



**ORDER
OF THE**

WEST BENGAL ELECTRICITY REGULATORY COMMISSION

FOR THE YEAR 2018 – 19 AND 2019 - 20

IN CASE NO.: TP – 85/19-20

**IN REGARD TO THE DETERMINATION OF TARIFF, ARR AND EXPECTED REVENUE
FROM CHARGES FOR THE SIXTH CONTROL PERIOD CONSISTING OF THE
FINANCIAL YEARS 2018-19 AND 2019-20 OF WEST BENGAL POWER
DEVELOPMENT CORPORATION LIMITED**

DATE: 14.07.2021

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CHAPTER – 1

INTRODUCTION

- 1.1 The West Bengal Electricity Regulatory Commission (hereinafter referred to as the “Commission”), a statutory body under the first proviso to section 82(1) of the Electricity Act, 2003 (hereinafter referred to as the “Act”), has been authorized in terms of the section 86 and section 62(1) of the Act to determine the tariff for a) supply of electricity by a generating company to a distribution licensee, b) transmission of electricity, c) wheeling of electricity and d) retail sale of electricity, as the case may be, within the State of West Bengal.
- 1.2 The West Bengal Power Development Corporation Limited (hereinafter referred to as WBPDCCL), constituted in 1985 under the Companies Act, 1956, is a generating company in terms of section 2(28) of the Act wholly owned by the State Government and is engaged in the business of generation of electricity within the State of West Bengal and the generation tariff of WBPDCCL shall be determined by the Commission.
- 1.3 In terms of definition contained in regulation 1.2.1 (xxx) of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, as amended from time to time (hereinafter referred to as the ‘Tariff Regulations’), each control period after third control period shall be normally for a period of five ensuing years or such other period of number of ensuing years as may be decided by the Commission from time to time. The Commission, after careful consideration of all relevant factors, decided vide its order dated 14.12.2016 in Case No. SM-15/16-17 that the fifth control period shall be for one year and consist of 2017 – 2018 only and sixth control period shall be for two years and consist of 2018 – 2019 and 2019 – 2020. The effective date of commencement of the sixth control period is 1st April, 2018.
- 1.4 WBPDCCL submitted the petition for determination of tariff for the sixth control period consisting of the years 2018 – 2019 and 2019 – 2020 on 31st July, 2019 pursuant to the order dated 03.06.2019 in case no, B-11/22 of the Commission extending the due date for submission of tariff petition for the sixth control period up to 31st July, 2019.
- 1.5 After submission of the tariff petition for the sixth control period, an application was submitted by WBPDCCL for segregation of tariff of Bandel Thermal Power Station (BTPS) among units no. 1 and





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

2 of 60 MW capacity each and unit no. 5 of 215 MW capacity based on tariff order of 2017 – 2018 of the Commission. Vide order dated 29.05.2020, the Commission while considering the prayer of WBPDCCL gave certain directions to be complied with by WBPDCCL. Accordingly, WBPDCCL has submitted a supplementary petition to the MYT petition dated 31st July, 2019 on 19th June, 2020 segregating the tariff of units no. 1&2 and Unit 5 of Bandel Thermal Power Station.

- 1.6 The tariff application submitted on 31.07.2019 along with the supplementary petition and information / data, documents submitted as per Tariff Regulations (collectively called as “tariff application”), were admitted by the Commission in case No.TP-85/19-20, with the direction to publish the gist of their tariff application, as approved by the Commission, in the newspapers and also in their website as per provisions of the Tariff Regulations. The gist was, accordingly, published simultaneously on 08.10.2020 in the newspapers - (i) 'The Times of India' (English), (ii) 'Ei Samay' (Bengali), (iii) 'Aajkaal' (Bengali) and (iv) 'Sanmarg' (Hindi). The gist along with the tariff application was also posted in the website of WBPDCCL. The publication invited the attention of all interested parties, stake holders and the members of the public to the application for determination of tariff of WBPDCCL for the sixth control period and requested for submission of suggestions, objections and comments, if any, on the tariff application to the Commission latest by 03.11.2020. Opportunities were also afforded to all to inspect the tariff application and to take copies thereof.
- 1.7 No objection/suggestion/comment has been received from the stakeholders within the stipulated due date i.e., 03.11.2020.
- 1.8 The Commission now determines the tariff in accordance with the Electricity Act, 2003 and the Tariff Regulations framed thereunder.



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CHAPTER - 2 THE CASE OF WBPDCCL

- 2.1. WBPDCCL has submitted the plant wise tariff for the five existing generating stations at Kolaghat, Bakreswar, Bandel, Sagardighi and Santaldih for the years 2018 – 2019 and 2019 – 2020 under the sixth control period.
- 2.2. WBPDCCL has submitted that the information furnished in the prescribed formats, along with Accounting Statements, extracts of Books of Accounts, Audited Financial Performance for the period from 2018 – 2019 to 2019 – 2020, are based on plant-wise Audited Annual Statement of Accounts and those for the financial year 2017 – 2018 (base year) and for the financial years 2018 – 2019 and 2019 – 2020 (ensuing year) are based on the reasonable estimation / projection where the operating norms are not applicable.
- 2.3. **The Submission of WBPDCCL on different issues and against their claim under different heads of accounts are summarized as below:**
- 2.3.1 **Generation Targets from different generating stations of WBPDCCL for 2018 – 2019 and 2019 – 2020:**

WBPDCCL has submitted generation projection from different existing power plants, based on the operating norms specified in Schedule – 9A of the Tariff Regulations, for the financial year 2018 – 2019 and 2019 – 2020. In their petition WBPDCCL has shown the actual Plant Availability Factor (PAF) and Plant Load Factor (PLF) since 2014 – 2015 to 2018 – 2019 in respect of all generating stations wherein it is seen that WBPDCCL could not achieve the target normative PAF except for Bakreswar and Santaldih generating stations due to various reasons as specified in the petition.

2.3.2 **Auxiliary Consumption, Station Heat Rate etc.:**

WBPDCCL has proposed the gross generation, auxiliary consumption and net generation for the year 2018 – 2019 as per unaudited data and same for the year 2019 – 2020 has been arrived at considering the normative PLF and normative auxiliary consumption as specified in the Tariff Regulations.

WBPDCCL has considered the Station Heat Rate (SHR) as per norms specified in the Tariff Regulations.





All other parameters viz. specific oil consumption, transit loss, etc. have been considered as per norms specified in the Tariff Regulations.

2.3.3 Cost of Fuel:

The primary fuel cost has been arrived at by estimating the coal consumption based on the technical parameters of each of the generating stations. The fuel mixes are based on the estimated availability of quality and quantity of coal from different sources i.e., CIL subsidiaries and captive coal block of the petitioner. The prices of fuel viz. coal and oil and railways freight have been considered by WBPDCCL based on the latest price notified by the respective authorities. The average coal prices of CIL subsidiaries for the years 2018 – 2019 and 2019 – 2020 are estimated on the basis of latest prices (inclusive of taxes and duties) notified by the Ministry of Coal, Government of India on 08.01.2018. WBPDCCL has also proposed to procure imported coal and coal through CIL e-auction besides linkage coal and captive coal.

The coal cost is further added up to include the railway freight charges as notified on 15.01.2018 for transportation of coal from respective coal mines to the generating stations. The freight charge is estimated for the years 2018 – 2019 and 2019 – 2020 on per MT of coal.

The cost of secondary fuel for the year 2018 – 2019 has been claimed as per actual but unaudited data. The cost of secondary fuel for the year 2019 – 2020 has been estimated on the basis of projected secondary oil consumption for 2019 – 2020 and the latest price of oil.

2.3.4 Employee Cost:

WBPDCCL has submitted that the components of employee cost including salaries and wages, bonus, contribution to employee funds, employees' welfare expenses are in line with Tariff Regulations. WBPDCCL has projected the employee cost for the year 2017 – 2018 for all generating stations on the basis of actual employee cost during the year, which has been escalated by 5.44% for the year 2019 – 2020. The escalation rate of 5.44% has been considered in line with the average Consumer Price Index (CPI) published by the Directorate of Labour Bureau, Govt. of West Bengal for the period from April, 2018 to March, 2019. Recruitments already made during 2018 – 2019 and proposed to be made during 2019 – 2020 for generation function and mining activities have been factored into in the projection.





2.3.5 Operation and Maintenance Expenses (O&M):

WBPDCCL has projected the Operation and Maintenance Expenses as per actual during the year 2018 – 2019. An escalation factor of 5.44%, the average inflation rate, has been claimed for the expenses estimated for the year 2019 - 2020.

2.3.6 Coal and Ash Handling Charges:

The coal and ash handling charges for all the generating stations have been projected on the basis of expenses incurred during 2018 – 2019. An escalation of 5.44% has been claimed for the expenses estimated for the year 2019 – 2020.

2.3.7 Water Charges:

The petitioner has estimated the cost of water charges at actual for the year 2018 – 2019 for Santaldih generating station only and with an escalation factor of 5.44% for the year 2019 – 2020. No water charges have been claimed for other generating stations viz. Kolaghat, Bakreswar, Bandel and Sagardighi TPS as the same has been subsumed in GST.

2.3.8 Insurance Premium:

WBPDCCL has projected generating station wise insurance premium after thorough review of the existing coverage for each generating station. It is submitted that the company has moved from fire policy cover to industrial All Risk / Mega policies where insurance coverage is much higher. WBPDCCL selects the insurance company through transparent process as stipulated in the regulation 5.23.1 of the Tariff Regulations. Insurance premium was based on the coverage of the assets. WBPDCCL has claimed the insurance premium paid during the year 2018 – 2019 at actual but unaudited and projected for 2019 – 2020 applying inflation rate of 5.44% over 2018 – 2019 in line with other fixed cost expenses. The reasons for increase in premium has been stated in the petition. It is also submitted that as some plants have become old, the coverage needs to be enhanced to reinstate value to enable replacement of its assets in case of a heavy loss.

2.3.9 Depreciation:

Depreciation has been proposed on the basis of rates of depreciation specified in the Commission's Tariff Regulations. The gross fixed assets are allocated to each of the depreciation





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

categories and depreciation for the new units or asset additions during the year have been considered only for the period for which these assets have been put in use.

2.3.10 Advance against Depreciation:

WBPDCCL has not proposed advance against depreciation for the years 2018 – 2019 and 2019 – 2020 under sixth control period. WBPDCCL will claim actual advance against depreciation, if admissible, based on audited accounts of the year through annual performance review.

2.3.11 Interest and Finance Charge:

WBPDCCL has computed the interest charges considering prevailing interest rate. WBPDCCL has submitted the principal and interest against all outstanding loans and scheduled re-payment of such loan for all the years under the sixth control period for each generating station as per format specified in the Tariff Regulations. The finance charges include expenses on account of renewal of all credit facilities as well as processing charges for fresh borrowings along with various bank transaction charges. WBPDCCL has considered the finance charges as per actual expenditure during the year 2018 – 2019 for the years 2018 – 2019 and 2019 – 2020 without any escalation.

2.3.12 Interest on Working Capital:

WBPDCCL has proposed the requirement of working capital for 2018 – 2019 and 2019 – 2020 on normative basis in terms of the Tariff Regulations of the Commission. Based on the working capital requirement on normative basis, interest on working capital is calculated at the State Bank of India prime lending rate of 13.85% per annum as on 01.04.2018.

2.3.13 Interest on Temporary Accommodation:

WBPDCCL has claimed interest on temporary accommodation to be made due to recovery of arrears arising out of different tariff orders and FCA orders instalments and non-receipt of orders from the Commission in regard to fuel and fixed cost adjustments since 2014 – 2015 onwards. A detailed computation has been given by WBPDCCL in their petition.

2.3.14 Return on Equity:



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

The Return on Equity (ROE) for the years 2018 – 2019 and 2019 – 2020 under the sixth control period has been claimed by WBPDCCL as per provision of Tariff Regulations. WBPDCCL has claimed the ROE on pre-tax basis.

2.3.15 Income Tax:

WBPDCCL has not proposed Income Tax (MAT) for the years 2018 – 2019 and 2019 – 2020 under the sixth control period. WBPDCCL will claim actual amount of Income Tax of the concerned year of the control period through annual performance review.

2.3.16 Rent, Rates, Taxes, Licenses & Registration Fees and Filing Fees:

WBPDCCL has proposed rent, rates, taxes based on actual expenditure during 2018 – 2019 escalated by 5.44% for the year 2019 – 2020. Expenditure on account of filing fees has been considered as per the rates specified in the WBERC Fees Regulations, 2013.

2.3.17 ERPC Charges:

WBPDCCL has proposed Eastern Region Power Committee (ERPC) charges based on actual expenditure during 2018 – 2019. ERPC charges for the year 2019 – 2020 has been fixed at Rs. 16.00 lakh and the same has been claimed.

2.3.18 Income from Other Sources/ Non-Tariff Income:

WBPDCCL has projected income from other sources for the years 2018 – 2019 and 2019 – 2020 at the similar level based on actual non-tariff income during 2017 – 2018 which includes income from sale of scrap, interest on short term deposits with the banks etc. The interest on short term deposits has been allocated on the basis of capacity of each generating station.

2.4 Annual Revenue Requirement:

WBPDCCL has submitted the summarized Annual Revenue Requirement for 2018 – 2019 and 2019 – 2020 and the proposed Tariff for each generating station in the Annexure to their petition.



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CHAPTER -3 VARIABLE COST & EXPENDITURE

3.1 Fuel Cost:

3.1.1 An examination of the projected fuel cost claimed by WBPDCCL for the ensuing year 2018-19 and 2019-20 of the sixth control period under different heads for its power stations presently in operation has been taken up in this chapter. For the purpose of fuel cost calculation and energy charge determination under this chapter, the energy generated from a generating station has been considered as per normative PLF of the generating station as proposed by WBPDCCL but it shall be noted that capacity charge recovery of the generating station shall be on the basis of normative PAF.

3.1.2 Fuel cost for different power stations of WBPDCCL presently in operation as per its projection comes as under:

Rs. in Lakh

Generating	2018-19	2019-20
Kolaghat	151577.24	197252.00
Bakreswar	180188.65	182162.88
Bandel – I	16715.42	23537.07
Bandel – II	33706.03	40888.58
Santaldih	95309.50	91691.46
Sagardighi – I	89777.88	105806.75
Sagardighi – II	110028.79	174680.42

3.1.3 In the tariff application for the sixth control period, WBPDCCL has proposed fuel cost on the basis of norms of plant load factor, auxiliary consumption rate, oil consumption rate, station heat rate and transit and handling losses of coal as specified in Schedule 9A of the Tariff Regulations. However, while proposing fuel cost for the years 2018-19 and 2019-20 under the sixth control period, it is stated by WBPDCCL that they have projected the source wise coal consumption for each generating station for both the years and have considered the average price of coal for both the years 2018-19 and 2019-20 as per price of Coal India Limited notified on 08.01.2018.

3.1.4 WBPDCCL has also projected availability of coal from captive mines during the years 2018-19 and 2019-20. WBPDCCL has claimed the basic price of coal from captive mines at notified price of Coal India Limited for each grade along with other associated costs. WBPDCCL has submitted that in





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

absence of specific guidelines for pricing of coal from captive mines in Commission's Regulations they have projected the prices of coal as per notified prices of Coal India Limited (CIL) for the respective grades of coal in accordance with the Tariff Regulations of Central Electricity Regulatory Commission (CERC) notified on 07.03.2019. In this regard WBPDCCL has referred the provision of section 61(a) of the Electricity Act, 2003. CERC has now framed CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2021 notified on 19.02.2021 specifying the regulations for determination of price of coal from integrated coal mine with retrospective effect. As per definition in CERC Tariff Regulations 'Integrated coal mine' means the captive mine (allocated for use in one or more identified generating station) or basket mine (allocated to a generating company for use in any of its generating stations) or both being developed by the generating company for supply of coal for one or more specified end use generating station. The coal mines have been allotted to WBPDCCL by the Ministry of Coal, Government of India. Commission considers the price of coal from the Captive mines as per notified price of CIL for respective grades as proposed by WBPDCCL with the direction that **WBPDCCL shall submit all the details in line with the CERC Second Amendment Regulations for determination of price for integrated coal mine in their FPPCA application for the years 2018-19 and 2019-20. Commission will determine the input price of coal for the allotted coal mines retrospectively as per CERC Second Amendment Regulations in the FPPCA and APR orders of WBPDCCL for the respective years.**

- 3.1.5 WBPDCCL has also projected procurement of coal from market through MSTC Ltd and WBMDTC Ltd following transparent tender process and through participating in e-auction of coal conducted by subsidiaries of Coal India Ltd, besides linkage-based coal and coal from Captive mines to maintain generation. WBPDCCL has also projected imported coal through limited tender among Central Sector agencies. Commission considers the procurement of indigenous coal through MSTCL and WBMDTCL through transparent bidding process and e-auction of coal conducted by subsidiaries of CIL. Commission, however, does not consider the imported coal as projected by WBPDCCL.
- 3.1.6 The price of oil for different generating stations for the base year 2018-19 has been estimated by WBPDCCL on the basis of cost actually incurred by different generating stations during the year. WBPDCCL has also projected the secondary fuel oil cost for 2019-20 based on the estimated oil consumption at latest price of oil which is considered by the Commission.





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

- 3.1.7 Commission considers the price of coal and oil for the year 2018-19 as projected by WBPDCCL for the year. The Commission considers no hike in price of coal for the year 2019-20. The Commission also does not consider any hike for oil over the projected price of oil for 2018- 19 to determine the price of oil for the ensuing year 2019-20. The Commission, however, views that if there is any variation in fuel price in future from the fuel price considered in this order for ensuing years, WBPDCCL should take the course of application of Monthly Fuel Cost Adjustment (MFCA) in terms of regulation 5.8.9 and 5.8.10 of the Tariff Regulations.
- 3.1.8 The Commission has adopted the procedure for calculation of the fuel cost in accordance with regulation 5.8.1(ii) of the Tariff Regulations and normative parameters applicable to WBPDCCL as specified in the Tariff Regulations and allowed fuel cost to WBPDCCL as mentioned in subsequent paragraphs.
- 3.1.9 In their Tariff Petition WBPDCCL has submitted that for FY 2018-19, as already the actual coal quantity and GCV of coal has been received and as on the basis of those figures the payment has already been admitted/made, thus the Clause 1.2.1 (cxv) read with clause 5.8.1 of the Tariff Regulations have been used. This method would help in having less deviation during truing up as truing up during FCA stage is to be done on the basis of actual payment for coal subject to normative restrictions. For FY 2018-19, the regulation 5.18.15 has not been applied as it speaks about only conversion requirement without any relation to payment issue of coal. Thus the Commission considers the average price of coal as considered by WBPDCCL in form 1.11 of Annexure 1 for 2018-19. However, the average price of coal as computed on the basis of projected grade mix of coal has been considered for 2019-20.
- 3.1.10 Accordingly, the average oil price and the average coal price considered for the generating station of WBPDCCL for the two years 2018-19 and 2019-20 under the sixth control period are shown below:

Generating Station	Average Coal Price in Rs./MT		Average Oil Price in Rs./KL	
	2018-19	2019-20	2018-19	2019-20
Bakreswar	4258.78	4317.82	42304.00	42304.00
Kolaghat	3823.67	3643.51	52072.17	52072.17





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Bandel – I	4751.00	3741.96	49449.00	49449.00
Bandel – II	4751.00	3741.96	49449.00	49449.00
Santaldih	3779.68	3697.16	54669.05	54669.05
Sagardighi – I	6368.61	4617.98	50799.28	50799.28
Sagardighi - II	5655.41	4631.80	50102.89	50102.89

3.1.11 WBPDCCL determined average heat value of coal, based on allocation schedule of different grades of coal and by application of the process of interpolation in terms of regulation 5.8.15 of the Tariff Regulations. The Heat value of oil and coal as admitted by the Commission for the ensuing years under the sixth control period are shown below:

Generating Station	Heat Value of Coal in kCal/kg		Heat Value of Oil in kCal/Lit	
	2018-19	2019-20	2018-19	2019-20
Bakreswar	4802.09	4692.65	9963.00	9963.00
Kolaghat	3110.36	3220.46	9272.15	9272.15
Bandel – I	3514.08	3539.00	9204.60	9204.60
Bandel – II	3514.08	3539.00	9204.60	9204.60
Santaldih	3881.73	3523.34	9443.04	9443.04
Sagardighi – I	4770.98	4530.87	9343.33	9343.33
Sagardighi - II	4770.98	4539.60	9343.33	9343.33

The computation of average heat value and average price of coal are shown in Annexure – 3A1 to 3A6 and 3C1 to 3C6 for the respective years 2018-19 and 2019-20.

3.1.12 On the basis of above average price of coal and average price of oil and as per above heat value of fuel and normative parameters as specified in Schedule 9A of the Tariff Regulations, the allowable fuel costs for the respective years 2018-19 and 2019-20 are shown by detailed computations in the tables at Annexure- 3B and 3D as annexed to this chapter.

3.1.13 The summarized statement of admitted fuel cost for the power stations of WBPDCCL for the sixth control period is given hereunder.

Rs.in Lakh

West Bengal Electricity Regulatory Commission

11



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Generating Stations	Total fuel cost as claimed by WBPDCCL		Fuel Cost as admitted by the Commission	
	2018-19	2019-20	2018-19	2019-20
Kolaghat	151577.24	197252.00	264791.17	244999.59
Bakreswar	180188.65	182162.88	165196.16	171709.77
Bandel – I	16715.42	23537.07	29033.13	22952.72
Bandel – II	33706.03	40888.58	50873.05	40180.20
Santalalih	95309.57	91691.46	84996.11	91699.20
Sagardighi – I	89777.88	105806.75	134289.81	103018.43
Sagardighi – II	110028.79	174680.42	193323.62	167349.06

3.1.14 Energy Charges of the generating stations of WBPDCCL for the years 2018-19 and 2019-20 now stands as follows:

Year: 2018-19

Particulars	Bakreswar	Kolaghat	Bandel I	Bandel II	Santalalih	Sagardighi I	Sagardighi II
Fuel Cost (Rs. in lakh)	165196.16	264791.17	29033.13	50873.05	84996.11	134289.81	193323.62
Ex-bus Generation (MU)	6696.14	6984.59	612.22	1371.12	3188.64	3826.37	6377.28
Energy Charge (Paise/kWh)	246.70	379.11	474.23	371.03	266.56	350.96	303.14

Year: 2019-20

Particulars	Bakreswar	Kolaghat	Bandel I	Bandel II	Santalalih	Sagardighi I	Sagardighi II
Fuel Cost (Rs. in lakh)	171709.77	244999.59	22952.72	40180.20	91699.20	103018.43	167349.06
Ex-bus Generation (MU)	6714.49	7003.73	613.90	1374.87	3197.38	3836.85	6394.75



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Energy Charge (Paise/kWh)	255.73	349.81	373.89	292.25	286.80	268.50	261.70
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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 1

YEAR – 2018 – 2019

KOLAGHAT THERMAL POWER STATION:

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty price x	Transportat ion cost	Average Price of Coal as per form 1.11	UHV	UHV claimed by WBPDCCL
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)	(8)	(9)
		Kca/kg	Kca/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne	Rs/Tonne	Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	237507.00	4556.51		10822.03			5676	
	G5	5800 - 6100	5800	3844	4209.94		161.83			5236	
	G6	5500 - 5800	5500	221727	3658.69		8112.30			4799	
	G7	5200 - 5500	5200	59599	3145.50		1874.69			4362	
	G8	4900 - 5200	4900	0	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0	2112.21		0.00			3663	
BCCL	W-II		5200	7163	4883.33		349.79			4362	
	W-III	-	4900	333091	4073.92		13569.86			3992	
	W-IV	-	4600	197872	3903.30		7723.54			3663	
MCL	G12		3700	55830	1715.81		957.94			2159	
	G13	3400 - 3700	3400	1518776	1687.28		25626.00			1720	
MCL- Washed	G11		4200	824939	1876.23	2680.33	22111.09			3101	
CCL	WR3		4900	20534	4066.81		835.08			3992	
	W4		4600	160570	3220.87		5171.75			3663	
Captive- WB	G7	5200 - 5500	5200		3137.10		0.00			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600		2103.51		0.00			3663	
	G11		4000		1859.25		0.00			2682	
	G13		3400		1677.63		0.00			1720	
Captive- Jharkhand	G9	4600 - 4900	4600		2031.12		0.00			3663	
MSTC	G12		3800	332362	4457.22		14814.11			2305	
Import	G7		5400	0	6846.65		0.00			4653	
E-Auction-	W-III		4900	6911	6241.86		431.37			3992	3110.36



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Import	G7		5400	0	6846.65		0.00			4653
E-Auction- BCCL	W-III		4900	6911	6241.86		431.37			3992
	W-IV		4600	182838	5043.76		9221.90			3663
TOTAL				4163563			121783.28			2930.65
							2924.98	1075.58		
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							4000.56		3823.67	3110.36



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 2

YEAR – 2018 – 2019

BAKRESWAR THERMAL POWER STATION:

Source	Grade	GCV range		GCV	Quantity	Price of Coal	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV	UHV claimed by WBPDC L
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Kca/kg		Kca/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne	Rs/Tonne	Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400		6100	2526027	4556.51		115098.67			5676	4285.81
	G5	5800 - 6100		5800	42220	4209.94		1777.44			5236	
	G6	5500 - 5800		5500	318195	3658.69		11641.77			4799	
	G7	5200 - 5500		5200	60363	3145.50		1898.72			4362	
	G8	4900 - 5200		4900	0	2538.78		0.00			3992	
	G9	4600 - 4900		4600	0	2112.21		0.00			3663	
BCCL	G6	5500 - 5800		5500	3370	3618.62		121.95			4799	
	W-III	-	-	4900	21524	4073.92		876.87			3992	
	W-IV	-	-	4600	71727	3903.30		2799.72			3663	
MCL	G12			3700	0	1715.81		0.00			2159	
	G13	3400 - 3700		3400	291330	1687.28		4915.55			1720	
MCL-Washed	G11			4200	97832	1876.23	2680.33	2622.22			3101	
CCL	WR3			4900	31710	4059.46		1287.25			3992	
	W4			4600	40427	3213.52		1299.13			3663	
Captive-WB	G6	5500 - 5800		5500	148918	3658.69		5448.45			4799	
MSTC	G12			3800	383251	4648.17		17814.16			2305	
Import	G7			5400	0	6504.27		0.00			4653	
E-Auction-BCCL	W-IV			4600	3726	6643.32		247.53			3663	

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16



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

TOTAL				4040620			167849.43			4802.09	
							4154.05	421.64			
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							4575.69		4258.78	4802.09	

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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 3

YEAR – 2018 – 2019

BANDEL THERMAL POWER STATION (I & II):

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transport ation cost	Average Price of Coal as per form 1.11	UHV	UHV as proposed by WBPDCCL
		Kca/kg	(1) Kca/kg	(2) MT	(3) Rs./Tonne	(4)	(5) Rs Lakh	(6) Rs/Tonne	(7) Rs/ Tonne	(8) Kcal/kg	(9) Kcal/kg
ECL	G4	6100 - 6400	6100	258710.00	4556.51		11788.15			5676	
	G5	5800 - 6100	5800	24838.00	4209.94		1045.66			5236	
	G6	5500 - 5800	5500	47740.00	3658.69		1746.66			4799	3297
	G7	5200 - 5500	5200	26117.00	3145.50		821.51			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
BCCL	W-III	-	4900	9326.00	4073.92		379.93			3992	
	W-IV	-	4600	115567.00	3903.30		4510.93			3663	
MCL	G12		3700	5866.00	1715.81		100.65			2159	
	G13	3400 - 3700	3400	71855.00	1687.28		1212.40			1720	
MCL-Washed	G11		4200	255864.00	1876.23	2680.33	6858.00			3101	
CCL	WR3		4900	3082.00	4059.46		125.11			3992	
	W4		4600	23212.00	3213.52		745.92			3663	
Captive-WB	G7	5200 - 5500	5200		3137.10		0.00			4362	
	G9	4600 - 4900	4600		2103.51		0.00			3663	
	G13		3400		1677.63		0.00			1720	
MSTC	G12		3800	390436.00	4420.07		17257.54			2305	
E-Auction-BCCL	W-IV		4600	18189.00	5501.54		1000.68			3663	
TOTAL				1250802			47593.14			3514.08	
							3805.01	908.33			
							4713.34		4751.00	3514.08	





Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 4

YEAR – 2018 – 2019

SANTALDIH THERMAL POWER STATION:

Source	Grade	GCV range		GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV	UHV as proposed by WBPDC
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Kcal/kg		Kcal/kg	MT	Rs./Tonne	Rs./Tonne	Rs Lakh	Rs/ Tonne	Rs/ Tonne	Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400		6100	0.00	4556.51		0.00			5676	3501.99
	G5	5800 - 6100		5800	3497.00	4209.94		147.22			5236	
	G6	5500 - 5800		5500	3173.00	3658.69		116.09			4799	
	G7	5200 - 5500		5200	0.00	3145.50		0.00			4362	
	G8	4900 - 5200		4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900		4600	0.00	2112.21		0.00			3663	
	W-II	-		5200	66040.00	4883.33		3224.95			4322	
BCCL	W-III	-		4900	2090444.00	4073.92		85163.02			3992	
	W-IV	-		4600	172259.00	3903.30		6723.79			3663	
MCL	G12			3700				0.00			2159	
	G13	3400 - 3700		3400	13343.00	1687.28		225.13			1720	
MCL-Washed	G11			4200	0.00	1876.23	2680.33	0.00			3101	
CCL	WR3			4900	0.00	4066.81		0.00			3992	
	W4			4600	31721.00	3220.87		1021.69			3663	
Captive-WB	G7	5200 - 5500		5200		3137.10		0.00			4362	
	G8	4900 - 5200		4900		2530.38		0.00			3992	
	G9	4600 - 4900		4600		2103.51		0.00			3663	
	G11			4000		1859.25		0.00			2682	
	G13			3400		1677.63		0.00			1720	
Captive-Jharkhand	G9	4600 - 4900		4600				0.00			3663	
MSTC	G12			3800	107629.00	4603.32		4954.51			2305	
Import	G7			5400	0.00	0.00		0.00			4653	
E-Auction-BCCL	W-IV			4600	114525.00	4757.64		5448.68			3663	
TOTAL					2602631			107025.08			3881.73	

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19



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

								4112.19	276.57			
Weighted average price of coal and Weighted Average value of Heat value of coal as considered								4388.76		3799.68	3881.73	

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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 5

YEAR – 2018 – 2019

SAGARDIGHI THERMAL POWER STATION (I):

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV	UHV as proposed by WBPDC
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Kcal/kg	Kcal/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	1331748	4556.51		60681.23			5676	4450.22
	G5	5800 - 6100	5800	13431	4209.94		565.44			5236	
	G6	5500 - 5800	5500	41543	3658.69		1519.93			4799	
	G7	5200 - 5500	5200	31672	3145.50		996.24			4362	
	G8	4900 - 5200	4900	0	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0	2112.21		0.00			3663	
BCCL	W-III	-	4900	3528	4073.92		143.73			3992	
	W-IV	-	4600	48525	3903.30		1894.08			3663	
MCL	G12		3700	0	1715.81		0.00			2159	
	G13	3400 - 3700	3400	4006	1687.28		67.59			1720	
MCL-Washed	G11		4200	3585	1876.23	2680.33	96.09			3101	
CCL	WR3		4900	0	4059.46		0.00			3992	
	W4		4600	37047	3213.52		1190.51			3663	
Captive-WB	G6	5500 - 5800	5500	187259	3658.69		6851.23			4651	
	G7	5200 - 5500	5200		3137.10		0.00			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600		2103.51		0.00			3663	
Captive-Jharkhand	G9	4600 - 4900	4600		2031.12		0.00			3663	



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

MSTC	G12		3800	839430	4382.90		36791.38			2305	
Import	G7		5400	0	6403.81		0.00			4653	
E-Auction- ECL	G4		6100	1128442	7618.67		85972.27			5676	
E-Auction -BCCL	W-IV		4600	10473	4757.64		498.27			3663	
TOTAL				3680689			197267.98			4770.98	
							5359.54	676.67			
							6036.21	6368.61		4770.98	



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3A 6

YEAR – 2018 – 2019

SAGARDIGHI THERMAL POWER STATION (II):

Source	Grade	GCV range	GCV	Quantity	Total price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV	UHV as proposed by WBPDCCL
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Kca/kg	Kca/kg	MT	Rs./Tonne	Rs./Tonne	Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	1331748.00	4556.51		60681.23			5676	
	G5	5800 - 6100	5800	13431.00	4209.94		565.44			5236	
	G6	5500 - 5800	5500	41543.00	3658.69		1519.93			4799	
	G7	5200 - 5500	5200	31672.00	3145.50		996.24			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
BCCL	W-III	-	4900	3528.00	4073.92		143.73			3992	
	W-IV	-	4600	48525.00	3903.30		1894.08			3663	
MCL	G12		3700	0.00	1715.81		0.00			2159	
	G13	3400 - 3700	3400	4006.00	1687.28		67.59			1720	
MCL-Washed	G11		4200	3585.00	1876.23	2680.33	96.09			3101	
CCL	WR3		4900	0.00	4066.81		0.00			3992	
	W4		4600	37047.00	3213.52		1190.51			3663	
Captive-WB	G6	5500 - 5800	5500	187259.00	3658.69		6851.23			4651	
	G7	5200 - 5500	5200		3137.10		0.00			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600		2103.51		0.00			3663	
Captive-Jharkhand	G9	4600 - 4900	4600		2031.12		0.00			3663	
MSTC	G12		3800	839430.00	4382.90		36791.38			2305	
Import	G7		5400	0.00	5661.00		0.00			4653	
E-Auction -ECL			6100	1128442.00	7618.67		85972.27			5676	
E-Auction -BCCL	W-IV		4600	10473.00	4757.64		498.27			3663	





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

TOTAL			3680689			197267.98			4770.98	4170.41
						5359.54	676.67			
						6036.21		5655.41	4770.98	



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ANNEXURE – 3B

YEAR – 2018 – 2019

Computation of Fuel Cost for different generating stations during 2018-19									
Sl. No.	Particular	Unit	Generating Stations						
			Bakreswar	Kolaghat	Bandel (Unit 1 & 2)	Bandel (Unit 5)	Santalidih	Sagardighi (1&2)	Sagardighi (3&4)
1	Generation	MU	7358.40	7726.32	683.28	1506.72	3504.00	4204.80	7008.00
2	Rate of Auxiliary Consumption	%	9.00%	9.60%	10.40%	9.00%	9.00%	9.00%	9.00%
3	Auxiliary consumption	MU	662.26	741.73	71.06	135.60	315.36	378.43	630.72
4	Ex-bus generation (4=1-3)	MU	6696.14	6984.59	612.22	1371.12	3188.64	3826.37	6377.28
5	Station Heat rate	Kcal/KWh	2470	2700	3050	2430	2425	2345	2276
6	Total Heat required (6=1 x 5)	M.Kcal	18175248.00	20861064.00	2084004.00	3661329.60	8497200.00	9860256.00	15950208.00
7	Heat Value of Oil	Kcal/lit	9963.00	9272.15	9204.60	9204.60	9443.04	9343.33	9343.33
8	Specific Oil Consumption rate	MI/KWh	1.30	2.00	2.50	1.75	1.00	1.00	1.00
9	Oil Consumed (9=1 x 8)	KL	9565.92	15452.64	1708.2	2636.76	3504	4204.8	7008
10	Heat Generated from oil (7 x 9/1000)	M.Kcal	95305.26	143279.20	15723.30	24270.32	33088.41	39286.83	65478.06
11	Heat Generated from Coal (6 - 10)	M.Kcal	18079942.74	20717784.80	2068280.70	3637059.28	8464111.59	9820969.17	15884729.94
12	Heat Value of Coal	Kcal/Kg	4802.09	3110.36	3514.08	3514.08	3881.73	4770.98	4770.98
13	Coal required [(11/12)x1000]	MT	3765013.62	6660896.10	588569.35	1034995.69	2180498.36	2058480.13	3329447.48





Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

14	Coal required at Transit Loss	MT	3783933.29	6714613.01	593315.87	1043342.43	2198083.03	2075080.78	3356297.86
15	Average Price of Oil	Rs./KL	42304	52072.17	49449	49449	54669.05	50799.28	50102.89
16	Average Price of coal	Rs./MT	4258.78	3823.67	4751.00	4751.00	3779.68	6368.61	5655.41
17	Cost of oil [(9 x 15)/100000]	Rs. In lac	4046.77	8046.52	844.69	1303.85	1915.60	2136.01	3511.21
18	Cost of Coal [(14x16)/100000]	Rs. In lac	161149.39	256744.64	28188.44	49569.20	83080.50	132153.80	189812.40
19	Total Cost of Fuel (17 + 18)	Rs. In lac	165196.16	264791.17	29033.13	50873.05	84996.11	134289.81	193323.62
20	Fuel cost per unit(20=(19/4)*10 (Ex-bus)	Paise/KwH	246.70	379.11	474.23	371.03	266.56	350.96	303.14



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 1

YEAR – 2019 – 2020

KOLAGHAT THERMAL POWER STATION:

Source	Grade	GCV range	GCV	Quantity	Total price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDC
		Kcal/kg	Kcal/kg	MT	Rs./Tonne	Rs./Tonne	Rs Lakh	Rs/ Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	137397.00	4556.51		6260.51			5676	
	G5	5800 - 6100	5800	2224.00	4209.94		93.63			5236	
	G6	5500 - 5800	5500	128268.00	3658.69		4692.93			4799	
	G7	5200 - 5500	5200	34478.00	3145.50		1084.51			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
	G9										
BCCL	W-II		5200	0.00	4883.33						
	W-III	-	4900	296539.00	4073.92		12080.76			3992	
	W-IV	-	4600	182529.00	3903.30		7124.65			3663	
MCL	G12		3700	60008.00	1715.81		1029.62			2159	
	G13	3400 - 3700	3400	1632424.00	1687.28		27543.56			1720	
MCL-Washed	G11		4200	887495.00	1876.23	2680.33	23787.79			3101	
CCL	WR3		4900	59172.00	4066.81		2406.41			3992	
	W4		4600	462704.00	3220.87		14903.09			3663	
Captive-WB	G7	5200 - 5500	5200	167475.00	3137.10		5253.85			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600	287101	2103.51		6039.21			3663	
	G11		4000		1859.25		0.00			2682	
	G13		3400	143550	1677.63		2408.23			1720	
Captive-Jharkhand	G9	4600 - 4900	4600		2031.12		0.00			3663	
MSTC	G12		3800	0	4457.2		0.00			2305	



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Import	G7		5400	0	5766.48	0.00		4653		
TOTAL				4481364		114708.77		2914.04	3220.46	
						2559.68	1083.83			
Weighted average price of coal and Weighted Average value of Heat value of coal as considered						3643.51	3920.36	3220.46		



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 2

YEAR – 2019 – 2020

BAKRESWAR THERMAL POWER STATION:

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDCCL
		Kcal/kg	Kcal/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
	G4	6100 - 6400	6100	1663451.00	4556.51		75795.31			5676	
	G5	5800 - 6100	5800	27803.00	4209.94		1170.49			5236	
	G6	5500 - 5800	5500	209539.00	3658.69		7666.38			4799	
	G7	5200 - 5500	5200	39751.00	3145.50		1250.37			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
BCCL	W-III	-	4900	34783.00	4073.92		1417.03			3992	
	W-IV	-	4600	100214.00	3903.30		3911.65			3663	
MCL	G12		3700	0.00	1715.81		0.00			2159	
	G13	3400 - 3700	3400	202491.00	1687.28		3416.59			1720	
MCL-Washed	G11		4200	0.00	1876.23	2680.33	0.00			3101	
CCL	WR3		4900	37088.00	4066.81		1508.30			3992	
	W4		4600	47283.00	3220.87		1522.92			3663	
Captive-WB	G7	5200 - 5500	5200	239123.00	3137.10		7501.52			4362	
	G8	4900 - 5200	4900	0	2530.38		0.00			3992	
	G9	4600 - 4900	4600	469599	2103.51		9878.08			3663	
	G11		4000	0	1859.25		0.00			2682	
	G13		3400	0	1677.63		0.00			1720	
Captive-Jharkhand	G9	4600 - 4900	4600	0	2031.12		0.00			3663	
MSTC	G12		3800	303737	4457.22		13538.23			2305	
Import	G7		5400	0	5766.48		0.00			4653	
ECFL-Beyond FSA	G4		6100	433944	4556.51		19772.70			5676	
	G5		5800	7253	4209.94		305.35			5236	
	G6		5500	54662	3658.69		1999.91			4799	
	G7		5200	10370	3145.50		326.19			4362	
TOTAL				3881091			150981.03				
							3890.17	427.65		4692.65	4664.29
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							4317.82		4559.32	4692.65	



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 3

YEAR – 2019 – 2020

BANDEL THERMAL POWER STATION (I & II):

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDC L
		Kcal/kg	Kcal/kg	MT	Rs./Tonne	Rs./Tonne	Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	233522	4556.51		10640.45			5676	
	G5	5800 - 6100	5800	22420	4209.94		943.87			5236	
	G6	5500 - 5800	5500	43092	3658.69		1576.60			4799	
	G7	5200 - 5500	5200	23574	3145.50		741.52			4362	
MCL	G12		3700	16533	1715.81		283.67			2159	
	G13	3400 - 3700	3400	202526	1687.28		3417.18			1720	
MCL-Washed	G11		4200	636080	1876.23	2680.33	17049.04			3101	
Captive-WB	G7	5200 - 5500	5200	47815	3137.10		1500.00			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600	239075	2103.51		5028.98			3663	
	G11		4000		1859.25		0.00			2682	
	G13		3400	95630	1677.63		1604.32			1720	
Captive-Jharkhand	G9	4600 - 4900	4600	0	2031.12		0.00			3663	
MSTC	G12		3800	85030	4420.07		3758.39			2305	
Import	G7		5400	0	6332.00		0.00			4653	
TOTAL				1645297			46544.02				
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							2828.91	913.05		3375.31	3539
							3741.96		3841	3539	



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 4

YEAR – 2019 – 2020

SANTALDIH THERMAL POWER STATION:

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDC
		Kcal/kg	Kcal/kg	MT	Rs./Tonne	Rs./Tonne	Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	0.00	4556.51		0.00			5676	
	G5	5800 - 6100	5800	0.00	4209.94		0.00			5236	
	G6	5500 - 5800	5500	0.00	3658.69		0.00			4799	
	G7	5200 - 5500	5200	0.00	3145.50		0.00			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
BCCL	W-III	-	4900	1526141.00	4073.92		62173.76			3992	
	W-IV	-	4600	173974.00	3903.30		6790.73			3663	
MCL	G12		3700	0.00	1715.81		0.00			2159	
	G13	3400 - 3700	3400	0.00	1687.28		0.00			1720	
MCL-Washed	G11		4200	0.00	1876.23	2680.33	0.00			3101	
CCL	WR3		4900	0.00	4066.81		0.00			3992	
	W4		4600	82191.00	3220.87		2647.27			3663	
Captive-WB	G7	5200 - 5500	5200	0.00	3137.10		0.00			4362	
	G8	4900 - 5200	4900	0.00	2530.38		0.00			3992	
	G9	4600 - 4900	4600	0.00	2103.51		0.00			3663	
	G11		4000	0.00	1859.25		0.00			2682	
	G13		3400	625045.00	1677.63		10485.93			1720	
Captive-Jharkhand	G9	4600 - 4900	4600	0.00	2031.12		0.00			3663	
MSTC	G12		3800	20959.00	4603.32		964.81			2305	
Import	G7		5400	0.00	5953.03		0.00			4653	
TOTAL				2428310			83062.49	6715.95			
							3420.59	276.57		3358.18	3523.34
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							3697.16		3696.84	3523.34	



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 5

YEAR – 2019 – 2020

SAGARDIGHI THERMAL POWER STATION (I):

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDC
		Kcal/kg	Kcal/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	826831.00	4556.51		37674.64			5676	
	G5	5800 - 6100	5800	8339.00	4209.94		351.07			5236	
	G6	5500 - 5800	5500	25792.00	3658.69		943.65			4799	
	G7	5200 - 5500	5200	19664.00	3145.50		618.53			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
BCCL	W-III	-	4900	11442.00	4073.92		466.14			3992	
	W-IV	-	4600	157376.00	3903.30		6142.86			3663	
MCL	G12		3700	0.00	1715.81		0.00			2159	
	G13	3400 - 3700	3400	0.00	1687.28		0.00			1720	
MCL - Washed	G11		4200	0.00	1876.23	2680.33	0.00			3101	
CCL	WR3		4900	0.00	4066.81		0.00			3992	
	W4		4600	0.00	3220.87		0.00			3663	
Captive-WB	G7	5200 - 5500	5200	0.00	3137.10		0.00			4362	
	G8	4900 - 5200	4900	0.00	2530.38		0.00			3992	
	G9	4600 - 4900	4600	0.00	2103.51		0.00			3663	
Captive-Jharkhand	G9	4600 - 4900	4600	540399.00	2031.12		10976.15			3663	
MSTC	G12		3800	205354.00	4382.90		9000.46			2305	
Import	G7		5400	0.00	5661.00		0.00			4653	
E-Auction - ECL			6100	214172.00	5785.01		12389.87			5676	
E-Auction - BCCL	W-IV		4600	152440.00	4355.50		6639.52			3663	
TOTAL				2161809			85202.89				
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							3941.28	676.70	4664.64	4530.87	4467.02
							4617.98			4530.87	



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

ANNEXURE – 3C 6

YEAR – 2019 – 2020

SAGARDIGHI THERMAL POWER STATION -II:

Source	Grade	GCV range	GCV	Quantity	Total Price	Total Yield Cost	Qty x price	Transportation cost	Average Price of Coal as per form 1.11	UHV computed as per reg. 5.8.15	UHV as claimed by WBPDCCL
		Kcal/kg	Kcal/kg	MT	Rs./Tonne		Rs Lakh	Rs/Tonne		Kcal/kg	Kcal/kg
ECL	G4	6100 - 6400	6100	1361243.00	4556.51		62025.17			5676	
	G5	5800 - 6100	5800	13728.00	4209.94		577.94			5236	
	G6	5500 - 5800	5500	42463.00	3658.69		1553.59			4799	
	G7	5200 - 5500	5200	32374.00	3145.50		1018.32			4362	
	G8	4900 - 5200	4900	0.00	2538.78		0.00			3992	
	G9	4600 - 4900	4600	0.00	2112.21		0.00			3663	
	G9										
BCCL	W-III	-	4900	18838.00	4073.92		767.45			3992	
	W-IV	-	4600	259094.00	3903.30		10113.22			3663	
MCL	G12		3700	0.00	1715.81		0.00			2159	
	G13	3400 - 3700	3400	0.00	1687.28		0.00			1720	
MCL-Washed	G11		4200	0.00	1876.23	2680.33	0.00			3101	
CCL	WR3		4900	0.00	4066.46		0.00			3992	
	W4		4600		3220.87		0.00			3663	
Captive-WB	G7	5200 - 5500	5200	44484.00	3137.10		1395.51			4362	
	G8	4900 - 5200	4900		2530.38		0.00			3992	
	G9	4600 - 4900	4600		2103.51		0.00			3663	
Captive-Jharkhand	G9	4600 - 4900	4600	845196.00	2031.12		17166.94			3663	
MSTC	G12		3800	338081.00	4382.90		14817.75			2305	
Import	G7		5400	0.00	5661.00		0.00			4653	
E-Auction - ECL			6100	352600.00	5785.01		20397.94			5676	
E-Auction - BCCL	W-IV		4600	250968.00	4355.50		10930.91			3663	
TOTAL				3559069			140764.75				
							3955.10	676.70		4539.60	4477.65
Weighted average price of coal and Weighted Average value of Heat value of coal as considered							4631.80		4678.10	4539.60	





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020



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ANNEXURE – 3D

Computation of Fuel Cost for different generating stations of WBPDC for the year 2019-2020

Sl. No.	Particular	Unit	Generating Stations (2019-20)						
			Bakreswar	Kolaghat	Bandel(Unit I & II)	Bandel (Unit V)	Santaldih	Sagardighi (1&2)	Sagardighi (3&4)
1	Generation	MU	7378.56	7747.49	685.15	1510.85	3513.60	4216.32	7027.20
2	Rate of Auxiliary Consumption	%	9.00%	9.60%	10.40%	9.00%	9.00%	9.00%	9.00%
3	Auxiliary consumption	MU	664.07	743.76	71.26	135.98	316.22	379.47	632.45
4	Ex-bus generation (4=1-3)	MU	6714.49	7003.73	613.90	1374.87	3197.38	3836.85	6394.75
5	Station Heat rate	Kcal/ KWh	2470	2700	3050	2430	2425	2345	2276
6	Total Heat required (6=1 x 5)	MKcal	18225043.20	20918217.60	2089713.60	3671360.64	8520480.00	9887270.40	15993907.20
7	Heat Value of Oil	Kcal/ lit	9963.00	9272.15	9204.60	9204.60	9443.04	9343.33	9343.33
8	Specific Oil Consumption rate	MI/ KWh	1.30	2.00	2.50	1.75	1.00	1.00	1.00
9	Oil Consumed (9=1 x 8)	KL	9592.128	15494.976	1712.88	2643.984	3513.6	4216.32	7027.2
10	Heat Generated from oil (7 x 9/1000)	M.Kcal	95566.37	143671.74	15766.38	24336.82	33179.07	39394.47	65657.45
11	Heat Generated from Coal (6 - 10)	MKcal	18129476.83	20774545.86	2073947.22	3647023.82	8487300.93	9847875.93	15928249.75
12	Heat Value of Coal	Kcal/ Kg	4692.65	3220.46	3539.00	3539.00	3523.34	4530.87	4539.60
13	Coal required [(11/12)x1000]	MT	3863376.91	6450800.77	586026.34	1030523.83	2408879.34	2173508.46	3508735.29
14	Coal required at Transit Loss	MT	3882790.86	6502823.36	590752.36	1038834.50	2428305.79	2184430.61	3537031.55





Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

15	Average Price of Oil	Rs./ KL	42304.00	52072.17	49449.00	49449.00	54669.05	50799.28	50102.89
16	Average Price of coal	Rs./ MT	4317.82	3643.51	3741.96	3741.96	3697.16	4617.98	4631.80
17	Cost of oil [(9 x 15)/100000]	Rs. In lac	4057.85	8068.57	847.00	1307.42	1920.85	2141.86	3520.83
18	Cost of Coal [(14x16)/100000]	Rs. In lac	167651.92	236931.02	22105.72	38872.77	89778.35	100876.57	163828.23
19	Total Cost of Fuel (17 + 18)	Rs. In lac	171709.77	244999.59	22952.72	40180.20	91699.20	103018.43	167349.06
20	Fuel cost per unit[(20)=(19)/(4)*10] (Ex-bus)	Paise /Kw H	255.73	349.81	373.89	292.25	286.80	268.50	261.70

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CHAPTER - 4 FIXED CHARGES

- 4.1 The Commission has taken prudent analysis of the charges claimed under different heads with reference to reasonableness for its generating stations has been taken up in this chapter.
- 4.2 The WBPDCCL has projected the expenses under different heads of fixed charges on the basis of actual expenditure for the year 2018-19 (unaudited data). The latest annual report and accounts submitted along with the application as available at the time of submission are for the year 2017-18. The expenses for the base years 2017-18 has been compared and analyzed with actual expenses for the year 2016-17. The Commission also compares the claim of WBPDCCL for 2018-19 and 2019-20 with the estimated expenses shown under the respective heads for the year 2017-18. The escalation rate considered by WBPDCCL for the projected cost for the year 2019-20 for the respective heads in light of the inflationary trend and wherever the rate of annual increase considered in the projected expenditure being below the average inflation rate, the Commission has accepted such rate of annual increase in general.
- 4.3 **Projected cost of Units III & IV of Sagardighi and Bandel Generating Stations**
- 4.3.1 Two units of Sagardighi generating station (Phase – II) were put in commercial operation during 2016-17. The Commission accorded clearance in principle to its investment proposal for construction of two units of 500 MW each under Sagardighi Phase – II package vide order dated 25.11.2010 in case no. WBERC/OA-49/08-09 at the estimated project cost of Rs. 5340.38 crore. Date of commercial operation of unit III and Unit IV of the generating station are 01.07.2016 and 20.12.2016 respectively.
- 4.3.2 WBPDCCL has not submitted the required report as per regulation 2.8.1.4.13 of the Tariff Regulations. Accordingly, project cost has not been determined by the Commission. The Commission accordingly decided to reduce the submitted project cost of Rs. 6029.50 crore by 05% for the purpose of tariff determination.
- 4.3.3 WBPDCCL had taken up implementation of the Energy Efficient Renovation & Modernization (EERM) of unit no. V of Bandel generating station of 215 MW capacity with the financial assistance of World Bank. The Commission accorded investment approval for a total amount



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

of Rs. 652.20 crore vide order dated 14.02.2013 in case no. OA-132/11-12. The unit was commissioned after the EERM works with full load operation on and from 24.11.2015.

- 4.3.4 WBPDCCL has not submitted the required report as per regulation 2.8.1.4.13 of the Tariff Regulations. Accordingly, project cost has not been determined by the Commission. The Commission accordingly decided to reduce the submitted project cost of Rs. 652.20 crore by 05% for the purpose of tariff determination.
- 4.3.5 The Commission during earlier MYT order had allowed advance against depreciation on full provisional project cost as submitted by WBPDCCL and interest on outstanding borrowed capital in order to facilitate repayment of loan and payment of interest to financial institutions. WBPDCCL is yet to submit the final project cost in respect of Sagadighi TPS and EERM works at BTPS II (Unit 5). The Commission now decides not to service any capital cost beyond 95% of the provisional project cost during 2018-19 & 2019-20. Reduction of 5% of the submitted project cost would have effect on different fixed charge components viz., depreciation, interest, return on equity in this case. Proportionate reduction has been made from the allocation under the head interest on borrowed capital, depreciation and return on equity.
- 4.3.6 In the tariff order dated 30.12.2011 in respect of new generating plants of WBPDCCL at Bakreswar (units 4 and 5), Santaldih (unit 5) and Sagardihi (units 1 and 2) the Commission decided to withhold 5% of the project cost so determined in the order for respective units. Accordingly, the Commission in the order dated 30.12.2011 admitted the project cost for those units @95% of the determined project cost for tariff determination purpose. The Debt and equity have been admitted at a reduced level accordingly. Interest, depreciation and RoE was admitted on reduced debt and equity. This methodology was also continued in the subsequent orders. WBPDCCL has not yet submitted the Final Project Cost along with related documents as required in terms of Tariff Regulations. Commission has taken a serious note of it and decides to continue with the reduced debt and RoE as considered in the earlier tariff orders for those units. WBPDCCL has also not submitted the Unit wise Capital Cost considered for estimation of the expenses. In absence of such details the Commission proceeds to determine the tariff by withholding proportionate amount of 5% under the head interest on borrowed capital, depreciation and return on equity for these Units also. Any adjustments in this regard will be made in the APR for the respective years based on documents to be submitted by WBPDCCL.





4.3.7 WBPDCCL is directed to submit the final project cost in respect of the above generating stations in accordance with the provisions of Tariff Regulations within six months from the date of this order.

4.4 Inflation Index

WBPDCCL has referred the average inflation rate of 5.44% for projection of expenditure under different heads for the year 2019-20. Commission finds no merit in considering such inflation rate for estimate purpose. The Commission instead of considering the rate of 5.44% in general for projection purpose decides to proceed in a further rational manner by following a methodology that considers the sensitivity parameter as was determined in the previous tariff order and increasing it by applying the average inflation rate for 2018 – 2019 and 2019 – 2020 giving 60:40 weightage to WPI:CPI as detailed below:

TREND OF INFLATION RATE FOR THE PERIOD APRIL 2018 TO MARCH 2020	
Average inflation rate as per WPI for 2017 – 2018	3.10
Average inflation rate as per CPI for 2017 – 2018	2.96
Average inflation rate as per CPI+ WPI (60:40) 2017 – 2018	3.02
Average inflation rate as per WPI for 2018 – 2019	5.40
Average inflation rate as per CPI for 2018 – 2019	4.26
Average inflation rate as per CPI+ WPI (60:40) 2018 – 2019	4.72
Average inflation rate as per WPI for 2019 – 2020	7.54
Average inflation rate as per CPI for 2019 – 2020	1.67
Average inflation rate as per CPI + WPI (60:40) 2019 – 2020	4.02

4.5 Employee Cost

4.5.1 WBPDCCL has projected the employee cost for the year 2018-19 on the basis of actual employee cost for the year. WBPDCCL has projected the employee cost for the year 2019-20 at the rate of 105.44% for each generating station. WBPDCCL stated in their submission that the escalation factor of 5.44% has been considered in line with the average Consumer Price Index (CPI) inflation rate as published by the Directorate of Labour Bureau, Government of West Bengal for the period April 2018 to March 2019. WBPDCCL has not claimed any arrear against any wage revision.





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.5.2 WBPDCCL has projected the number of employees in data forms submitted along with their application. It is observed from the number of employees as projected and the Man/ MW ratio computed for each generating station that the number of employees for each generating station is well within the limit of Man/ MW ratio as stipulated in the Tariff Regulations.

4.5.3 The Commission now analyzes the impact of normal increment and increase in DA in employee cost for the respective year in consideration of facts stated below:

- a) The Commission has considered the actual pay incurred as salaries during the year 2018-19 as per the un-audited annual accounts submitted by WBPDCCL. Pay includes basic pay, DA, HRA and other allowances. DA during the year 2018-19 was 125% of Basic pay. Thus Pay (Basic pay plus DA) comes to 225% of Basic pay. Commission does not consider any increase in Pay during the year 2019-20 over 2018-19 except for increase due to annual increment. Annual increment @3% on basic pay corresponds to 1.33% of pay ($3 \times 100 / 225$) has been considered for the year 2019-20 to arrive at the pay for the year 2019-20.
- b) 'Contribution to fund', 'welfare expenses' and 'Director Fees' have been considered for the year 2018-19 as per actual as claimed by WBPDCCL and in the ratio of such expenses to admitted salaries for each generating station as per the ratio of such expenses incurred during 2018-19.

4.5.4 The Commission, thus, admits the employee cost including terminal benefits net of capitalization for each generating station for the year 2018-19 and 2019-20 as follows:

Generating Station	As claimed by WBPDCCL		As admitted by the Commission	
	2018-19	2019-20	2018-19	2019-20
Kolaghat	13318.76	14043.3	13318.76	13496.34
Bakreswar	13362.71	14089.66	13362.71	13540.91
Bandel – I	2340.6	2467.93	2340.60	2371.81
Bandel – II	4193.38	4421.7	4193.38	4249.254
Santaldih	9919.04	10458.63	9919.04	10051.29
Sagardighi – I	5159.58	5440.27	5159.58	5228.39
Sagardighi – II	7234.74	7628.31	7234.74	7331.20

Rs. in Lakh

4.6 Coal & Ash Handling Expenses



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.6.1 WBPDCCL has projected the Coal & Ash handling expenses for its power stations presently in operation.

4.6.2 WBPDCCL has projected the coal and ash handling charges for the years 2018-19 as per their actual expenses during the year. WBPDCCL has claimed the coal and ash handling charges for the year 2019-20. The amount of expenditure under this head of account is related to the scale of operation of the generating plants. The Commission has, however, considered to operate the plants at the normative level of PLF of the respective generating stations of WBPDCCL. In this regard the Commission has taken the following considerations:

- Since there is variation in actual generation compared to generation at normative level during 2017-18, the Commission decides to bring the actual expenditure for 2017-18 at normative generation level.
- Since the item of cost is predominantly sensitive to inflation index of CPI, the Commission decides to consider average inflation rate of related period

The coal and ash handling charges have been admitted on the basis of actual charges incurred during 2017-18 pro-rated for normative generation for 2018-19 with escalation of 5.40% for 2018-19 and 7.54% for 2019-20 for all generating stations except for Kolaghat and Santaldih generation stations where WBPDCCL has projected the coal and ash handling charges for both the ensuing years under the sixth control period at a lower level. Thus, the coal and ash handling charges for Kolaghat and Santaldih generating station is considered as projected by WBPDCCL. The coal and ash handling charges thus admitted by the Commission are as follows:

Rs. in lakh

Generating Station	Normative generation in 2017-18	Actual generation in 2017-18	Actual expenditure in 2017-18	Actual expenditure at normative generation level in 2017-18	Expenditure during 2018-19 with escalation of 5.40% over 2017-18	Expenditure during 2019-20 with escalation of 7.54% over 2018-19	As claimed by WBPDCCL		Admitted Coal and Ash Handling	
	(MU)	(MU)					2018-19	2019-20	2018-19	2019-20
KTPS	7726.32	4749.85	2242.76	3648.17	3845.17	4135.1	2090.39	2204.11	2090.39	2204.11
BkTPS	6696.14	7486.55	1950.79	1744.83	1839.05	1977.71	2893.99	3051.42	1839.05	1977.71
BTPS-1 (UNIT #1 and #2)	683.28	530.289	60.9779	78.57	82.81	89.05	233.07	245.75	82.81	89.05
BTPS-II (unit 5)	1506.72	887.791	109.252	185.42	195.43	210.17	417.59	440.30	195.43	210.17
STPS	3504.00	2941.56	1575.28	1876.48	1977.81	2126.94	1624.01	1712.36	1624.01	1712.36

West Bengal Electricity Regulatory Commission

41



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Tariff Order of WBDCL for the years 2018 – 2019 and 2019 – 2020

SgTPS – I	4204.80	2993.88	253.43	355.93	375.15	403.44	434.19	457.81	375.15	403.44
SgTPS - II	7008.00	3347.76	168.12	351.93	370.93	398.9	608.82	641.94	370.93	398.9

4.7 Water Charges / Cess:

4.7.1 Water requirement of Santaldih generating station is met from DVC sources of water. WBDCL has projected water charges for purchase of water from DVC by Santaldih Thermal Power Station on the basis of expense already incurred during 2018-19 at the power station. That expenses has been escalated by 5.44% for the projected expenditure for 2019-20 in line with CPI inflation rate for FY 2018-19. Notification of DVC's water tariff has been annexed with their petition. Commission has observed from the document submitted by WBDCL that the water charge claimed by DVC are based on the revised rule w.e.f. 01.10.2012 vide notification dated 09.08.2012. Commission considers the actual but unaudited water charges expenses for 2018-19 with an escalation @ 5.44% for projected expenses for 2019-20 as claimed by WBDCL. Thus the Commission admits the water charges as projected by WBDCL for Santaldih generating station.

4.7.2 No water charges, however, for Kolaghat, Bakreswar, Bandel and Sagardighi generating station have been charged by WBDCL as the same has already been subsumed in GST.

4.7.3 The water charges, thus, admitted for Santaldih generating station is as under:

Rs in Lakh

Generating Station	As claimed by WBDCL		As admitted by the Commission	
	2018-19	2019-20	2018-19	2019-20
Santaldih	411.56	433.95	411.56	433.95

The water charges as admitted above for 2018-19 and 2019-20 corresponds to normative generation of Santaldih generating stations during the respective year. Any shortfall in actual generation of Santaldih generating station during any year will be looked into in admitting the water charges of the generating station in APR for the concerned year.

4.8 Operation & Maintenance Expenses



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4.8.1 As per regulation 5.7 of the Tariff Regulation the component of Operation and Maintenance (O&M) expenses are as follows:

- i) Repair & Maintenance Expenses (R & M)
- ii) Administrative and General Expenses which are composed of following items:
 - rent and lease charges;
 - Legal charges, Auditor's expenses, which include auditor's fees, auditor's expenses and payment to auditors in any other capacity or for any work which is necessary to be got done from them and audited;
 - Consultancy charges for work which cannot be done in-house or is uneconomical in doing in-house or is essential to be done from outside sources except payment to Auditors and
 - Other expenses necessary and arising from and ancillary or incidental to the business of electricity except penalty etc. levied under this Act or any other Act.

Considering these heads, the Commission has set the norms in the Tariff Regulations.

4.8.2 WBPDCCL has projected the O&M expenses for each generating station for the years 2018-19 as per the actual expenditure during the year 2018-19. WBPDCCL stated that the actual O&M expenses during the year 2018-19 has been escalated with average CPI inflation rate of 5.44% for the projected cost for 2019-20. They have applied the escalation factor in terms of regulation 2.8.6.1 of Tariff Regulations, 2011.

4.8.3 The Commission vide paragraph B of Schedule 9A of the Tariff Regulations has recommended the annual norms of operation and maintenance up to the year 2016-17. In terms of Regulation 2.8.6.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff)(Amendment) Regulations, 2013 the norms of Operation & Maintenance (O&M) Expenses for a Coal Fired Thermal Generating Station and for the hydro generating power station which are under operation or/and under Construction is to be provided in the tariff order of the 1st ensuing year of any control period applying average inflation rate of last control period on the basis of actual expenditure of the last available completed year of that last control period. This tariff order is for the sixth control period. The last control period was the fifth control period consisting of FY 2017-18 only. The Commission observes that the actual figures of the year 2017-18 are yet to be admitted and accordingly proceeds to finalize





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

the norms by applying the average inflation rate of 3.01%, 4.72% and 4.02% for the respective years 2017-18, 2018-19 and 2019-20 giving 60:40 weightage to WPI:CPI as derived in paragraph 4.4 above on the norms specified in Schedule 9A of the Tariff Regulations and applicable for 2016-17. The norms thus admitted by the Commission for the years 2018-19 and 2019-20 are depicted below:

Rs in Lakh

Generating Station	Installed Capacity (MW)	Norms of 2016-17 (Rs./MW)	Rate for 2018-19 (Rs./MW) (4) = (3) X 1.0301 X 1.0472	Rate for 2019 - 20 (Rs./MW) (5) = (4) X 1.0402
(1)	(2)	(3)		
Kolaghat	1260	14.94	16.12	16.77
Bakreswar	1050	12.03	12.97	13.49
Bandel – I	120	16.38	17.67	18.38
Bandel – II	215	14.74	15.91	16.55
Santaldih	500	9.31	10.04	10.44
Sagardighi – I	600	7.92	8.55	8.89
Sagardighi - II	1000	5.85	6.31	6.56

4.8.4 The Commission admits operation and maintenance expenses for each of the generating stations in operation as under:

Rs.in Lakh

O&M Expenses for generation as proposed and admitted by the Commission							
Generating Station	Installed Capacity (12MW)	O&M cost in Lakh/MW as admitted		O&M Expenses as proposed by WBPDCCL		O&M Expenses as admitted by Commission	
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(2) x (3)	(8)= (2) x (4)
Kolaghat	1260	16.	16.77	16374.28	17265.04	20311.20	21130.20
Bakreswar	1050	12.97	13.49	15736.11	16592.16	13618.50	14164.50
Bandel – I	120	1767	1838	3566.33	3760.34	2120.40	2205.60
Bandel – II	215	15.91	16.55	6389.68	6737.28	3420.65	3558.25
Santaldih	500	10.04	10.44	6875.01	7249.01	5020.00	5220.00
Sagardighi – I	600	8.55	8.89	10120.4	5560.97	5130.00	5334.00
Sagardighi - II	1000	6.31	6.56	7395.26	7797.56	6310.00	6560.00

4.9 Insurance:

4.9.1 WBPDCCL in their written submission of tariff petition has stated that they have projected the insurance cost after thorough review of the existing coverage for each generating station. It is stated that WBPDCCL has moved from the existing fire policy coverage to industrial all risks / mega policies where insurance coverage is much wider. Moreover, for the old generating stations, WBPDCCL considers that coverage requires to be enhanced to reinstatement value of the assets.



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.9.2 The Commission has noted that projected insurance charges for all the power stations was increased by more than 200% during the year 2017-18 due to change in the policy coverage since 2017-18. WBPDCCL has claimed the insurance charges on actual basis for the year 2018 – 2019 which is much lower than the actual expenditure during 2017-18 except for Sagardighi Stage II. WBPDCCL has projected the insurance charges for 2019-20 with an escalation @ 5.44% for all the generating stations. WBPDCCL has submitted with the tariff petition copies of insurance coverage policy. Insurance premium is an uncontrollable factor for tariff determination, but admissibility is to be determined through prudent check as per regulation 5.23.1 of the Tariff Regulations.

4.9.3 The Commission, thus, decides to determine insurance premium for 2018 – 2019 based on the projection as per actual expenditure during 2018 – 2019. Commission also considers average inflation rate @ 5.44% for the year 2019-20 as projected by WBPDCCL as per WPI available in the website of Economic Adviser, GOI during April, 2017 to March 2018. Admitted insurance premium for 2018-19 and 2019-20 are as below:

Rs in Lakh

Power station	Admitted Insurance Premium	
	2018 – 2019	2019 – 2020
Kolaghat	310.04	326.90
Bakreswar	449.24	473.68
Bandel (I)	9.40	9.91
Bandel (II)	16.852	17.76
Santalalidih	122.96	129.66
Sagardighi (I)	169.75	178.90
Sagardighi (II)	238.02	250.97

4.9.4 In terms of the Tariff Regulations, insurance premium is to be paid after selection of the insurance company through a transparent process. Insurance premium paid being uncontrollable is required to be adjusted under APR where WBPDCCL would also be required to confirm that the provisions of the Tariff Regulations are complied with. WBPDCCL is directed to submit copies of all policy documents and certificate of valuation of assets duly signed by the registered valuer.

4.10 Depreciation:

4.10.1 In their projection the gross fixed asset for the base year 2017 – 2018 in respect of the existing units has been considered by WBPDCCL on the basis of closing gross fixed assets in the





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

audited accounts for 2016 – 2017. Capital addition to the fixed assets during the years 2017-18, 2018 – 2019 and 2019 – 2020 has been considered by WBPDCCL.

4.10.2 As stated in their application, the depreciation rates and useful life of assets has been considered by WBPDCCL as per Regulation 5.6.2 of the Tariff Regulations.

4.10.3 The Commission thus, considers the submission of WBPDCCL and admits the depreciation of each generating station for the year 2018 – 2019 and 2019 – 2020, as follows. Proportionate withholding of amount from the allocation of depreciation in respect of generating stations has been made as decided in paragraph 4.3.5 and 4.3.6 of this order.

Rs in lakh

Power station	Admitted Depreciation	
	2018 – 2019	2019 – 2020
Kolaghat	1176.87	1433.18
Bakreswar	16861.25	17065.84
Bandel (I)	166.72	216.70
Bandel (II)	2429.37	2486.16
Santaldih	9363.11	9468.45
Sagardighi (I)	10526.92	10735.77
Sagardighi (II)	20686.78	20716.05

4.10.4 The claimed amounts on depreciation in respect of Bakreswar transmission system and Santaldih transmission system for Rs. 620.37 lakh and Rs. 966.60 lakh respectively both for the years 2018-19 and 2019-20 are, however, excluded in the above admitted amount of depreciation. Treatment of the depreciation related to transmission asset in the Aggregate Revenue Requirement are dealt with in subsequent paragraphs.

4.11 Advance against Depreciation:

4.11.1 WBPDCCL has not projected the requirement of advance against depreciation for the year 2018 – 2019 and 2019 – 2020 in respect of any of the generating stations. WBPDCCL has stated that following the directives of the Commission in paragraph 5.9.2 of the tariff order for third control period in case no. TP-54/12-13 dated 01.12.2012, they will submit detailed statement of repayment of loan, actual depreciation in the Annual Performance Review application for the concerned years of fourth control period. Thus, no amount is being considered by the Commission under this head for 2018 – 2019 and 2019 – 2020.

4.12 Interest on borrowed Capital



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.12.1 WBPDCCL has projected the interest payable on the borrowed capital during the year 2018 – 2019 and 2019 – 2020. The Commission has taken up the examination of such projection separately for generating stations at Bakreswar, Bandel II, Santaldih and Sagardighi. No term loan has been received by WBPDCCL in capital accounts for Kolaghat and Bandel generating stations and hence no interest has been claimed by WBPDCCL for those generating stations. WBPDCCL has given the details of the interest on borrowed capital in Form C in Annexure – 1 of their application for the respective generating stations. The Commission has examined the calculation of interest taking into consideration the project cost admitted against the respective generating stations and admits the interest on borrowed capital for generating stations after withholding amount equivalent to 5% as decided in paragraph 4.3.5 and 4.3.6 of this order as shown below . The detailed computation of allowable interest on borrowed capital is given in Annexure -4C

Rs in Lakh

Power station	Admitted interest on borrowed capital	
	2018 – 2019	2019 – 2020
Kolaghat	0.00	0.00
Bakreswar	10710.74	9791.75
Bandel (I)	0.00	0.00
Bandel (II)	1042.52	1042.52
Santaldih	8293.83	7186.12
Sagardighi (I)	5706.55	4788.58
Sagardighi (II)	42743.768	40087.77

4.12.2 It is noted that WBPDCCL has not claimed any interest on borrowed capital in respect of Bakreswar transmission system in their tariff petition but has claimed interest on borrowed capital for Santaldih transmission system for Rs. 623.13 lakh and Rs 547.44 lakh for the years 2018-19 and 2019-20. The proportionate chargeable amount of interest related to transmission system of Santaldih TPS for the years 2018-19 and 2019-20 has been worked out at Rs 516.96 lakh and Rs 509.33 lakh in the same ratio to total amount as claimed by WBPDCCL. These amounts are, however, excluded from the above admitted amount of chargeable interest on borrowed capital. Interest on borrowed capital related to transmission asset in the Aggregate Revenue Requirement are dealt with in subsequent paragraphs.

4.13 Finance Charges:



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.13.1 WBPDCCL has claimed other finance charges for all the generating stations during the year 2018 – 2019 and 2019 – 2020 at the same level as per expenditure during 2018-19. The finance charges includes expenses on account of renewal of all credit facilities as well as processing charges and discounting charges arising out of fresh borrowings and purchase bill discounting along with various bank transaction charges. The Commission admits projected finance charge against the generating stations, as below:

Power station	Admitted Insurance Premium Rs in Lakh	
	2018 – 2019	2019 – 2020
Kolaghat	295.15	295.15
Bakreswar	487.05	487.05
Bandel (I)	31.75	31.75
Bandel (II)	56.88	56.88
Santalidih	245.43	245.43
Sagardighi (I)	172.52	172.52
Sagardighi (II)	24.90	24.90

4.13.2 The Commission noted that there was huge increase in expenditure under 'other finance charges' during 2017-18 and in the projected expenditure for 2018-19 and 2019 – 2020 compared to 2016-17. WBPDCCL is directed to submit details of expenditure under 'other finance charges' in the APR petition for 2018 – 2019 and 2019 - 2020.

4.14 Interest on Temporary accommodation:

4.14.1 WBPDCCL has submitted that the orders issued by the Commission since 2008-09 on various accounts with the direction for recovery of the arrear sums over a period of 18 to 72 months and this prolonged recovery period has actually forced them to continue with borrowing leading increase cost of generation. Further, requirement of fund as temporary accommodation has again increased due to non-receipt of orders on fuel cost and fixed cost adjustments since 2014-15 as well as abnormal delay in recovery of Monthly Fuel Cost Adjustment (MFCA) from the DISCOM.

4.14.2 With the above submission WBPDCCL has claimed interest on temporary accommodation paid during 2018-19 at actual (pre-actual) and projected interest for 2019-20 in the same pattern of 2018-19.



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.14.3 The Commission does not consider any interest on temporary accommodation at the tariff determination stage and directs WBPDCCL to submit details of drawal of loan, interest paid in the APR for 2018 – 2019 and 2019-2020. The Commission will examine necessity of such loan based on tariff gap during the year and will decide accordingly.

4.15 Return on Equity:

4.15.1 WBPDCCL has claimed return on equity for each generating station on the basis of admissible equity base at the beginning of the year. The basis of determination of such admissible equity base has not, however, been explained in their submission. No addition or withdrawal of equity has been considered by WBPDCCL during the year.

4.15.2 The Commission redetermined admissible equity base for the purpose of return in the APR order dated 24.08.2017 for 2013 – 2014 in case No. WBERC/45/14-15 in pursuance of the decisions of the Commission conveyed through an order dated 18.11.2014 in case no. WBERC/AT/411. Based on the methodology adopted in the APR order of WBPDCCL for the year 2013 – 2014, admissibility of free reserve has been determined as on 31.03.2018 in Annexure – 5A attached to the tariff order for 2017-18.

4.15.3 The Commission has determined admissible equity base as on 31.03.2019, and 31.03.2020 considering opening admissible equity base as on 01.04.2018, actual addition to its equity, availability of free reserve at the beginning of 2018 –2019 and 2019 – 2020 and actual addition to fixed assets during these two years. The existing admissible equity base for the year 2017 – 2018 has been considered as the opening balance at the beginning of the year 2018 – 2019. The Commission has considered addition to equity base from free reserves and fixed assets during 2018 – 2019 and 2019 – 2020 as projected by WBPDCCL to determine the admissible equity base and return on equity for the years 2018 – 2019 and 2019 – 2020. Generating stations wise computed return on equity is given in Annexure – 4A attached to this order. For Sagardighi (Units III & IV), WBPDCCL considered their submitted project cost and actual equity sanctioned by the Government of West Bengal for the purpose of computation of return. The Commission admits the same.



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

4.15.4 Necessary effect has, however, been given for reduction of project cost by 5% as decided in paragraph 4.3.5 & 4.3.6 of this order in respect of generating stations for which requisite documents are yet to be submitted by WBPDCCL.

Admitted return on equity for the generating stations is given below:

Rs. in lakh

Power station	Admitted RoE Rs lakh?	
	2018 – 2019	2019 – 2020
Kolaghat	13817.00	14011.00
Bakreswar	19583.03	19640.30
Bandel (I)	251.00	299.00
Bandel (II)	2923.15	2965.90
Santaldih	9415.33	9448.40
Sagardighi (I)	11851.25	11886.40
Sagardighi (II)	26643.70	26659.85

4.13.3 WBPDCCL has claimed return on equity of Rs 1440.93 lakh and Rs 1436.24 lakh for the years 2018-19 and 2019-20 respectively related to transmission asset in respect of Bakreswar TPS. WBPDCCL has also claimed RoE of Rs 730.09 lakh and Rs 788.29 lakh for the years 2018-19 and 2019-20 respectively related to transmission asset in respect of Santaldih TPS. The chargeable amounts of return on equity for generation and transmission has been apportioned in the same ratio as claimed by WBPDCCL in respect of Bakreswar transmission system and Santaldih transmission system which are, however, excluded in the above admitted amount of such return on equity.

4.15.5 The proportionate chargeable amounts of return on equity in respect of Bakreswar transmission system and Santaldih transmission system are as follows:

Year	Amount in Rs. lakh	
	Bakreswar	Santaldih
2018 – 2019	1427.32	671.12
2019 – 2020	1415.88	666.31

Return on equity related to transmission asset in the Aggregate Revenue Requirement are dealt with in subsequent paragraphs.





4.16 Income Tax:

4.16.1 It is submitted by WBPDCCL in their application that they have been paying Minimum Alternate Tax (MAT) in past years. No claim on account of income tax for the year 2018 – 2019 and 2019 – 2020 has been projected by WBPDCCL in their tariff application. WBPDCCL has submitted that actual income Tax to be paid for the concerned year shall be claimed in APR for the related year. Thus, no amount under this head is admitted by the Commission for the year 2018 – 2019 and 2019 – 2020.

4.16.2 WBPDCCL is, however, directed to submit a comprehensive statement incorporating the amounts of (i) income tax provided in the annual reports and accounts, (ii) income tax assessed, (iii) income tax paid and (iv) income tax refunded, if any, supported by documentary evidences vide assessment orders, copies of challans, copies of refund orders year wise from the year 2007 – 2008 till date with their APR application for the year 2018 – 2019 and also the updated statement along with the APR applications for the years 2019 – 2020. In this respect, the provisions in the regulations 5.13.1 and 5.13.2 of the Tariff Regulations are referred to.

4.17 Interest on Working Capital:

4.17.1 WBPDCCL has claimed interest on working capital for all the generating stations for the year 2018 – 2019 and 2019 – 2020 on normative basis in terms of regulation 5.6.5.1 of the Tariff Regulations.

4.17.2 The claims for the amounts of interest on working capital are in terms of Tariff Regulations. WBPDCCL has also projected the amount of borrowing towards working capital for each of the operating generating stations in their details of borrowings mentioning the interest to be paid on such borrowings. The Commission examined the borrowings for working capital, as submitted in Form – C by WBPDCCL, with an interest rate ranging from 7.0% to 10.50%. It is seen that interest on working capital @ 13.85%, the SBI PLR as on 01.04.2018 which is higher than the interest rates projected in Form – C. The Commission, therefore, considers to allow interest on normative basis in terms of regulation 5.6.5.1 of the Tariff Regulations.

4.17.3 The normative requirement of working capital has been computed as per provisions of the Tariff Regulations. The interest on working capital is considered at Marginal Cost of Fund Based Lending Rate (MCLR) which came as a replacement of PLR w.e.f. 01.04.2016. The MCLR as on





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

01.04.2017 was 10.80% and as on 01.04 2018 was 10.25%. The Commission considers these rates for computation of interest on working capital for 2018-19 and 2019-20 respectively. The computation of working capital requirement for each generating station is given in Annexure – 4B.

4.17.4 However, the actual interest on borrowing for working capital for each generating station will be viewed as per provisions of the Tariff Regulations during Annual Performance Review for the concerned year. The Commission admits the interest on working capital as follows:

Rs. in lakh

Power station	Admitted interest on working capital	
	2018 – 2019	2019 – 2020
Kolaghat	3227.00	2871.00
Bakreswar	2205.00	2158.00
Bandel (I)	358.00	278.00
Bandel (II)	634.00	494.00
Santaldih	1187.00	1187.00
Sagardighi (I)	1619.00	1210.00
Sagardighi (II)	2687.00	2261.00

4.18 Rent Rates & Taxes and Filing Fees:

4.18.1 In terms of provisions of Tariff Regulations, rates and taxes are recognized as separate item of cost and categorized the same as uncontrollable. WBPDCCL, in their tariff petition, has claimed rates and taxes for each generating station based on the actual expenditure for 2018-19 with an escalation of 5.44% for 2019-20 and the Commission admits the same.

4.18.2 WBPDCCL has also claimed 'filing fees' as separate items of cost. In their petition WBPDCCL has projected the fees required for filing their tariff petition for the sixth control period as per WBERC (Fees) Regulations, 2013. The Commission based on separate submission of WBPDCCL subsequently waived the tariff filing fees for the sixth control period. Thus the Commission does not consider the claim of WBPDCCL under the head 'filing fees'.

4.18.3 Station wise breakup of the admitted cost under 'rates and taxes' is given in the table below:

Rs. in lakh

Power station	Admitted amount of Rates and Taxes	
	2018 – 2019	2019 – 2020

West Bengal Electricity Regulatory Commission



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Kolaghat	25.91	27.32
Bakreswar	43.35	45.70
Bandel (I)	37.57	39.62
Bandel (II)	67.32	70.98
Santaldih	43.16	45.50
Sagardighi (I)	25.06	26.43
Sagardighi (II)	16.63	17.53

4.19 Maintenance Charge to PGCIL:

4.19.1 WBPDCCL has claimed an amount of Rs. 128.63 lakh and Rs 252.29 lakh for the years 2018-19 and 2019-20 respectively for maintenance charges for 400 KV Sagardighi transmission system payable to PGCIL. The Commission admits the claim of Rs. 128.63 lakh and Rs 252.29 lakh as maintenance charge to PGCIL and is allocated to Sagardighi I (Units I & II) generating station.

4.20 ERPC Charges:

4.20.1 WBPDCCL has claimed ERPC charges in their tariff petition for 2018 – 2019 based on actual expenditure during the Year for 2018 – 2019. ERPC Charges is fixed at Rs 16.00 lakh for each year. WBPDCCL has allocated Rs 16.00 altogether for all their generating stations based on their sent out generation for the year 2018-19 and 2019 – 2020. The Commission admits the amount against each of the generating stations as projected by WBPDCCL for the years 2018-19 and 2019-20 as given in the table below:

Rs. in lakh

Power station	Admitted Rates and Taxes	
	2018 – 2019	2019 – 2020
Kolaghat	3.09	3.03
Bakreswar	5.14	3.88
Bandel (I)	0.33	0.41
Bandel (II)	0.59	0.74
Santaldih	2.54	1.87
Sagardighi (I)	1.80	2.22
Sagardighi (II)	2.51	3.85

4.21 Income from other sources / Non-Tariff Income:

4.21.1 The income to be derived from other non-tariff sources, as projected by WBPDCCL are as under:

Rs. in lakh

Power station	Admitted Rates and Taxes	
	2018 – 2019	2019 – 2020





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Kolaghat	2309.46	2380.92
Bakreswar	1832.13	1900.64
Bandel (I)	532.96	540.24
Bandel (II)	1129.69	1150.02
Santaldih	914.37	946.99
Sagardighi (I)	1273.99	1313.13
Sagardighi (II)	1630.40	1698.33

4.21.2 The projected income is to be generated from interest earnings from the short term deposits with banks, investments and other general income arising from and incidental to the business of electricity. The break up such income as projected by WBPDCCL is shown below:

Power station	2018-19			2019-20		
	Interest on short Term Deposit	General receipt arising from and ancillary or incidental to the business of Electricity	Total	Interest on short Term Deposit	General receipt arising from and ancillary or incidental to the business of Electricity	Total
Kolaghat	1714.99	594.47	2309.46	1786.45	594.47	2380.92
Bakreswar	1644.16	187.97	1832.13	1712.67	187.97	1900.64
Bandel (I)	174.81	358.15	532.96	182.09	358.15	540.24
Bandel (II)	488.00	641.69	1129.69	508.33	641.69	1150.02
Santaldih	782.93	131.44	914.37	815.55	131.44	946.99
Sagardighi (I)	939.52	334.47	1273.99	978.66	334.47	1313.13
Sagardighi (II)	1630.40	0.00	1630.40	1698.30	0.00	1698.33

4.21.3 The non-tariff income for the year 2018-19 has been projected on the basis of actual non-tariff income during the year for each generating station. WBPDCCL has projected the non tariff income for 2019-20 with an escalation @ 4.2% on the actual interest income during 2019-20. The Commission admits the amounts projected by WBPDCCL as shown above.

4.22 Fixed cost related to Transmission Systems at Bakreswar, Sagardighi and Santaldih:

4.22.1 The fixed costs related to transmission systems at Bakreswar and Santaldih will not form part of the fixed charges for Bakreswar and Santaldih generating stations and are not considered in the computation of fixed charges for those generating stations. The proportionate chargeable amounts in respect of the transmission systems at Bakreswar and Santaldih, have been determined in paragraphs 4.10.4, 4.12.2 and 4.15.5 above. It is decided in paragraph 4.3.6 for withholding of 5% in interest, depreciation and return on equity in respect of Bakreswar TPS (Unit 4 & 5) and Santaldih TPS. Since no part of the transmission assets related to Bakreswar TPS is included in the project cost of Bakreswar TPS (units 4 and 5) 5% withholding on depreciation, interest and





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

return on equity have not been considered for transmission asset related Bakreswar TPS. However 5% withholding for transmission asset related to Santaldih TPS has been considered now to arrive at the admissible amount. The admissible amount of depreciation, interest and return on equity are given below.

Rs Lakh

Generating station	2018-19			
	Interest	Depreciation	Return on Equity	Total
Bakreswar	0.00	620.37	1427.32	2047.69
Santaldih	491.11	918.27	637.56	2046.94

Rs Lakh

Generating station	2019-20			
	Interest	Depreciation	Return on Equity	Total
Bakreswar	0.00	620.37	1415.88	2036.35
Santaldih	483.86	918.27	632.99	2035.12

- 4.22.2 The transmission system constructed by WBPDCCL for Bakreswar and Santaldih is an integral part of the transmission system being operated by the West Bengal State Electricity Transmission Company Limited (in short 'WBSETCL'). The annual charges in respect of the transmission assets of Bakreswar being operated by WBSETCL as mentioned above works out at Rs. 2047.69 lakh and Rs. 2036.35 lakh for the years 2018 – 2019 and 2019-20 respectively comprising depreciation and return on equity only. No interest on loan relating to Bakreswar transmission system has been consider as proposed by WBPDCCL. The depreciation and return on equity relating to Bakreswar transmission system are not considered under the respective cost heads of Bakreswar generating station as mentioned in paragraphs 4.10.4 and 4.13.3 above and those amounts stand recoverable from WBSETCL as the same are being recovered by WBSETCL through their traiff
- 4.22.3 The Commission in its order dated 16.01.2009 in Case No. OA-48/08-09, allowed WBPDCCL an additional recovery of an amount of Rs. 17691.49 lakh against fixed charges comprising depreciations, interest/finance charges and returns on equity for the period from 2001 – 2002 to 2005 – 2006 in respect of Bakreswar transmission system. The Commission also decided that the aforesaid additional fixed cost amounting to Rs. 17691.49 lakh shall be recovered by WBSETCL through tariff and pay the aforesaid amount to WBPDCCL in 120 (one hundred and twenty) equal



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

monthly instalments @ Rs. 147.429 lakh per month starting from the billing month of / pertaining to August, 2009. The recovery in installments had to be completed by July 2019. Thus in addition to recovery of fixed charges as mentioned in paragraph 4.22.2 above there is an additional recovery of Rs 1769.15 lakh (Rs 147.429 lakh x12) for the year 2018-19 and Rs 589.72 lakh (Rs 147.429 lakh x4) for the year 2019-20 in respect of Bakreswar Transmission system. Thus the recovery of fixed charges in respect of Bakreswar Transmission system from WBSETCL shall be Rs 3816.84 lakh (Rs 2047.69 lakh + Rs 1769.15 lakh) and Rs 2626.07 Lakh (Rs 2036.35 lakh + 589.72 lakh) for the years 2018-19 and 2019-20.

4.22.4 In paragraph 2.21.4 of the APR order dated 21.07.2014 in case no. APR-39/13-14, the Commission observed that only two line bays at Bishnupur end of Santaldih Thermal Power Station – Bishnupur 220 kV Double Circuit line had been handed over to WBSETCL on 11.10.2010 and also observed that the remaining part of the transmission system was not handed over to WBSETCL as those were not ready at that time. It was also observed that the evacuation of power generated by units V & VI at Santaldih generating station were made through the existing system of units I to IV. WBPDCCL has not confirmed whether the remaining portion of the transmission system has been completed and put into operation. Since the transmission system of Santaldih generating station related to Units V and VI is yet to come into operation, the fixed cost related to Santaldih transmission system are not recoverable by WBPDCCL. The fixed cost relating to Santaldih transmission system shall be recoverable by WBPDCCL only after completion of the work to bring the asset in operation for evacuation of power from Santaldih generating stations (Units V & VI) through that transmission system. Thus the Commission does not consider to admit any amount on account of transmission asset related to Santaldih TPS.

4.22.5 Regarding Sagardighi transmission system, the Commission observed in the APR order dated 21.07.2014 in case no. APR-39/13-14 that the Sagardighi – Gokarna 220 kV Double Circuit transmission line asset, a part of the transmission systems, had already been handed over to WBSETCL on 02.06.2009. The other two parts i.e., Farakka – Subhasgram 400 kV Single Circuit line LILO at Sagardighi and Sagardighi – Parulia 400 kV Double Circuit line are however being maintained by PGCIL. WBPDCCL entered into an agreement with PGCIL for operation and maintenance of those lines and associated bays at Parulia (Durgapur) and Subhasgram on payment basis. WBPDCCL has submitted a copy of the agreement executed for the year 2018-19 along with their petition. Copy of the agreement for the year 2019-20 is yet to be executed at the time of submission of Tariff petition. WBPDCCL has claimed an amount of Rs. 128.63 lakh for the



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

years 2018-19 on CERC rate and projected Rs. 252.29 lakh for 2019-20 on account of service charges payable to PGCIL on this score in their application. WBPDCCL has not also given the details of the transmission asset of Sagardighi – Gokarna 220 kV double circuit line being maintained by WBSETCL. The Commission does not consider any amount on account of fixed cost related to transmission assets of Sagardighi transmission system being maintained by WBSETCL separately. WBPDCCL is directed to give details of the transmission assets of Sagardighi transmission systems handed over to WBSETCL with documentary evidence in their APR for 2018 – 2019. The service charges payable to PGCIL for operation and maintenance of the 400 kV transmission systems during the year 2018 – 2019 and 2019-20 as claimed by WBPDCCL is admitted by the Commission.



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 4A

Return of Equity for 2018-19

Rs lakh

Sl. No	Particulars	Generating Stations						
		Kolaghat	Bakreswar	Bandel- I	Bandel- II	Santaldihi	Sagardighi- I	Sagardighi II
1	Actual Equity base at the beginning of the year	87329.40	139910.14	3021.23	19600.67	72900.00	82500.00	180886.50
2	Opening balance of admissible equity base at the beginning of the year	88978.16	137980.99	1510.67	19800.67	68174.70	80366.52	180886.50
3	Addition / withdrawal to / from equity base during the year	2415.89	454.82	321.64	576.28	1465.22	435.76	120.42
4	Actual Equity base at the end of the year – computed [(1)+(3)]	89745.29	140364.96	3342.87	20176.95	74365.22	82500.00	181006.92
5	Net addition to the original cost of fixed assets	1094.82	1006.44	722.37	339.05	641.03	797.17	363.17
6	Normative addition to Fixed Assets @ 30%	328.00	302.00	217.00	102.00	192.00	239.00	109.00
7	Normative addition to Equity Base [lower of (3) and (6)]	328.00	302.00	217.00	102.00	192.00	239.00	109.00
8	Admissible Equity base at the end of the year [(2)+(7)]	89306.16	138282.99	1727.67	19902.67	68366.70	80605.52	180995.50
9	Average equity base for the year [(2)+(8)]/2	89142.00	138132.00	1619.00	19852.00	68271.00	80486.00	180941.00
10	Rate of return	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
11	Allowable return after deduction of 5% in case of BTPS II, SgTPS I and SgTPS II as mentioned in para 4.3.5 and 4.3.6	13817.00	21410.00	251.00	2923.15	10582.00	11851.25	26643.70
12	RoE Claimed by WBPDCCL	14358.67	21614.21	275.88	3090.65	11511.8	13364.17	28265.77
13	RoE Claimed by WBPDCCL for transmission Asset		1440.93			730.09		
14	Proportionate ROE for transmission asset		1427.32			671.12		
15	Allowable return on Gen asset after deduction of 5% in case of BkTPS and STPS as mentioned in para 4.3.6		19583.03			9415.33		



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Return of Equity for 2019-20								
Rs lakh								
Sl. No.	Particulars	Generating Stations						
		Kolaghat	Bakreswar	Bandel- I	Bandel- II	Santalদিহি	Sagardighi- I	Sagardighi II
1	Actual Equity base at the beginning of the year	89745.29	140364.96	3342.87	20176.95	74365.22	82500.00	181006.92
2	Opening balance of admissible equity base at the beginning of the year	89306.16	138282.99	1727.67	19902.67	68366.70	80605.52	180995.50
3	Addition / withdrawal to / from equity base during the year	18614.37	301.93	538.36	677.99	192.31	239.15	108.95
4	Actual Equity base at the end of the year – computed [(1)+(3)]	108359.66	140666.89	3881.23	20854.94	74557.53	82739.15	181115.87
5	Net addition to the original cost of fixed assets	7238.81	5505.54	1357.13	1604.75	2940.39	5939.08	565.00
6	Normative addition to Fixed Assets @ 30%	2172.00	1652.00	407.00	481.00	882.00	1782.00	170.00
7	Normative addition to Equity Base [lower of (3) and (6)]	2172.00	301.93	407.00	481.00	192.31	239.15	108.95
8	Admissible Equity base at the end of the year [(2)+(7)]	91478.16	138584.92	2134.67	20383.67	68559.01	80844.67	181104.45
9	Average equity base for the year [((2)+(8))/2]	90392.00	138434.00	1931.00	20143.00	68463.00	80725.00	181050.00
10	Rate of return	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
11	Allowable return after deduction of 5% in case of BTPS II, SgTPS I and SgTPS II as mentioned in para 4.3.5 and 4.3.6	14011.00	21457.00	299.00	2965.90	10612.00	11886.40	26659.85
12	RoE Claimed by WBPDC	14552.43	21765.61	307.43	3127.96	12554.7	13520.79	28287.35
13	RoE Claimed by WBPDC for transmission Asset		1436.24			788.29		
14	Proportionate ROE for transmission asset		1415.88			666.31		
15	Allowable return on Gen asset after deduction of 5% in case of BkTPS and STPS as mentioned in para 4.3.6		19640.30			9448.40		



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Tariff Order of WBPCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 4B

Interest on Working Capital for 2018- Rs lakh

Sl. No	Particulars	Generating Stations						
		Kolaghat	Bakreswar	Bandel- I	Bandel- II	Santalidih	Sagardighi- I	Sagardighi II
A	Gross Sale	313830.12	240575.43	33540.75	64089.50	128643.57	172263.03	296114.27
B1	Depreciation including AAD	1176.87	16861.25	166.72	2429.37	9363.11	10526.92	20686.78
B2	Deferred Revenue Expenditure	0	0	0	0	0	0	0
B3	Return on Equity	13817.00	19583.03	251.00	2923.15	9415.33	11851.25	26643.70
B4	Bad Debt	0	0	0	0	0	0	0
B5	Reserve for Unforeseen exigencies	0	0	0	0	0	0	0
B6								
B	Total Deductions	14993.87	36444.28	417.72	5352.52	18778.44	22378.17	47330.48
C	Allowable Gross Sales for Working Capital	298836.25	204131.15	33123.03	58736.98	9865.13	149884.86	248783.78
D	Allowable Working Capital @ 10% on C(A-B)	29884	20413	3312	5874	10987	14988	24878
E	Interest Rate	10.80%	10.80%	10.80%	10.80%	10.80%	10.80%	10.80%
F	Interest on Working Capital (E% on D)	3227	2205	358	634	1187	1619	2687

Interest on Working Capital for 2019-

Rs Lakh

Sl. No	Particulars	Generating Stations						
		Kolaghat	Bakreswar	Bandel- I	Bandel- II	Santalidih	Sagardighi- I	Sagardighi II
A	Gross Sale	295545.90	247226.85	27676.33	53688.79	134731.45	140714.31	267918.75
B1	Depreciation including AAD	1433.18	17065.8376	216.70	2486.16	9468.4505	10735.7695	20716.05
B2	Deferred Revenue Expenditure	0	0	0	0	0	0	0
B3	Return on Equity	14011.00	19640.30	299.00	2965.90	9448.40	11886.40	26659.85
B4	Bad Debt	0	0	0	0	0	0	0
B5	Reserve for Unforeseen exigencies	0	0	0	0	0	0	0
B6								
B	Total Deductions	15444.18	36706.14	515.70	5452.06	18916.86	22622.17	47375.90
C	Allowable Gross Sales for Working Capital	280101.72	210520.71	27160.63	48236.73	115814.59	118092.14	220542.85
D	Allowable Working Capital @ 10% on C(A-B)	28010	21052	2716	4824	11581	11809	22054
E	Interest Rate	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
F	Interest on Working Capital (E% on D)	2871	2158	278	494	1187	1210	2261



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Annexure - 4C

Interest on Capital borrowings 2018-19 Rs lakh

Sl. No.	Particulars	Borrowing	Kolaghat	Bakreswar	Bandel-I	Bandel-II	Santaldihi	Sagardighi I	Sagardighi II
1	Outstanding Balance at the beginning of the year		0	112061.75	0	36069.14	93655.30	63106.29	400527.68
2	Add: Drawal of loan on capital account		0	0	0	0	0	0	0
3	Sub-Total (1 + 2)		0	112061.75	0	36069.14	93655.30	63106.29	400527.68
4	Less: Repayment of existing loan during the year		0	10187.43	0	0	11658.36	11473.87	28107.21
5	Outstanding balance at the end of the year (3 - 4)		0	101874.32	0	36069.14	81996.94	51632.42	372420.47
6	Rate of interest			10.65%		10.65%	10.65%	11.25%	11.90%
7	Interest Claimed		0	11274.46	0.00	1097.39	11274.46	6006.89	44993.44
8	Gross interest computed on capital account for the year		0	11392.10	0.00	3841.36	9353.48	6454.05	45990.41
9	Less: Interest capitalized during the year		0	0	0	0	0	0	0
10	Net interest on capital account[Minimum of (7) and (8-9) [5% deduction made for BTPS II, SgTPS I and SgTPS II]		0.00	11274.46	0.00	1042.52	9353.48	5706.55	42743.77
11	Projected interest for Transmission asset			0			623.13		
12	Proportionate interest for Transmission asset			0			516.96		
13	Interrst on Generation asset for BkTPS and STPS after 5% deduction			10710.74			8394.70		



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Interest on Capital borrowings 2019-20 Rs lakh

Sl. No.	Particulars	Borrowing	Kolaghat	Bakreswar	Bandel-I	Bandel-II	Santalদিহি	Sagardighi I	Sagardighi II
1	Outstanding Balance at the beginning of the year		0	101874.32	0	36069.14	81996.94	51632.42	372420.47
2	Add: Drawal of loan on capital account		0	0	0	0	0	0	0
3	Sub-Total (1 + 2)		0	101874.32	0	36069.14	81996.94	51632.42	372420.47
4	Less: Repayment of existing loan during the year		0	10188.00	0	0	11660	11472.00	28108.00
5	Outstanding balance at the end of the year (3 - 4)		0	91686.32	0	36069.14	70336.94	40160.42	344312.47
6	Rate of interest			10.65%		10.65%	10.65%	11.25%	11.78%
7	Interest Claimed		0	11178.16		1097.39	8718.75	5040.61	42470.91
8	Gross interest computed on capital account for the year		0	10307.10	0	3841.36	8111.78	5163.35	42197.65
9	Less: Interest capitalized during the year		0	0	0	0	0	0	0
10	Net interest on capital account[Minimum of (7) and (8-9) [5% deduction made for BTPS II SgTPS I and SgTPS II]		0.00	10307.10	0.00	1042.52	8111.78	4788.58	40087.77
11	Projected Interest for Transmission asset			0			547.44		
12	Proportionate Interest for Transmission asset			0			509.33		
13	Interest on Generation asset for BkTPS and STPS after 5% deduction			9791.75			7222.33		



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CHAPTER – 5

SUMMARISED STATEMENT OF AGGREGATE REVENUE REQUIREMENT FOR 2018–2019 AND 2019-20 AND REVENUE RECOVERABLE THROUGH TARIFF FOR THE YEAR 2018– 2019 AND 2019-20

- 5.1 Based on the analyses and findings recorded in the foregoing chapters the commission is now drawing the statement of Aggregate Revenue Requirements (ARR) separately for each of the generating stations of WBPDCCL. Such summarized statements are given in Annexures 5A to 5G to this chapter. The ARR of each generating station is as follows:

Rupees in Lakh

Generating station	2018-19	2019-20
Kolaghat	317057.12	298416.90
Bakreswar	242780.43	249384.85
Bandel I	33898.75	27954.33
Bandel II	64723.50	54182.79
Santalidih	129830.57	135918.45
Sagardighi (I & II)	173882.03	141924.31
Sagardighi (III & IV)	298801.27	270179.75

- 5.2 In the order dated 01.11.2019 in case no APR(R)-3/13-14 in review of the APR order dated 05.09.2013 for the year 2011-12 in case no APR-31/12-13, the Commission determined adjustable amount of Rs 96.43 lakh, Rs. -2.70 lakhs, Rs. -0.65 Lakhs, Rs 77.54 Lakhs, Rs 10.06 Lakhs, Rs. 24.87 Lakhs in respect of KTPS, BKTP (Unit 1 to 3), BKTPS (Unit 4 & 5), BTPS, STPS and SgTPS (Unit 1 & 2) generating stations respectively of WBPDCCL. The Commission in Para 5 of the order dated 01.11.2019 decided that the generating station wise adjustable amount shall be adjusted in the ARR of each generating station for the year 2018-19 or that of any other ensuing year, as may be decided by the Commission. Decision of the commission in this regard will be given in the tariff order of WBPDCCL for 2018-19. The Commission now decides to adjust the adjustable amount in the ARR of respective generating stations for the 2018-19. Adjustable amount of BkTPS (Units I to III) and BkTPS (units IV & V) have been summed up for adjustable amount of BkTPS (Units I to V). Adjustable amount of BTPS has been apportioned to BTPS I and BTPS II in proportion to their capacity.





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

- 5.3 In the order dated 29.08.2018 in Case no APR (R)-6/14-15 in review of the APR order dated 21.07.2014 for 2012-13 in Case No APR-39/13-14 the Commission determined a balance recoverable amount of Rs. 22.84 lakhs, Rs 99.55 Lakhs, Rs. 66.66 Lakhs, Rs 33.92 Lakhs, Rs. 1035.57 Lakhs and Rs 6.36 Lakhs in respect of KTPS, BKTPS (Unit 1 to 3), BKTPS (Unit 4 & 5), BTPS, STPS and SgTPS (Unit 1 & 2) respectively. The Commission also decided in para 11 of the order dated 29.08.2018 to adjust the recoverable amount in the ARR of each generating station for the year 2018-19 or that of any other ensuing year, as may be decided by the Commission. Decision of the Commission will be given in the Tariff Order of WBPDCCL for 2018-19. The Commission now decides to adjust the recoverable amount in the ARR of 2018-19 of respective generating stations. Adjustable amount of BkTPS (Units I to III) and BkTPS (units IV & V) have been summed up for adjustable amount of BkTPS (Units I to V). Adjustable amount of BTPS has been apportioned to BTPS-I and BTPS-II in the proportion to their capacity.
- 5.4 Accordingly, the amount of revenue in respect of capacity charges to be recovered through tariff for the year 2017 – 2018 separately for each of the generating stations of WBPDCCL works out as under:

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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Capacity charges for 2018-19

Rupees in Lakh								
S I No.	Particulars	Kolaghat	Bakreswar	Bandel I	Bandel II	Santalidih	Sagardighi	Sagardighi
1	Aggregate Revenue Requirement for the year 2018– 2019	317057.12	242780.43	33898.75	64723.50	129830.57	173882.03	298801.27
2	Fuel cost admitted for the year 2018-2019	264791.17	165196.16	29033.13	50873.05	84996.11	134289.81	193323.62
3	Capacity charge allowed for the year 2018-19	52265.95	77584.27	4865.62	13850.45	44834.47	39592.22	105477.65
4	Adjustable in terms of order dated 29.08.2018 (Refer para 5.2 above)	22.84	166.21	12.15	21.77	1035.57	6.36	0
5	Adjustable in terms of order dated 01.11.2019 (Refer para 5.3) above)	96.43	-3.35	27.78	49.76	10.06	24.87	0
6	Net Capacity Charges	52385.22	77747.13	4905.55	13921.98	45880.10	39623.45	105477.65

Capacity charges for 2019-20

Rupees in Lakh								
SI No.	Particulars	Kolaghat	Bakreswar	Bandel I	Bandel II	Santalidih	Sagardighi	Sagardighi
1	Aggregate Revenue Requirement for the year 2018– 2019	298416.90	249384.85	27954.33	54182.79	135918.45	141924.31	270179.75
2	Fuel cost admitted for the year 2019-20	244999.59	171709.77	22952.72	40180.20	91699.20	103018.43	167349.06
3	Capacity charge allowed for the year 2018-19 [(3)= (1)-(2)] or 2019-20?	53417.31	77675.07	5001.61	14002.59	44219.25	38905.89	102830.69





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

AGGREGATE REVENUE REQUIREMENT OF DIFFERENT GENERATING STATIONS OF WBPDCCL

Annexure – 5A

Rupees in Lakh

KOLAGHAT THERMAL POWER STATION					
Sl. NO.	PARTICULARS	As claimed by WBPDCCL		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	151577.24	197252.00	264791.17	244999.59
2	Coal and Ash Handling charge	3285.07	3463.78	2090.39	2204.11
3	Employee Cost	13318.76	14043.30	13318.76	13496.34
4	Rates and Taxes	25.91	27.32	25.91	27.32
5	Filing fees	12.60	15.26	0	0
6	ERPC Charges	3.09	3.03	3.09	3.03
7	Operation and Maintenance Expenses	16374.27	17265.04	20311.20	21130.20
9	Insurances	310.04	326.90	310.04	326.9
10	Financing Charges	295.15	295.15	295.15	295.15
11	Interest on borrowed capital	0	0.00	0	0
12	Interest on Working Capital	3336.64	3892.79	3227.00	2871.00
13	Interest on Temporary Accommodation	2407.31	2104.23	0	0
14	Depreciation	1176.87	1433.18	1176.87	1433.18
15	Water Charges	0	0.00	0	0
16	Maintenance charge to PGCIL	0	0.00	0	0
17	Total Expenditure (16 = sum 1 to 16)	192122.95	240121.98	305549.58	286786.82
18	Return on Equity	14358.67	14552.43	13817.00	14011.00
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	206481.62	254674.41	319366.58	300797.82
20	Less Misc. other income	2309.46	2380.92	2309.46	2380.92
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	204172.16	252293.49	317057.12	298416.90



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 5B

Rupees in Lakh					
BAKRESWAR THERMAL POWER STATION					
Sl. NO.	PARTICULARS	As claimed by WBPDCCL		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	180188.65	182162.88	165196.16	171709.77
2	Coal and Ash Handling charge	2893.99	3051.42	2090.39	2204.11
3	Employee Cost	13362.71	14089.66	13362.71	13540.91
4	Rates and Taxes	43.35	45.70	43.35	45.70
5	Filing fees	10.50	12.71	0	0
6	ERPC Charges	5.14	3.88	5.14	3.88
7	Operation and Maintenance Expenses	15736.11	16592.16	13618.50	14164.50
9	Insurances	449.24	473.68	449.24	473.68
10	Financing Charges	487.05	487.05	487.05	487.05
11	Interest on borrowed capital	11274.46	11178.16	10710.74	9791.75
12	Interest on Working Capital	5562.19	4976.03	2205.00	2158.00
13	Interest on Temporary Accommodation	4012.99	2689.77	0	0
14	Depreciation	17825.73	18034.49	16861.25	17065.84
15	Water Charges	0.00	0.00	0	0
16	Maintenance charge to PGCIL	0.00	0.00	0	0
17	Total Expenditure (17 = sum 1 to 16)	251852.11	253797.59	225029.53	231645.19
18	Return on Equity	20173.27	20329.37	19583.03	19640.30
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	272025.38	274126.96	244612.56	251285.49
20	Less Misc. other income	1832.13	1900.64	1832.13	1900.64
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	270193.25	272226.32	242780.43	249384.85



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Annexure – 5C

Rupees in Lakh					
BANDEL THERMAL POWER STATION I (UNITS 1&2)					
Sl. NO.	PARTICULARS	As claimed by WBPDC		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	16715.42	23537.07	29033.13	22952.72
2	Coal and Ash Handling Charge	233.07	245.75	82.81	89.05
3	Employee Cost	2340.60	2467.93	2340.60	2371.81
4	Rates and Taxes	37.57	39.62	37.57	39.62
5	Filing Fees	1.20	1.45	0	0
6	ERPC Charges	0.33	0.41	0.33	0.41
7	Operation and Maintenance Expenses	3566.34	3760.34	2120.40	2205.60
9	Insurances	9.40	9.91	9.40	9.91
10	Financing Charges	31.75	31.75	31.75	31.75
11	Interest on borrowed capital	0.00	0.00	0	0
12	Interest on Working Capital	359.83	529.05	358.00	278.00
13	Interest on Temporary Accommodation	259.61	285.97	0	0
14	Depreciation	166.72	216.70	166.72	216.70
15	Water Charges	0.00	0.00	0.00	0.00
16	Maintenance charge to PGCIL	0.00	0.00	0.00	0.00
17	Total Expenditure (16 = sum 1 to 16)	23721.84	31125.95	34180.71	28195.57
19	Return on Equity	275.88	307.43	251	299
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	23997.72	31433.38	34431.71	28494.57
20	Less Misc. other income	532.96	540.24	532.96	540.24
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	23464.76	30893.14	33898.75	27954.33



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 5D

Rupees in Lakh					
BANDEL THERMAL POWER STATION II (UNIT 5)					
SI. NO.	PARTICULARS	As claimed by WBPDCCL		As admitted	
		2018-19	2019-20	2018-19	2019-20
1.00	Fuel	33706.03	40888.58	50873.05	40180.20
2.00	Coal and Ash Handling Charge	417.59	440.30	195.43	210.17
3.00	Employee Cost	4193.58	4421.70	4193.38	4249.25
4.00	Rates and Taxes	67.32	70.98	67.32	70.98
5.00	Filing Fees	2.15	2.61	0.00	0.00
6.00	ERPC Charges	0.59	0.74	0.59	0.74
7.00	Operation and Maintenance Expenses	6389.67	6737.27	3420.65	3558.25
9	Insurances	16.85	17.76	16.85	17.76
10	Financing Charges	56.88	56.88	56.88	56.88
11	Interest on borrowed capital	1097.39	1097.39	1042.52	1042.52
12	Interest on Working Capital	644.70	947.87	634.00	494.00
13	Interest on Temporary Accommodation	465.14	512.37	0	0
14	Depreciation	2557.23	2617.01	2429.37	2486.16
15	Water Charges	0.00	0.00	0.00	0.00
16	Maintenance charge to PGCIL	0.00	0.00	0.00	0.00
17	Total Expenditure (16 = sum 1 to 16)	49615.12	57811.46	62930.04	52366.91
19	Return on Equity	3090.65	3127.96	2923.15	2965.90
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	52705.77	60939.42	65853.19	55332.81
20	Less Misc. other income	1129.69	1150.02	1129.69	1150.02
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	51576.08	59789.40	64723.50	54182.79



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Tariff Order of WBPDC for the years 2018 – 2019 and 2019 – 2020

Annexure – 5E

Rupees in Lakh					
SANTALDIH THERMAL POWER STATION					
Sl. NO.	PARTICULARS	As claimed by WBPDC		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	95309.57	91691.46	84996.11	91699.20
2	Coal and Ash Handling Charge	1624.01	1712.36	1624.01	1712.36
3	Employee Cost	9919.04	10458.63	9919.04	10051.29
4	Rates and Taxes	43.16	45.50	43.16	45.50
5	Filing fees	5.00	6.05	0	0
6	ERPC Charges	2.54	1.87	2.54	1.87
7	Operation and Maintenance Expenses	6875.01	7249.01	5020.00	5220.00
9	Insurances	122.96	129.66	122.96	129.66
10	Financing Charges	245.43	245.43	245.43	245.43
11	Interest on borrowed capital	9825.33	8718.74	8394.70	7222.33
12	Interest on Working Capital	2763.14	2369.54	1187.00	1187.00
13	Interest on Temporary Accommodation	1993.54	1280.85	0	0
14	Depreciation	10822.50	10933.39	9363.11	9468.45
15	Water Charges	411.56	433.95	411.56	433.95
16	Maintenance charge to PGCIL	0.00	0.00	0.00	0.00
17	Total Expenditure (16 = sum 1 to 16)	139962.79	135276.44	121329.61	127417.04
18	Return on Equity	11511.80	12554.70	9415.33	9448.40
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	151474.59	147831.14	130744.94	136865.44
20	Less Misc. other income	914.37	946.99	914.37	946.99
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	150560.22	146884.15	129830.57	135918.45



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 5F

Rupees in Lakh					
SAGARDIGHI THERMAL POWER STATION I (UNITS 1&2)					
Sl. NO.	PARTICULARS	As claimed by WBPDCCL		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	89777.88	105806.75	134289.81	103018.43
2	Coal and Ash Handling Charge	434.19	457.81	375.15	403.44
3	Employee Cost	5159.58	5440.27	5159.58	5228.39
4	Rates and Taxes	25.06	26.43	25.06	26.43
5	Filing Fees	6.00	7.26	0	0
6	ERPC Charges	1.80	2.22	1.80	2.22
7	Operation and Maintenance Expenses	10120.40	5560.97	5130.00	5334.00
9	Insurances	169.75	178.98	169.75	178.98
10	Financing Charges	172.52	172.52	172.52	172.52
11	Interest on borrowed capital	6006.89	5040.61	5706.55	4788.58
12	Interest on Working Capital	1962.92	2843.45	1619.00	1210.00
13	Interest on Temporary Accommodation	1416.20	1537.01	0	0
14	Depreciation	11080.97	11300.81	10526.92	10735.77
15	Water Charges	0.00	0.00	0.00	0.00
16	Maintenance charge to PGCIL for 400 KV LILO line	128.63	252.29	128.63	252.29
17	Total Expenditure (16 = sum 1 to 16)	126462.79	138627.38	163304.77	131351.04
18	Return on Equity	13364.17	13520.79	11851.25	11886.40
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	139826.96	152148.17	175156.02	143237.44
20	Less Misc. other income	1273.99	1313.13	1273.99	1313.13
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	138552.97	150835.04	173882.03	141924.31



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Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Annexure – 5G

Rupees in Lakh					
SAGARDIGHI THERMAL POWER STATION II (UNITS 3&4)					
Sl. NO.	PARTICULARS	As claimed by WBPDCCL		As admitted	
		2018-19	2019-20	2018-19	2019-20
1	Fuel	110028.79	174680.42	193323.62	167349.06
2	Coal and Ash Handling Charge	608.82	641.94	370.93	398.90
3	Employee Cost	7234.74	7628.31	7234.74	7331.20
4	Rates and Taxes	16.63	17.53	16.63	17.53
5	Filing Fees	10.00	12.11	0	0
6	ERPC Charges	2.51	3.85	2.51	3.85
7	Operation and Maintenance Expenses	7395.25	7797.55	6310.00	6560.00
9	Insurances	238.02	250.97	238.02	250.97
10	Financing Charges	241.90	241.90	241.90	241.90
11	Interest on borrowed capital	44993.44	42470.91	42743.77	40087.77
12	Interest on Working Capital	2752.39	3296.45	2687.00	2261.00
13	Interest on Temporary Accommodation	1985.79	2667.25	0	0
14	Depreciation	21775.56	21806.37	20686.78	20716.05
15	Water Charges	0.00	0.00	0.00	0.00
16	Maintenance charge to PGCIL	0.00	0.00	0.00	0.00
17	Total Expenditure (16 = sum 1 to 16)	197283.84	261515.56	273855.90	245218.23
18	Return on Equity	28265.77	28287.35	26643.70	26659.85
19	Gross Aggregate Revenue Requirement: [(19) = (17) + (18)]	225549.61	289802.91	300499.60	271878.08
20	Less Misc. other income	1630.40	1698.33	1698.33	1698.33
21	Aggregate Revenue Requirement (Annual): [(21) = (19) - (20)]	223919.21	288104.58	298801.27	270179.75



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West Bengal Electricity Regulatory Commission



CHAPTER 6

TARIFF ORDER

- 6.1 Based on the analyses and the decisions recorded in earlier chapters the Commission has determined the capacity charge and energy charge for 2018 – 2019 and 2019-20 in respect of Kolaghat, Bakreswar, Bandel- I (Units I and II), Bandel – II (Unit V), Santaldih, Sagardighi- I (Units I and II) and Sagardighi- II (units III and IV) generating stations of WBPDCCL as shown in chapter 5. The Commission now orders as shown in the following paragraphs.
- 6.2 The annual capacity charge recoverable by WBPDCCL from WBSEDCL shall be on the following basis:
- The annual capacity charge recoverable by WBPDCCL from WBSEDCL shall be on monthly basis depending on actual availability during the month with reference to the target normative annual availability subject to the conditions as laid down in regulation 6.11.4 of the Tariff Regulations.
 - The annual capacity charge determined on the basis of submission of WBPDCCL and on prudence check for 2018-19 and 2019-20 are provided in the following table.

Generating Station	2018 – 2019		2019 – 2020	
	Target normative availability factor	Determined Annual capacity charge in Rs. lakh	Target normative availability factor	Determined Annual capacity charge in Rs. lakh
Kolaghat	75%	52385.22	75%	53417.31
Bakreswar (Units I to V)	85%	77747.13	85%	77675.07
Bandel -I (Units I and II)	70%	4905.55	70%	5001.61
Bandel – II (Unit V)	85%	13921.98	85%	14002.59
Santaldih (Units V & VI)	85%	45880.10	85%	44219.25
Sagardighi – I (units I & II)	85%	39623.45	85%	38905.89
Sagardighi (Units III & IV)	85%	105477.65	85%	102830.69





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

- 6.3 The energy charges recoverable in 2018-19 and 2019-20 against each unit of injection of energy under implemented schedule on injection as decided in chapter 3 of this order shall be as follows:

Generating Station	Energy Charge (Paisa/kWh)	
	2018 – 2019	2019 – 2020
Kolaghat	379.11	349.81
Bakreswar (Units I to V)	246.70	255.73
Bandel – I (Unit I and II)	474.23	373.89
Bandel – II (Unit V)	371.03	292.25
Santaldih	266.56	286.80
Sagardighi (Units I & II)	350.96	268.50
Sagardighi (Units III & IV)	303.14	261.70

- 6.4 The tariff admitted for 2018-19 applicable for the period from 1st April, 2018 to 31 March 2019 includes the Monthly Fuel Cost Adjustment (MFCA), if any, realized by WBPDCCL during the period. The tariff admitted for 2019-20 applicable for the period from 1st April, 2019 to 31 March 2019 also includes the MFCA, if any, realized by WBPDCCL during the period.
- 6.5 Adjustments, if any, for over recovery / under recovery from WBSEDCL for the years 2018-19 and 2019-20 as per this order shall be made in the monthly bills in 10 (ten) equal instalments commencing from the month succeeding the month of issue of this order.
- 6.6 The rates of energy charges and annual capacity charges for the year and 2019-20 as mentioned in paragraph 6.3 and 6.2 respectively shall also continue after the date of issue of this order till further order of the Commission.
- 6.7 In addition to the energy charge mentioned in paragraph 6.3 above, WBPDCCL shall further be entitled to additional sums towards enhanced cost of fuel after the date of this order, if any, as per the provisions of the Tariff Regulations based on this tariff order. However, while computing the MFCA direction in paragraph 4.2 of the order dated 19.06.2015 shall be complied with. The MFCA to be realized after the date of this order, if any, by WBPDCCL is subject to truing up during fuel cost adjustment (FCA) for the respective year as per the provisions of the Tariff





Regulations.

- 6.8 WBPDCCL shall claim the energy charges and capacity charges as per the rates admitted in this order for 2019-20 and MFCA, if any, considering the energy accounting and availability declared by State Load Despatch Centre (in short 'SLDC') in its monthly energy accounting schedule prospectively from the next month of issue of this order till further order of the Commission.
- 6.9 Availability of installed capacity for any of the generating stations of WBPDCCL may be adjusted downward against enhanced performance of any of the other generating stations of WBPDCCL, which may register capacity availability over the target availability. In such event, recovery of capacity charge and energy charge and also the manner of adjustment of such charges shall be such as specified in regulation 2.8.6.7 of the Tariff Regulations.
- 6.10 Recoverable amount of the capacity charge for Bakreswar transmission system from WBSETCL are at the rate of Rs. 3816.84 lakh per annum and Rs 2626.07 lakh per annum for the years 2018-19 and 2019-20 respectively. However, any adjustment on account of recovery of fixed cost for Bakreswar transmission system for the year 2018-19 and 2019-20 as per the tariff order of WBSETCL shall be looked into while issuing the APR orders for the respective years.
- 6.11 Any matter, which has not been explicitly mentioned in this order, shall be guided by regulations 2.9.8 and 2.9.9 of the Tariff Regulations.
- 6.12 For merit order despatch, SLDC / ALDC shall consider the energy charge of the generating stations of WBPDCCL as determined in this tariff order for 2019-20 as per the following table prospectively. The merit order despatch as per the table below will be applicable from the date of issue of this order. However, the MFCA declared after this tariff order will be added to the energy charge for consideration of merit order despatch from the date of issue of the MFCA notification respectively.

Generating Station	Energy Charge for Merit Order Despatch (Paise/kWh)
Kolaghat	349.81
Bakreswar	255.73
Bandel-I (Units (I & II))	373.89
Bandel-II (Unit V)	292.25
Santalidih	286.80





Tariff Order of WBPDCCL for the years 2018 – 2019 and 2019 – 2020

Sagardighi -I (Units I & II)	268.50
Sagardighi (Units III & IV)	261.70

- 6.13 In the tariff order of WBPDCCL for the year 2017-18, issued on 13.09.2018, the Commission had given certain directions to WBPDCCL. Some of those directions are of continuous nature and WBPDCCL has to continue with compliance of those directions. The Commission has also given some directions in Chapter – 3 and Chapter- 4 in this order. WBPDCCL shall also comply with those directions in addition to the directions mentioned hereinabove.
- 6.14 WBPDCCL shall approach the GST authority for appropriate ruling for nil rating of GST on their captive coal consumption from their mines located within the State of West Bengal
- 6.15 WBPDCCL shall present to the Commission a gist of this order in accordance with regulation 2.9.6 of the Tariff Regulations within five working days from the date of receipt of this order for approval of the Commission and on receipt of the approval shall publish the approved gist in terms of aforesaid regulation within six (6) working days from the date of receipt of the approval of the Commission.

Sd/-

(PULAK KUMAR TEWARI)
MEMBER

Sd/-

(DURGADAS GOSWAMI)
MEMBER

Sd/-

(SUTIRTHA BHATTACHARYA)
CHAIRPERSON

Date: 14.07.2021

Secretary
Secretary



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