL towards operation and maintenance is as under :

	Rs. lakhs.
Consumable stores	900.00
Other Repairs & Maintenance	957.22
Total	1857.22

It has been stated the expenses under consumable stores for their age-old generating units depend on quantum of generation and paise 5 per Kwh was the average cost witnessed in the previous year. Repairs & maintenance expenses have been estimated to be Rs.857.22 lakhs for Plant and Machinery, Rs.25.00 lakhs for Buildings and Rs.75.00 lakhs for other assets. It has been highlighted that the sixth unit of the Power Plant was commissioned during 1985-86 and in 2003-04 it would reach its residual value. The estimated generation in the 6th unit during 2003-04 has been considered 513 MU at 53.24% PLF. To maintain such high PLF with this age- old unit they require to incur more R & M expenses. The total estimated R & M expenses claimed by them comes to 1.90% of the gross fixed assets at the beginning of the year.

The cost of consumables claimed by DPL appears to be on the higher side if it is viewed as variable with quantum of generation. We have noted that cost of consumable came to Rs.408.98 lakhs in 2002-03 as against actual generation of 1359 MU. On the basis of such actuals we allow Rs.568.78 lakhs for 2003-04 considering an average increase in cost by 5% on account of inflation factors etc. In view of highlighting the needs for attending special maintenance in Unit No. 6, we admit the amount claimed for other repairs and maintenance. The Operation and Maintenance cost including the cost of consumables, thus, comes to Rs.1526.00 lakhs and we admit the same.

6.3.3 COST OF WATER.

The cost of water has been claimed by DPL Rs.1202.08. As mentioned earlier, the water processing Plant of DPL supplies processed water to Power Plant and the rate of consumption of water in the process of generation has been estimated to be 14.4 litre per Kwh. The other use of water is 1400 million litre per year. So far cost is concerned, the estimation has been done @ Rs.4.40 per KL which is being charged from other consumers also. This rate include profit margin for the sister division and that is not allowable in the case of inter divisional transfer of product. In the absence of actual cost data we allow cost of water @ Rs.2.30 per KL as allowed in the earlier year. With this rate the cost of estimated consumption of 27320 KL comes to Rs.628.36 lakhs and we allow the same amount.

6.3.4 ADMINISTRATION & GENERAL CHARGES.

Administration and General Charges claimed by DPL for the year 2003-04 are as under:-

Rs. in lakhs.

a) Audit fees 0.15

b) Rent, Rates & Taxes 1.00

c) Insurance.....80.00

d) Other expenses including allocation of expenses of service Department and Central Workshop. 2279.07

2360.22

We admit the amount of Audit Fees, Rent, Rates & Taxes and Insurance Charges as claimed by DPL. The amount of Rs.2279.07 lakhs claimed by them towards other expenses including allocation of the expenses of Service Department and Central Workshop includes an amount of Rs.30.00 lakhs provided for demurrage charges. We do not allow this provision as payment of any such charges can be avoided with better management. The claimed amount of Rs.2279.07 also includes Rs.2168.74 lakhs towards allocation of Service Department's expenses. In the previous year such allocation was only for Rs.1708.79 lakhs. We allow average 6% hike over the amount of actual expenses in the previous year and the amount comes to Rs.1811.32 lakhs. The Administration and General Charges admitted by us, thus, comes as under:-

Rs. in lakhs.

a) Audit fees 0.15
b) Rent, Rates & Taxes 1.00
c) Insurance 80.00
d) Other expenses including allocation of expenses of Service Department and Central Workshop. 1891.65

Total 1972.80

6.3.5 ASH DISPOSAL EXPENSES.

The amount of Rs.12.00 lakhs claimed by DPL towards ash disposal expenses is admitted by us.

6.3.6 MISCELLANEOUS EXPENSES WRITTEN OFF.

The amount of Rs.3.31 lakhs claimed towards Miscellaneous Expenses to be Written Off is also admitted by us.

6.3.7 PROVISION FOR DOUBTFUL DEBTS.

DPL asked for Rs.29.09 lakhs towards provision for Bad Debts. Age-wise analysis of the outstanding Debtors for supply of electricity as on 31st. March 2002 has been provided by DPL. It has been shown that Rs.1932.09 lakhs remained unrealized for more than 3 years and it has been estimated that 5% of such debts may be bad. For the year 2003-04 they asked for provision for Rs.29.09 lakhs. We admit the same.

6.3.8 INTEREST & FINANCE CHARGES.

DPL raised loans from CEA, PFC, market borrowings through Bonds and from the State Government. The loans from CEA and PFC are specifically for the Power Plant. But the loans through market borrowing and from the State Government have been allocated to Power Plant on usages basis. The total interest for the year 2003-04 has been projected to be Rs.4536.11 lakhs out of which Rs.292.32 lakhs are to be capitalized. The balance amount of Rs.4243.79 lakhs is chargeable to Revenue Account. The detail workings of chargeable interest source- wise and loan wise have been provided by DPL. In addition to the interest payments, DPL is required to pay Guarantee Fees to the State Government for providing guarantee for the loans taken from PFC and through Bonds. The estimated amount of such guarantee fees (@ 0.5%) claimed by DPL is Rs.142.43 lakhs. We admit the amount of interest and guarantee fees claimed by DPL

It has been noted that in case of PFC loan No.50404008, which is under the Accelerated Generation and Supply Programme (AG & SP), DPL is eligible for certain rebate. It has been stated that the rebates so far actually received and actually passed on to DPL have been taken into consideration for working out the interest burden. For balance amount of this loan, interest has been worked out at normal lending rate of PFC. The amount of rebate, if so received in future, will be adjusted by the Commission from the Revenue Requirement of the next year.

6.3.9 DEPRECIATION.

The total depreciation charges claimed by DPL for the year 2003-04 is for Rs.3017.04 lakhs. The detailed computation of the depreciation following the rates and manner as notified by the Government under the provision Electricity (Supply) Act 1948 has been provided by DPL. We admit the amount of depreciation charges claimed.

6.3.10 NET REVENUE REQUIREMENT AND AVERAGE COST OF SUPPLY.

On the basis of analysis done by us in the earlier chapters and in this chapter we, calculate the Statement of Net Revenue Requirement and the average cost of supply per unit of Energy.

STATEMENT OF REVENUE REQUIREMENT & AVERAGE COST OF SUPPLY FOR FY 2003-04

		As per projection of DPL	As admitted by the Commission
		MU	MU
A-1	Generation	1800.00	1800.00
2	Auxiliary Consumption	180.00	198.00
3	Energy sent out	1620.00	1602.00
4	Purchase	0.00	0.00
5	Total Energy	1620.00	1602.00
6	T & D loss	183.36	83.98
7	Net energy for sale	1436.64	1518.02
8	Projected Sale	1436.64	1436.64
9	Unaccounted Energy		81.38
		Rs. lakhs	Rs. lakhs

B-1	Fuel cost	22574.87	17104.80
2	Purchase of Power	0.00	0.00
3	Utilities(Water)	1202.08	628.36
4	Employees' cost	1710.65	1480.33
5	Operation & Maintenance(including cost of consumables)	1857.22	1526.00
6	Administration & General expenses- e) Audit fees f) Rent, Rates & Taxes g) Insurance h) Others	 0.15 1.00 80.00 2279.07	 0.15 1.00 80.00 1891.65
7	Ash disposal Expenses	12.00	12.00
8	Misc. Expenses written-off	3.31	3.31
9	Provision for Doubtful Debts	29.09	29.01
10	Interest & Finance Charges	4386.22	4386.22
11	Depriciation	3017.04	3017.04
12	Total expenses (1 to 11)	37152.69	30159.95
13	Resonable Return	201.99	201.99
14	Contingency Reserve	264.27	264.27
15	Gross Revenue Requirement(12+13+14)	37618.95	30626.21
16	Other Income	233.04	233.04
17	Unaccounted Energy	0.00	1046.83
18	Net Revenue Required(15-16-17)	37385.99	29346.34
19	Average cost of supply(18/A-8)(Paise/kwh)	260	204
20	Revenue at the existing tariff	28638.76	27439.82
21	Deficit to be recovered(18-20)	8747.16	1906.52

CHAPTER – 7: REVENUE REQUIREMENT FOR 2004-05.

In this chapter, the Commission will assess the revenue requirement of DPL for the year 2004-05. For determining the same, the Commission will asses the cost relating to fuel and purchase of power, fixed cost and reasonable return.

7.1 SALE, GENERATION AND T & D LOSS.

Durgapur Project Limited(DPL) is a generating company and also a sanction holder and supplies power in Durgapur area to different consumers at EHV,HV and LV.

7.1.1 GENERATION:

DPL has a coal fired thermal power station at Durgapur which after meeting its local demand supplies the surplus power to the WBSEB. The station has six units of total installed capacity of 397 MW which was derated to 387 MW in 2000-01. Units 1 to 5 have an average vintage over 38 to 44 years while the sixth unit has been in operation for the past 17 years. Central Electricity Authority in a survey conducted in 1984 had identified DPL power as one on the wane. DPL had initiated a RUM/LEP programme in late 1998-99 to increase the capacity and the life of the units at a project cost of around Rs. 340.24 Crores. It was envisaged

that the capacity of the plant after the above RUM/LEP work would be 401 MW and the station availability would increase to more than 80%. In addition to life extension the RUM programme was also expected to improve efficiency in fuel consumption and auxiliary consumption. The above work has been completed by the end of 2001-02 but unfortunately neither the performance of the units have stabilized nor the fuel consumption/ auxiliary consumption has improved.

The table summarizes DPL's unit wise generation, PLF and other parameters for 2003-04(RE) based on actuals upto October'03 and the corresponding projections for 2004-05

	2002-03(Actual)		2003-04 RE		2004-05 Projected	
	Gen. (MU)	PLF (%)	Gen. (MU)	PLF (%)	Gen. (MU)	PLF (%)
Unit No. 1	18.24	6.94	18	6.84	48	18.26
Unit No. 2	17.14	6.52	53	20.17	48	18.26
Unit No. 3	277.19	41.09	444	65.82	427	63.30
Unit No. 4	251.68	37.31	466	69.09	406	60.19
Unit No. 5	353.63	52.43	389	57.67	444	65.23
Unit No. 6	441.12	45.78	430	44.62	492	51.06
Gross Generation	1359.00		1800		1865	
PLF		38.69%		51.24%		53.09%
Availability		56.99%		66.15%		75%

As seen from the above table the generation projection for 2004-05 falls short of anticipated 68.5% PLF. It is however observed that unit-3 has been planned for short overhauling in April' 04 and unit-4 has also been scheduled for overhauling in October'04. It is also noted that Unit-6 has been earmarked for shutdown for about one and half months up to 15th January'05 for RLA study. The generation has thus been projected at a PLF of 53.1% which is be considered for tariff calculation.

7.1.2 PURCHASE OF POWER

The generation of DPL from its own power station is sufficient to meet its local demand and the excess/ surplus power is sold to WBSEB at 220/132KV on interconnection mode. DPL also supplies power at 11KV & 33KV to meet the local demand of the area under WBSEB licensed area under radial mode . DPL currently does not sale /purchase power from any other utility apart from WBSEB . DPL does not envisage any purchase of power during 2004-05.

7.1.3 ASSESSMENT OF CONSUMPTION(SALES)

Category wise sales of DPL for the financial year 2002-03, 2003-04(RE) and projection for 2004-05 are tabulated below.

	2002-03 Sale (MU)	2003-04 RE (MU)	2004-05 Projected (MU)
Domestic	33.43	34.71	36.32
Comml. & Public Lighting	11.99	14.44	14.61
Industrial LT Industries	4.09	5.16	5.20
Irrigation	-	-	0.16
Industrial HT Industries	726.57	10767.09	1264.36
Bulk Sale to WBSEB	350.63	361.46	207.48
Interplant Transfer	26.88	29.51	29.51
Total	1153.59	1512.37	1557.66

It is observed form the above table that there has been around 18.49% increase in projected sales for H.T. Industrial consumers while the total sale has increased only by 3% over the RE for 2003-04. DPL has intimated that the sale to HT Industrial consumers has been worked out based on past consumption pattern and expected future prospects on case to case basis. The steady growth in demand from this segment, witnessed since the introduction of concessional TOD tariff , is expected to continue. It is estimated that the sale to Industrial HT consumers constitute around 93% of the total projected local sale. The total contract demand of HT industrial consumers has been shown to have increased from around 27.93MVA in 1998-99 to 220MVA in 2004-05.

7.1.4 T & D LOSS

DPL has projected a T&D Loss of 7% on local sales for 2004-05. As per revised estimate for 2003-04 the T&D loss figure has been shown as 7%. DPL has undertaken schemes for strengthening and extending its T&D network in its command area of around 120 sq. Km. Moreover, DPL is replacing Electro Mechanical type energy meters with electronic meters. Electronic Meters have been installed for all TOD consumers whose consumption accounts for around 90% of the total local consumption. DPL has also taken several actions with the help of Police and local administration against unauthorized consumption of power. They have also provided Check Meters for every 11KV radial feeder feeding each major industry and constantly monitoring the drawal. The work for augmentation and renovation of T&D system has already started in 2001-02 at a projected cost of around Rs. 36.00 Crores which is to be completed in phases by 2005-06. The commission, after considering all the above aspects approves a T&D Loss of 6.5 % on local sales for 2004-05, as allowed in the last year, with an instruction to undertake steps to control and reduce the technical loss further.

Based on the above generation, the energy supply plan including bulk supply to WBSEB for the year 2004-05 is given below considering the normative auxiliary consumption of 11% as per GOWB and T&D loss of 6% as stated above.

1	Gross Generation	1865.00 MU
2	Auxiliary consumption @ 11%	205.15 MU
3	Energy sent out	1659.85 MU
4	Energy Purchased	NIL
5	Energy available for sale(3+4)	1659.86 MU
6	Energy sold to WBSEB at 132/33 KV	200.00 MU
7	Energy available for local sale (5-6)	1459.85 MU
8	Normative T & D Loss @ 6.50 % on (7)	94.89 MU
9	Projected local sale	1357.66 MU
10	Unaccounted Energy (7-8-9)	7.30 MU

Cost of Unaccounted Energy :
7.30/0.935 = 7.81 MU @ 85.76 Paise/ Kwh = Rs. 66.98 Lakh.

7.1.5 FUEL COST

The price and GCV of coal and oil etc. as projected by DPL for 2004-05 are given below:

Weighted average price of coal- Rs. 1297 per MT

Weighted average price of Oil – Rs. 15047 per KL

GCV of Oil - 9090 Kilo calories per litre.

Sp. Coal consumption - 0.781 kg per Kwh.

Sp. Oil consumption - 5.45 ml per Kwh.

In order to find out the fuel cost of Generation of DPL we are to fix the normative parameters based on which the actual calculations have to be done. There are uncertainties in the quality of coal supplied to the station since a number of different collieries are linked to the station and the supply varies both in quantity and quality very often. DPL, however, has projected the coal mix for 2004-05 based on the expected grade wise coal supplies such that the overall grade proportion will be nearer to that of 2002-03 and the GCV of coal will also be similar to that of 2002-03. However, it is observed from the details of the actual coal mix used up to October, 2003 that it has a weighted average coal rate of Rs. 1092 per MT and weighted average GCV of 4950 Kcal per Kg. DPL is ,therefore, advised to continue with this mix of coal for 2004-05. The heat rate, sp.oil consumption and auxiliary consumption have been based on GOWB norms. The GCV of oil has been considered as 9178 kilocalories / litre as per actuals of 2002-03. The detailed calculation of the fuel cost is shown in the table enclosed.

Cost of Fuel for DPL TPS for 2004-05

Serial No.	Item	Unit	Projected By DPL	Allowed by Commission
1	Gross Generation	MU	1865	1865
2	Aux. Consupmtion	MU	205.15	205.15
3	Ex. Bus Generation	MU	1659.85	1659.85
4	Heat Rate	Kcal/Kwh		2960
5	Total Heat Required	Mkcal		5520400
6	GCV of Oil	Kcal/Litre	9090	9178
7	Specific Oil Consumption	ml/kwh	5.45	6.5
8	Oil Consumption	KL	10164.25	12122.5
9	Average Price of Oil	Rs/KL	15047	15047
10	Cost of Oil	Rs(Lakh)	1529.43	1824.07
11	Heat Generated from Oil	MKcal		111260.31
12	Heat Generated from Coal	Mkcal		5409139.70
13	Wtd. Average GCV of Coal sp Coal consumption	Kcal/KG Kg/Kwh	0.781	4950
14	Coal Required	MT		1092755.50
15	Coal required with 4% transit loss		1494000	1136465.70
16	Wtd. Avg. price of coal(with Rly Freight)	Rs./MT	1297	1092
17	Cost of Coal	RS(Lakh)	19376.00	12410.21
18	Total cost of Fuel	RS(Lakh)	20905.43	14234.28
19	Fuel Cost/Kwh sent out	Paise/Kwh	125.95	85.76

7.2.1 CAPITAL BASE & REASONABLE RETURN

The position of their Capital Base at the end of the financial year 2004-05 as projected by DPL following the Principles laid down in the Sixth Schedule to Electricity (Supply) Act 1948 has been shown is as under: -

Rs. in lakhs.

1. Original cost of fixed Assets 53210.26
Less consumers' contribution.....958.53

52251.73

2 . Cost of Intangible Assets..... NIL

3. Capital Works in progress.....1119.45

4. Working Capital :

a) Fuel stock Consumable stores & spares	3788.97	
b) Cash & Bank Balance	424.25	
		4213.22

Total (A) 57584.22

Less:

5. Accumulated Depreciation.....22796.97
6. Loans (in Capital Accounts).....36396.35
7. Security Deposits from consumers. 108.49

Total (B) 59301.81

9. Net Capital Base (A – B)..... (-) 717.41

7.2.2 If this projected Capital Base at the end of 2004-05 is viewed with reference to projected Capital Base at the end of 2003-04 as mentioned in para 6.2.1, it will be seen that the negative Capital Base is to increase further by Rs. 1055.34 lakhs. As per projection of DPL the total of the original cost of fixed assets and Capital works in progress was Rs. 56137.32 lakhs at the end of 2003-04, whereas the same at the end of 2004-05 as per their projection comes to Rs. 54329.71 lakhs which indicates a shortfall in the projected Capital addition by Rs. 1807.61 lakhs. That is the main reason for increasing the negative Capital Base. DPL also could not properly estimate the value of Fuel and other consumable stores for inclusion in the Capital Base as Working Capital. It also does not maintain independent Cash and Bank Books for its power plant. The estimation of Cash and Bank balances has been done considering one twelfth of the projected expenditure excluding fuel cost, purchase of energy, interest and depreciation. Detail analysis of the different positive and negative items in the statement of Capital Base has not been done as by their own estimation the Net Capital Base is coming negative and they are not entitled for any return at Standard Rates as per provision contained in the Sixth Schedule to Electricity (Supply) Act, 1948. We, however, allow them 0.5% on the projected outstanding balance of loan in the Capital Account (i.e. Rs. 36396.35 lakhs), which comes to Rs. 181.98.

7.2.3 SPECIAL APPROPRIATION

The special appropriation asked for by DPL for the year2004-05, are against

Rs. in lakh

a) Contingency Reserve 266.05
b) Losses suffered during 2001-02 &2002-03..... 8300.70

Total 8566.75

DPL plans to provide 0.5% of the original cost of fixed assets as Contingency Reserve in compliance with para (iv) of the Sixth Schedule to Electricity (Supply) Act, 1948. The projected original cost of fixed assets has been taken as Rs 53210.26 lakhs and the required amount at the rate of 0.5 percent works out to Rs.

266.05 lakhs. No such Contingency Reserve was earlier created by DPL in the past. We however, allow the amount claimed for the year 2004-05. DPL will have to investment the amount in securities as per requirement of the Act. The Commission will watch over the investment and any deviation in this regard will suitably be dealt with while fixing their tariff for coming year.

The claim for Special Appropriation towards losses suffered during the year 2001-02 and 2002-03 is not being entertained by the Commission as power tariff for the concern period have properly been fixed by the Commission.

7.3 FIXED COST

The fixed cost claimed by DPL for the year 2003-04 under different heads of accounts are being analysed in the present part of our order to ascertain the reasonability of such claims and to see to what extent those can be admitted.

7.3.1 EMPLOYEE COST

DPL claimed Rs. 1868.05 lakhs towards employee cost which comprises of salary, wages, Bonus, contribution to P.F. and other funds, leave salary and other staff welfare expenses. The projection is said to be based on assuming 5% escalation over the previous year's estimated expenses of Rs.1779.10 lakhs. But no realistic assessment of the cost on this account in the previous year, i.e., in 2003-04 has been presented. The actual cost of employees during 2002-03 was Rs. 1390.37lakhs. The reasons for escalating that amount by unusually 28% over a year have not been brought out. DPL is doing certain capital works. How much of the employee cost requires to be apportioned to such capital cost has also not been disclosed. So far staff strength is concerned, it has been stated that the total number of employees was 1327as on 31/03/2003 as against 1625 in 1999-2000and the utility is taking effective steps to reduce the employee strength by not filling up the vacancies created on account of retirement. The utility has started making redeployment of its employees and in that process; it has withdrawn almost all the functional activities of its Kolkata Office by shifting the personnel from Kolkata to Durgapur. It has also been stated that the number of staff per MU sold by DPL is only one and that is lower than any other utilities as well as all India average as per the Annual Report (2001-02) on the working of State Electricity Boards and Electricity Department published by the Planning Commission in May 2002. DPL is a multi-unit company with various service Departments catering to the needs of different production units and the power plant requires to share employees cost of such Service Departments. In the present submission itself, DPL claimed Rs. 1391.29 lakhs towards share of employee cost of Service Department and Central Workshop as Administration & general expenses. If that aspect is taken into consideration, DPL will not be in comparative position in regard to man power deployment.

In the absence of proper and realistic assessment of the requirement of employee cost, the Commission admits an increase by 10% of the cost admitted in 2003-04 and the amount comes to Rs. 1631.87 lakhs. The 10% increase in 2004-05 has been admitted as against 6.7% in earlier year on the ground that the volume of capital works has come down considerably during this year and DPL may require to appropriate less amount on that account.

7.3.2 OPERATION & MAINTENANCE (INCLUDING COST OF CONSUMABLES)

The amount claimed by DPL towards operation and maintenance is as under.

Rs. in lakhs

Consumable Stores	559.50
Other Repairs & maintenance	1305.79
Total	1865.29

So far cost of consumable stores is concerned it is not much difference with the amount admitted by us for the previous year (vide para 6.3.2) and we allow the amount claimed for. The amount of claim towards other Repairs & Maintenance includes Rs. 1172.12 lakhs for the Plant and Machinery as against Rs. 857.22 lakhs claimed for the previous year. They have highlighted the special maintenance needs for the Sixth unit of the

power plant which reached its residual value in the year 2003-04. But the other units of the power stations had gone through RUM and LEP only a short time ago and the cost of such RUM and LEP had been capitalized. We do not therefore, find sufficient ground for such increase in the cost of Repairs and Maintenance. We allowed Rs. 957.22 lakhs on this account in the year 2003-04 and allow Rs. 1014.65 lakhs for the year 2004-05 considering 6% increase towards inflation factors etc. The operation and Maintenance charges including the cost of consumables, thus, being allowed by us comes as under.

Rs. in lakh

Consumable Stores	559.50
Other Repairs Maintenance	1014.65
Total	1574.15

7.3.3 COST OF WATER

The need for use of processed water at the projected generation level of 1865 MU has been estimated to be 28442500 KL. The cost of water worked out by them @ Rs. 4 per KL is coming to Rs. 1137.70 lakhs. We allow Rs. 654.18 lakhs for the reasons as explained in para 6.3.3 in the earlier chapter.

7.3.4 ADMINISTRATION & GENERAL CHARGES

Administration and general charges claimed by DPL for the year 2004-05 are as under: -

a) Audit fees	0.15
b) Rent, Rates & Taxes	0.83
c) Insurance	65.00
d) Other expenses including allocation expenses of	
Service Department & Central Workshop	1851.19
Total	1917.17

The Commission allowed a total amount of Rs. 1972.80 (vide-para 6.3.4) in 2003-04 and hence the amount claimed for the year 2004-05 seems justified and we admit the same. It has, however, been noted that the amount claimed under the head Insurance is much less than the amount claimed and admitted for the previous year. The capital cost of the power plants has gone up on account of the capitalization of the expenses incurred for RUM and LEP. Accordingly, sum insured should have gone up. DPL is advised to look into this aspect and to ensure that the proper insurance cover is taken.

7.3.5 ASH DISPOSAL

DPL asked for a provision of Rs. 426.82 lakhs for Ash Disposal for the year 2004-05. It has been clarified that DPL is having three Ash ponds out of which two Ash Ponds have already been filled up and the remaining one is also going to be filled up in another three months. The necessity of escavation of two ponds which have already been filled up have been highlighted and the estimated amount will be required to be spent urgently. It is stated that unless immediate action is taken for such escavation of Ponds and Ash Disposal system is strengthened it will be difficult to continue generation in the plants. In view of explanations given by DPL we allowed the amount asked for.

7.3.6 MISCELLANEOUS EXPENSES WRITTEN OFF

The amount of Rs. 31.61 lakhs claimed towards Miscellaneous Expenses written off is admitted by us. With this white off the balance under the concerned head will become NIL.

7.3.7 PROVISION FOR DOUBTFUL DEBTS

DPL asked for a Provision for Doubtful Debts to the extent of Rs. 42.60 lakhs. It has been clarified that the total outstanding amount of Sundry Debtors as on 31st March, 2003 was around Rs16657.04 lakhs. Age wise break up of the amount has been provided by them. It has been seen therein that the outstanding amount

more than three years is Rs. 3002.20 lakhs and dues are mainly from some industrial consumers who became sick or have been referred to BIFR or under liquidation. DPL proposed to create provision for bad and doubtful debts to the extent of 5 per cent on such outstanding balance, and the amount comes to Rs. 150.11 lakhs out of which total amount of Rs. 107.51 lakhs has already been provided by them. And the balance amount of Rs. 42.60 lakhs has been considered to be provided during the year 2004-05. The provision asked for appears to be justified and we allow the same.

7.3.8 INTEREST & FINANCE CHARGES

DPL raised loans from CEA, PFC, and Market Borrowing through Bonds and from the State Government. Total outstanding loans at the beginning of the year and at the close of the year 2004-05 have been shown Rs. 44229.18 lakhs and Rs. 41940.16 lakhs respectively. The fresh borrowing and repayment of loan have been projected to be Rs. 650.00 lakhs and Rs. 2939.02 lakhs respectively. The total interest of loans has been worked out Rs. 6442.39 lakhs out of which an amount of Rs. 137.61 lakhs has been considered for capitalization and the balance amount of Rs. 6304.78 lakhs has been asked in the Revenue Account. Detail Workings of the chargeable interest have been presented by DPL. In addition to interest charges, they claimed Rs. 116.53 lakhs for Guarantee Fees payable to the State Government for providing guarantee for the loans taken from PFC and through Bonds.

It has been noted that the loans from PFC are under the Accelerated Generation and Supply Programme (AG & SP) and DPL is eligible for a specified rebate in the rate of interest on those loans. From the filing of DPL it is seen that total amount of such rebates works out to Rs. 111.74 lakhs during 2004-05. They have not reduced their claims for interest charges by this amount. The interest and finance charges being allowed by us after adjustment of such rebates come as under.

i) Interest..... 6304.78

Less Rebate receivable..... 111.74

6193.04

ii) Guarantee Fees.....116.53

6309.57

7.3.9 DEPRECIATION

The total depreciation charges claimed by DPL for the year 2004-05 is for Rs. 3147.64 lakhs. The detailed computation of the depreciation following the rates and manner as notified by the Government under the provision Electricity (Supply) Act 1948 has been provided by DPL. WE admit the amount of depreciation charges claimed.

7.3.10 NON TARIFF INCOME

Non tariff income as projected by DPL for the year 2004-05 of Rs. 305.42 lakh is admitted by the Commission.

7.3.11 NET REVENUE REQUIREMENT AND AVERAGE COST OF SUPPLY.

On the basis of analysis done by us in the earlier chapters and in this chapter we, calculate the Statement of Net Revenue Requirement and the average cost of supply per unit of Energy.

STATEMENT OF REVENUE REQUIREMENT & AVERAGE COST OF SUPPLY FOR FY 2004-05

		As per projection of DPL	As admitted by the Commission
		MU	MU
A-1	Generation	1865.00	1865.00

2	Auxiliary Consumption	205.15	205.15
3	Energy sent out	1659.85	1659.85
4	Purchase	0.00	0.00
5	Total Energy	1659.85	1659.85
6	T & D loss	102.19	87.59
7	Net energy for sale	1557.66	1572.26
8	Projected Sale	1557.66	1557.66
9	Unaccounted Energy	NIL	14.60
		Rs. lakhs	Rs. lakhs
B-1	Fuel cost	20905.43	14234.28
2	Purchase of Power	0.00	0.00
3	Utilities(Water)	1137.70	654.18
4	Employees' cost	1868.05	1631.87
5	Operation & Maintenance(including cost of consumables)	1865.29	1574.15
6	Administration & General expenses- i) Audit fees j) Rent, Rates & Taxes k) Insurance l) Others	0.15 0.83 65.00 1851.19	0.15 0.83 65.00 1851.19
7	Ash disposal Expenses	426.82	426.82
8	Misc. Expenses written-off	31.61	31.61
9	Provision for Doubtful Debts	42.60	42.60
10	Interest & Finance Charges	6421.31	6309.57
11	Depriciation	3147.64	3147.64
12	Total expenses (1 to 11)	37763.62	29969.89
13	Resonable Return	181.98	181.98
14	Contingency Reserve & previous losses	266.05	266.05
15	Gross Revenue Requirement(12+13+14)	38211.65	30417.92
16	Other Income	305.42	305.42
17	Unaccounted Energy	0.00	66.98
18	Net Revenue Required(15-16-17)	37906.23	30045.52
19	Average cost of supply(17/A-8)(Paise/kwh)	2.43	1.93
20	Deficit of FY 2002-03		2799.78
21	Deficit of FY 2003-04		1906.52
22	Total Revenue Required (18+20+21)		34751.82

CHAPTER – 8 : TARIFF.

8.1 The tariff schedule for 2004-05 and its associated conditions are given below :

Consumer category	**Consumption slab**	**Demand Charge**	**Energy Charge**

		(Rs./KVA/month)	**(P/Kwh)**
High Voltage Supply			
Rate-A(1a) -Industrial		200	200
Rate-A(1b) – Industrial producing Soda with Mono-Chloro Benzene		200	200
Rate-B(1a)- TOD tariff	6 AM – 5 PM 5 PM – 11 PM 11 PM – 6 AM	200 -- --	200 250 130
Rate-A(2)-Public Utilities		200	185
Rate-A(3)-Non-Industrial/Non-Domestic		200	225
Rate-A(4)-Cold Storage and Diaries with Chilling Plant		200	200
		Fixed Charge(Rs./Con./month)	**Energy Charge(P/Kwh)**
L & MV Supply			
Rate-C(1) - Industries	Upto 500 Above 500	20 20	230 250
Rate-C(2) - Public Utilities		20	200
Rate-C(3) - Domestic Purposes	Upto 25 Units Upto 50 Units Upto 100 Units Upto 300 Units Above 300 Units	-- -- -- -- --	165 170 180 210 215
Rate-C(4)-Commercial Purposes	Upto 60 Units Upto 100 Units Upto 300 Units Above 300 Units	5 15 25 30	200 200 205 225
Rate-C(5)- Irrigation and Pump load		50	220
Rate-D(2) - Single Point Co-op		20	220
Rate-D(3) - Bulk Colony Supply		20	220
WBSEB Supply			
Rate-E(1) - WBSEB 132 KV		--	185
Rate-E(2) - WBSEB 33 KV		--	190
Rate-E(3) - WBSEB 11 KV		--	195
Inter Plant Transfer		--	230

There will not be any change in the general terms and conditions as has been given in the tariff order dated 24th May, 2004 except in respect of the following and the same shall also to be applicable for the years

2002-2004

i) The tariff, that has been fixed for 2001-02 in the tariff order dated 24th May 2004, shall continue for the years 2002-03 and 2003-04.

ii) There shall not be any concession in tariff unless the cost of the same is borne by the respective authorities under whose order such concession has been extended and it should not be charged on the other consumers of DPL.

iii) The Load factor rebate shall be paise 10 / Kwh to the consumers having load factor above 55% on the consumption above 55%.

iv) For consumers under Rate C(1), C(2), C(4), C(5), D(2) and D(3). There will be no minimum charge.

v) The Demand charge for any month shall be based on maximum recorded during the month or 75% of the contract demand whichever is higher.

vi) In the event of drawl of power by any bulk consumer exceeding its contract demand, the demand charge for the excess drawl beyond the contract demand shall be 1.5 times the normal rate.

vii) For TOD consumers, if maximum demand recorded lies between Clause (v) and (vi) as stated above then Demand charge shall be based on excess maximum demand recorded during peak and off-peak period from that of normal period.

The demand recorded during normal period shall be charged at normal rate and the excess demand shall be charged on a pro-rata basis @ 140% & 60% for peak and off-peak period as the case may be.

8.3 Recoveries of the arrear and the refund may become necessary in view of the implementation of the tariff from retrospective effect. DPL now may require some time to implement the order of the Commission. The Commission felt that since the total number of consumers of DPL is not large, it will not be difficult for them to implement the directions of the Commission at an early date. The Commission, therefore, directs that the revised tariff based on the present order is to be made effective from the consumption month of April 2004. For arrears, either for realization or for refund / adjustment, should start from the billing month of August 2004 and to be completed within a period of 18 months in equated monthly instalments. It is further made clear that the revision in terms of this order is to be made only after adjusting the previous arrears, if any, due to or from the consumers and be made provisional to all persons entitled to refund / receive the sum from realization from the arrears.

The Commission further directs that no interest shall be paid to or by the DPL for realization / refund / adjustment. The Commission directs that if DPL fails to recover / refund in terms of this order to the consumers as stipulated herein, then DPL will also be liable to pay interest to the consumers at the rate of 1.25% for first 3 months of the default and thereafter at the rate of 2% per month till the refund is made and such interest shall not be allowed as an expense in the revenue requirements / tariff in future. No charge will be admissible for the delay in recovery on the part of DPL from the Consumer but delay on the part of consumer to pay arrears as per schedule will attract Delayed Payment Surcharge.

8.4 It is open to the State Government to grant any subsidy to any consumer or any class of consumer in the tariff determined by the Commission. If at all any such subsidy under the provision of the act is intimated to DPL and to the Commission by the Government of West Bengal with clear indication of the consumer or class of consumers to be subsidized and the amount of subsidy is paid in advance, the tariff of such consumer and / or class of consumer shall be deemed to have been reduced accordingly as has been indicated by the Government of West Bengal. However, such direction of the Government shall not be operative if the payment is not made in accordance with the provision of the Act and stipulation made in this order and the tariff as fixed by the Commission shall be applicable.

8.5 The earlier tariff structure and the consumption pattern does not match in some cases and due to such deviation there may be some under / over recovery which may affect the over all approved revenue requirement, either more than revenue requirement or less than revenue requirement. The Commission recognise this problem and directs that DPL may keep suitable separate detailed accounts based on Sales figures considered in the Tariff Order and work out the difference solely on account of change in sales mix for applicable sub-categories for the respective years separately, if any, and come out with the same in next

tariff petition so that the same can be duly considered by the Commission and allow either to be recovered or to be refunded as the case may be. However, it is made clear that no reimbursement will be allowed related to shortfall on total sales as per the Order.

8.6 Fuel and Power purchase cost adjustment – In addition to the tariff already fixed, DPL would further be entitled to added sum towards the enhanced cost of fuel and power purchase. The following formula will be applicable for such adjustment in cost. It may, however, be clarified that amount to be reimbursed under the formula shall not exceed in any case the additional amount proportionately incurred on fuel cost and power purchase cost based on the various normative parameters and limits if already laid down and within the direction of the Commission. It is also made clear that for reimbursement of additional fuel cost only the basic fuel cost plus applicable taxes and levies plus railway freight plus road transportation cost wherever it is required will be considered.

8.7 Formula for fuel and power purchase cost adjustment (FPPCA)

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

$$\text{FPPCA (p/kwh)} : \frac{(FC + PPC) - C_D \pm A}{[(G_{own} + E_{imp}) \times (I - L)] (-) Q} - \frac{fc + ppc}{g_{own} + e_{imp} \times (I - L)} \times 100$$

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

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

C_D: Cost disallowed 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 and adjusted corresponding to actual level of sales.

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

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

E_{imp} (KWH): Total energy purchased at the sent out bus from different sources based on approved procurement plans during the adjustment period corresponding to actual level of sales.

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

Q (KWH): Quantity of temporary supply sold during the adjustment period.

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

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

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

e_{imp}: Power purchase at sent out bus as admitted by the Commission in the tariff order corresponding to the adjustment period

b) Any proposal for adjustment shall be subject to the approval of the Commission and once the proposal is approved, it should be reflected in the consumer's bill in a separate entry for their information. At the end of each adjustment period, the DPLshall calculate the FPPCA as per the above formula based on the approved parameters, cost and consumption. The complete details along with the cost data, quantitative details and

relevant information / document duly certified by the licensee for the subject matter revisions, and thereafter duly audited for the whole year for the March revision should be submitted to the Commission for approval within six months of the close of the period or within four months from the cause of action whichever is later. In case of any delay without adequate and justified reasons, the Commission may disallow wholly or partially the increase in FPPCA or in case of refund suitable compensation by way of interest to the consumers.

8.8 The Commission has fixed the tariffs in terms of this order in terms of provisions of section 64(3) read with section 62 of the Electricity Act, 2003 and keeping in view the provisions of sections 61, 172, 173, 174 and 185 of the Electricity Act, 2003. Due cognizance has been taken of the Electricity Regulatory Commission Act 1998 to the extent it is applicable.

Sd/- 09.06.2004 **Sd/- 09.06.2004**

N.C. Roy **S. N. Ghosh**

Member **(Tech.) Chairperson**

I have the privilege of going through the Majority Order, but I am not able to agree with the same and differ due to the fact that the conclusions and the decisions are not based on facts, materials on record, some of the valid objections raised by the consumers, and the provisions of the Act and also keeping in view the relevant and applicable principles as have been laid down by the Order dated 3.10.2002 of the Hon'ble Supreme Court of India in case of CESC and also on misreading of the evidences / material on record.

1. The Revenue Requirement for 2002-03 has been worked out partly taking the expenses based on audited actuals of 2002-03 and also generation, sale and T&D loss based on projection which were submitted subsequently along with the tariff petitions of later years and these were not material on record for 2002-03 on which consumers were asked to file objections and heard. The adoption of such sales, which is quite less than the sale projected for 2002-03 and even less than the sale taken for 2001-02, works against the interest of the consumers. The estimated net generation for 2001-02 shown is 1041.44- MU against 1357.50 MU adopted and approved in tariff order of 2001-02. In the tariff petition for 2002-03, the net generation was 1896.89 MU against 1208.70 MU now adopted by the Commission. There are no satisfactory reasons for such substantial drop in generation from the tariff petition of 2002-03 and approved figure for 2001-02. Some of the consumers have already adversely commented upon such projected low figures.

Similarly, some of the other expenses for 2002-03 have been taken from the audited accounts for 2002-03, which have been submitted with the tariff petition for 2004-05. However in case of Capital Base and Reasonable Return, the figures have been taken for the year 2002-03 as submitted in the tariff petition and not as given in later petitions.

The Commission has not taken earlier the figures on such basis in its tariff orders and there are no reasons for deviation from the Policy being followed consistently, that too only for one year in this case, which in my opinion is also not correct and goes against the interest of consumers and amounts to reward the licensee for its inefficiency.

2. The amount of loan taken in capital base is Rs. 41086.09 lakhs in para 5.2.1 whereas the similar figure for outstanding loan in para 5.2.4 is 39490.20 lakhs.

3. The case of DPL for 2000-01 and 2001-02 was remanded back to the Commission with certain specific directions by the Hon'ble High Court at Calcutta. One of the issues was to look into the allowability of fixed cost keeping in view of low Plant Load Factor.

The Commission finally issued order for the above years vide its order dated 24.5.2004 and in that order, the Commission has come to the conclusion and decision that the PLF for DPL should be 68.5% and Plant Availability at 80% in view of the reasons indicated therein. The Commission has imposed an adhoc penalty for 2000-01 because of low PLF and imposed penalty for unit no. 6 as its PLF was less than 68.5% and as a special case no penalty was imposed for units 1 to 5, PLF of which was projected at 55% in case of 2001-02. However, in the present order, the PLF for 2002-03 is 38.69% (ranging between 6.52% and 52.43% for

various units), 51.24% for 2003-04 (ranging between 14.08% and 68.34% for various units) and 53.09% for 2004-05 (ranging between 18.26% and 65.23% for various units). The consumers have also raised objections on this low PLF / Availability and justification of incurrence of huge expenditure recently under RUM & LEP amounting to about Rs. 363 crores on 277 MW units, apart from other expenditure. Even though the PLF is less than the earlier orders, no penalty for such low PLF has been imposed on DPL, which is not justified, and indirectly means rewarding for the inefficiency of the licensee and deviates without justification from the earlier decision of the Commission taken on the directions of Hon'ble High Court at Calcutta, particularly when Commission itself is not fully convinced of PLF lower than 68.5% as stipulated in the approved project report.

4. There is huge difference between PAF and PLF. In 2002-03, PAF is 56.99% & PLF is 38.69%, in 2003-04 PAF is 75% & PLF is 51.00% whereas in 2004-05 PAF is 75% & PLF is 53.09%. The entire generation of DPL is committed for sale to its consumers and balance if any to WBSEB. How is that then DPL could not improve its PLF to the level of near to PAF and sold such surplus power to WBSEB so that consumers could get the benefit of reduced tariff. This important point has not been seen and considered in the above order particularly when this objection was raised by the Commission during proceedings for which no satisfactory reply has been received.
5. The basis of recovery towards unaccounted cost of energy for 2002-03 at the rate of 162 paise per Kwh, 106.77 paise / Kwh for 2003-04 and 85.76 paise / Kwh for 2004-05 is not based on either earlier decision of the Commission followed consistently or is without any cogent basis and reasoning.
6. Though there appears to be net Capital expenditure of about Rs. 10 crores for 2002-03, Rs. 30 crores for 2003-04 and negative Rs. 18 crores for 2004-05, but the same has not been considered and dealt along with its impact, basis and justification in the tariff order. How capital expenditure can be negative is not clear from the order / petition. Also the conclusion drawn in para 7.2.2 that the net capital base has become more negative because of short fall in projected capital addition by Rs. 1807.61 lakhs, is also not correct. I also do not agree with the above basis of working of capital base, which is negative and not allowing any return to DPL.

7. The overall O&M expenses including others of DPL as allowed by the Commission is quite high and works out to about 12% of the total capital cost in 2004-05 and in my opinion it is on higher side particularly when the capital cost includes substantial amount of expenditure incurred recently including on RUM and LEP. The water charges, which is purchase from other unit of DPL, itself is 1.23% of total original cost of Fixed Assets including Transmission & Distribution Assets. Similarly, other expenses including allocation of common expenses of Service Department and Central Workshop is 3.48% of the Capital cost apart from 2.96% of Capital Cost on Repairs & Maintenance and Consumables. I do agree and appreciate that some additional expenses is required for Distribution System, but keeping in view of area of operation and profile of consumers, the same should not be much.
8. The revision in tariff including terms and conditions is not in accordance with the provisions of the Act and Policy being followed in other cases.

Sd/-
(A. K. JAIN)
MEMBER (F&A)

Date: 09.06.2004

Previous