



ORDER

OF THE

**WEST BENGAL ELECTRICITY REGULATORY
COMMISSION**

IN CASE NO.: FPPCA-55/11 – 12

**IN RE THE APPLICATION OF THE WEST BENGAL
POWER DEVELOPMENT CORPORATION LIMITED
FOR FUEL COST ADJUSTMENT (FCA)
FOR THE FINANCIAL YEAR
2010 – 2011.**

DATE: 16.10.2012



CHAPTER – 1 INTRODUCTION

- 1.1 In terms of the provisions contained in the regulation 2.8.7.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, the West Bengal Power Development Corporation Limited (in short “WBPDCCL”), a generating company, submitted its application on 14 October, 2011 for ascertaining the Fuel Cost Adjustments (in short “FCA”) separately for each of the following generating stations with extension units for the financial year 2010 – 2011.
- A) Kolaghat Thermal Power Station,
 - B) Bakreswar Thermal Power Station [(a) units I, II & III and (b) Units IV & V],
 - C) Bandel Thermal Power Station,
 - D) Santaldih Thermal Power Station (Unit V),
 - E) Sagardighi Thermal Power Station
- 1.2 The West Bengal Electricity Regulatory Commission (hereinafter referred to as the “Commission) made the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 (hereinafter referred to as the “Tariff Regulations”) in supersession of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2007, as amended (in short ‘Tariff Regulations, 2007’). The regulation 2.1.15 of the Tariff Regulations has, however, provided for dealing with aforesaid application of WBPDCCL applying the formula specified in Schedule – 7A to the Tariff Regulations on the basis of normative parameters as were used in the tariff order for 2010 – 2011 and also on the basis of regulation 4.8.1 of the Tariff Regulations, 2007.
- 1.3 WBPDCCL submitted in its application that part of the consumption of oil (L.D.O) at Kolaghat, Bandel and Sagardighi Thermal Power Stations exceeding the norm stipulated in the Tariff Regulations, 2007 was due to forced back-down when Area Load Despatch Centre (in short “ALDC”) of West Bengal State Electricity



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Distribution Company Limited (in short “WBSEDCL”) asked to de-synchronize the generating units. The re-synchronization of the units could be done only on obtaining clearance from ALDC. As such, since the de-synchronization and re-synchronization involving additional quantity of oil consumption were beyond the control of the generating station, WBPDCCL asked for allowing the recovery of an amount of Rs. 282.99 lakh in this regard through energy charges for the year 2010 – 2011.

- 1.4 WBPDCCL submitted that the FCA claims of the new units Sagardighi (Units I & II), Bakreswar (Units IV & V) and Santaldih (Unit V) have been prepared as per norms laid down under Schedule – 9A based on adhoc fuel cost allowed by the Commission in its order dated 29 July, 2010 in the case no. TP-39/08-09 until determination of tariff. In this regard it is stated that the Commission vide its order dated 30.12.2011 determined the energy charge for the new generating stations at Sagardighi (Units I & II), Bakreswar (Units IV & V) and Santaldih (Unit V). WBPDCCL was allowed to recover the energy charge at the rate approved in the order dated 30.12.2011 from the bill for the month of December, 2011 and any adjustment for over recovery / under recovery from WBSEDCL prior to December, 2011 in instalment through subsequent bills. Thus, the fuel cost for new units at Sagardighi, Bakreswar and Santaldih will be adjusted against the fuel cost approved in the order dated 30.12.2011 of the Commission.
- 1.5 WBPDCCL highlighted that out of the four old generating units of 120 MW each at Santaldih Thermal Power Station, units III & IV, were decommissioned on 20 January, 2009 and 7 October, 2008 respectively. The units no. I & II also outlived their useful life and were decommissioned on 1 April, 2010. In view of above, claim and determination of FCA of those units have not been considered.
- 1.6 The Commission has noted the submissions, as made by WBPDCCL. The issues raised by it will be examined and viewed in the subsequent parts of this order. The Commission has already ascertained the rates of energy charge for the new



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units at Sagardighi, Santaldih (Unit V) and Bakreswar (Units IV & V) Thermal Power Stations vide Commission's order dated 30.12.2011 in Cases No. TP-42/09-10, TP-45/09-10 and TP-46/09-10 based on WBPDCCL's tariff applications for second control period covering the financial year 2008 – 2009, 2009 – 2010 and 2010 – 2011. Upon submission of FCA by WBPDCCL for the year 2010 – 2011 the Commission proceeds to determine the amounts of admissible fuel costs for the units at Kolaghat, Bakreswar (Units I, II, III, IV & V), Bandel and Santaldih (Unit V) and Sagardighi Thermal Power Stations.

- 1.7 The Fuel and Power Purchase Cost Adjustments (in short "FPPCA") during the referred adjustment period, i.e., financial year 2010 – 2011, are to be ascertained in terms of the following formula as enunciated by the Commission and incorporated in Part – B in Schedule – 7A to the Tariff Regulations.

$$\text{"FPPCA (In Rs.)} = \{FC + (PPC - C_D) + (\pm A)\} - (fc + ppc)$$

Where –

- i) The adjustment period for fuel and power purchase cost will normally be on annual basis, if not otherwise decided by the Commission.
- ii) FC (Rs) Fuel Cost of own generation as per normative parameters fixed by the Commission or on actual basis in absence of any norm and UHV range as may be allowed under regulation 5.8 of the Tariff Regulations, 2011 commensurate with actual level of energy sales by the generating company to the licensee during the adjustment period.
- iii) PPC (Rs) Total cost incurred including the cost for fuel for power purchase from different sources commensurate with actual



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level of pumped energy required by pumped storage hydro-generating station only.

- iv) C_D (Rs) Cost disallowed by the Commission as having been incurred in breach of its economic generation, or of order / direction of the Commission, if any, or for any other reason considered sufficient by the Commission during the adjustment period and adjusted corresponding to actual level of sales to the licensee.
- v) A (Rs) Adjustment, if any, to be made in the current period to account for any claim due to excess / shortfall in fuel cost in the past adjustment period based on directions / orders of the Commission. (+A) shall be considered as the amount to be recovered from consumer and purchaser of electricity under the purview of the Commission when the generating company has already incurred that expenses. (-A) shall be considered as the amount to be refunded to the purchaser of electricity under the purview of the Commission because such amount of less expenses has been incurred by the generating company against any prior period adjustment.
- vi) fc (Rs.) Fuel cost of own generation for sale to the licensee as allowed by the Commission in the tariff order corresponding to relevant adjustment period.
- vii) ppc (Rs.) Power purchase cost allowed by the Commission for the relevant adjustment period in the tariff order for pumping energy required by pumped storage hydro-generating station only.



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viii) FPPCA thus determined on normative basis will further be adjusted for gain sharing as per Schedule – 9B for the parameter related to fuel cost only.”

1.8 The formula referred to above has two distinct parts. The first part is intended to arrive at the amount that should reasonably be recovered by a generating company from its energy recipients for the particular adjustment period under consideration towards fuel and power purchase cost. The second part is meant for the total amount of such costs that was allowed to be recovered through the power tariff fixed by the Commission on prospective basis. The difference between the two amounts is to signify the amount that needs to be either additionally recovered from or refunded to the recipients of energy, as the case may be. The factor PPC and ppc in the referred formula stands for “power purchase cost” and are not applicable for WBPDCCL in the present case. The nomenclature of each of other factor notations used in the formula and value that needs to be assigned to each of such factors is being discussed in the next chapter. The instant order is for ascertaining the amounts of admissible fuel cost separately for each of the concerned generating stations applying the first part of the formula referred to above.

1.9 The schedule – 9B to the Tariff Regulations contains provisions for sharing the gains, if any, derived by the generating company on account of its better performances over the operating and fuel consumption norms set by the Commission for the concerned year, with the energy recipient. The operational parameters which are to be considered for such sharing the gains are:

- i) Oil consumption rate,
- ii) Rate of Auxiliary Consumption,
- iii) Gross Station Heat Rate.

The referred schedule 9B to the Tariff Regulations also provides that in case availability of a generating station of the generating company falls below the



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availability norms, then the total gains meant to be passed on to the energy recipients under above item, is first to be used to compensate the deficit in the recovery of the fixed charges, if any, by the generating company.

- 1.10 It, therefore, needs to view the actual performances of WBPDCCL in comparison to the operational and fuel efficiency norms set by the Commission in the Tariff Order for the concerned year. Such comparisons are made hereunder:

SI No	Generating Station	Particulars	Unit	As per Tariff Order	As per Actual
1	Kolaghat	Plant Availability Factor	%	78.00	69.55
		Rate of Auxiliary Consumption	%	9.90	10.49
		Specific Consumption of Oil	ml/Kwh	2.05	2.84
		Station Heat Rate	KCal/kWh	2700.00	2801.602
2	Bakreswar	Plant Availability Factor	%	85.00	83.80
		Rate of Auxiliary Consumption	%	9.00	10.54
		Specific Consumption of Oil	ml/Kwh	1.30	0.98
		Station Heat Rate	KCal/kWh	2530.00	2539.660
3	Bandel	Plant Availability Factor	%	69.00	45.55
		Rate of Auxiliary Consumption	%	10.30	12.48
		Specific Consumption of Oil	ml/Kwh	2.85	9.13
		Station Heat Rate	KCal/kWh	2900.00	3007.182
4	Santalidih	Plant Availability Factor	%	85.00	70.40
		Rate of Auxiliary Consumption	%	9.00	10.60
		Specific Consumption of Oil	ml/Kwh	1.00	2.41
		Station Heat Rate	KCal/kWh	2350.00	2476.515
	Sagardighi	Plant Availability Factor	%	85.00	72.13
		Rate of Auxiliary Consumption	%	9.00	11.60
		Specific Consumption of Oil	ml/Kwh	1.00	1.60
		Station Heat Rate	KCal/kWh	2275.00	2322.318

The computations of actual Station Heat Rates achieved are shown in Annexure – 1A.

- 1.11 As observed from above, actual performances of WBPDCCL relating to the referred factors did not qualify for deriving gains to share with WBSEDCL except Bakreswar generating station where the actual rate of oil consumption is less



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than the norm. It has, however, been stated by WBPDC that they had to incur excess consumption of LDO at Kolaghat, Bakreswar, Bandel and Sagardighi generating stations due to forced back down of units at the instance of ALDC of WBSEDCL/SLDC. WBPDC has claimed that they had to consume excess oil due to such forceful de-synchronization and resynchronization of the units at Kolaghat, Bakreswar, Bandel and Sagardighi generating stations. It is seen from the documents submitted by WBPDC that the units at Kolaghat Thermal Power Station had to desynchronize as per the instructions from ALDC of WBSEDCL/SLDC due to low system demand for cyclonic weather in the following occasion only and the Commission admits the same. In all other cases as mentioned by WBPDC is for low system demand in normal condition which are taken into consideration during fixation of norm.

Units	Times of De-synchronization	Time of Light up	Time of Synchronization	Oil Consumption (KL)
6	11.03.2011 at 23.14 hrs	19.03.2011 at 13.45 hrs	19.03.2011 at 20.20 hrs	33

- 1.12 The Commission admits excess consumption of LDO of 33 KL for Kolaghat generating station for the above case since de-synchronization and synchronization of the units were done as per instructions from SLDC / ALDC to help grid operation during abnormal situation. The cost of such excess oil consumed comes at Rs. 13.04 lakh considering average price of oil as Rs. 39526.72 per KL.
- 1.13 As it comes out from above, the rate of oil consumption in respect of Bakreswar generating station came lower than the rates considered in the tariff order. All other parameters as per the actual performance of WBPDC fall short of the norms set by the Commission. In terms of provision contained in paragraph A1 of the Schedule 9B to the Tariff Regulations, WBPDC needs to share the gains derived by it by improving the oil consumption norm in respect of Bakreswar



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generating station. Such gains are to be shared with WBSEDCL, the lone purchaser of entire generation of WBPDC. This aspect will be further examined and considered in the next chapter.



ANNEXURE - 1A COMPUTATIONS OF ACTUAL STATION HEAT RATES ACHIEVED IN 2010 -2011

SI No	Particulars	Unit	Stations				
			Kolaghat	Bakreswar	Bandel	Santaldih	Sagardighi
1	Generation (Actual)	MU	7510.560	7726.79	1817.520	1546.036	3799.567
2	Consumption of Oil (Actual as given)	KL	21333.92	7567.233	16601.790	3725.850	6095.550
3	Consumption of Coal (Actual as given)	MT	6462108.000	5378783.100	1616704.100	1048196.940	2644595.000
4	GCV of Oil (Actual as given)	Kcal/Lit	9547.789	9512.196	9276.933	9229.176	9421.158
5	Heat value of Coal (Actual as given)	Kcal/Kg	3224.630	3634.919	3285.449	3619.925	3314.827
6	Heat from Oil (2X4/1000)	M.Kcal	203691.767	71981.003	154013.694	34386.525	57427.140
7	Heat from Coal (3X5/1000)	M.Kcal	20837907.32	19551440.887	5311598.869	3794394.308	8766374.910
8	Total Heat used (6+7)	M.Kcal	21041599.087	19623421.890	5465612.563	3828780.833	8823802.05
9	Station Heat Rate achieved (8/1)	Kcal/kWh	2801.602	2539.660	3007.182	2476.515	2322.318



CHAPTER – 2 DETERMINATION OF ALLOWABLE FUEL COST

2.1 In this part of the order, the Commission takes up the determination of fuel cost allowable to WBPDCCL separately for each of its generating stations in commercial operation using the factors FC, C_D and $\pm A$ of the formula referred to in the earlier chapter.

2.2 Factors considered in Tariff Order:

2.2.1 The consumption of fuel and costs thereon allowed to WBPDCCL for its different operating generating stations for the year 2010 – 2011 were based on the following factors.

Sl. No.	Particulars	Unit	Generating stations					
			Kolaghat	Bakreswar		Bandel	Santaldih (Unit V)	Sagardighi
				(Units I, II & III)	(Units IV & V)			
(i)	Station Heat Rate (normative)	K.cal/kwh	2700.00	2530.00	2530.00	2900.00	2350.00	2275.00
(ii)	Rate of Oil Consumption	MI/kwh	2.05	1.30	1.30	2.85	1.00	1.00
(iii)	Calorific Value of Oil	K.cal/lit	9200.00	9475.00	9451.179	9226.37	9423.689	9407.533
(iv)	Average Heat value of Coal	K.cal/kg	4221.020	4703.83	4080.705	4997.34	4247.150	4377.121
(v)	Weighted Average Price of Oil	Rs/kl	47230.56	50515.92	38388.638	48542.36	36652.775	35206.827
(vi)	Weighted Average Price of Coal	Rs/MT	1842.91	1798.61	2318.084	2180.18	2198.750	2845.360

The first two of the above factors, i.e., the station heat rate and the rate of consumption of oil were the fuel usage norms adopted by the Commission. The weighted average calorific value of oil and the weighted average heat value of coal are the variable factors depending upon the actual mix of different grades of fuel used in operation. The declared heat value of each grade of coal varies within a range. The weighted average heat value of coal considered at the tariff fixation level was based on the mid value of the range of each projected grade of



coal and is subject to adjustments in terms of regulation 4.8.1(i) of the Tariff Regulations, 2007.

2.3 Determination of Allowable Fuel Cost:

2.3.1 On careful consideration of all the related facts and factors, the Commission worked out the amount of fuel cost that can be allowed to WBPDCCL for each of its referred generating stations in commercial operation for the actual level of sale of energy to WBSEDCL during 2010 – 2011 as shown hereunder:

Generating station	Amount (Rs. in Lakh)
	As found admissible
Kolaghat	135874.83
Bakreswar	120322.64
Bandel	37070.98
Santaldih	33333.17
Sagardighi	59818.53
Total	386420.15

The detailed computations leading to the determination of such allowable fuel cost pertaining to the actual level of sales to WBSEDCL are shown in Annexure 2A to this chapter.

2.4 Explanatory Notes to Computations:

2.4.1 Generation:

Admissible gross generation of each of the referred generating stations has been estimated considering normative auxiliary consumption commensurate with actual level of sales from each generating station to the licensee, i.e., energy as per scheduled injection.

2.4.2 Auxiliary Consumption:

The quantum of auxiliary consumptions at the generating station as per the norms fixed by the Commission is as under:



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Generating station	Scheduled Injection	Normative Rate (%)	Normative Auxiliary Consumption (MU)	Admissible Gross Generation
Kolaghat	6687.659	9.90	734.826	7422.485
Bakreswar	6883.990	9.00	680.834	7564.824
Bandel	1580.443	10.30	181.478	1761.921
Santaldih	1367.958	9.00	135.293	1503.251
Sagardighi	3341.821	9.00	330.510	3672.331
Total	19861.871		2062.941	21924.812

2.4.3 Weighted Average GCV of Oil:

The weighted average gross calorific value of oil claimed by WBPDCCL for different generating stations was as follows:

Generating station	GCV of Oil (k.cal/lit)
Kolaghat	9547.789
Bakreswar	9512.196
Bandel	9276.933
Santaldih	9229.176
Sagardighi	9421.158

WBPDCCL presented the detailed computations of the weighted average calorific value of oil for each of the generating stations with reference to the month-wise supplies received. As this is a variable factor depending on the grades of oil used, the Commission has considered the same for working out the amount of allowable fuel cost.

2.4.4 Heat Value of Coal:

The weighted average heat value of coal is also a variable factor depending on the actual grade mix of coal consumption. As ascertained by WBPDCCL, the weighted average heat value of coal consumed at different generating stations during 2010 – 2011 came as under:



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Generating station	Heat Value of Coal (k.cal/kg)
Kolaghat	3224.630
Bakreswar	3634.919
Bandel	3285.449
Santaldih	3619.925
Sagardighi	3314.827

Above heat values have been viewed with reference to the quantitative accounts of grade-wise coal consumption of the concerned generating stations, as submitted by WBPDCCL, the declared heat value of different grades of coal varying within a range and the minimum allowable heat value in terms of provision of regulation 4.8 of the Tariff Regulations, 2007. The computations of the minimum allowable heat value of coal for different generating stations have been shown in Annexure – 2B to this chapter. As is observed from the computations in the aforesaid annexure, the actual heat value of coal received by WBPDCCL marginally fell short of the minimum heat value that can be admitted in terms of the Tariff Regulations, 2007.

It has, however, been observed from the submissions made by WBPDCCL that grade slippages and under weight in coal supply had been compensated by the coal suppliers by issuing Credit Notes for the respective generating stations, as shown hereunder:

Rs. in Lakh	
Generating stations	Amount of Credit Notes
Kolaghat	2968.73
Bakreswar	5952.02
Bandel	1969.82
Santaldih	711.16
Sagardighi	5326.95
Total	16928.68

The amounts so received had been adjusted by WBPDCCL while arriving at the average price of coal in the respective generating stations. Further, such amounts have partially compensated the impacts of grade slippages in the



supplies of coal in Kolaghat, Bakreswar, Sagardighi, Bandel and Santaldih generating stations. In view of above facts and since the difference between the actual heat value and the allowable heat value as per Tariff Regulations, 2007 is marginal, the Commission admits the actual heat values of coal received in Kolaghat, Bakreswar, Bandel, Santaldih and Sagardighi generating stations.

2.4.5 Permitted Transit & Handling Loss of Coal:

As specified in Part F of the Schedule 9A to the Tariff Regulations, transit and handling losses of coal allowable to WBPDCCL is 1.00% at Kolaghat, Bandel, Santaldih and Sagardighi generating stations. The same is 0.75% for Bakreswar generating station. The allowable quantum of coal requirement at such provision of loss in different generating stations is shown in item no. 15 of the statement at Annexure – 2A.

2.4.6 Average Price of Oil and Coal:

As per Notes on Accounts of Schedule – 13 to the audited annual accounts for the year 2010 – 2011, vide item no. 27(a) and 27(b), the weighted average price of Oil (Rs/KL) and weighted average price of Coal (Rs/MT) came as under:

Generating station	Average price of Oil (Rs/KL)	Average price of Coal (Rs/MT)
Kolaghat	39526.726	2083.716
Bakreswar	38016.289	2208.375
Bandel	37656.301	2260.060
Santaldih	39816.418	3333.894
Sagardighi	36199.030	2307.016

The above rates were inclusive of freight / transportation charges after adjustments of the Credit Notes from the suppliers as referred to in the earlier paragraph.



2.5 Additional Cost of Oil:

2.5.1 As regards excess oil consumption at Kolaghat, Bakreswar, Sagardighi, Bandel and Santaldih generating stations, as explained in paragraphs 1.11 and 1.12 of preceding chapter, the Commission allows excess oil consumption in case of Kolaghat generating station only to the tune of 33 KL amounting to Rs. 13.04 lakh during 2010 – 2011.

2.6 C_D: Cost Disallowable:

2.6.1 The factor C_D, as referred to in the formula vide paragraph 1.7, stands for cost as to be found disallowable by the Commission as having been incurred in breach of economic generation or of order / direction of the Commission, if any, or for any other reason considered sufficient by the Commission during the adjustment period and adjusted corresponding to actual level of sales. As can be seen in the statement at paragraph 1.12 and 1.13, the actual parameters of fuel usage of WBPDCCL in all the concerned generating stations, except Bakreswar were adverse to such usage norms fixed by the Commission. As the unit rates of energy charges from the generating stations have been worked out based on such adverse parameters, save in respect of Bakreswar, no further cost disallowance is required on this score.

2.7 As referred to in paragraph 1.13, WBPDCCL is to share of gains derived by it in monetary terms for economic use of oil at Bakreswar generating station. The share of gains attributable to West Bengal State Electricity Distribution Company Limited (in short “WBSEDCL”), the lone energy recipient, works out as under:

Sl. No.	Particulars	Unit	Bakreswar
1	Oil allowed in fuel cost (vide item No. 8 in Annexure 2A)	KL	9834.271
2	Actual quanta of Oil used @ 0.98 ml/kWh on admissible gross generation of 7564.824 MU	KL	7413.530



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3	Savings in use of Oil (1-2)	KL	2420.741
4	Price of Oil (vide item 16 in Annexure – 2A	Rs/Lakh	38016.289
5	Total Gains	Rs/Lakh	920.28
6	Category of generating station for gain sharing in terms of Section A of Schedule 9B to the Tariff Regulations	-	B
7	Share attributable to WBSEDCL	%	40
8	Share of WBSEDCL	Rs/Lakh	368.11

2.8 Summing up the findings as explained in the earlier paragraphs, the amounts of admissible fuel cost for different generating station of WBPDC for the year 2010 – 2011 come as under:

Particulars	Unit	Kolaghat	Bakreswar	Bandel	Santaldih	Sagardighi	Overall
Total admissible fuel cost as per norms	Rs. in Lakh	135874.83	120322.64	37070.98	33333.17	59818.53	386420.15
Less: Gain sharing for better oil consumption	Rs. in Lakh	0.00	368.11	0.00	0.00	0.00	368.11
Fuel cost admitted	Rs. in Lakh	135874.83	119954.53	37070.98	33333.17	59818.53	386052.04

**ANNEXURE - 2A**

SI No	Particulars	Unit	Stations					Overall
			Kolaghat	Bakreswar	Bandel	Santaldih	Sagardighi	
1	Energy sold to licensee from the generating station (Scheduled injection)	MU	6687.659	6883.990	1580.443	1367.958	3341.821	19861.871
2	Rate of Auxiliary Consumption (normative)	%	9.90%	9.00%	10.30%	9.00%	9.00%	
3	Auxiliary consumption (normative) including UI (out)	MU	734.826	680.834	181.478	135.293	330.510	2062.941
4	Admissible Gross Generation (1+3)	MU	7422.485	7564.824	1761.921	1503.251	3672.331	21924.812
5	Station Heat Rate (Normative)	Kcal/kWh	2700.00	2530.00	2900.00	2350.00	2275.00	
6	Total Heat Required (4×5)	M.Kcal	20040709.500	19139004.720	5109570.900	3532639.850	8354553.025	
7	Specific Oil consumption (Normative)	ml/kWh	2.05	1.30	2.85	1.00	1.00	
8	Oil consumption (4×7)	KL	15216.094	9834.271	5021.475	1503.251	3672.331	35247.422
9	Average GCV of Oil (Actual)	K.cal/lit	9547.789	9512.196	9276.933	9229.176	9421.158	
10	Heat from oil (8×9)/1000	M.Kcal	145280.057	93545.515	46583.886	13873.768	34597.611	
11	Heat from coal (6-10)	M.Kcal	19895429.443	19045459.205	5062987.014	3518766.082	8319955.414	
12	Heat value of coal	K.cal/Kg	3224.63	3634.919	3285.449	3619.925	3314.827	
13	Coal consumption (11/12) ×1000	MT	6169833.265	5239582.837	1541033.513	972054.969	2509921.457	16432426.041
14	Permissible transit loss	%	1.00	0.75	1.00	1.00	1.00	
15	Coal requirement with permissible transit loss	MT	6232154.814	5279176.662	1556599.508	981873.706	2535274.199	16585078.888
16	Average price of oil	Rs/KL	39526.726	38016.289	37656.301	39816.418	36199.030	
17	Average price of coal	Rs/MT	2083.716	2208.375	2260.06	3333.894	2307.016	
18	Cost of oil (8×16)/100000	Rs lakh	6014.42	3738.62	1890.90	598.54	1329.35	13571.830
19	Cost of coal (15×17)/100000	Rs lakh	129860.41	116584.02	35180.08	32734.63	58489.18	372848.320
20	Cost of Fuel (18+19)	Rs lakh	135874.83	120322.64	37070.98	33333.17	59818.53	386420.150
21	Average Fuel Cost per unit of Generation (20/4×10)	Paise/kwh	183.06	159.06	210.40	221.74	162.89	176.25



Annexure – 2B

COMPUTATION OF UHV OF COAL BASED ON MINIMUM OF DECLARED HEAT VALUE							
GRADE OF COAL	% OF USE	DECLARED MINIMUM UHV (K.CAL/KG)	DIFFERENCE OF MAXIMUM & MINIMUM	MULTIPLICATION FACTOR	VALUE TO BE ADDED TO MINIMUM	MINIMUM AVERAGE VALUE ALLOWABLE	PRODUCT (K.CAL/KG) (2X5)
(1)	(2)	(3)	(4)	(5)	(6)		
KOLAGHAT							
A	0.36	6200.00	0.00	0.15	0.00	6200.00	2232.00
B	7.23	5600.00	600.00	0.15	90.00	5690.00	41138.70
C	6.38	4940.00	660.00	0.15	99.00	5039.00	32148.82
D	9.20	4200.00	740.00	0.15	111.00	4311.00	39661.20
E	14.00	3360.00	840.00	0.15	126.00	3486.00	48804.00
F	62.41	2400.00	960.00	0.15	144.00	2544.00	158771.04
G	0.42	1300.00	1100.00	0.15	165.00	1465.00	615.30
TOTAL	100.00						323371.06
Average					0.00		3233.711
Actual							3224.630
Allowed							3224.630
BAKRESWAR							
A	0.54	6200.00	0.00	0.15	0.00	6200.00	3348.00
B	14.53	5600.00	600.00	0.15	90.00	5690.00	82675.70
C	22.45	4940.00	660.00	0.15	99.00	5039.00	113125.55
D	6.24	4200.00	740.00	0.15	111.00	4311.00	26900.64
E	9.72	3360.00	840.00	0.15	126.00	3486.00	33883.92
F	46.14	2400.00	960.00	0.15	144.00	2544.00	117380.16
G	0.38	1300.00	1100.00	0.15	165.00	1465.00	556.70
TOTAL	100.00						377870.67
Average							3778.707
Actual							3634.919
Allowed							3634.919
BANDEL							
A	0.68	6200.00	0.00	0.15	0.00	6200.00	4216.00
B	16.11	5600.00	600.00	0.15	90.00	5690.00	91665.90
C	13.23	4940.00	660.00	0.15	99.00	5039.00	66665.97
D	15.27	4200.00	740.00	0.15	111.00	4311.00	65828.97
E	5.46	3360.00	840.00	0.15	126.00	3486.00	19033.56
F	22.14	2400.00	960.00	0.15	144.00	2544.00	56324.16
G	27.11	1300.00	1100.00	0.15	165.00	1465.00	39716.15
TOTAL	100.00						343450.71
Average							3434.507
Actual							3285.449
Allowed							3285.449



Order on FCA of WBPDCCL for the year 2010-2011

SANTALDIH							
A	0.04	6200.00	0.00	0.15	0.00	6200.00	248.00
B	25.69	5600.00	600.00	0.15	90.00	5690.00	146176.10
C	9.11	4940.00	660.00	0.15	99.00	5039.00	45905.29
D	14.29	4200.00	740.00	0.15	111.00	4311.00	61604.19
E	15.55	3360.00	840.00	0.15	126.00	3486.00	54207.30
F	3.28	2400.00	960.00	0.15	144.00	2544.00	8344.32
G	32.04	1300.00	1100.00	0.15	165.00	1465.00	46938.60
Total	100.00						363423.80
Average							3634.238
Actual							3619.925
Allowed							3619.925
SAGARDIGHI							
A	1.47	6200.00	0.00	0.15	0.00	6200.00	9114.00
B	14.77	5600.00	600.00	0.15	90.00	5690.00	84041.30
C	11.90	4940.00	660.00	0.15	99.00	5039.00	59964.10
D	8.45	4200.00	740.00	0.15	111.00	4311.00	36427.95
E	22.85	3360.00	840.00	0.15	126.00	3486.00	79655.10
F	26.65	2400.00	960.00	0.15	144.00	2544.00	67797.60
G	13.91	1300.00	1100.00	0.15	165.00	1465.00	20378.15
TOTAL	100.00						357378.20
Average					0.00		3573.782
Actual							3314.827
Allowed							3314.827



CHAPTER – 3 ORDER

- 3.1 As per the findings narrated in the preceding chapter, WBPDCCL is entitled to an additional recovery of Rs. 49024.99 lakh in respect of Kolaghat, Bakreswar, Bandel, Santaldih and Sagardighi thermal power stations towards Fuel Cost Adjustments (FCA) for the year 2010 – 2011 from its energy recipient i.e., WBSEDCL as per the generating station wise break-up given below:

Generating Station	Sales (MU)	Rate of Energy charges allowed in the tariff order (Paise/kWh)	Amount of fuel cost recovered during 2010–2011 (Rs. in lakh)	Amount admitted for excess oil consumed as per para 1.12 (Rs. in lakh)	Amount of fuel cost admitted in FPPCA for 2010–2011 (Rs. in lakh)	Balance amount recoverable for 2010–2011 (Rs. in lakh)
Kolaghat	6687.659	178.43	119327.90	13.04	135874.83	16559.97
Bakreswar (Units I, II & III)	3949.000	158.13	62445.54	-	119954.53	9422.11
Bakreswar (Units IV & V)	2934.990	163.84	48086.88	-		
Bandel	1580.443	204.42	32307.42	-	37070.98	4763.56
Santaldih	1367.958	138.53	18950.32	-	33333.17	14382.85
Sagardighi	3341.821	167.34	55922.03	-	59818.53	3896.50
Total	19861.871		337040.09	13.04	386052.04	49024.99

- 3.2 The recoverable amount of Rs. 49024.99 lakh will be realized by WBPDCCL in 24 equal instalments after completion of realization of arrear fuel costs for 2009 – 2010.
- 3.3 WBSEDCL may pay additional instalment on account of arrear FCA of WBPDCCL in any month and such payment will then be considered as payable in that month.
- 3.4 WBPDCCL is directed to take note of this order of the Commission.
- 3.5 A copy of this order may also be served upon WBSEDCL.

Sd/-
(SUJIT DASGUPTA)
MEMBER

Sd/-
(PRASADRANJAN RAY)
CHAIRPERSON

DATE: 16.10.2012