

#### **ORDER**

#### OF THE

# WEST BENGAL ELECTRICITY REGULATORY COMMISSION

IN CASES NO. APR - 91/21 - 22 & FPPCA - 97/19 - 20

IN REGARD TO THE APPLICATIONS SUBMITTED BY WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED FOR APPROVAL OF FUEL AND POWER PURCHASE COST ADJUSTMENT (FPPCA) AND ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2018-19

PRESENT: DR MALLELA VENKATESWARA RAO, CHAIRPERSON

DATE: 12.03.2025

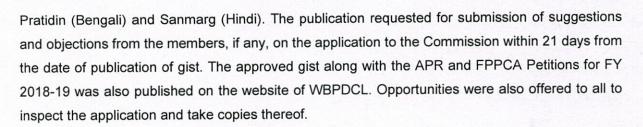




- 1.1. The West Bengal Electricity Regulatory Commission (hereinafter referred to as "the Commission"), a statutory body under the first proviso to Section 82(1) of the Electricity Act, 2003 (hereinafter referred to as "the Act"), has been authorized in terms of Section 86 and Section 62(1) of the Act 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 (WBPDCL) constituted in 1985 under the Companies Act, 1956, is a generating company in terms of Section 2(28) of the Electricity Act, 2003 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 shall be determined by the Commission.
- 1.3. The Commission vide its Order dated 14.07.2021 in Case No. TP-85/19-20 had determined the generation tariff of WBPDCL for FY 2018-19. The same was reviewed by the Commission vide its Order dated 06.05.2022 in Case No. TP (R)- 37/21-22.
- 1.4. In accordance with Regulation 2.6 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 as amended from time to time (hereinafter referred to as "Tariff Regulations"), the generating companies or the licensees, as the case may be, are required to undergo an Annual Performance Review (APR) process. WBPDCL submitted the applications for Fuel and Power Purchase Cost Adjustment (FPPCA) and APR for FY 2018-19 on 19.11.2019 and 24.11.2021 respectively. WBPDCL has also submitted a supplementary application for FPPCA and APR for FY 2018-19 on 08.03.2022. The FPPCA and APR applications along with supplementary application have been admitted by the Commission on 23.03.2022 in Case No. APR-91/21-22 & FPPCA-97/19-20. The gist of the aforesaid applications was published by WBPDCL on 06.04.2022. Subsequently, the Commission vide Order dated 01.08.2022 in Case No. APR 78/19 20 directed WBPDCL to submit a Comprehensive Supplementary Petition considering the impact of Return on Equity redetermined as on 31.03.2014. Accordingly, WBPDCL has submitted a Supplementary Petition vide letter dated 28.11.2022. The Supplementary Petition has been admitted by the Commission on 12.12.2022.
- 1.5. On admission of the Supplementary Petition, WBPDCL was directed to publish a fresh gist of the APR and FPPCA Petitions of FY 2018-19 along with the Supplementary Petitions. Accordingly, the gist was published on 30.12.2022 in The Times of India (English), Ei Samay (Bengali), Sangbad



### Order on FPPCA and APR of WBPDCL for FY 2018-19



- 1.6. Against such gist publications of APR and FPPCA of WBPDCL for FY 2018-19, no objection and suggestions have been received from any person within last date of submission.
- 1.7. During the course of analysis, the Commission has found certain deficiencies and accordingly sought clarifications/additional information from WBPDCL. WBPDCL has submitted some of the clarifications/additional information sought by the Commission vide its replies dated 09.02.2024, 14.03.2024, 16.05.2024, 06.06.2024, 01.08.2024,17.02.2025 and 28.02.2025.
- 1.8. The submissions of WBPDCL and Commission's analysis on APR and FPPCA for FY 2018-19 are detailed in the following chapters.



# CHAPTER – 2 COMPUTATIONS OF THE ALLOWABLE FUEL COST

- 2.1. WBPDCL has claimed Fuel and Power Purchase Cost Adjustment (FPPCA) separately for each of the following generating stations for FY 2018-19.
  - A. Kolaghat Thermal Power Station (KTPS) (6 x 210 MW = 1260 MW)
  - B. Bakreswar Thermal Power Station (BkTPS) (5 x 210 MW = 1050 MW)
  - C. Bandel Thermal Power Station Stage I (BTPS Stg I) (2 x 60 MW = 120 MW)
  - D. Bandel Thermal Power Station Stage II (BTPS Stg II) (1 x 215 MW = 215 MW)
  - E. Santaldih Thermal Power Station (STPS) (2 x 250 MW = 500 MW)
  - F. Sagardighi Thermal Power Station Stage I (SgTPS Stg I) (2 x 300 MW = 600 MW)
  - G. Sagardighi Thermal Power Station Stage II (SgTPS Stg II) (2 x 500 MW = 1000 MW)
- 2.2. In this part of the order, the Commission takes up the determination of fuel cost allowable to WBPDCL on the quantum of power sold by it to WBSEDCL during FY 2018-19 along with any gains arising from the performance of different generating stations of WBPDCL over the operating norms set by the Commission.
- 2.3. The FPPCA during the referred adjustment period, i.e., FY 2018-19 are to be ascertained by following the formula as enunciated by the Commission in Part-B of the Schedule 7A of the Tariff Regulations.
- 2.4. Further, Paragraph A of Schedule 9B of the Tariff Regulations, contains provisions for sharing the gains for coal fired thermal power stations, if any, on account of its better performances over the operating norms set by the Commission. The operational parameters which are to be considered for such sharing of gains accrued to the generating stations are:
  - Gain sharing for better Gross Station Heat Rate (SHR);
  - ii. Gain sharing for better Oil Consumption rate;
  - iii. Gain sharing for better Auxiliary Consumption rate;
- 2.5. Further, in terms of Paragraph D of Schedule 9 B of the Tariff Regulations, the sharable gains shall be used first to compensate the deficit in fixed charge recovery of the concerned generating station of the generating company in case the availability of the generating station falls below the availability norm and only thereafter the balance, if any, shall be passed on to the consumers / beneficiaries.
- 2.6. Comparison of Normative and Actual Operational Norms
- 2.6.1. Before ascertaining the amount of admissible fuel cost as well as the amount of gains to be shared with the beneficiary (WBSEDCL) under the provisions of Tariff Regulations explained in aforesaid



paragraphs, the actual performance of WBPDCL in comparison to the operational norms set by the Commission in the Tariff Regulations for the concerned year needs to be reviewed. Such comparisons are made hereunder:

Table 1: Normative v/s Actual Operating Parameters for FY 2018 - 19

| Station       |      | Heat Rate<br>/kWh) | The state of the s | Consumption<br>kWh) | Auxiliary Consumption (%) |        |  |
|---------------|------|--------------------|--|---------------------|---------------------------|--------|--|
|               | Norm | Actual             | ctual Norm Actual  |                     | Norm                      | Actual |  |
| Kolaghat      | 2700 | 2927               | 2.00   | 1.76                | 9.60%                     | 11.22% |  |
| Bakreswar     | 2470 | 2535               | 1.30   | 0.43                | 9.00%                     | 9.04%  |  |
| Bandel I      | 3050 | 3223               | 2.50   | 10.11               | 10.40%                    | 13.72% |  |
| Bandel II     | 2430 | 2733               | 1.75   | 4.45                | 9.00%                     | 10.24% |  |
| Santaldih     | 2425 | 2542               | 1.00   | 1.71                | 9.00%                     | 8.64%  |  |
| Sagardighi I  | 2345 | 2481               | 1.00   | 0.96                | 9.00%                     | 12.96% |  |
| Sagardighi II | 2424 | 2705               | 1.00   | 1.78                | 9.00%                     | 6.52%  |  |

The computations of actual rate of Auxiliary Consumption, Specific Consumption of Oil and SHR achieved are shown in Annexure-2A.

- 2.6.2. From Table 1 above, it is observed that the following generating stations have better performances over the operating norms set by the Commission and therefore qualify for deriving gains subject to the condition stipulated in terms of provisions of Schedule 9B of the Tariff Regulations
  - i. For Better Oil Consumption rate: Kolaghat TPS, Bakreswar TPS and Sagardighi Stage I TPS
  - ii. For better Auxiliary Consumption rate: Santaldih TPS and Sagardighi Stage II TPS
- 2.6.3. WBPDCL in their APR Application has submitted the actual availability certified by SLDC vis-à-vis the normative availability of the generating stations as tabulated below:

Table 2: Normative v/s Actual Availability for FY 2018 - 19

| Generating Station | Normative<br>Availability (%) | Actual<br>Availability (%) |  |  |
|--------------------|-------------------------------|----------------------------|--|--|
| Kolaghat           | 75.00%                        | 42.30%                     |  |  |
| Bakreswar          | 85.00%                        | 82.53%                     |  |  |
| Bandel I           | 70.00%                        | 37.08%                     |  |  |
| Bandel II          | 85.00%                        | 54.01%                     |  |  |
| Santaldih          | 85.00%                        | 84.48%                     |  |  |
| Sagardighi I       | 85.00%                        | 53.35%                     |  |  |
| Sagardighi II      | 85.00%                        | 41.18%                     |  |  |

2.6.4. Since the actual availabilities of the generating stations are lower than the normative availability, gains on improved performance of Kolaghat, Bakreswar, Santaldih, Sagardighi Stage I and Sagardighi Stage II shall be used to compensate the deficit in fixed charge recovery of the concerned generating stations as stipulated in terms of the provisions of Schedule-9B of the Tariff Regulations. The amount of gain and its share shall be determined in the subsequent paragraphs.



#### 2.7. Determination of allowable fuel cost

2.7.1. The consumption of fuel and costs thereon submitted by WBPDCL in its FPPCA petition for its different generating stations for FY 2018 – 19 is as shown in the Table 3 below:

Table 3: Fuel and cost details submitted by the Petitioner for FY 2018 - 19

| Particulars                                      | Unit       | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II |
|--|------------|----------|-----------|----------|-----------|-----------|--------------|---------------|
| Normative SHR                                    | kCal / kWh | 2700     | 2470      | 3050     | 2430      | 2425      | 2345         | 2424          |
| Normative Oil Consumption                        | mL / kWh   | 2.00     | 1.30      | 2.50     | 1.75      | 1.00      | 1.00         | 1.00          |
| Weighted Average<br>Calorific Value of Oil       | kCal / L   | 9272.15  | 9963.10   | 9204.60  | 9204.60   | 9443.04   | 9343.33      | 9343.33       |
| Weighted Average<br>Useful Heat Value of<br>Coal | kCal / kg  | 3110.36  | 4285.81   | 3297.12  | 3297.12   | 3501.99   | 4450.22      | 4170.41       |
| Weighted Average<br>Price of Oil                 | Rs. / kL   | 52072.17 | 42303.62  | 48905.45 | 49931.65  | 54669.05  | 50799.28     | 50102.89      |
| Weighted Average<br>Price of Coal                | Rs. / MT   | 3823.67  | 4259.27   | 4716.75  | 4721.62   | 3779.68   | 6372.33      | 5649.63       |

2.7.2. The first two of the above factors, i.e., the station heat rate and the rate of consumption of oil are considered based on the norms specified by the Commission. The weighted average calorific value of oil and the weighted average heat value of coal are the variable factors depending upon the actual mix of different grades of fuel used in operation. The admissible price and heat value of coal are computed in the subsequent paragraphs subject to adjustments in terms of Regulation 5.8.1(i) of the Tariff Regulations.

#### 2.8. Gross Generation and Auxiliary Consumption

Gross generation of the station has been computed by considering the ex-bus injection schedule certified by SLDC and the normative auxiliary consumption as below:

Table 4: Admissible Gross Generation for FY 2018 - 19

| Generating<br>Station | Scheduled<br>Injection (MU) | Normative Auxiliary<br>Consumption (%) | Normative Auxiliary Consumption (MU) | Admissible Gross<br>Generation (MU) |
|-----------------------|-----------------------------|--|--------------------------------------|-------------------------------------|
| Kolaghat              | 3910.861                    | 9.60%                                  | 415.313                              | 4326.174                            |
| Bakreswar             | 6519.421                    | 9.00%                                  | 644.778                              | 7164.199                            |
| Bandel I              | 322.570                     | 10.40%                                 | 37.441                               | 360.011                             |
| Bandel II             | 854.840                     | 9.00%                                  | 84.545                               | 939.385                             |
| Santaldih             | 3238.670                    | 9.00%                                  | 320.308                              | 3558.978                            |
| Sagardighi I          | 2300.724                    | 9.00%                                  | 227.544                              | 2528.268                            |
| Sagardighi II         | 3226.064                    | 9.00%                                  | 319.061                              | 3545.125                            |



### 2.9. Weighted average Heat Value and Cost of oil

WBPDCL has submitted their detailed computations of the weighted average calorific value of oil with reference to the month-wise supplies received by them along with price of oil certified by the auditor in their FPPCA petition. The same has been considered by the Commission.

Table 5: Heat value and landed price of oil for FY 2018 - 19

| Generating Stations | Quantum of Oil Consumed (kL) | Price of Oil<br>(Rs. / kL) | Heat Value of Oil<br>(kCal / L) |  |
|---------------------|------------------------------|----------------------------|---------------------------------|--|
| Kolaghat            | 7767.07                      | 52072.17                   | 9272.15                         |  |
| Bakreswar           | 3081.68                      | 42303.62                   | 9963.10                         |  |
| Bandel I            | 3738.05                      | 48905.45                   | 9204.60                         |  |
| Bandel II           | 4206.95                      | 49931.65                   | 9204.60                         |  |
| Santaldih           | 6070.43                      | 54669.05                   | 9443.04                         |  |
| Sagardighi Stage I  | 2523.68                      | 50799.28                   | 9343.33                         |  |
| Sagardighi Stage II | 6086.91                      | 50102.89                   | 9343.33                         |  |

### 2.10. Weighted Average Useful Heat Value (UHV) of Coal

- 2.10.1. WBPDCL has purchased linkage coal from CIL subsidiaries, auctioned coal from MSTC and WBMDTCL and Imported & Washed coal during FY 2018 19. WBPDCL has also received some diverted coal and captive coal from its captive mine at Barjora. WBPDCL has submitted the Gross Calorific Value (GCV) of the coal purchased and received during FY 2018 19 in Annexure IV B of its FPPCA petition.
- 2.10.2. For captive coal, WBPDCL in its FPPCA petition dated 19.11.2019 has submitted that the GCV of the captive coal received at Bakreswar and Sagardighi Stage II is 5273.14 kCal/ kg and 4966.78 kCal/ kg respectively. Subsequently, WBPDCL in its petition dated 14.06.2022 for approval of input price of coal from Barjora Coal Mine has stated that the actual weighted average GCV of coal for 2018 19 is 5313.48 kcal/ kg which corresponds to G7 grade (5200 kCal/kg to 5500 kCal/kg) of coal. The grade of captive coal has also been corroborated in Form D(3) submitted by WBPDCL vide letter dated 01.08.2024. Accordingly, the Commission considers the GCV of captive coal received at Bakreswar and Sagardighi Stage II as 5313.48 kCal/ kg, as mentioned in their petition for input price determination.
- 2.10.3. The Commission now determines the Useful Heat Value (UHV) of coal following the provisions specified in regulation 5.8.15 of the Tariff Regulations. The conversion from GCV to UHV, as per regulation 5.8.15, is not required for imported or washed coal, which contains less ash and is ~50 mm in size. The computations heat value of coal for each of the generating stations has been given in Annexure 2C1 to Annexure 2C6 of this chapter.



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2.10.4. Accordingly, the admitted UHV value of coal for each of the generating stations has been considered limited to the 'X' value determined in terms of regulation 5.8.1 (i) of the Tariff Regulations. The same is summarized as below:

Table 6: Weighted Average Heat Value of Coal for FY 2018 - 19

Figures in kCal / kg

| Generating<br>Station | Gross calorific Value<br>(GCV) claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation 5.8.15 | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of<br>each grade of coal | Admitted UHV<br>limited to 'X' as per<br>Regulation 5.8.1 (i) |
|-----------------------|---|---|---|---|
| Kolaghat              | 4299.75   | 3320.32   | 3159.79   | 3320.32   |
| Bakreswar             | 5165.44#  | 4371.39   | 4139.67   | 4371.39   |
| Bandel I              | 4323.95   | 3333.71   | 3190.87   | 3333.71   |
| Bandel II             | 4323.95   | 3333.71   | 3190.87   | 3333.71   |
| Santaldih             | 4595.74   | 3593.90   | 3499.75   | 3593.90   |
| Sagardighi I          | 5276.12   | 4515.42   | 4363.11   | 4515.42   |
| Sagardighi II         | 5082.91 #   | 4244.61   | 4122.50   | 4244.61   |
| # GCV of Captive Co   | oal from Barjora Coal Mine has                                      | been considered as 5313.48  | kCal/ kg as discussed in pa   | aragraph 2.10.2 above   |

### 2.11. Weighted Average Landed Price of Coal

#### 2.11.1. Price of Coal:

- 2.11.1.1 The Commission observes that WBPDCL has purchased coal from CIL subsidiaries, e-auction coal from MSTC & WBMDTCL, diverted coal and also through imports. WBPDCL also received coal from captive coal mine of Barjora during 2018 19. WBPDCL has submitted the actual cost of coal paid through the auditor certificates and also provided the break-up of coal prices in From D (3).
- 2.11.1.2 WBPDCL has considered the price of coal received from captive mine of Barjora at the CIL price of Rs. 3145.50 per MT corresponding to G7 grade. The Commission vide order dated 19.09.2023 in Case No. APR 91/21 22 / Part A has determined the input price of coal for Barjora Coal Mine for 2018 19 as Rs. 2515.18 per MT. In view of the same, the Commission considers the input price of coal of Barjora Coal Mine as admitted in the order dated 19.09.2023. For all other sources, the actual price of coal as per the audited certificate are considered.

#### 2.11.2. Transportation of Coal:

2.11.1.1 From Form D(2), the Commission observes that the coal is transported through rail mode only and thus only railway freight charges are applicable as per the freight rate of Indian Railways. Further, WBPDCL in Table B of their FPPCA Petition has shown a Demurrage Charge amounting to Rs. 822 lakhs which have been settled with the Railways on payment basis. WBPDCL stated that the they could not recover the Demurrage Charge from MFCA since the required information was not



available during MFCA claims. However, WBPDCL has neither shown the demurrage charges as mandated under Form D(2) nor shown any Demurrage Charge in Form E(B) of their APR Petition for the respective generating stations.

2.11.1.2 The Commission on 02.05.2024 directed WBSEDCL to submit a statement of coal transportation charges along with justifications/ mismatch from the Annexure IV submitted vide their FPPCA petition. WBPDCL vide letter dated 16.05.2024 has submitted a reconciliation statement along with breakup of coal transportation charges specifying the demurrage amount as detailed below:

Table 7: Coal Transportation Charges of Coal as claimed by WBPDCL for FY 2018 – 19

Figures in Rs Lakhs

|   |          |           |         |           | 1 190        | II CO III I NO LUMIIO |
|---|----------|-----------|---------|-----------|--------------|-----------------------|
| Particulars                                   | Kolaghat | Bakreswar | Bandel  | Santaldih | Sagardighi I | Sagardighi II         |
| Freight Charges                               | 43363.01 | 15271.70  | 8033.11 | 6221.78   | 7259.55      | 9060.65               |
| Overloading Charges                           | 251.83   | 98.58     | 120.27  | 74.71     | 131.47       | 164.09                |
| Demurrage Charges                             | 286.17   | 105.64    | 217.85  | 75.61     | 60.78        | 75.86                 |
| Loco Hire Charges/<br>Siding Shunting Charges | 476.28   | 271.38    | 0.00    | 197.86    | 13.08        | 16.33                 |
| Total Transportation Cost of Coal             | 44377.29 | 15747.30  | 8371.23 | 6569.96   | 7464.88      | 9316.93               |

2.11.1.3 The Commission observes that, in terms of regulation 5.8.1 (vi) of the Tariff Regulations, no Demurrage Charges is allowable for new generating stations (date of synchronization on or after 31.12.2007) unless free time provided by railways is reduced by more than 20% from the existing value. Accordingly, demurrage charge is not applicable for Bakreswar Stage II, Santaldih and Sagardighi Stage I and Stage II. WBPDCL vide affidavit dated 28.02.2025 has submitted the reasons for incurring demurrage charges in respect of old plants viz. Kolaghat TPS, Bandel TPS and Bakreswar Stage I TPS. WBPDCL also submitted to have undertaken initiatives in containing and reducing the demurrage charges to a considerable extent in terms of regulation 5.8.1 (vi) of the Tariff Regulations. The Commission, in view of the above, considers the demurrage charges in respect of old plants during 2018 – 19.

2.11.1.4 Accordingly, the transportation cost of coal considered by the Commission is as under:

Table 8: Coal Transportation Charges of Coal as admitted for FY 2018 - 19

|   |                 |              |         |           | Figu         | ures in Rs Lakhs |
|---|-----------------|--------------|---------|-----------|--------------|------------------|
| Particulars                                   | Kolaghat        | Bakreswar    | Bandel  | Santaldih | Sagardighi I | Sagardighi II    |
| Freight Charges                               | 43363.01        | 15271.70     | 8033.11 | 6221.78   | 7259.55      | 9060.65          |
| Overloading Charges                           | 251.83          | 98.58        | 120.27  | 74.71     | 131.47       | 164.09           |
| Demurrage Charges                             | 286.17          | 63.38#       | 217.85  | 0.00      | 0.00         | 0.00             |
| Loco Hire Charges/ Siding<br>Shunting Charges | 476.28          | 271.38       | 0.00    | 197.86    | 13.08        | 16.33            |
| Total Transportation<br>Cost of Coal          | 44377.29        | 15705.04     | 8371.23 | 6494.35   | 7404.10      | 9241.07          |
| # Allowed in proportion to the                | Installed Capac | ity of BKTPS |         |           |              |                  |

West Bengal Electricity Regulatory Commission



- 2.11.3. The Commission now computes the weighted average price of coal for all the generating stations considering the impact of captive coal received at Bakreswar and Sagardighi Stage II plants as given in Annexure 3 of this chapter.
- 2.11.4. The weighted average landed price of coal for each of the generating stations is summarized below:

Table 9: Weighted Average Landed Price of Coal for FY 2018 - 19

|  |          |           |          |           |           | Fig          | gures in Rs. / MT |
|--|----------|-----------|----------|-----------|-----------|--------------|-------------------|
| Particulars                              | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II     |
| Weighted Average<br>Landed Price of Coal | 3833.43  | 4233.31   | 4700.39  | 4700.39   | 3789.71   | 6369.91      | 5554.55           |

### 2.12. Weighted Average Heat Value and Price of Coal consumed:

The Commission observed that, WBPDCL has considered the price of coal consumed considering the coal purchased during the year and the opening coal stock available. However, from their submission it appears that the heat value of opening coal stock has not been factored while computing heat value of coal consumed during the year. The Commission finds it appropriate to compute the heat value and price of coal duly taking into the impact of coal purchased as well as opening stock of the year. Since, the price of opening stock of coal along with its heat value for 2018 – 19 has not been specified in the FPPCA petition, the Commission decides to consider the price and heat value of coal as admitted in the APR of 2017 – 18. Accordingly, the admissible landed price and heat value of coal consumed during FY 2018 – 19 is computed in Annexure 4 of this chapter and summarized as below:

Table 10: Weighted Average Price and Heat Value of Coal consumed for FY 2018 - 19

| Table                                  | Table 10. Weighted 7. Fee and 1 |          |           |          |           |           |              |               |  |
|--|---------------------------------|----------|-----------|----------|-----------|-----------|--------------|---------------|--|
| Particulars                            | Unit                            | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II |  |
| Weighted Average<br>Price of Coal      | Rs. / MT                        | 3833.29  | 4230.08   | 4688.96  | 4688.96   | 3791.02   | 6365.94      | 5548.75       |  |
| Weighted Average<br>Heat Value of Coal | kCal / kg                       | 3320.38  | 4365.58   | 3343.21  | 3343.21   | 3598.79   | 4514.72      | 4244.24       |  |

#### 2.13. Excess oil claimed on account of forced shutdown

- 2.13.1. WBPDCL submitted in its application that the excess consumption of oil (Light Diesel Oil) at Bandel was partly due to forced backdown on several occasions when State Load Despatch Centre (SLDC) issued instruction to de-synchronize the generating unit. The re-synchronization of the units could only be done on obtaining clearance from SLDC.
- 2.13.2. It is also submitted that, the de-synchronization and re-synchronization involving additional quantity of oil consumption were beyond the control of the generating station, WBPDCL prayed for allowing



the recovery of an amount of Rs. 24.22 lakh in this regard through energy charges for the year 2018 - 19.

Table 11: Cost of Excess Oil Consumption claimed for FY 2018 - 19

| SI<br>No | Plant      | No. of Instances where Units were desynchronized as per direction of SLDC | Oil Consumption<br>(in KI) | Cost of Excess Oil<br>Consumption<br>(in Rs Lakh) |
|----------|------------|---|----------------------------|---|
| 1        | Bandel TPS | 4   | 49                         | 24.22   |

- 2.13.3. The Commission has observed from the documents submitted by WBPDCL that the generating units of Bandel was desynchronized as per the instruction of SLDC due to low system demand, as a part of standard operational practice. This has already been taken into consideration during the fixation of norms. Thus, the Commission does not consider the claim of expenses for excess consumption of oil for the generating station for FY 2018-19.
- 2.13.4. Apart from above, WBPDCL through the instant FPPCA petition, has also sought review of the FPPCA Orders pertaining to FY 2010 11, FY 2011 12, FY 2012 13 and FY 2013 14 and claimed an amount Rs. 4134.90 Lakh on account of expenses towards excess oil consumption. The Commission observed that WBPDCL's claim for expenses towards excess oil consumption during FY 2010 11, FY 2011 12, FY 2012 13 and FY 2013 14 have been disallowed by the Commission in the respective FPPCA Orders and cannot be reviewed through subsequent order. Therefore, the claims are not required to be dealt within the instant application for FY 2018-19.

#### 2.14. Permitted Transit Loss & Handling Loss of Coal:

WBPDCL has claimed the transit loss and handling loss on entire coal including imported coal as per the norms specified by the Commission in the Tariff Regulations. The norms of respective generating stations have been considered by the Commission for determination of fuel cost.

#### 2.15. Admitted Fuel Cost and Energy Charge Rate

The total fuel cost admissible along with energy charge rate for FY 2018 – 19 for each of the generating stations have been summarized below. Detailed Computation of the same is shown in Annexure - 2B-1 to Annexure 2B-7.

Table 12: Admitted Fuel Cost for FY 2018 - 19

| Table 12. Admitted 1 del Goot let 1 1 2010 |                                 |  |  |  |  |  |  |  |
|--|---------------------------------|--|--|--|--|--|--|--|
| Scheduled Injection (MU)                   | Admitted Cost of Fuel (Rs Lakh) | Energy Charge Rate (p/kWh)   |  |  |  |  |  |  |
| 3910.861                                   | 139509.53                       | 356.72   |  |  |  |  |  |  |
| 6519.421                                   | 175361.25                       | 268.98   |  |  |  |  |  |  |
|  | 15847.50                        | 491.29   |  |  |  |  |  |  |
|  | 32880.78                        | 384.64   |  |  |  |  |  |  |
| 00.110.10                                  | 93237.19                        | 287.89   |  |  |  |  |  |  |
|  | Scheduled Injection (MU)        | Scheduled Injection (MU)         Admitted Cost of Fuel (Rs Lakh)           3910.861         139509.53           6519.421         175361.25           322.570         15847.50           854.840         32880.78 |  |  |  |  |  |  |



### Order on FPPCA and APR of WBPDCL for FY 2018-19

| Generating Station | Scheduled Injection (MU) | Admitted Cost of Fuel (Rs Lakh) | Energy Charge Rate (p/kWh) |
|--------------------|--------------------------|---------------------------------|----------------------------|
| Sagardighi I       | 2300.724                 | 85221.09                        | 370.41                     |
| Sagardighi II      | 3226.064                 | 114592.16                       | 355.21                     |

#### 2.16. Cp: Cost Disallowable

The factor C<sub>D</sub> as referred to in the formula, stands for cost as to be found disallowable by the Commission as having been incurred in breach of economic generation or of order/direction of the Commission if any, or for any other reason considered sufficient by the Commission during the adjustment period and adjusted corresponding to actual level of sales. As the unit rates of energy charges from the generating stations have been worked out based on normative parameters, no further disallowance is required on this account.

## 2.17. Gains on account of better performance over operating norms

2.17.1. As discussed in paragraph 2.6.3, gain for Kolaghat TPS, Bakreswar TPS and Sagardighi Stage I TPS due to improved specific oil consumption is computed in the Table 13 below:

Table 13: Gain due to improved specific oil consumption for Kolaghat, Bakreswar and

Sagardighi Stage I for FY 2018-19

| Particulars   | Unit     | Derivation       | KTPS      | BkTPS      | SgTPS I  |
|---|----------|------------------|-----------|------------|----------|
| Total Gross Generation<br>[SI No. D of Annexure 2B]             | MU       | [1]              | 4326.174  | 7164.199   | 2528.27  |
| Oil consumption on normative basis<br>[SI No. L of Annexure 2B] | kL       | [2]              | 8652.35   | 9313.46    | 2528.27  |
| Actual oil consumption [Table 5 above]                          | kL       | [3]              | 7767.07   | 3081.68    | 2523.68  |
| Savings in oil consumption                                      | kL       | [4] = [2] - [3]  | 885.28    | 6231.78    | 4.59     |
| Average rate of oil [SI No. N of Annexure 2B]                   | Rs./kL   | [5]              | 52072.17  | 42303.62   | 50799.28 |
| Savings in amount   | Rs. Lakh | [6] = [4] x [5]  | 461       | 2636       | 2        |
| SHARING OF GAIN   |          |                  |           |            |          |
| Specific Consumption of Oil as per admissible Norms             | ml/kWh   | [7]              | 2.00      | 1.30       | 1.00     |
| Actual Oil Consumption [Annexure 2A]                            | ml/kWh   | [8]              | 1.76      | 0.43       | 0.96     |
| Category based on normative auxiliary                           |          |                  | В         | В          | Α        |
| Sharing Ratio as per paragraph A1 of Schedu                     | le 9B    |                  | 55% : 45% | 70% : 30 % | 60%:40%  |
| Share % of WBSEDCL  | %        | [9]              | 45%       | 30%        | 40%      |
| Share of WBSEDCL  | Rs. Lakh | [10] = [6] x [9] | 207       | 791        | 1        |

2.17.2. As discussed in paragraph 2.6.3, gain for Santaldih TPS and Sagardighi Stage II due to improved auxiliary energy consumption is computed in the Table 14 below:

Table 14: Gain due to improved auxiliary energy consumption for Santaldih and Sagardighi

| Stage II for F1 2016-19         |      |            |         |          |  |  |  |
|---------------------------------|------|------------|---------|----------|--|--|--|
| Particulars                     | Unit | Derivation | STPS    | SgTPS II |  |  |  |
| Normative Auxiliary Consumption | MU   | [1]        | 320.308 | 319.061  |  |  |  |

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| Particulars                                | Unit     | Derivation      | STPS      | SgTPS II |
|--|----------|-----------------|-----------|----------|
| Actual Auxiliary Consumption [Annexure 2A] | MU       | [2]             | 306.948   | 223.542  |
| Savings in Auxiliary Consumption           | MU       | [3] = [2] - [3] | 13.360    | 95.519   |
| Cost of Gross Generation                   | Rs./kWh  | [4]             | 2.62      | 3.23     |
| Gain                                       | Rs. Lakh | [5]             | 350       | 3085     |
| SHARING OF GAIN                            |          |                 |           |          |
| Normative Auxiliary Consumption            | %        | [6]             | 9.00%     | 9.00%    |
| Actual Auxiliary Consumption               | %        | [7]             | 8.64%     | 6.52%    |
| Category based on normative auxiliar       | у        |                 | В         | В        |
| Sharing Ratio as per paragraph A2 of       | 3        | 60% : 40 %      | 85% : 15% |          |
| Share % of WBSEDCL                         | %        | [8]             | 40%       | 15%      |
| Share of WBSEDCL                           | Rs. Lakh | [9] = [5] x [8] | 140       | 463      |

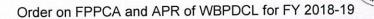
- 2.17.3. The share of WBSEDCL on account of improved specific oil consumption of Kolaghat, Bakreswar and Sagardighi Stage I and on account of improved auxiliary energy consumption of Santaldih and Sagardighi Stage II is to be compensated with the deficit in fixed charge recovery in terms of paragraph D of Schedule 9B to the Tariff Regulations.
- 2.17.4. The deficit in fixed charge recovery for Kolaghat, Bakreswar, Santaldih and Sagardighi Stage I and Sagardighi Stage II is Rs. 20056.19 Lakh, Rs. 1321.98 Lakh, Rs. 135.03 Lakh, Rs. 12527.09 Lakh and Rs. 47552.06 Lakh respectively as detailed in Chapter-3. Accordingly, the share of gains of WBSEDCL is compensated with the deficit in fixed charge recovery of the respective generating stations in terms of paragraph D of Schedule 9B of the Tariff Regulations. Only an amount of Rs. 4.97 Lakh in respect of Santaldih is shared with WBSEDCL.
  - 2.18. WBPDCL in its FPPCA petition dated 19.11.2019 has considered the fuel cost recovered through energy bill during 2018 19 as per the Tariff Order for the year 2016 17. Subsequently, WBPDCL vide comprehensive supplementary petition dated 28.11.2022 has submitted the fuel cost recovered during 2018 19 in accordance with paragraph 6.5 of the Tariff Order dated 14.07.2021. Thus, the revenue from the energy charges realized by WBPDCL during 2018 19 is given below:

Table 15: Revenue Realized during FY 2018-19

Figures in Rs. Lakhs

|                       | igares in rest Earthe       |                   |                              |
|-----------------------|-----------------------------|-------------------|------------------------------|
| Generating<br>Station | Energy Charges<br>Recovered | MFCA<br>Recovered | Total Fuel Cost<br>Recovered |
| Kolaghat              | 107636.36                   | 40628.30          | 148264.66                    |
| Bakreswar             | 136421.62                   | 24412.49          | 160834.11                    |
| Bandel I              | 12408.06                    | 2889.17           | 15297.23                     |
| Bandel II             | 24041.89                    | 7675.23           | 31717.12                     |
| Santaldih             | 75597.70                    | 10732.21          | 86329.91                     |
| Sagardighi I          | 54779.02                    | 25967.20          | 80746.22                     |
| Sagardighi II         | 71964.40                    | 25830.50          | 97794.90                     |

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2.19. Summing up the findings as explained in the earlier paragraphs, the amount of Fuel and Power Purchase Cost Adjustment (FPPCA) of each of the generating stations of WBPDCL for the year 2018 – 19 is now determined based on the FPPCA formula specified in paragraph B of Schedule - 7A of the Tariff Regulations considering admissible fuel cost of WBPDCL for FY 2018 – 19, net of sharing of gains due to improved performance vis-à-vis the fuel cost recovered during the year as shown in the table below:

Table 16: Fuel Cost Adjustment for 2018 - 19

Figures in Rs. Lakhs

| Generating<br>Stations | Admitted<br>Fuel Cost | Power Purchase Cost for pumping energy of PSP | Less: Cost<br>disallowed | Adjustment, if any | Fuel cost<br>recovered<br>through<br>sale to the<br>purchaser | Power purchase cost allowed in Tariff order for pumping energy | FPPCA                                       |  |
|------------------------|-----------------------|---|--------------------------|--------------------|---|--|---|--|
|                        | FC                    | PPC   | C <sub>D</sub>           | Α                  | fc  | ррс  | {FC + (PPC -CD)<br><u>+</u> A} – (fc + ppc) |  |
| Kolaghat               | 139509.53             | Not applicable                                | 0.00                     | 0.00               | 148264.66   | Not applicable   | (-) 8755.13                                 |  |
| Bakreswar              | 175361.25             | Not applicable                                | 0.00                     | 0.00               | 160834.11   | Not applicable   | 14527.14                                    |  |
| Bandel I               | 15847.50              | Not applicable                                | 0.00                     | 0.00               | 15297.23  | Not applicable   | 550.27                                      |  |
| Bandel II              | 32880.78              | Not applicable                                | 0.00                     | 0.00               | 31717.12  | Not applicable   | 1163.66                                     |  |
| Santaldih              | 93237.19              | Not applicable                                | 0.00                     | 0.00               | 86329.91  | Not applicable   | 6907.28                                     |  |
| Sagardighi I           | 85221.09              | Not applicable                                | 0.00                     | 0.00               | 80746.22  | Not applicable   | 4474.87                                     |  |
| Sagardighi II          | 114592.16             | Not applicable                                | 0.00                     | 0.00               | 97794.90  | Not applicable   | 16797.26                                    |  |
| ouguruigiii ii         | Total FPPCA of WBPDCL |   |                          |                    |   |  |   |  |

2.19.1. The decision of the Commission regarding recovery of the amount of Rs. 35665.35 Lakh by WBPDCL from its energy recipients i.e., WBSEDCL will be given in subsequent chapter.





### COMPUTATION OF ACTUAL STATION HEAT RATE ACHIEVED IN FY 2018-19

| SI  |                                     | 11.14     | 74 17 2 3 4 |             | G          | enerating Stat | ions       |              |               |
|-----|-------------------------------------|-----------|-------------|-------------|------------|----------------|------------|--------------|---------------|
| No. | Particulars                         | Unit      | Kolaghat    | Bakreswar   | Bandel I   | Bandel II      | Santaldih  | Sagardighi I | Sagardighi II |
| 1   | Gross Generation (Actual)           | MU        | 4422.867    | 7182.224    | 369.810    | 945.572        | 3552.620   | 2624.880     | 3426.039      |
| 2   | Consumption of Oil (Actual)         | kL        | 7767.07     | 3081.68     | 3738.051   | 4206.949       | 6070.43    | 2523.68      | 6086.91       |
| 3   | Consumption of Coal (Actual)        | MT        | 3876851.50  | 4162942.15  | 346182.01  | 761278.97      | 2493665.53 | 1437352.69   | 2170239.30    |
| 4   | GCV of Oil (Actual)                 | kCal/ L   | 9272.15     | 9963.10     | 9204.60    | 9204.60        | 9443.04    | 9343.33      | 9343.33       |
| 5   | Heat Value of Coal (Actual)         | kCal/ kg  | 3320.38     | 4365.58     | 3343.21    | 3343.21        | 3598.79    | 4514.72      | 4244.24       |
| 6   | Heat from Oil (2*4/1000)            | MkCal     | 72017.45    | 30703.08    | 34407.28   | 38723.30       | 57323.31   | 23579.58     | 56872.02      |
| 7   | Heat from Coal (3*5/1000)           | MkCal     | 12872620.18 | 18173656.99 | 1157359.16 | 2545115.47     | 8974178.58 | 6489244.93   | 9211016.46    |
| 8   | Total Heat Used (6+7)               | MkCal     | 12944637.63 | 18204360.07 | 1191766.44 | 2583838.77     | 9031501.89 | 6512824.51   | 9267888.48    |
| 9   | Station Heat Rate<br>Achieved (8/1) | kCal/ kWh | 2927        | 2535        | 3223       | 2733           | 2542       | 2481         | 2705          |
| 10  | Normative Station<br>Heat Rate      | kCal/ kWh | 2700        | 2470        | 3050       | 2430           | 2425       | 2345         | 2424          |

# COMPUTATION OF ACTUAL AUXILIARY CONSUMPTION ACHIEVED IN FY 2018-19

| SI<br>No. | Particulars   | Actual Gross<br>Generation<br>(MU) | Actual Sent<br>Out Energy<br>(MU) | Auxiliary<br>Consumption<br>(MU) | Auxiliary<br>Consumption (%) | Normative Auxiliary<br>Consumption (%) |
|-----------|---------------|------------------------------------|-----------------------------------|----------------------------------|------------------------------|--|
| 1         | Kolaghat      | 4422.867                           | 3926.531                          | 496.336                          | 11.22%                       | 9.60%                                  |
| 2         | Bakreswar     | 7182.224                           | 6533.155                          | 649.069                          | 9.04%                        | 9.00%                                  |
| 3         | Bandel I      | 369.810                            | 319.071                           | 50.739                           | 13.72%                       | 10.40%                                 |
| 4         | Bandel II     | 945.572                            | 848.767                           | 96.805                           | 10.24%                       | 9.00%                                  |
| 5         | Santaldih     | 3552.620                           | 3245.672                          | 306.948                          | 8.64%                        | 9.00%                                  |
| 6         | Sagardighi I  | 2624.880                           | 2284.695                          | 340.185                          | 12.96%                       | 9.00%                                  |
| 7         | Sagardighi II | 3426.039                           | 3202.497                          | 223.542                          | 6.52%                        | 9.00%                                  |

# COMPUTATION OF SPECIFIC OIL CONSUMPTION ACHIEVED IN FY 2018-19

| SI<br>No. | Generating Station | Actual Gross<br>Generation<br>(MU) | Actual Oil<br>Consumption<br>(kL) | Specific Oil<br>Consumption<br>(mL/kWh) | Normative Oil<br>Consumption<br>(mL/kWh) |
|-----------|--------------------|------------------------------------|-----------------------------------|---|--|
| 1         | Kolaghat           | 4422.867                           | 7767.07                           | 1.76                                    | 2.00                                     |
| 2         | Bakreswar          | 7182.224                           | 3081.68                           | 0.43                                    | 1.30                                     |
| 3         | Bandel I           | 369.810                            | 3738.05                           | 10.11                                   | 2.50                                     |
| 4         | Bandel II          | 945.572                            | 4206.95                           | 4.45                                    | 1.75                                     |
| 5         | Santaldih          | 3552.620                           | 6070.43                           | 1.71                                    | 1.00                                     |
| 6         | Sagardighi I       | 2624.880                           | 2523.68                           | 0.96                                    | 1.00                                     |
| 7         | Sagardighi II      | 3426.039                           | 6086.91                           | 1.78                                    | 1.00                                     |



# ANNEXURE – 2B-1 COMPUTATION OF FUEL COST OF KOLAGHAT TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted    |
|---|-----------------|-----------|----------|-------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 3910.861 | 3910.861    |
| Normative Auxiliary Consumption                   | В               | %         | 9.60%    | 9.60%       |
| Auxiliary Consumption                             | С               | MU        | 415.313  | 415.313     |
| Gross Admissible Generation                       | D               | MU        | 4326.174 | 4326.174    |
| Heat Rate   | E               | kcal/kWh  | 2700     | 2700        |
| Permitted Oil Consumption                         | F               | ml/kWh    | 2.00     | 2.00        |
| Heat Value of Oil                                 | G               | kcal/L    | 9272.15  | 9272.15     |
| Heat Value of Coal                                | Н               | kcal/kg   | 3110.36  | 3320.38     |
| Overall Permitted Heat                            | I=D*E           | GCal      | 11680670 | 11680669.80 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 80226    | 80225.90    |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 11600444 | 11600443.90 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 8652     | 8652.35     |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 3729613  | 3493709.73  |
| Transit Loss @ 0.80%                              |                 | Tonne     | 30078    | 28175.08    |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 3759690  | 3521884.81  |
| Cost of Oil per kL                                | N               | Rs./kL    | 52072.17 | 52072.17    |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 3823.67  | 3833.29     |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 4505     | 4505.47     |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 143758   | 135004.06   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 148263   | 139509.53   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 379.11   | 356.72      |





# COMPUTATION OF FUEL COST OF BAKRESWAR TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted    |
|---|-----------------|-----------|----------|-------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 6519.421 | 6519.421    |
| Normative Auxiliary Consumption                   | В               | %         | 9.00%    | 9.00%       |
| Auxiliary Consumption                             | С               | MU        | 644.778  | 644.778     |
| Gross Admissible Generation                       | D               | MU        | 7164.199 | 7164.199    |
| Normative Station Heat Rate                       | Е               | kcal/kWh  | 2470     | 2470        |
| Permitted Oil Consumption                         | F               | ml/kWh    | 1.30     | 1.30        |
| Heat Value of Oil                                 | G               | kcal/L    | 9963.10  | 9963.10     |
| Heat Value of Coal                                | Н               | kcal/kg   | 4285.81  | 4365.58     |
| Overall Permitted Heat                            | I=D*E           | GCal      | 17695571 | 17695571.53 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 92791    | 92790.92    |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 17602780 | 17602780.61 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 4107223  | 4032174.56  |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 20639    | 20262.18    |
| Transit Loss @ 0.50%                              |                 | Tonne     | 4127862  | 4052436.74  |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.995*10^3 | Tonne     | 4127862  | 4050497.59  |
| Cost of Oil per kL                                | N               | Rs./kL    | 42303.62 | 42303.62    |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 4259.27  | 4230.08     |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 3940     | 3939.93     |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 175817   | 171421.32   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 179757   | 175361.25   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 275.72   | 268.98      |



### ANNEXURE - 2B-3

# **COMPUTATION OF FUEL COST OF BANDEL - 1 TPS FOR FY 2018-19**

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted   |
|---|-----------------|-----------|----------|------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 322.570  | 322.570    |
| Normative Auxiliary Consumption                   | В               | %         | 10.40%   | 10.40%     |
| Auxiliary Consumption                             | С               | MU        | 37.441   | 37.441     |
| Gross Admissible Generation                       | D               | MU        | 360.011  | 360.011    |
| Heat Rate   | Е               | kcal/kWh  | 3050     | 3050       |
| Permitted Oil Consumption                         | F               | ml/kWh    | 2.50     | 2.50       |
| Heat Value of Oil                                 | G               | kcal/L    | 9204.60  | 9204.60    |
| Heat Value of Coal                                | Н               | kcal/kg   | 3297.12  | 3343.21    |
| Overall Permitted Heat                            | I=D*E           | GCal      | 1098034  | 1098033.55 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 8284     | 8284.42    |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 1089750  | 1089749.13 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 900.03   | 900.03     |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 330515   | 325958.92  |
| Transit Loss @ 0.80%                              |                 | Tonne     | 2665     | 2628.70    |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 333181   | 328587.62  |
| Cost of Oil per kL                                | N ·             | Rs./kL    | 48905.45 | 48905.45   |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 4720.10  | 4688.96    |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 440      | 440.16     |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 15726    | 15407.34   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 16167    | 15847.50   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 501.18   | 491.29     |



### ANNEXURE - 2B-4

# COMPUTATION OF FUEL COST OF BANDEL - 2 TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted   |
|---|-----------------|-----------|----------|------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 854.840  | 854.840    |
| Normative Auxiliary Consumption                   | В               | %         | 9.00%    | 9.00%      |
| Auxiliary Consumption                             | С               | MU        | 84.545   | 84.545     |
| Gross Admissible Generation                       | D               | MU        | 939.385  | 939.385    |
| Heat Rate   | E               | kcal/kWh  | 2430     | 2430       |
| Permitted Oil Consumption                         | F               | ml/kWh    | 1.75     | 1.75       |
| Heat Value of Oil                                 | G               | kcal/L    | 9204.60  | 9204.60    |
| Heat Value of Coal                                | Н               | kcal/kg   | 3297.12  | 3343.21    |
| Overall Permitted Heat                            | I=D*E           | GCal      | 2282706  | 2282705.55 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 15132    | 15131.63   |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 2267574  | 2267573.92 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 1643.92  | 1643.92    |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 687744   | 678262.48  |
| Transit Loss @ 0.80%                              |                 | Tonne     | 5546     | 5469.86    |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 693290   | 683732.34  |
| Cost of Oil per kL                                | N               | Rs./kL    | 49931.65 | 49931.65   |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 4720.10  | 4688.96    |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 821      | 820.84     |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 32724    | 32059.94   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 33545    | 32880.78   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 392.41   | 384.64     |



### ANNEXURE - 2B-5

# COMPUTATION OF FUEL COST OF SANTALDIH TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted   |
|---|-----------------|-----------|----------|------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 3238.670 | 3238.670   |
| Normative Auxiliary Consumption                   | В               | %         | 9.00%    | 9.00%      |
| Auxiliary Consumption                             | С               | MU        | 320.308  | 320.308    |
| Gross Admissible Generation                       | D               | MU        | 3558.978 | 3558.978   |
| Heat Rate   | E               | kcal/kWh  | 2425     | 2425       |
| Permitted Oil Consumption                         | F               | ml/kWh    | 1.00     | 1.00       |
| Heat Value of Oil                                 | G               | kcal/L    | 9443.04  | 9443.04    |
| Heat Value of Coal                                | Н               | kcal/kg   | 3501.99  | 3598.79    |
| Overall Permitted Heat                            | I=D*E           | GCal      | 8630514  | 8630521.65 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 33608    | 33607.59   |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 8596906  | 8596914.06 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL.       | 3558.97  | 3558.98    |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 2454366  | 2388834.60 |
| Transit Loss @ 0.80%                              |                 | Tonne     | 20297    | 19264.80   |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 2474664  | 2408099.40 |
| Cost of Oil per kL                                | N               | Rs./kL    | 54669.05 | 54669.05   |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 3779.68  | 3791.02    |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 1946     | 1945.66    |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 93534    | 91291.53   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 95480    | 93237.19   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 294.81   | 287.89     |





## COMPUTATION OF FUEL COST OF SAGARDIGHI - I TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted   |
|---|-----------------|-----------|----------|------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 2300.724 | 2300.724   |
| Normative Auxiliary Consumption                   | В               | %         | 9.00%    | 9.00%      |
| Auxiliary Consumption                             | С               | MU        | 227.544  | 227.544    |
| Gross Admissible Generation                       | D               | MU        | 2528.268 | 2528.268   |
| Heat Rate   | E               | kcal/kWh  | 2345     | 2345       |
| Permitted Oil Consumption                         | F               | ml/kWh    | 1.00     | 1.00       |
| Heat Value of Oil                                 | G               | kcal/L    | 9343.33  | 9343.33    |
| Heat Value of Coal                                | H               | kcal/kg   | 4450.22  | 4514.72    |
| Overall Permitted Heat                            | I=D*E           | GCal      | 5928790  | 5928788.46 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 23622    | 23622.46   |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 5905168  | 5905166.00 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 2528.27  | 2528.27    |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 1326940  | 1307980.56 |
| Transit Loss @ 0.80%                              |                 | Tonne     | 10701    | 10548.23   |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 1337641  | 1318528.79 |
| Cost of Oil per kL                                | N               | Rs./kL    | 50799.28 | 50799.28   |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 6372.33  | 6365.94    |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 1284     | 1284.34    |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 85239    | 83936.75   |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 86523    | 85221.09   |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 376.07   | 370.41     |





## COMPUTATION OF FUEL COST OF SAGARDIGHI - II TPS FOR FY 2018-19

| Operating Parameters                              | Legend          | Unit      | Claimed  | Admitted   |
|---|-----------------|-----------|----------|------------|
| Sent out Energy - (Scheduled)                     | A               | MU        | 3226.064 | 3226.064   |
| Normative Auxiliary Consumption                   | В               | %         | 9.00%    | 9.00%      |
| Auxiliary Consumption                             | С               | MU        | 319.061  | 319.061    |
| Gross Admissible Generation                       | D               | MU        | 3404.817 | 3545.125   |
| Heat Rate   | E               | kcal/kWh  | 2276     | 2424       |
| Permitted Oil Consumption                         | F               | ml/kWh    | 1.00     | 1.00       |
| Heat Value of Oil                                 | G               | kcal/L    | 9343.33  | 9343.33    |
| Heat Value of Coal                                | Н               | kcal/kg   | 4170.41  | 4244.24    |
| Overall Permitted Heat                            | I=D*E           | GCal      | 8068705  | 8593383.00 |
| Permitted Heat from Oil                           | J=D*F*G/10^3    | GCal      | 33123    | 33123.33   |
| Permitted Heat from Coal                          | K=I-J           | GCal      | 8035582  | 8560259.67 |
| Permitted Oil Consumption                         | L=(J/G)*10^3    | kL        | 3545.13  | 3545.13    |
| Permitted Coal Consumption excluding transit loss |                 | Tonne     | 1926810  | 2016912.26 |
| Transit Loss @ 0.80%                              |                 | Tonne     | 15539    | 16265.42   |
| Permitted Coal Consumption with Transit Loss      | M=K/H/.992*10^3 | Tonne     | 1942349  | 2033177.68 |
| Cost of Oil per kL                                | N               | Rs./kL    | 50102.89 | 50102.89   |
| Cost of Coal per Tonne                            | 0               | Rs./Tonne | 5649.63  | 5548.75    |
| Cost of Oil                                       | P=L*N/10^5      | Rs. Lakh  | 1776     | 1776.21    |
| Cost of Coal                                      | Q=M*O/10^5      | Rs. Lakh  | 109736   | 112815.95  |
| Total Cost of Fuel                                | R=P+Q           | Rs. Lakh  | 111512   | 114592.16  |
| Energy charge rate                                | S = R x10/A     | Paisa/kwh | 345.66   | 355.21     |





# COMPUTATION OF HEAT VALUE OF COAL FOR KOLAGHAT THERMAL POWER STATION FOR FY 2018-19

| Source    | Grade | Quantity       | Gross calorific  Value (GCV)  claimed by the  Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|-----------|-------|----------------|--|--|---|---|
|           |       | MT             |  | kCal/  |   |   |
|           | G3    | 4577.61        | 6550.00  | 6292   | 6401                                    | 6121  |
|           | G4    | 152797.85      | 6261.02  | 5914   | 6101                                    | 5677  |
|           | G5    | 60878.77       | 5959.11  | 5469   | 5801                                    | 5238  |
| ECL       | G6    | 93999.21       | 5637.57  | 4999   | 5501                                    | 4800  |
|           | G7    | 90506.61       | 5377.86  | 4621   | 5201                                    | 4363  |
|           | G8    | 60803.21       | 5054.99  | 4163   | 4901                                    | 3994  |
|           | G9    | 3035.39        | 4763.28  | 3842   | 4601                                    | 3664  |
|           | G9    | 3630.30        | 4816.00  | 3900   | 4601                                    | 3664  |
|           | G10   | 34976.62       | 4431.76  | 3478   | 4301                                    | 3312  |
|           | G11   | 202068.14      | 4226.61  | 3156   | 4001                                    | 2684  |
| MCL       | G12   | 184682.12      | 3861.56  | 2395   | 3701                                    | 2160  |
|           | G13   | 915055.89      | 3536.91  | 1920   | 3401                                    | 1721  |
|           | G14   | 157800.68      | 3258.88  | 1513   | 3101                                    | 1295  |
|           | G15   | 20310.38       | 3003.51  | 1254   | 2801                                    | 1170  |
|           | G4    | 730.98         | 6101.00  | 5677   | 6101                                    | 5677  |
|           | G6    | 3249.24        | 5601.04  | 4946   | 5501                                    | 4800  |
|           | G7    | 12415.27       | 5290.59  | 4494   | 5201                                    | 4363  |
|           | G8    | 106028.39      | 4989.28  | 4091   | 4901                                    | 3994  |
| BCCL      | G9    | 62157.27       | 4746.76  | 3824   | 4601                                    | 3664  |
| BOOL      | G10   | 14294.33       | 4441.60  | 3489   | 4301                                    | 3312  |
|           | W-II  | 1711.00        | 5201.00  | 4363   |   | 4363  |
|           | W-III | 100454.30      | 4966.57  | 4066   |   | 4066  |
|           | W-IV  | 378838.16      | 4830.30  | 3916   |   | 3916  |
|           | G7    | 3043.15        | 5374.96  | 4617   | 5201                                    | 4363  |
|           | G8    | 24528.20       | 5017.32  | 4121   | 4901                                    | 3994  |
|           | G9    | 16485.96       | 4738.12  | 3815   | 4601                                    | 3664  |
|           | G10   | 69929.40       | 4474.04  | 3525   | 4301                                    | 3312  |
| CCL       | G11   | 871.00         | 4200.00  | 3101   | 4001                                    | 2684  |
|           | G14   | 1295.99        | 3101.00  | 1295   | 3101                                    | 1295  |
|           | W-III | 20402.61       | 4901.00  | 3994   |   | 3994  |
|           | W-IV  | 20514.90       | 4779.30  | 3860   |   | 3860  |
|           | G11   | 22721.48       | 4104.18  | 2900   | 4001                                    | 2684  |
|           | G12   | 239459.89      | 3894.19  | 2461   | 3701                                    | 2160  |
|           | G13   | 34539.75       | 3565.93  | 1963   | 3401                                    | 1721  |
| MSTC      | G14   | 15707.09       | 3252.19  | 1504   | 3101                                    | 1295  |
|           | G15   | 7854.84        | 3059.06  | 1277   | 2801                                    | 1170  |
|           | G16   | 7415.94        | 2631.38  | 1099   | 2501                                    | 1044  |
|           | G17   | 3767.16        | 2422.00  | 1011   | 2201                                    | 919   |
|           | G6    | 25186.63       | 5573   | 5573   | 5573                                    | 5573  |
| IMPORTED/ | G7    | 9282.96        | 5382   | 5382   | 5382                                    | 5382  |
| WASHED    | G10   | 22838.34       | 4317   | 4317   | 4317                                    | 4317  |
|           | G11   | 724463.91      | 4225   | 4225   | 4225                                    | 4225  |
|           |       | ighted Average | 4292.22  | 3318.62  |   | 3165.12   |





# Order on FPPCA and APR of WBPDCL for FY 2018-19

| Source            | Grade | Quantity  | Gross calorific Value (GCV) claimed by the Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|-------------------|-------|-----------|---|--|---|---|
|                   |       | MT        |   | kCal/  | kg                                      |   |
|                   | G4    | 7215.30   | 6250.00   | 5898   | 6101                                    | 5677  |
|                   | G7    | 32814.80  | 5334.11   | 4557   | 5201                                    | 4363  |
|                   | G8    | 15273.30  | 5010.10   | 4113   | 4901                                    | 3994  |
|                   | G9    | 7235.20   | 4822.99   | 3908   | 4601                                    | 3664  |
| I Have the second | G10   | 32931.40  | 4396.52   | 3440   | 4301                                    | 3312  |
|                   | G11   | 60353.95  | 4210.17   | 3122   | 4001                                    | 2684  |
| DIVERTED          | G12   | 14597.10  | 3811.02   | 2321   | 3701                                    | 1546  |
|                   | G13   | 10831.72  | 3448.73   | 1791   | 3401                                    | 1420  |
|                   | G14   | 18026.79  | 3295.76   | 1567   | 3101                                    | 1295  |
|                   | G15   | 3741.50   | 2936.00   | 1226   | 2801                                    | 1170  |
|                   | W-III | 3584.30   | 4901.00   | 3994   |   | 3994  |
|                   | W-IV  | 11140.20  | 4890.62   | 3982   |   | 3982  |
|                   |       |           |   | 3351.08  |   | 3063.52   |
|                   |       | D AVERAGE | 4299.75   | 3320.32  |   | 3159.79   |





# COMPUTATION OF HEAT VALUE OF COAL FOR BAKRESWAR THERMAL POWER STATION FOR FY 2018-19

| Source             | Grade    | Quantity  | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|--------------------|----------|-----------|--|--|---|---|
|                    |          | MT        |  | kCal   | / kg                                    |   |
|                    | G2       | 464.77    | 6710.00  | 6446   | 6701                                    | 6437  |
|                    | G3       | 21172.59  | 6488.40  | 6233   | 6401                                    | 6121  |
|                    | G4       | 558848.86 | 6241.87  | 5886   | 6101                                    | 5677  |
|                    | G5       | 632754.34 | 6005.81  | 5537   | 5801                                    | 5238  |
|                    | G6       | 334746.94 | 5642.93  | 5007   | 5501                                    | 4800  |
|                    | G7       | 658197.06 | 5408.05  | 4665   | 5201                                    | 4363  |
|                    | G8       | 408860.84 | 5096.35  | 4211   | 4901                                    | 3994  |
| ECL                | G9       | 144639.50 | 4779.37  | 3860   | 4601                                    | 3664  |
|                    | G10      | 87600.54  | 4477.73  | 3529   | 4301                                    | 3312  |
|                    | G11      | 23303.81  | 4176.76  | 3052   | 4001                                    | 2684  |
| DAME OF THE STREET | G12      | 16769.56  | 3831.26  | 2351   | 3701                                    | 2160  |
|                    | G13      | 6893.67   | 3588.60  | 1996   | 3401                                    | 1721  |
|                    | G14      | 13485.04  | 3301.25  | 1575   | 3101                                    | 1295  |
|                    | G15      | 12669.53  | 2928.00  | 1223   | 2801                                    | 1170  |
| -                  | G16      | 1903.42   | 2530.00  | 1057   | 2501                                    | 1044  |
|                    | G8       | 3506.40   | 4965.00  | 4064   | 4901                                    | 3994  |
|                    | G9       | 3387.76   | 4628.00  | 3694   | 4601                                    | 3664  |
|                    | G10      | 14178.88  | 4367.74  | 3408   | 4301                                    | 3312  |
|                    | G11      | 39005.40  | 4154.13  | 3005   | 4001                                    | 2684  |
|                    | G12      | 46904.56  | 3868.09  | 2406   | 3701                                    | 2160  |
| MCL                | G13      | 74953.07  | 3577.63  | 1980   | 3401                                    | 1721  |
|                    | G14      | 81011.45  | 3305.15  | 1581   | 3101                                    | 1295  |
|                    | G15      | 37645.68  | 2904.87  | 1213   | 2801                                    | 1170  |
|                    | G16      | 29913.97  | 2696.48  | 1126   | 2501                                    | 1044  |
|                    | G17      | 14724.80  | 2297.54  | 959  | 2201                                    | 919   |
|                    | G6       | 2535.72   | 5765.54  | 5186   | 5501                                    | 4800  |
| No. at the         | G6<br>G7 | 893.16    | 5218.36  | 4388   | 5201                                    | 4363  |
|                    | G8       | 5087.05   | 5188.03  | 4344   | 4901                                    | 3994  |
|                    | G9       | 11172.41  | 4819.16  | 3904   | 4601                                    | 3664  |
|                    | G10      | 9042.21   | 4503.70  | 3557   | 4301                                    | 3312  |
| BCCL               | G11      | 5108.86   | 4154.63  | 3006   | 4001                                    | 2684  |
| BUUL               | G12      | 7409.98   | 3882.62  | 2437   | 3701                                    | 2160  |
|                    | G13      | 4060.35   | 3570.01  | 1968   | 3401                                    | 1721  |
|                    | G14      | 1739.71   | 3320.00  | 1603   | 3101                                    | 1295  |
|                    | W-III    | 987.63    | 5189.00  | 4346   |   | 4346  |
|                    | W-IV     | 48583.71  | 4877.93  | 3968   |   | 3968  |
|                    | G6       | 10956.96  | 5587.28  | 4926   | 5501                                    | 4800  |
|                    | G7       | 11093.67  | 5405.37  | 4661   | 5201                                    | 4363  |
| CCL                | G8       | 3861.15   | 5190.00  | 4347   | 4901                                    | 3994  |
| CCL                | G10      | 42592.37  | 4586.40  | 3648   | 4301                                    | 3312  |
|                    | W-IV     | 3633.06   | 4888.00  | 3979   |   | 3979  |
|                    | G6       | 2879.89   | 5509   | 5509   | 5509                                    | 5509  |
| IMPORTED/          | G7       | 2861.97   | 5342   | 5342   | 5342                                    | 5342  |
| WASHED             | G8       | 229.32    |  | 5167   | 5167                                    | 5167  |





# Order on FPPCA and APR of WBPDCL for FY 2018-19

|   | Source                          | Grade | Quantity       | Gross calorific Value (GCV) claimed by the Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal   | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|---|---------------------------------|-------|----------------|---|--|---|---|
|   | <b>*</b>                        |       | MT             |   | kCal   | calculated as Regulation 5.8.15         Minimum GCV of each grade of coal         5.8. minimum GCV of each grade of coal           kCal/ kg           4331         4331         4229           4045         4901         3747         4601           3521         4301         2961         4001           2378         3701         1932         3401           1667         3101         1246         2801           1143         2501         2501 |   |
|   |                                 | G10   | 2627.50        | 4331  | 4331   | 4331  | 4331  |
|   |                                 | G11   | 94105.91       | 4229  | 4229   |   | 4229  |
|   |                                 | G8    | 3903.26        | 4948.00   | 4045   | 4901  | 3994  |
|   |                                 | G9    | 3726.63        | 4676.00   | 3747   | 4601  | 3664  |
|   |                                 | G10   | 3598.90        | 4471.00   | 3521   | 4301  | 3312  |
|   |                                 | G11   | 106433.88      | 4133.41   | 2961   | 4001  | 2684  |
|   | MSTC/                           | G12   | 128128.36      | 3850.20   | 2378   | 3701  | 2160  |
|   | WBMDTCL                         | G13   | 79757.68       | 3545.29   | 1932   | 3401  | 1721  |
|   |                                 | G14   | 35304.43       | 3363.60   | 1667   | 3101  | 1295  |
|   |                                 | G15   | 11047.60       | 2984.06   | 1246   | 2801  | 1170  |
|   |                                 | G16   | 3751.47        | 2738.00   | 1143   | 2501  | 1044  |
| Α |                                 | Wei   | ghted Average  | 5158.87   | 4364.36  |   | 4127.72   |
| В | CAPTIVE<br>BARJORA<br>COAL MINE |       | 146576.75      | 5313.48   | 4527   | 5313.48   | 4527  |
|   |                                 | G4    | 7309.20        | 6387.54   | 6102   | 6101  | 5677  |
|   |                                 | G5    | 10198.70       | 6087.56   | 5657   | 5801  | 5238  |
|   |                                 | G6    | 6877.80        | 5790.00   | 5222   | 5501  | 4800  |
|   |                                 | G7    | 10195.30       | 5487.91   | 4781   | 5201  | 4363  |
|   | DIVERTED                        | G8    | 67.59          | 5185.00   | 4340   | 4901  | 3994  |
|   |                                 | G11   | 7302.60        | 4284.99   | 3278   | 4001  | 2684  |
|   |                                 | G12   | 3568.40        | 3988.00   | 2657   | 3701  | 1546  |
|   |                                 | G13   | 3627.80        | 3690.00   | 2144   | 3401  | 1420  |
|   |                                 | G14   | 3337.30        | 3389.00   | 1704   | 3101  | 1295  |
| С |                                 |       | ighted Average | 5241.83   | 4460.96  |   | 3949.25   |
| D |                                 |       | D AVERAGE      | 5165.44   | /371 30  |   | 4139.67   |

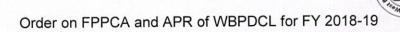




# COMPUTATION OF HEAT VALUE OF COAL FOR BANDEL THERMAL POWER STATION FOR FY 2018-19

| Source      | Grade | Quantity        | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|-------------|-------|-----------------|--|--|---|---|
|             |       | MT              |  | kCal   |   |   |
|             | G3    | 1454.79         | 6410.00  | 6135   | 6401                                    | 6121  |
|             | G4    | 143189.08       | 6119.23  | 5704   | 6101                                    | 5677  |
|             | G5    | 47951.87        | 5812.92  | 5255   | 5801                                    | 5238  |
|             | G6    | 43162.54        | 5530.17  | 4843   | 5501                                    | 4800  |
|             | - G7  | 29102.77        | 5246.14  | 4429   | 5201                                    | 4363  |
| ECL         | G8    | 6269.73         | 4996.09  | 4098   | 4901                                    | 3994  |
|             | G9    | 7809.37         | 4712.65  | 3787   | 4601                                    | 3664  |
|             | G10   | 17940.45        | 4478.57  | 3530   | 4301                                    | 3312  |
|             | G11   | 8973.91         | 4147.22  | 2990   | 4001                                    | 2684  |
|             | G12   | 12815.57        | 3895.78  | 2464   | 3701                                    | 2160  |
|             | G13   | 4523.60         | 3572.47  | 1972   | 3401                                    | 1721  |
| The same    | G9    | 3569.73         | 4889.00  | 3980   | 4601                                    | 3664  |
| MCL         | G10   | 3890.96         | 4392.00  | 3435   | 4301                                    | 3312  |
|             | G12   | 10543.75        | 3905.95  | 2486   | 3701                                    | 2160  |
|             | G13   | 17298.49        | 3518.84  | 1894   | 3401                                    | 1721  |
| WICL        | G14   | 7189.42         | 3294.94  | 1566   | 3101                                    | 1295  |
|             | G15   | 2877.27         | 2942.00  | 1229   | 2801                                    | 1170  |
|             | G16   | 13009.91        | 2682.00  | 1120   | 2501                                    | 1044  |
|             | G5    | 1374.90         | 5810.00  | 5251   | 5801                                    | 5238  |
|             | G6    | 1529.35         | 5680.00  | 5061   | 5501                                    | 4800  |
|             | G7    | 2696.82         | 5306.09  | 4516   | 5201                                    | 4363  |
|             | G8    | 6854.79         | 5033.04  | 4139   | 4901                                    | 3994  |
|             | G9    | 10479.26        | 4703.06  | 3776   | 4601                                    | 3664  |
|             | G10   | 6995.00         | 4392.29  | 3435   | 4301                                    | 3312  |
| BCCL        | G11   | 25049.41        | 4155.80  | 3008   | 4001                                    | 2684  |
|             | G12   | 21228.88        | 3766.87  | 2256   | 3701                                    | 2160  |
|             | G13   | 16334.69        | 3575.39  | 1976   | 3401                                    | 1721  |
|             | G14   | 6342.57         | 3304.38  | 1580   | 3101                                    | 1295  |
|             | G15   | 10226.04        | 2980.00  | 1244   | 2801                                    | 1170  |
|             | G16   | 7033.42         | 2613.75  | 1092   | 2501                                    | 1044  |
| WASHED      | G11   | 177344.64       | 4346.12  | 4346   | 4346                                    | 4346  |
| WASHED      | G10   | 11555.70        | 4465.98  | 3516   | 4301                                    | 3312  |
|             | G10   | 26816.48        | 4083.21  | 2856   | 4001                                    | 2684  |
|             | G12   | 70459.23        | 3868.82  | 2408   | 3701                                    | 2160  |
| MSTC        | G13   | 48304.34        | 3590.26  | 1998   | 3401                                    | 1721  |
|             | G13   | 4028.56         | 3115.00  | 1303   | 3101                                    | 1295  |
|             | G15   | 7326.00         | 3091.23  | 1291   | 2801                                    | 1170  |
|             | G10   | 11601.51        | 4410.91  | 3455   | 4301                                    | 3312  |
|             | G10   | 45811.42        | 4159.40  | 3016   | 4001                                    | 2684  |
| WBMDTCL     | G12   | 84947.97        | 3847.39  | 2374   | 3701                                    | 2160  |
| WDIVID I GL | G12   | 48541.71        | 3555.91  | 1948   | 3401                                    | 1721  |
|             | G13   | 22525.41        | 3339.87  | 1632   | 3101                                    | 1295  |
|             |       | eighted Average | 4445.03  | 3503.01  |   | 3364.58   |





|       | Source   | Grade | Quantity       | Gross calorific Value (GCV) claimed by the Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|-------|----------|-------|----------------|---|--|---|---|
|       |          |       | MT             |   | kCal   | 'kg                                     |   |
|       |          | G7    | 3831.36        | 5258.00   | 4446   | 4601                                    | 3664  |
|       |          | G11   | 15287.09       | 4226.78   | 3157   | 4001                                    | 2684  |
|       |          | G13   | 3265.90        | 3518.00   | 1892   | 3401                                    | 1420  |
|       | DIVERTED | G14   | 3849.08        | 3299.00   | 1572   | 3101                                    | 1295  |
| 1 1 1 |          | G15   | 21690.09       | 2989.00   | 1248   | 2801                                    | 1170  |
|       |          | G16   | 36527.33       | 2742.92   | 1145   | 2501                                    | 1044  |
|       |          | G17   | 18643.91       | 2351.00   | 982  | 2201                                    | 919   |
| В     |          |       | ighted Average | 3082.63   | 1597.96  |   | 1409.93   |
| С     |          |       | D AVERAGE      | 4323.95   | 3333.71  |   | 3190.87   |

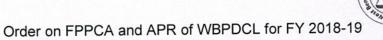




# COMPUTATION OF HEAT VALUE OF COAL FOR SANTALDIH THERMAL POWER STATION FOR FY 2018-19

| Source      | Grade    | Quantity       | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|-------------|----------|----------------|--|--|---|---|
|             |          | MT             |  | kCal   | / kg                                    |   |
|             | G5       | 5935.41        | 5908.36  | 5395   | 5801                                    | 5238  |
|             | G6       | 32404.85       | 5655.29  | 5025   | 5501                                    | 4800  |
|             | G7       | 85215.04       | 5186.56  | 4342   | 5201                                    | 4363  |
|             | G8       | 313434.56      | 4854.86  | 3943   | 4901                                    | 3994  |
|             | G9       | 275199.52      | 4742.13  | 3819   | 4601                                    | 3664  |
|             | G10      | 234236.98      | 4451.44  | 3500   | 4301                                    | 3312  |
|             | G11      | 163591.28      | 4153.89  | 3004   | 4001                                    | 2684  |
|             | G12      | 94729.54       | 3888.27  | 2449   | 3701                                    | 2160  |
|             | G13      | 72710.98       | 3582.97  | 1987   | 3401                                    | 1721  |
| BCCL        | G14      | 19630.32       | 3278.79  | 1543   | 3101                                    | 1295  |
|             | G15      | 10698.02       | 2966.89  | 1239   | 2801                                    | 1170  |
|             | G16      | 1977.88        | 2669.89  | 1115   | 2501                                    | 1044  |
|             | G17      | 813.26         | 2430.00  | 1015   | 2201                                    | 919   |
|             | W-I      | 3002.71        | 6439.74  | 6179   |   | 6179  |
|             | W-II     | 24273.08       | 4945.51  | 4042   |   | 4042  |
|             | W-III    | 522700.65      | 4610.22  | 3674   |   | 3674  |
|             | W-IV     | 451462.64      | 4858.67  | 3947   |   | 3947  |
|             |          | 3443.72        | 1884.43  | 787  |   | 787   |
|             | No Grade | 2345.16        | 5890.00  | 5368   | 5801                                    | 5238  |
|             | G5       | 950.72         | 5610.00  | 4959   | 5501                                    | 4800  |
|             | G6       | 5524.44        | 5363.87  | 4600   | 5201                                    | 4363  |
| CCL         | G7       |                | 5039.65  | 4146   | 4901                                    | 3994  |
|             | G8       | 8706.09        | 4726.83  | 3802   | 4601                                    | 3664  |
|             | G9       | 4386.45        | 4543.96  | 3602   | 4301                                    | 3312  |
|             | G10      | 9807.67        | 5995.00  | 5521   | 5801                                    | 5238  |
|             | G5       | 3416.01        | 5659.00  | 5031   | 5501                                    | 4800  |
|             | G6       | 3445.01        | 5371.28  | 4611   | 5201                                    | 4363  |
|             | G7       | 17725.96       | 5005.25  | 4108   | 4901                                    | 3994  |
|             | G8       | 31209.75       | 4744.79  | 3822   | 4601                                    | 3664  |
| BCCL - E -  | G9       | 6540.85        | 4426.82  | 3473   | 4301                                    | 3312  |
| AUCTION     | G10      | 10295.63       | 4143.75  | 2983   | 4001                                    | 2684  |
|             | G11      | 14178.87       | 3872.41  | 2415   | 3701                                    | 2160  |
|             | G12      | 17800.65       | 5956.00  | 5464   | 0,01                                    | 5464  |
|             | W-III    | 3340.64        | 5614.06  | 4965   |   | 4965  |
|             | W-IV     | 14456.54       | 5679   | 5679   | 5679                                    | 5679  |
| MSTC IMPORT | G6       | 16452.79       | 4346.00  | 3384   | 4301                                    | 3312  |
|             | G10      | 3552.01        | 4116.64  | 2926   | 4001                                    | 2684  |
| MSTC        | G11      | 7153.19        | 3858.63  | 2391   | 3701                                    | 2160  |
| INDIGENEOUS | G12      | 72545.13       | 3622.41  | 2045   | 3401                                    | 1721  |
|             | G13      | 27930.91       |  | 3610.75  | 0401                                    | 3519.28   |
|             |          | ighted Average | 4606.74  | 2971   | 4001                                    | 2684  |
|             | G11      | 3426.91        | 4138.00  | 2463   | 3701                                    | 2160  |
| DIVERTED    | G12      | 3202.92        | 3895.00  | 1988   | 3401                                    | 1420  |
| DIVERTED    | G13      | 9812.07        | 3583.47  |  | 3101                                    | 1295  |
|             | G14      | 6919.89        | 3287.41  | 1555   | 3101                                    | 1200  |





|   | Source           | Grade | Quantity       | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|---|------------------|-------|----------------|--|--|---|---|
|   |                  |       | MT             |  | kCal   | / kg                                    |   |
|   |                  | G15   | 3423.19        | 2912.43  | 1216   | 2801                                    | 1170  |
| B |                  |       | ighted Average | 3529.42  | 1960.14  |   | 1606.09   |
| С | WEIGHTED AVERAGE |       |                |  | 3593.90  |   | 3499.75   |





### COMPUTATION OF HEAT VALUE OF COAL FOR SAGARDIGHI THERMAL POWER STATION STAGE-I FOR FY 2018-19

|   | Source    | Grade | Quantity       | Gross calorific Value (GCV) claimed by the Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg<br>5.8.1 (i) considering<br>minimum GCV of each<br>grade of coal |
|---|-----------|-------|----------------|---|--|---|---|
|   |           |       | MT             |   | kCal   |   |   |
|   |           | G3    | 12496.00       | 6444.00   | 6185   | 6401                                    | 6121  |
|   |           | G4    | 135326.95      | 6239.00   | 5881   | 6101                                    | 5677  |
|   |           | G5    | 98568.65       | 5961.00   | 5472   | 5801                                    | 5238  |
|   |           | G6    | 80905.38       | 5633.00   | 4993   | 5501                                    | 4800  |
|   |           | G7    | 134459.95      | 5333.00   | 4555   | 5201                                    | 4363  |
|   |           | G8    | 95889.58       | 5073.00   | 4182   | 4901                                    | 3994  |
|   | F01       | G9    | 67864.30       | 4758.00   | 3837   | 4601                                    | 3664  |
|   | ECL       | G10   | 20106.52       | 4470.00   | 3520   | 4301                                    | 3312  |
|   |           | G11   | 4993.10        | 4192.00   | 3084   | 4001                                    | 2684  |
|   |           | G12   | 4524.20        | 3823.00   | 2339   | 3701                                    | 2160  |
|   |           | G13   | 16305.55       | 3479.00   | 1835   | 3401                                    | 1721  |
|   |           | G14   | 10824.65       | 3249.00   | 1499   | 3101                                    | 1295  |
|   |           | G15   | 4561.60        | 2988.00   | 1248   | 2801                                    | 1170  |
|   |           | G16   | 3052.18        | 2702.00   | 1128   | 2501                                    | 1044  |
|   |           | G4    | 22362.53       | 6162.00   | 5767   | 6101                                    | 5677  |
|   |           | G5    | 113977.69      | 5861.00   | 5325   | 5801                                    | 5238  |
|   |           | G6    | 166438.61      | 5562.00   | 4889   | 5501                                    | 4800  |
|   |           | G7    | 113859.69      | 5261.00   | 4451   | 5201                                    | 4363  |
|   | ECL - E-  | G8    | 100405.15      | 4954.00   | 4052   | 4901                                    | 3994  |
|   | AUCTION   | G9    | 41287.94       | 4676.00   | 3747   | 4601                                    | 3664  |
|   | 710011011 | G10   | 14000.05       | 4386.00   | 3428   | 4301                                    | 3312  |
|   |           | G11   | 3259.65        | 4066.00   | 2820   | 4001                                    | 2684  |
|   |           | G12   | 3558.66        | 3776.00   | 2270   | 3701                                    | 2160  |
|   |           | G13   | 3484.25        | 3470.00   | 1822   | 3401                                    | 1721  |
| - | BCCL      | G7    | 3939.50        | 5365.00   | 4602   | 5201                                    | 4363  |
|   | DOOL      | G8    | 3603.33        | 5172.00   | 4321   | 4901                                    | 3994  |
|   |           | G9    | 7127.90        | 4655.00   | 3723   | 4601                                    | 3664  |
|   |           | G10   | 13103.28       | 4440.00   | 3487   | 4301                                    | 3312  |
|   | MSTC/     | G11   | 46257.11       | 4140.00   | 2975   | 4001                                    | 2684  |
|   | WBMDTCL   | G12   | 28413.87       | 3828.00   | 2346   | 3701                                    | 2160  |
|   | WEINDTOL  | G13   | 15634.13       | 3490.00   | 1851   | 3401                                    | 1721  |
|   |           | G14   | 7543.96        | 3253.00   | 1505   | 3101                                    | 1295  |
|   |           | G15   | 3841.44        | 3014.00   | 1259   | 2801                                    | 1170  |
|   |           | G5    | 16145.91       | 5954.00   | 5954   | 5801                                    | 5954  |
|   |           | G6    | 12882.49       | 5689.00   | 5689   | 5501                                    | 5689  |
|   | IMPORTED  | G7    | 1043.80        | 5450.00   | 5450   | 5201                                    | 5450  |
|   |           | G8    | 3206.88        | 5009.00   | 5009   | 4901                                    | 5009  |
| Α |           |       | ighted Average | 5274.96   | 4513.83  |   | 4367.01   |
| В | DIVERTED  | G6    | 3332.60        | 5774.00   | 5198   | 4001                                    | 2684.44   |
| C | DIVERTED  |       | D AVERAGE      | 5276.12   | 4515.42  |   | 4363.11   |

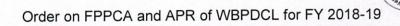




# COMPUTATION OF HEAT VALUE OF COAL FOR SAGARDIGHI THERMAL POWER STATION STAGE – II FOR FY 2018-19

| Source           | Grade | Quantity  | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg 5.8.1<br>(i) considering minimum<br>GCV of each grade of<br>coal |  |  |  |
|------------------|-------|-----------|--|--|---|---|--|--|--|
|                  |       | MT        |  | kCal/ kg   |   |   |  |  |  |
|                  | G3    | 2451.05   | 6441.00  | 6181   | 6401                                    | 6121  |  |  |  |
|                  | G4    | 144201.00 | 6223.00  | 5858   | 6101                                    | 5677  |  |  |  |
|                  | G5    | 89202.18  | 5958.00  | 5467   | 5801                                    | 5238  |  |  |  |
|                  | G6    | 98959.94  | 5599.00  | 4943   | 5501                                    | 4800  |  |  |  |
|                  | G7    | 116345.59 | 5318.00  | 4534   | 5201                                    | 4363  |  |  |  |
|                  | G8    | 118793.38 | 5010.00  | 4113   | 4901                                    | 3994  |  |  |  |
|                  | G9    | 50516.84  | 4714.00  | 3788   | 4601                                    | 3664  |  |  |  |
| ECL              | G10   | 29817.58  | 4396.00  | 3439   | 4301                                    | 3312  |  |  |  |
|                  | G11   | 15549.42  | 4149.00  | 2994   | 4001                                    | 2684  |  |  |  |
|                  | G12   | 1250.30   | 3760.00  | 2246   | 3701                                    | 2160  |  |  |  |
|                  | G13   | 8730.08   | 3548.00  | 1936   | 3401                                    | 1721  |  |  |  |
|                  | G14   | 2233.36   | 3255.00  | 1508   | 3101                                    | 1295  |  |  |  |
|                  | G15   | 14818.97  | 2928.00  | 1223   | 2801                                    | 1170  |  |  |  |
|                  | G16   | 9071.91   | 2603.00  | 1087   | 2501                                    | 1044  |  |  |  |
|                  | G4    | 3488.86   | 6109.00  | 5689   | 6101                                    | 5677  |  |  |  |
|                  | G5    | 3606.13   | 5825.00  | 5273   | 5801                                    | 5238  |  |  |  |
|                  | G6    | 7523.63   | 5514.00  | 4819   | 5501                                    | 4800  |  |  |  |
| CCL              | G7    | 11063.45  | 5243.00  | 4424   | 5201                                    | 4363  |  |  |  |
|                  | G8    | 7399.10   | 4319.00  | 3350   | 4901                                    | 3994  |  |  |  |
|                  | G9    | 3966.14   | 3702.00  | 2162   | 4601                                    | 3664  |  |  |  |
|                  | G6    | 6092.40   | 5613.00  | 4963   | 5501                                    | 4800  |  |  |  |
|                  | G7    | 10982.46  | 5204.00  | 4368   | 5201                                    | 4363  |  |  |  |
|                  | G8    | 5153.66   | 5020.00  | 4124   | 4901                                    | 3994  |  |  |  |
|                  | G9    | 6013.88   | 4627.00  | 3693   | 4601                                    | 3664  |  |  |  |
| BCCL             | G10   | 15364.41  | 4310.00  | 3331   | 4301                                    | 3312  |  |  |  |
|                  | G10   | 8553.62   | 4092.00  | 2875   | 4001                                    | 2684  |  |  |  |
|                  | G12   | 3235.66   | 3940.00  | 2557   | 3701                                    | 2160  |  |  |  |
|                  | G12   | 3530.00   | 3407.00  | 1730   | 3401                                    | 1721  |  |  |  |
|                  | G13   | 548330.80 | 6103.00  | 5680   | 6101                                    | 5677  |  |  |  |
|                  | G5    | 1079.96   | 5691.00  | 5077   | 5801                                    | 5238  |  |  |  |
| E-AUCTION        | G6    | 1289.43   | 5262.00  | 4452   | 5501                                    | 4800  |  |  |  |
| ECL              | G7    | 2342.21   | 4952.00  | 4050   | 5201                                    | 4363  |  |  |  |
|                  | G8    | 2323.65   | 4633.00  | 3699   | 4901                                    | 3994  |  |  |  |
|                  | G7    | 3411.78   | 5300.00  | 4507   | 5201                                    | 4363  |  |  |  |
|                  | G9    | 45853.73  | 4687.00  | 3759   | 4601                                    | 3664  |  |  |  |
|                  | G10   | 143484.90 | 4418.00  | 3463   | 4301                                    | 3312  |  |  |  |
| MOTO             | G10   | 187293.09 | 4139.00  | 2973   | 4001                                    | 2684  |  |  |  |
| MSTC/<br>WBMDTCL | G12   | 175349.53 | 3883.00  | 2438   | 3701                                    | 2160  |  |  |  |
| VVDIVID I CL     | G13   | 99140.78  | 3540.00  | 1925   | 3401                                    | 1721  |  |  |  |
|                  | G14   | 38476.65  | 3307.00  | 1584   | 3101                                    | 1295  |  |  |  |
|                  | G15   | 11485.90  | 3001.00  | 1253   | 2801                                    | 1170  |  |  |  |
|                  | G13   | 2796.89   | 6231   | 6231   | 6231                                    | 6231  |  |  |  |
| IMPORTED         | G5    | 12173.49  |  | 5913   | 5913                                    | 5913  |  |  |  |
| IMPORTED         | G6    | 8776.38   |  | 5626   | 5626                                    | 5626  |  |  |  |





|       | Source                          | Grade | Quantity       | Gross calorific<br>Value (GCV)<br>claimed by the<br>Generating Station | Useful heat value<br>(UHV) calculated as<br>per Regulation<br>5.8.15 | Minimum GCV<br>of each grade<br>of coal | 'X' value as per reg 5.8.1 (i) considering minimum GCV of each grade of coal |  |  |
|-------|---------------------------------|-------|----------------|--|--|---|--|--|--|
|       |                                 |       | MT             | kCal/ kg   |  |   |  |  |  |
|       |                                 | G7    | 2087.59        | 5450   | 5450   | 5450                                    | 5450   |  |  |
| Α     | W. J. L. J. A                   |       | 5079.32        | 4243.87  |  | 4114.39                                 |  |  |  |
| В     | CAPTIVE<br>BARJORA<br>COAL MINE |       | 168455.80      | 5313.48  | 4527   | 5313.48                                 | 4527   |  |  |
| 77    | DIVERTED                        | G5    | 3507.40        | 5854.00  | 5315   | 5801                                    | 5238   |  |  |
|       |                                 | G8    | 3534.20        | 5150.00  | 4289   | 4901                                    | 3994   |  |  |
| 16.0  |                                 | G9    | 3933.40        | 4642.00  | 3709   | 4601                                    | 3664   |  |  |
|       |                                 | G11   | 3662.88        | 4233.00  | 3170   | 4001                                    | 2684   |  |  |
| 4 - 1 |                                 | G12   | 3584.60        | 3895.00  | 2463   | 3701                                    | 2160   |  |  |
|       |                                 | G13   | 7860.97        | 3683.00  | 2134   | 3401                                    | 1721   |  |  |
|       |                                 | G14   | 3783.10        | 3359.00  | 1660   | 3101                                    | 1295   |  |  |
|       |                                 | G15   | 3735.00        | 3028.00  | 1265   | 2801                                    | 1170   |  |  |
| С     |                                 |       | ighted Average | 4149.46  | 2874.99  |   | 2597.28  |  |  |
| D     | WEIGHTED AVERAGE                |       |                |  | 4244.61  |   | 4122.50  |  |  |



### ANNEXURE - 3

# **COMPUTATION OF LANDED PRICE OF COAL DURING FY 2018-19**

| Particulars   | Unit        | Derivatives | KTPS       | BkTPS      | BTPS       | STPS       | SgTPS - I  | SgTPS - II |
|---|-------------|-------------|------------|------------|------------|------------|------------|------------|
| Net Coal Received (excluding captive)                         | MT          | А           | 4151008.52 | 3978597.89 | 1159625.64 | 2610781.89 | 1434571.38 | 2110005.51 |
| Net Amount Paid (excluding captive)                           | Rs.<br>Lakh | В           | 114748.80  | 155239.68  | 46135.66   | 92446.74   | 83976.82   | 113080.16  |
| Quantity of Coal<br>Received from Captive<br>Source           | МТ          | С           | 0          | 146576.75  | 0          | 0          | 0          | 168455.80  |
| Amount paid for captive coal @ input price of Rs. 2515.18/ton | Rs.<br>Lakh | D           | 0          | 3686.67    | 0          | 0          | 0          | 4236.97    |
| Total coal received during the year                           | МТ          | E =A+C      | 4151008.52 | 4125174.64 | 1159625.64 | 2610781.89 | 1434571.38 | 2278461.31 |
| Total amount paid for coal                                    | Rs.<br>Lakh | F=B+D       | 114748.80  | 158926.35  | 46135.66   | 92446.74   | 83976.82   | 117317.13  |
| Total Freight Charge  | Rs.<br>Lakh | G           | 44377.29   | 15705.04   | 8371.23    | 6494.35    | 7404.10    | 9241.07    |
| Total landed cost of coal received                            | Rs. lakh    | H=F+G       | 158839.92  | 174568.01  | 54289.04   | 98941.09   | 91380.92   | 126558.20  |
| Average landed price of coal received                         | Rs. / MT    | I=H*10^5/E  | 3833.43    | 4233.31    | 4700.39    | 3789.71    | 6369.91    | 5554.55    |



### ANNEXURE - 4

## COMPUTATION OF PRICE AND HEAT VALUE OF COAL CONSUMED DURING FY 2018-19

| Particulars Derivatives       |                       | KTPS       | BkTPS       | BTPS       | STPS       | SgTPS - I  | SgTPS - II |
|-------------------------------|-----------------------|------------|-------------|------------|------------|------------|------------|
|                               |                       | Stock (    | Quantum (ii | n MT)      |            |            |            |
| Opening Stock                 | Α                     | 1481.88    | 148782.00   | 28274.73   | 38066.45   | 3000.00    | 12990.99   |
| Coal received during the year | В                     | 4151008.52 | 4125174.64  | 1159625.64 | 2610781.89 | 1434571.38 | 2278461.31 |
| Coal consumed                 | С                     | 3876851.50 | 4162942.15  | 1107460.99 | 2493665.53 | 1437352.69 | 2170239.30 |
| Closing stock                 | D = A+B-C             | 275638.90  | 111014.49   | 80439.38   | 155182.81  | 218.69     | 121213.00  |
|                               |                       | Stock p    | rice (in Rs | . /MT)     |            |            |            |
| Price of opening stock        | Е                     | 3429.92    | 4140.57     | 4220.23    | 3880.84    | 4467.05    | 4531.36    |
| Price of coal received        | F                     | 3833.43    | 4233.31     | 4700.39    | 3789.71    | 6369.91    | 5554.55    |
| Price of coal consumed        | G=(A*E+B*F)/(A+B)     | 3833.29    | 4230.08     | 4688.96    | 3791.02    | 6365.94    | 5548.75    |
| Price of Closing Stock        | H=(A*E+B*F)/<br>(A+B) | 3833.29    | 4230.08     | 4688.96    | 3791.02    | 6365.94    | 5548.75    |
|                               |                       | UHV of (   | Coal (in Kc | al/Kg)     |            |            |            |
| Heat value of opening stock * | 1                     | 3478.23    | 4204.49     | 3732.75    | 3934.02    | 4179.07    | 4179.07    |
| Heat value of coal received   | J                     | 3320.32    | 4371.39     | 3333.71    | 3593.90    | 4515.42    | 4244.61    |
| Heat value of coal            | K=((A*I+B*J)/         | 3320.38    | 4365.58     | 3343.21    | 3598.79    | 4514.72    | 4244.24    |
| consumed                      | (A+B))                | 3320.30    |             |            |            |            |            |
| Heat value of Closing         | L=((A*I+B*J)/         | 3320 38    | 4365.58     | 3343.21    | 3598.79    | 4514.72    | 4244.24    |
| Stock                         | (A+B))                | 3320.38    |             |            |            |            |            |



# CHAPTER-3 FIXED COST DETERMINATION UNDER APR

- 3.1. The Fixed Cost elements are analysed as below:
- 3.2. Project Cost of Bakreswar TPS Stage II, Santaldih, Bandel Unit V and Sagardighi TPS Stage I & II Generating Stations

The Commission vide paragraph 4.3.5 and 4.3.6 in the Tariff Order dated 14.07.2021 for 2018 – 19 had decided to withhold the Return on Equity (RoE), Interest on Loan and Depreciation by 5% for the purpose of tariff determination due to non-submission of final project cost for Bakreswar Stage II, Santaldih, Bandel Unit V and Sagardighi TPS Stage I and Stage II generating stations. The Commission decides to continue with the principle of Tariff Order for FY 2018-19 by reducing 5% from the admissible amount of Depreciation, Interest on Borrowings and RoE from such generating stations, except for Santaldih Unit – V, where final project cost has been approved by the Commission.

Subsequently from 2022 onwards, WBPDCL has submitted application for approval of the final project cost of some of the generating stations. The Commission, at this juncture, is in process of scrutinizing the submitted applications. The mode of release of the withheld amount for such plants shall be specified after finalization of the process.

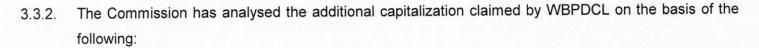
#### 3.3. Additional Capitalization

3.3.1. WBPDCL has claimed an amount of Rs. 46017.26 Lakh as additional capitalization for its generating stations in the APR Petition. The Commission directed WBPDCL to submit the details of the additional capitalisation during FY 2018-19 so that, the same may be verified with respect to the approvals received by WBPDCL from the Commission, if any. In response, WBPDCL submitted the details of additional capitalisation for FY 2018-19 as under:

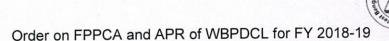
Table 17: Additional Capitalization Claimed for FY 2018-19 (Rs. Lakh)

|               | Claimed        |                           |                                 |                              |          |  |  |  |  |  |
|---------------|----------------|---------------------------|---------------------------------|------------------------------|----------|--|--|--|--|--|
| Plant         | Asset addition | Roof Top Solar<br>Project | Ground Mounted<br>Solar Project | CAPEX under Regulation 5.2.3 | Total    |  |  |  |  |  |
| Kolaghat      | 4115.45        | 1164.17                   | 0.00                            | 78.25                        | 5357.87  |  |  |  |  |  |
| Bakreswar     | 19298.69       | 1466.63                   | 0.00                            | 51.74                        | 20817.06 |  |  |  |  |  |
| Bandel I      | 49.43          | 0.00                      | 0.00                            | 0.95                         | 50.38    |  |  |  |  |  |
| Bandel II     | 577.65         | 557.76                    | 0.00                            | 12.75                        | 1148.16  |  |  |  |  |  |
| Santaldih     | 805.14         | 413.73                    | 0.00                            | 191.37                       | 1410.24  |  |  |  |  |  |
| Sagardighi I  | 8151.13        | 1829.86                   | 4778.95                         | 106.18                       | 14866.12 |  |  |  |  |  |
| Sagardighi II | 2361.88        | 0.00                      | 0.00                            | 5.55                         | 2367.43  |  |  |  |  |  |
| Total         | 35359.37       | 5432.15                   | 4778.95                         | 446.79                       | 46017.26 |  |  |  |  |  |





- Kolaghat TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. ERP by adjusting the grants received. Besides, capital expenditures for assets replaced are allowed only to the extent that those replaced assets are recognized as retired and disclosed in the note pertaining to Fixed Assets. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses.
- Bakreswar TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. Ash Pond and ERP by adjusting the grants received. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses. Other additional capitalizations claimed will be considered at the time of approval of the final project cost.
- Bandel Stage I TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. ERP. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses.





- by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. Bull Dozer, Islanding Scheme and ERP by adjusting the grants received. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses. Other additional capitalizations claimed will be considered at the time of approval of the final project cost.
- V) Santaldih TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. ERP. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses. Other additional capitalizations claimed will be considered at the time of approval of the final project cost.
- Sagardighi Stage I TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii) capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. ERP. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses. Other additional capitalizations claimed will be considered at the time of approval of the final project cost.
- vii) Sagardighi Stage II TPS: The Commission observed that the additional capital expenditure claimed by WBPDCL includes (i) asset replacements (ii) procurement of spares/ furniture (iii)



capital expenditure to improve operating performance (iv) capital expenditure for solar projects and (v) some repair and maintenance nature of jobs. The Commission decides to allow the additional capital expenditure to the extent claimed for safety & environmental requirements and expenditure of some specific nature viz. ERP. The Commission also observed that capital expenditure under regulation 5.2.3 and work falling under repair and maintenance nature shall not be considered as Capital addition and thus the same is considered under Operation and Maintenance Expenses. Other additional capitalizations claimed will be considered at the time of approval of the final project cost.

- viii) Regarding the proposed Ground Mounted Solar Project at Sagardighi Stage I, WBPDCL shall submit separate petition as per the provisions of the relevant regulations.
- 3.3.3. In view of the above, the Additional Capitalisation admitted by the Commission for the purpose of Tariff is summarised below:

Table 18: Additional Capitalization Admitted for FY 2018-19 (Rs. Lakh)

| Plant         | Claimed  | New/<br>Fresh<br>Asset<br>Addition | Replaced asset | Roof-<br>top<br>Solar<br>Project | Asset<br>addition,<br>subject to<br>finalization<br>of project<br>cost | Expenses<br>considered<br>under<br>O&M | Grant<br>adjustment | Total Additional<br>Capitalization<br>Admitted |
|---------------|----------|------------------------------------|----------------|----------------------------------|--|--|---------------------|--|
|               | Α        | B1                                 | B2             | В3                               | B4   | B5                                     | С                   | D = B1+B2+B3-C                                 |
| Kolaghat      | 5357.87  | 3652.96                            | 241.37         | 1164.17                          | 0.00   | 299.37                                 | 1164.17             | 3894.33  |
| Bakreswar     | 20817.06 | 19091.94                           | 0.00           | 1466.63                          | 170.18   | 88.31                                  | 19794.57            | 764.00   |
| Bandel I      | 50.38    | 49.43                              | 0.00           | 0.00                             | 0.00   | 0.95                                   | 0.00                | 49.43  |
| Bandel II     | 1148.16  | 504.16                             | 0.00           | 557.76                           | 60.32  | 25.92                                  | 712.83              | 349.09   |
| Santaldih     | 1410.24  | 379.53                             | 0.00           | 413.73                           | 168.84   | 448.14                                 | 413.73              | 379.53   |
| Sagardighi I  | 14866.12 | 365.51                             | 0.00           | 1829.86                          | 12615.95#  | 54.80                                  | 1829.86             | 365.51   |
| Sagardighi II | 2367.43  | 282.17                             | 0.00           | 0.00                             | 2079.71  | 5.55                                   | 0.00                | 282.17   |
| Total         | 46017.26 | 24325.70                           | 241.37         | 5432.15                          | 15095.00   | 923.04                                 | 23915.16            | 6084.06  |

Claim of Additional Capitalization has been segregated into different heads (A = B1 + B2 + B3 + B4 + B5)

# Includes Rs. 4778.95 Lakh for proposed Ground Mounted Solar Project

#### 3.4. Employee Cost

3.4.1. Employee cost include mainly salary and wages, expenditure on account of terminal benefits to the employees and welfare expenses viz. medical expenses and centrally maintained employee cost apportioned to the generating stations. WBPDCL further submitted that expenses towards contractual manpower are to be considered in the Employee Cost as per their Supplementary Petition. The cost of contractual man power, which was earlier considered as a part of the O&M Expenses has been segregated and claimed as a part of the employee cost in the supplementary petition. The total employee cost considered in the said Tariff Order relating to 2018-19 for each of the generating stations



and the same as per the Audited Financial Statements for 2018-19 with reason thereof based upon the data submitted by WBPDCL are found as under:

Table 19: Employee cost claimed by WBPDCL

Figures in Rs. Lakh

| Power Station | Tariff Order | Claimed in the<br>Original Petition | Claimed Additionally in the<br>Supplementary Petition | Total Claimed |
|---------------|--------------|-------------------------------------|---|---------------|
| Kolaghat      | 13318.76     | 14024.57                            | 4731.93   | 18756.50      |
| Bakreswar     | 13362.71     | 14209.13                            | 2568.28   | 16777.41      |
| Bandel I      | 2340.60      | 2430.98                             | 1032.44   | 3463.42       |
| Bandel II     | 4193.38      | 4355.50                             | 1849.79   | 6205.29       |
| Santaldih     | 9919.04      | 10412.40                            | 1946.10   | 12358.50      |
| Sagardighi I  | 5159.58      | 7418.11                             | 370.56  | 7788.67       |
| Sagardighi II | 7234.74      | 5725.92                             | 617.61  | 6343.53       |
| Total         | 55528.81     | 58576.59                            | 13116.71  | 71693.30      |

- 3.4.2. From the documents submitted by WBPDCL and written submission, the Commission's findings are as follows:
  - (a) The total number of employees in each operating generating station under review is as per the specified norms of Man/MW ratio except for BTPS as redeployment of man power on account of decommissioning of Units 3 & 4 is under process. However, the overall manpower remains within the total normative manpower limits stipulated in the Tariff Regulations.
  - (b) The Employee Cost as per Form 1.17 (h) is Rs. 58576.59 Lakh (inclusive of Director's Sitting Fees of Rs. 6.14 Lakh and employee's terminal benefit expenses of Rs. 18309.17 Lakh). This is in line with the Tariff Regulations where Director's fee and remuneration are part of employee cost. The Commission observes that in the Audited Financial Statements (Note 36), 'Employee Benefit Expenses' appears to the extent of Rs. 49721.75 Lakh, Other Comprehensive Income of Rs. 8848.71 Lakh in Audited Financial Statements (Note 36.1), 'Directors' Sitting Fees & Other Expenses' of Rs. 6.14 Lakh. The Commission also observes that the Other Comprehensive Income of Rs. 8848.71 Lakh appears in the Statement of Profit and Loss as negative adjustment. Hence, Commission decides to consider a sum of Rs. 58576.59 Lakh (49721.75 + 6.14 + 8848.71) towards Employee Expenses including Directors' Sitting Fees and OCI.
  - (c) WBPDCL has submitted the claim of employees' terminal benefits of Rs.18309.17 Lakh including OCI of Rs. 8848.71 Lakh which is included as a part of the Employee Cost as per the Note 36 of the Audited Financial Statements. The Commission observes that Note 46.2 provides that sum of Rs. 2563.77 Lakh, Rs. 5211.54 Lakh and Rs. 1685.55 Lakh pertains to defined benefit plan of Gratuity, Pension and Leave Encashment scheme respectively. Besides, Rs. 8848.71 Lakh appears as negative adjustment under OCI. Therefore, the total amount under terminal benefit



arrives at Rs. 18309.17 Lakh. Further, it is evident from Note 47 of the Audited Financial Statements for FY 2018-19 that, the Company does not have separate funds for General Provident Fund, Pension Fund, Gratuity Fund and Leave Encashment Fund. An amount of Rs. 117394.27 Lakh has been invested in term deposits with scheduled banks out of which Rs. 104297.77 Lakh pertains towards liability for General Provident Fund, Pension Fund, Gratuity Fund & Leave Encashment Fund and the same is reflected at Notes 22, 23 and 31. In absence of any specific created funds, it could not be ascertained from the submitted documents as to whether the amount admitted through tariff under the heads of terminal benefit expenses have been utilized for the sole purpose for which they had been admitted. The utilization of interest earned on the equivalent amount parked in Fixed Deposits is also not available from the submission. Accordingly, WBPDCL is directed to comply with the directions given in paragraph 3.1.7 of the APR Order for FY 2015-16 dated 30.05.2022 regarding creation of defined benefit funds.

(d) WBPDCL vide supplementary petition dated 08.03.2022 has proposed to consider Rs. 13116.71 lakh paid towards contractual manpower cost as a part of employee expenses. WBPDCL interalia submitted that it had initially considered such cost as a part of O&M expenses in its APR petition, but as their overall O&M expenses exceeds beyond the normative expenses allowed under O&M, they in the supplementary petition prayed to include these costs under employee expenses.

The Commission observes that, O&M expenses are controllable items, where the generating company has to maintain their expenses within the norms. On the other hand, employee cost is considered as an uncontrollable item, where actual cost is allowable subject to prudent check. Thus, the expenses considered under controllable head in the tariff order cannot be treated as uncontrollable during truing up.

In the supplementary petition, WBPDCL prayed to consider cost of 'contracted manpower' under employee cost, which was claimed under O&M expenses in the main APR petition. This tantamount to subsequent change of the nature of expenses from controllable to uncontrollable. The Commission also notes that, in their Audited Financial Statement, the cost has been booked under O&M expenses. So, the proposed change via supplementary petition is not considered.

Moreover, the Commission notes that, in terms of regulation 5.9.1 of the Tariff Regulations, contractual manpower if engaged in 'regular establishment', can only be considered under



- employee cost. In this connection note (x) of paragraph A of Schedule-9A of the Tariff Regulations may also be referred to.
- (e) Thus, the Commission admits the employee cost of Rs. 58576.59 Lakh which includes Rs. 18309.17 Lakh claimed as per the requirement under IndAS-19 on account of terminal benefit.
- 3.4.3. Employee cost being uncontrollable in nature, the Commission decides to admit the employee cost of Rs. 58576.59 Lakh in APR for FY 2018–19. The station wise allocation of the employee cost is as below:

Table 20: Employee cost admitted for FY 2018-19
Figures in Rs. Lakh

| Power Station | Tariff Order | Claimed in<br>original APR<br>petition | Admitted |
|---------------|--------------|--|----------|
| Kolaghat      | 13318.76     | 14024.55                               | 14024.55 |
| Bakreswar     | 13362.71     | 14209.12                               | 14209.12 |
| Bandel I      | 2340.60      | 2430.98                                | 2430.98  |
| Bandel II     | 4193.38      | 4355.50                                | 4355.50  |
| Santaldih     | 9919.04      | 10412.40                               | 10412.40 |
| Sagardighi I  | 5159.58      | 7418.12                                | 7418.12  |
| Sagardighi II | 7234.74      | 5725.92                                | 5725.92  |
| Total         | 55528.81     | 58576.59                               | 58576.59 |

#### 3.5. Coal and Ash Handling Expenses

3.5.1. WBPDCL has claimed a sum of Rs 8453.04 Lakh on the account of Coal and Ash handling Charges, Railway Staff Cost, De-railment and Re-railment Charges, Ash evacuation cost and Other Charges as per Railway Regulations which is also observed to have been recognised in the Note 38 of Financial Statements for FY 2018 – 19. The Expenses claimed by WBPDCL under this head is as below:

Table 21: Coal and Ash Handling Expenses Claimed for FY 2018-19 (Rs. Lakh)

| Ì | Particulars       | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II |
|---|-------------------|----------|-----------|----------|-----------|-----------|--------------|---------------|
|   | Coal and Ash      | 3363.68  | 2100.31   | 73.36    | 131.43    | 1767.00   | 574.11       | 443.15        |
|   | Handling Expenses |          |           |          |           |           |              |               |

3.5.2. The Commission notes that the generation of all generating stations, except Santaldih, has gone down from targeted generation as outlined in the Tariff Order whereas the cost of coal and ash handling expenses, except Bandel, has increased from the amount admitted in the Tariff Order for FY 2018-19. WBPDCL stated that the increase in coal and ash handling charges, is due to deterioration in coal quality resulting from its high ash content. The Commission is of the considered opinion that while projecting the cost for sixth control period in its tariff petition, WBPDCL ought to have considered these issues. On the contrary, their petition is devoid of projections accounted for potential improvements on



the basis of changed scenario. Thus, the Commission finds the contention as set forth by WBPDCL, not too conclusive.

3.5.3. The Commission directed the Petitioner to submit the detailed break-up of the Coal and Ash Handling expenses claimed under different heads. WBPDCL has provided the detail break up of coal and ash handling expenses incurred during 2018 – 19. WBPDCL vide letter dated 17.02.2025 has submitted a certificate from a Chartered Accountant Firm affirming that the sale proceeds from Sale of Fly Ash stands duly adjusted with the Ash Handling and Ash Evacuation Cost in terms of the MoEFCC guidelines. The details provided by the Petitioner is summarised as under:

Table 22: Break-up of Coal and Ash Handling Expenses for FY 2018-19

Figures in Rs. Lakh

| Particulars              | Kolaghat | Bakreswar | Bandel I & II | Santaldih | Sagardighi I | Sagardighi II | Total   |
|--------------------------|----------|-----------|---------------|-----------|--------------|---------------|---------|
| Coal Handling Charges    | 1367.43  | 478.35    | 41.98         | 478.81    | 56.10        | 43.31         | 2465.98 |
| Ash Handling Charges     | 485.78   | 212.40    | 2.20          | 201.64    | 13.06        | 10.08         | 925.16  |
| Railway Staff Cost       | 83.69    | 0.00      | 67.28         | 0.00      | 0.06         | 0.04          | 151.07  |
| De/re - railment Charges | 16.23    | 15.18     | 1.44          | 12.28     | 4.07         | 3.15          | 52.35   |
| Ash Evacuation Cost      | 1234.05  |           | 52.88         | 962.57    | 397.33       | 306.69        | 4131.89 |
| Coal Sampling Cost       | 176.50   | 216.01    | 39.01         | 111.70    | 103.49       | 79.88         | 726.59  |
| Total                    | 3363.68  | 2100.31   | 204.79        | 1767.00   | 574.11       | 443.15        | 8453.04 |

3.5.4. After careful analysis of these aspects, the Commission considers the actual generation with respect to targeted generation to determine the admissible amount for the actual generation based on the reference to the target set for generation. The quantum of actual generation achieved during FY 2018-19 at the stated generating stations of WBPDCL is compared with the targeted generation based on normative PLF specified in the Tariff Regulations to arrive at proportionate expenses allowable. The admitted amount comes to Rs. 5905.07 Lakh and is shown in the table as follows:

Table 23: Coal and Ash Handling Expenses Admitted for FY 2018-19

| Power<br>Station | Target<br>Generation<br>(MU) | Amount Approved<br>in Tariff Order<br>(Rs Lakh) | Actual Generation (MU) | Expenses proportionate<br>to Actual Generation<br>(Rs Lakh) | Actual<br>Expenses<br>(Rs Lakh) | Expenses<br>Admitted<br>(Rs Lakh) |
|------------------|------------------------------|---|------------------------|---|---------------------------------|-----------------------------------|
| Kolaghat         | 7726.32                      | 3285.07   | 4422.87                | 1880.51   | 3363.68                         | 1880.51                           |
| Bakreswar        | 7358.40                      | 1839.05   | 7182.22                | 1795.02   | 2100.31                         | 1795.02                           |
| Bandel I         | 683.28                       | 82.81   | 369.81                 | 44.82   | 73.36                           | 44.82                             |
| Bandel II        | 1506.72                      | 195.43  | 945.57                 | 122.65  | 131.43                          | 122.65                            |
| Santaldih        | 3504.00                      | 1624.01   | 3552.62                | 1646.54   | 1767.00                         | 1646.54                           |
| Sagardighi I     | 4204.80                      | 375.15  | 2624.88                | 234.19  | 574.11                          | 234.19                            |
| Sagardighi II    | 7008.00                      | 370.93  | 3426.04                | 181.34  | 443.15                          | 181.34                            |
| Total            | 31991.52                     | 7772.45   | 22524.01               | 5905.07   | 8453.04                         | 5905.07                           |

#### 3.6. Water Charges

3.6.1. The actual amount of total expenditure incurred by WBPDCL under this uncontrollable head of water charges in 2018-19 is Rs. 455.07 Lakh against Rs. 411.56 Lakh allowed in the tariff for the concerned



year. The Note 38 of Audited Financial Statements for FY 2018-19 of WBPDCL also reflects the said amount.

3.6.2. The Commission observed that WBPDCL has incurred the Water Charges for Santaldih TPS based on the water tariff of DVC for Industrial water supply. Accordingly, the Commission admits an amount of Rs. 455.07 Lakh related to the water charges incurred.

Table 24: Water Charges Admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff Order | Claimed | Admitted |
|---------------|--------------|---------|----------|
| Santaldih     | 411.56       | 455.07  | 455.07   |
| Total         | 411.56       | 455.07  | 455.07   |

#### 3.7. Operation and Maintenance Expenses

- 3.7.1. The operation and maintenance (O&M) expense, viz. repairs and maintenance including cost of consumables, legal and professional charges, audit fees, administrative and general (A&G) expenses are categorized as controllable items in terms of the Tariff Regulations.
- WBPDCL has claimed total O&M Expense of Rs. 61417.08 Lakh for FY 2018-19 under table 26 in 3.7.2. paragraph 18 of the written submission in Volume-1 of APR application. The amount includes Rs. 115.91 Lakh as O&M expense of 400 kV Sagardighi Stage I Transmission line and to be allowed separately. The amount of Rs. 61301.17 Lakh claimed by WBPDCL in respect of its generating stations is observed to be tallying with the expenditures corresponding to the Schedule 11 of Accompanying Financial Statements of respective generating stations. The Commission observes that WBPDCL has claimed an amount of Rs. 177.33 Lakh as 'License and Registration' fees under the head 'Rates and Taxes' in Form E(B) which is a part of A&G expenses. Similarly, WBPDCL has also claimed Rs. 96.98 Lakh as 'Bank Charges' under 'Other Finance Charges'. The Bank Charges of Rs. 96.98 Lakh is included under 'Generation, Administration and Other Expenses' in Unit Wise Accounts (Schedule 11). The Commission observes that in terms of regulation 5.6.4.2 (iv) of the Tariff Regulation, financing charges relating to Capital Loan is allowed under 'Other Finance Charges'. Thus, the amount of Rs. 96.98 is also considered under A&G expenses. Further, as discussed in Table 18 above, the Commission considers Rs. 923.04 Lakh under O&M expense head. Considering the above, the total O&M claim comes to Rs. 62498.52Lakhs.
- 3.7.3. The O&M Expenses is controllable cost in terms of Tariff Regulations. In terms of regulation 2.8.6.1 of the Tariff Regulations, the Commission is required to specify the norms in the Tariff Order for the 1st ensuing year of the control period. Accordingly, the Commission has specified the norms for O&M expenses for the years 2018 19 and 2019 20 vide Tariff order dated 14.07.2021 in Case No. TP –



85/19 - 20. Further, in terms of regulation 2.6.10 (ii) of the Tariff Regulations, the Commission may allow certain additional expenditure through the APR Order on any element of controllable item if the rate of inflation is found to be more than 15% with respect of the price of that item determined during tariff order. Since, the Commission has considered the inflation based on actual inflation of 2018 – 19, no such additional expenditure is allowable in terms of regulation 2.6.10 (ii) of the Tariff Regulations.

3.7.4. Considering the above, the admitted amount for each generating station is admitted based on the normative O&M expenses allowed in the Tariff Order vis-à-vis Actual Expenses claimed as shown in the table below:

Table 25: O&M Expenses Admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Normative O&M<br>Expenses | Actual Claimed (as per Table 25A) | Admitted |
|---------------|---------------------------|-----------------------------------|----------|
| Kolaghat      | 20311.20                  | 16262.47                          | 16262.47 |
| Bakreswar     | 13618.50                  | 16682.74                          | 13618.50 |
| Bandel I      | 2120.40                   | 3497.79                           | 2120.40  |
| Bandel II     | 3420.65                   | 6290.85                           | 3420.65  |
| Santaldih     | 5020.00                   | 7009.81                           | 5020.00  |
| Sagardighi I  | 5130.00                   | 7336.66                           | 5130.00  |
| Sagardighi II | 6310.00                   | 5418.20                           | 5418.20  |
| Total         | 55930.75                  | 62498.52                          | 50990.22 |

Table 25A: Redetermined O&M (Rs. Lakh)

| Power Station | O&M<br>Claimed | License and<br>Registration<br>Fees | Bank<br>Charges<br>recognized<br>under A&G | O&M as<br>per Table<br>18 | Redetermined<br>O&M |
|---------------|----------------|-------------------------------------|--|---------------------------|---------------------|
| Kolaghat      | 15937.54       | 12.70                               | 12.86                                      | 299.37                    | 16262.47            |
| Bakreswar     | 16500.88       | 73.44                               | 20.11                                      | 88.31                     | 16682.74            |
| Bandel I      | 3495.11        | 0.33                                | 1.40                                       | 0.95                      | 3497.79             |
| Bandel II     | 6262.07        | 0.60                                | 2.26                                       | 25.92                     | 6290.85             |
| Santaldih     | 6523.63        | 26.40                               | 11.64                                      | 448.14                    | 7009.81             |
| Sagardighi I  | 7203.85        | 36.04                               | 41.97                                      | 54.80                     | 7336.66             |
| Sagardighi II | 5378.09        | 27.82                               | 6.74                                       | 5.55                      | 5418.20             |
| Total         | 61301.17       | 177.33                              | 96.98                                      | 923.04                    | 62498.52            |

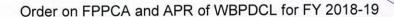
#### 3.8. Interest on Borrowed Capital

- 3.8.1. WBPDCL submitted the computations in prescribed Form C of Annexure-I of the APR petition for the amounts of interest actually paid for Bakreswar, Bandel, Santaldih and Sagardighi-I and Sagardighi-II generating stations in 2018-19.
- 3.8.2. As per Note 37 to the Audited Financial Statements for FY 2018-19, a total amount of Rs. 101358.65 Lakh has been recognized in the Statement of Profit and Loss towards interest expenses on term loans



and interest on working capital loans. It has been mentioned in the APR application that the interest charges on capital account, for Rs. 73040.60 Lakh, excludes the interest on working capital (Rs. 15377.72 Lakh) and the interest on temporary accommodation (Rs. 12940.31 Lakh). It is however observed from the Audited Financial Statements (Note 37) that Rs. 24798.47 Lakh has been actually recognised as interest on working capital. No interest capitalization has been proposed in 2018 – 19.

- 3.8.3. The Commission now, analyses the plant wise interest on capital loan to be admitted for 2018 19 based on the Form C submitted by WBPDCL:
- 3.8.3.1 Kolaghat: It is observed that there is no outstanding balance of capital loan. Thus, no interest has been admitted for Kolaghat.
- 3.8.3.2 Bakreswar: It is observed that there is an outstanding balance of capital loan from PFC amounting to Rs. 112061.75 Lakh. WBPDCL has made a repayment of Rs. 10187.43 Lakh during 2018 19 and incurred an interest of Rs. 11274.46 Lakh. Further, the interest amount of Rs 11274.46 Lakh does not include any amount pertaining to the construction of associated transmission system of Bakreswar Thermal Power Stations as shown in Appendix to Form E. Now, in line with the elucidation given in paragraph 3.2 of this order, the admitted interest comes to Rs. 10710.73 Lakh (11274.46 x 0.95).
- 3.8.3.3 Bandel Stage I: It is observed that there is no outstanding balance of capital loan. Thus, no interest has been admitted for Bandel Stage I.
- 3.8.3.4 Bandel Stage II: It is observed that there is an outstanding balance of capital loan from Govt Loan for EERM amounting to Rs. 36069.14 Lakh. WBPDCL made an additional drawal of Rs. 268.31 Lakh during 2018 19. The interest incurred is Rs. 986.33 Lakh. Now, in line with the elucidation given in paragraph 3.2 of this order, the admitted interest comes to Rs. 937.01 Lakh (986.33 x 0.95).
- 3.8.3.5 Santaldih: It is observed that there are two outstanding balances of capital loan from (i) REC amounting to Rs. 46876.56 Lakh for Unit V and from (ii) PFC amounting to Rs. 46778.74 Lakh for Unit VI. WBPDCL has made a repayment of Rs. 7500.25 Lakh to REC and Rs. 4158.11 Lakh to PFC during 2018 19. The interest claimed is Rs. 4760.21 Lakh for Unit V (REC Loan) and Rs. 5060.16 Lakh for Unit VI (PFC Loan). The Commission has approved the final project cost of Unit V vide its Order dated 11.12.2023 in Case No. OA 415/ 22 23 as Rs. 139762.80 Lakh against the claim of Rs. 161284.54 Lakh. Therefore, the interest amount is to be proportionately reduced considering the capital cost allowed by the Commission. Thus, the interest for Unit V comes to Rs. 4125.01 Lakh (4760.21 x 139762.80 ÷ 161284.54). Further, in line with the elucidation given in paragraph 3.2 of this order, the interest for Unit



VI comes to Rs. 4807.15 Lakh ( $5060.16 \times 0.95$ ). Thus, the allowable interest for Santaldih comes to Rs. 8932.16 Lakh (4125.01 + 4807.15).

Further, as per direction of the Commission in APR Order for FY 2012-13, WBPDCL has submitted the interest component of Rs 621.18 Lakh in Appendix to Form E of APR Petition for FY 2018-19 related to transmission systems for Units V and VI of Santaldih generating station. As the transmission system has not been handed over to WBSETCL and the system is not put to use, the said amount is neither to be recovered from WBSETCL by WBPDCL nor to be admitted as interest cost for FY 2018-19. Accordingly, the same has been disallowed from the interest on loan of STPS. Therefore, the admitted interest is Rs. 8310.98 Lakh (8932.16 – 621.18)

3.8.3.6 Sagardighi Stage I: It is observed that there is an outstanding balance of capital loan from PFC amounting to Rs. 63106.29 Lakh. WBPDCL has made a repayment of Rs. 11473.87 Lakh during 2018 – 19 and incurred an interest of Rs. 6006.89 Lakh. Now, in line with the elucidation given in paragraph 3.2 of this order, the admitted interest comes to Rs. 5706.55 Lakh (5706.55 x 0.95).

Regarding Sagardighi transmission system, WBPDCL has stated in their supplementary petition for APR for FY 2012-13 that the Sagardighi - Gokarna 220 kV Double Circuit transmission line asset, a part of the transmission systems, has already been handed over to WBSETCL on 02.06.2009. From Appendix to Form E of APR Petition for FY 2018-19 related to transmission systems for Sagardighi, it is observed that the interest incurred for the Transmission system is Rs. 58.80 Lakh. Thus, the same has been reduced from the interest for the generating station and allocated to transmission system for recovery from WBSETCL. Thus, the interest for generating station comes to Rs. 5647.75 Lakh (5706.55 – 58.80).

For the other two parts i.e., Farakka – Subhasgram 400 kV Single Circuit line LILO at Sagardighi and Sagardighi - Parulia 400 kV Double Circuit line, WBPDCL has entered into a renewed agreement with PGCIL on 28.06.2017 for operation and maintenance of Farakka-Subhasgram 400 kV Single Circuit line LILO at Sagardighi and Sagardighi - Parulia 400 kV Double Circuit line and associated bays at Parulia (Durgapur) and Sagardighi TPP.

3.8.3.7 Sagardighi Stage II: It is observed that there is an outstanding balance of capital loan from PFC amounting to Rs. 400527.68 Lakh. WBPDCL has made a repayment of Rs. 28107.21 Lakh during 2018 – 19 and incurred an interest of Rs. 44952.58 Lakh. Now, in line with the elucidation given in paragraph 3.2 of this order, the admitted interest comes to Rs. 42704.95 Lakh (44952.58 x 0.95).



3.8.4. In view of above, the admitted amount for interest on borrowed capital comes to Rs. 68311.42 Lakh for FY 2018-19 is summarised in the table below:

Table 26: Interest on Borrowed Capital Admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff<br>Order | Interest<br>Claimed | Admissible<br>Interest | Interest<br>Withheld # | Interest<br>Disallowed ## | Interest<br>Admitted | Interest for<br>Generating<br>Station | Allocated Interest for Transmission Line |
|---------------|-----------------|---------------------|------------------------|------------------------|---------------------------|----------------------|---------------------------------------|--|
| Kolaghat      | 0.00            | 0.00                | 0.00                   | 0.00                   |                           | 0.00                 | 0.00                                  | 0.00                                     |
| Bakreswar     | 10710.74        | 11274.46            | 11274.46               | 563.73                 |                           | 10710.73             | 10710.73                              | 0.00                                     |
| Bandel I      | 0.00            | 0.00                | 0.00                   | 0.00                   |                           | 0.00                 | 0.00                                  | 0.00                                     |
| Bandel II     | 1042.52         | 986.33              | 986.33                 | 49.32                  |                           | 937.01               | 937.01                                | 0.00                                     |
| 0 1 1 111     | 0004.70         | 4760.21             | 4125.01                | 0.00                   | 621.18                    | 8310.98              | 8310.98                               | 0.00                                     |
| Santaldih     | 8394.70         | 5060.16             | 5060.16                | 253.01                 | 021.10                    | 0310.90              | 0510.90                               |  |
| Sagardighi I  | 5706.55         | 6006.89             | 6006.89                | 300.34                 |                           | 5706.55              | 5647.75                               | 58.80                                    |
| Sagardighi II | 42743.77        | 44952.58            | 44952.58               | 2247.63                |                           | 42704.95             | 42704.95                              | 0.00                                     |
| Total         | 68598.28        | 73040.63            | 72405.43               | 3414.03                | 621.18                    | 68370.22             | 68311.42                              | 58.80                                    |

<sup>#</sup> As mentioned in paragraph 3.2 of this Order

#### 3.9. Interest on Normative Loan

WBPDCL has claimed interest on normative loan for the year 2018-19 only for Bakreswar and Sagardighi I generating stations to an amount of Rs. 208.98 Lakh and Rs. 79.77 Lakh respectively. WBPDCL has also stated that the Commission has not admitted the full amount of equity contribution made by the Government but a part of the same has been considered as normative debt vide Tariff Orders for FY 2008-09 and FY 2009-10 dated 30.12.2011. However, in the APR for FY 2010 -2011 and onwards, the Commission had also not considered the interest on normative debt though the same was admitted in tariff order. The Commission observes that, as per the Tariff Regulations, the equity contribution is considered only when such equity is utilized in actual addition to the original cost of fixed asset. It is apparently found that the actual addition of equity corresponding to original cost of fixed asset is less than the actual equity contributed by the State Government. Such difference of equity contributed and actual addition of equity to original cost of fixed asset cannot be considered as normative loan. Further, WBPDCL has submitted application for approval of the final project cost of the above-mentioned generating stations. The Commission, at this juncture, is in process of scrutinizing the submitted applications. Thus, WBPDCL is directed to approach the Commission for consideration of the said equity as normative loan, if any, after approval of the final project cost.

Also, WBPDCL in Form 1.20 (a) of its APR Petition has claimed that the additional capital expenditure for the year has been made through internal accruals. WBPDCL has considered normative equity (30%) for addition to equity base, however, no normative loan has been claimed under Form 1.20(b). Thus, no normative loan is not admitted for any additional capital expenditure allowed by the Commission.

<sup>##</sup> As mentioned in paragraph 3.8.3.5 of this Order



#### 3.10. Interest on Temporary Accommodation

- 3.10.1. WBPDCL claimed interest on temporary accommodation for an amount of Rs. 12940.31 Lakh during FY 2018-19 on the ground of liability of carrying the burden of additional fuel cost amounting to Rs. 95288.57 lakh as determined in Fuel Cost Adjustment (FPPCA) order for the Year 2012-13 dated 06.06.2014. WBPDCL submitted that the requirement of fund has increased due to non-receipt of Orders of the Commission for APR & FPPCA for FY 2014-15 to FY 2017-18 to a tune of Rs. 332661 Lakh.
- 3.10.2. The Loan balance as per Audited Financial Statements as on 31.03.2019 vis-a-vis their claim in Form C is as below:

Table 27: Loan Outstanding for FY 2018-19 (Rs. Lakh)

| Particulars                           | As per Audited Financial Statement | As per Form C |  |
|---------------------------------------|------------------------------------|---------------|--|
| Capital Borrowings                    |                                    |               |  |
| Long Term Borrowings                  | 593673.81                          | 644261.61     |  |
| Current Maturities of Long-Term Loans | 90320.51                           | 044201.01     |  |
| Total                                 | 683994.32                          | 644261.61     |  |
| Short Term Borrowings                 |                                    |               |  |
| Working Capital Loan                  | 274007.02                          | 247548.72     |  |
| Short Term Loan                       | 371907.93                          | 180188.84     |  |
| Total                                 | 371907.93                          | 427737.57     |  |

- 3.10.3. The amount provided in Form C varies with that of Audited Financial Statements. In absence of conclusive clarity with respect to the amount of loan drawn for the purpose of Temporary accommodation, the balance loan remaining after adjusting the Working Capital Loan from the total of Short-Term Borrowings as depicted in Audited Financial Statements i.e., Rs. 124359.21 Lakh [Rs. (371907.93 247548.72) Lakh] is considered as their loan availed for temporary accommodation.
- 3.10.4. It is observed that out of the total realizable amount of Rs 95288.57 Lakh as per order dated 11.12.2014, 30 instalments @ Rs 2507.59 Lakh p.m. amounting to Rs. 75277.70 Lakh has already been realized upto March, 2018. Accordingly, balance amount of Rs. 20060.87 Lakh (= 95288.57 75277.70) is further realizable. Considering realization of monthly instalments during April, 2018 to November, 2018 on the balance realizable amount of Rs. 20060.87 Lakh, the average of the month wise balances of unrealized arrear is as shown below. In addition, since the outstanding from the APR and FPPCA is adjusted from the grant already provided by the Government of West Bengal, the same is not considered as an outstanding payment.

Table 28: Calculation of Outstanding Payments of WBPDCL for FY 2018-19 (Rs. Lakh)

| Month  | Instalment Recovered | Balance  |
|--------|----------------------|----------|
| Mar-18 |                      | 20060.87 |
| Apr-18 | 2507.59              | 17553.28 |
| May-18 | 2507.59              | 15045.69 |



| Month   | Instalment Recovered       | Balance  |
|---------|----------------------------|----------|
| Jun-18  | 2507.59                    | 12537.10 |
| Jul-18  | 2507.59                    | 10030.51 |
| Aug-18  | 2507.59                    | 7522.92  |
| Sep-18  | 2507.59                    | 5015.33  |
| Oct-18  | 2507.59                    | 2507.59  |
| Nov-18  | 2507.59                    | 0.00     |
| Dec-18  | 0.00                       | 0.00     |
| Jan-19  | 0.00                       | 0.00     |
| Feb-19  | 0.00                       | 0.00     |
| Mar-19  | 0.00                       | 0.00     |
| Average | Outstanding for FY 2018-19 | 6686.96  |

3.10.5. Considering the outstanding balance of loan as per the table above and that the actual rate of interest arrived at 7.78% based on the given information of short-term loans at Form C of the Petitioner, the Commission admits Rs. 520.26 Lakh (6686.96 x 7.78%) as interest on temporary accommodation and allocated to the generating stations based on their claims as summarized below:

Table 29: Interest on Temporary Accommodation admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff Order | Claimed  | Admitted |
|---------------|--------------|----------|----------|
| Kolaghat      | 0.00         | 2484.04  | 99.87    |
| Bakreswar     | 0.00         | 4140.91  | 166.48   |
| Bandel I      | 0.00         | 267.89   | 10.77    |
| Bandel II     | 0.00         | 479.96   | 19.30    |
| Santaldih     | 0.00         | 2057.09  | 82.70    |
| Sagardighi I  | 0.00         | 1981.05  | 79.65    |
| Sagardighi II | 0.00         | 1529.37  | 61.49    |
| Total         | 0.00         | 12940.31 | 520.26   |

#### 3.11. Other Finance Charges

- 3.11.1. In their APR application for FY 2018-19 for all the generating stations, WBPDCL has claimed a total amount of Rs. 4919.36 Lakh on the head of other finance charges. As per the audited financial statements of WBPDCL for the year 2018-19, an amount of Rs. 4822.38 Lakh has been recognised under 'Loan processing & Other Financial Charges' at note 37 of Audited Financial Statements for 2018-19. Further, WBPDCL has submitted that the finance charges include bank charge, loan processing charges, LC commission charges, etc.
- 3.11.2. It is observed that the claim under Other Finance Charges includes a payment made to Dongfang Electric Corporation Limited for Rs. 3377.77 Lakh as an outcome of a settlement agreement between the parties. WBPDCL has submitted application for approval of the final project cost of the Sagardighi Stage I. The Commission, at this juncture, is in process of scrutinizing the submitted application. Thus,



the Commission provisionally disallows the expense claimed by WBPDCL and shall scrutinize the same during the approval of final Capital Cost of Sagardighi Stage I.

- 3.11.3. In accordance with 5.6.4.2 of the Tariff Regulations, bank charges related to capital borrowing are only admissible under the head 'Other Financing Charges'. The Commission has already considered an amount of Rs. 96.98 Lakh as 'Bank Charges' recognised under Administrative Charges under O&M expenses. Accordingly, the Commission decides to admit the total amount of Rs. 1444.61 Lakh (4822.38 3377.77) towards other finance charges in line with the Audited Financial Statements for FY 2018-19.
- 3.11.4. The admitted amount of other finance charges is as per the table below:

Table 30: Other Finance Charges admitted for FY 2018-19 (Rs. Lakh)

| Generating Station | As per Tariff<br>order | Claimed | Amount as per<br>Audited Accounts | Disallowed | Admitted |
|--------------------|------------------------|---------|-----------------------------------|------------|----------|
| Kolaghat           | 295.15                 | 290.17  | 284.45                            |            | 284.46   |
| Bakreswar          | 487.05                 | 482.38  | 472.87                            |            | 472.87   |
| Bandel-I           | 31.75                  | 31.22   | 30.60                             |            | 30.60    |
| Bandel-II          | 56.88                  | 55.93   | 54.83                             |            | 54.83    |
| Santaldih          | 245.43                 | 241.29  | 236.53                            |            | 236.53   |
| Sagardighi-I       | 172.52                 | 3640.91 | 3569.13                           | 3377.77    | 191.36   |
| Sagardighi-II      | 241.90                 | 177.46  | 173.96                            |            | 173.96   |
| Overall            | 1530.68                | 4919.36 | 4822.38                           |            | 1444.61  |

#### 3.12. Depreciation

3.12.1. The depreciation for the different generating stations as claimed by WBPDCL is as under:

Table 31: Depreciation claimed by WBPDCL for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff Order | Amount Claimed |
|---------------|--------------|----------------|
| Kolaghat      | 1176.87      | 1559.09        |
| Bakreswar     | 16861.25     | 17803.98       |
| Bandel I      | 166.72       | 159.46         |
| Bandel II     | 2429.37      | 2559.43        |
| Santaldih     | 9363.11      | 11393.75       |
| Sagardighi I  | 10526.92     | 11222.68       |
| Sagardighi II | 20686.78     | 21791.88       |
| Total         | 61211.02     | 66490.26       |

3.12.2. WBPDCL has claimed the depreciation for its generating station based on the Gross Fixed Asset presented at Note 6 and 7 of the Audited Financial Statements. The claim of WBPDCL also includes an amount of Rs. 234.18 Lakh as depreciation pertaining to prior period (Note 6a of the Audited Financial Statements). Besides, the claim also includes depreciation corresponding to amortization of Government grants.



- 3.12.3. The Commission decides to refer to the amounts of depreciation as claimed and reflected in the unit wise books of accounts of WBPDCL for FY 2018-19. Further, in view of the already approved final project cost of Unit V of Santaldih vide Order dated 11.12.2023 in Case No. OA 415/ 22 23, the Commission decides to adjust the opening GFA presented in the books of accounts with reference to the amount approved vis-à-vis the claim for Unit V of STPS. Thus, the Opening GFA for STPS comes to Rs. 269615.02 Lakh (291136.76 161284.54 + 139762.80). The admissible depreciation has been computed based on the average GFA for the year.
- 3.12.4. The Commission further observes that the prior period depreciation claimed by WBPDCL is for earlier years as provided in Note 6a of the Audited Financial Statements. WBPDCL has not specified the year for which the prior period depreciation pertains to. In terms of Tariff Regulations, the prior period depreciation is only admissible for the base year of the control period. Thus, in absence of requisite details, the Commission decides to disallow the said expense for 2018 19. The Commission also observes that a sum of Rs. 581.24 Lakh stands recognized as 'Deferred Income Grant to the extent of Depreciation' at Note 34 of the Audited Financial Statements. Accordingly, the Commission decides to reduce the depreciation as arrived to the extent by the aforesaid amortized amount on proportionate basis corresponding to plant wise average GFA for the year. Further, in line with the elucidation given in paragraph 3.2 of this order, the Commission decides to withhold the depreciation for Bakreswar Stage II, Bandel Stage II, Santaldih Unit VI, Sagardighi Stage I and Sagardighi Stage II. WBPDCL is thereby directed to approach the Commission for releasing the depreciation after approval of the final project cost.
- 3.12.5. The depreciation claimed for Santaldih generating station includes an amount of Rs. 966.60 lakh pertaining to transmission system related to Santaldih generating station (Units V & VI) as per Appendix to Form E in Annexure-1 of the petition. As the transmission system has not been handed over to WBSETCL and the system is not put to use, the said amount is neither to be recovered from WBSETCL by WBPDCL nor to be admitted as depreciation for FY 2018-19. Accordingly, the same has been disallowed.



3.12.6. The station wise depreciation as allowed by the Commission are as follows

Table 32: Depreciation for FY 2018-19 (Rs. Lakh)

|                  |                                   |                   | Claimed                 |                                   |                  |                                      | -                 | Admitted                |                                    |  |
|------------------|-----------------------------------|-------------------|-------------------------|-----------------------------------|------------------|--------------------------------------|-------------------|-------------------------|------------------------------------|--|
| Particular       | Opening GFA<br>as per<br>Accounts | Asset<br>Addition | Sale/<br>Adjustm<br>ent | Closing GFA<br>as per<br>Accounts | Depreciati<br>on | Opening GFA<br>after<br>adjustment # | Asset<br>Addition | Sale/<br>Adjustm<br>ent | Closing GFA<br>after<br>adjustment | Admissibl<br>e<br>Depreciati<br>on     |
| S                | A                                 | В                 | С                       | D = A + B - C                     | E                | F                                    | G                 | Н                       | I=F+G-H                            | J = E x<br>AVG (F,I)<br>/ AVG<br>(A,D) |
| Kolaghat         | 196640.37                         | 5357.87           | 0.00                    | 201998.24                         | 1559.09          | 196640.37                            | 3894.33           | 0.00                    | 200534.70                          | 1553.37                                |
| Bakreswar        | 533747.98                         | 20817.06          | 0.00                    | 554565.04                         | 17803.98         | 533747.98                            | 764.00            | 0.00                    | 534511.98                          | 17475.93                               |
| Bandel I         | 23878.00                          | 50.38             | 1434.35                 | 22494.03                          | 159.46           | 23878.00                             | 49.43             | 1434.35                 | 22493.08                           | 159.46                                 |
| Bandel II        | 70681.85                          | 1148.16           | 0.00                    | 71830.01                          | 2559.43          | 70681.85                             | 349.09            | 0.00                    | 71030.94                           | 2545.08                                |
| Santaldih        | 291136.76                         | 1410.24           | 0.00                    | 292547.00                         | 11393.75         | 269615.02                            | 379.53            | 0.00                    | 269994.55                          | 10533.40                               |
| Sagardighi       | 301644.99                         | 14866.12          | 0.00                    | 316511.11                         | 11222.68         | 301644.99                            | 365.51            | 0.00                    | 302010.50                          | 10959.42                               |
| Sagardighi<br>II | 607669.83                         | 2367.43           | 258.90                  | 609778.36                         | 21791.88         | 607669.83                            | 282.17            | 258.90                  | 607693.10                          | 21754.55                               |
| Total            | 2025399.78                        | 46017.26          | 1693.25                 | 2069723.79                        | 66490.27         | 2003878.04                           | 6084.06           | 1693.25                 | 2008268.85                         | 64981.21                               |

|               | Admitted                   |  |  |                 |                                      |                            |  |  |  |
|---------------|----------------------------|--|--|-----------------|--------------------------------------|----------------------------|--|--|--|
| Particulars   | Admissible<br>Depreciation | Adjustment<br>of Prior<br>Period<br>Depreciation | Adjustment<br>due to<br>Amortization<br>of Grant | Withheld<br>@5% | Disallowed<br>(Tr system<br>of STPS) | Depreciation for 2018 - 19 |  |  |  |
|               | J                          | . к  | L  | М               | N                                    | O = J - K - L -<br>M - N   |  |  |  |
| Kolaghat      | 1553.37                    | 5.49   | 56.58  | 0.00            | 0.00                                 | 1491.30                    |  |  |  |
| Bakreswar     | 17475.93                   | 62.71  | 154.47   | 345.17          | 0.00                                 | 16913.58                   |  |  |  |
| Bandel I      | 159.46                     | 0.56   | 6.58   | 0.00            | 0.00                                 | 152.32                     |  |  |  |
| Bandel II     | 2545.05                    | 9.01   | 20.23  | 125.79          | 0.00                                 | 2390.05                    |  |  |  |
| Santaldih     | 10533.40                   | 40.13  | 82.84  | 250.69          | 966.60                               | 9193.14                    |  |  |  |
| Sagardighi I  | 10959.42                   | 39.53  | 87.74  | 541.61          | 0.00                                 | 10290.54                   |  |  |  |
| Sagardighi II | 21754.55                   | 76.75  | 172.80   | 1075.25         | 0.00                                 | 20429.75                   |  |  |  |
| Total         | 64981.21                   | 234.18   | 581.24   | 2338.51         | 966.60                               | 60860.68                   |  |  |  |

- 3.12.7. The amount of depreciation so claimed for the Bakreswar generating station includes an amount of Rs. 441.39 Lakh pertaining to the transmission system associated to that station. Further, the depreciation amount claimed for Sagardighi I generating station includes an amount of Rs. 109.86 Lakh pertaining to transmission system related to Sagardighi generating station. As those systems are being operated by WBSETCL, the amount of depreciation was ordered to be recovered from that company.
- 3.12.8. Accordingly, the allocation of depreciation to the generating station and transmission line is given below:

Table 33: Depreciation for FY 2018-19 (Rs. Lakh)



|               | Admitted                 |                                      |                              |  |  |  |
|---------------|--------------------------|--------------------------------------|------------------------------|--|--|--|
| Particulars   | Admitted<br>Depreciation | Allocated to<br>Transmission<br>Line | For<br>Generating<br>Station |  |  |  |
| Kolaghat      | 1491.30                  | 0.00                                 | 1491.30                      |  |  |  |
| Bakreswar     | 16913.58                 | 441.39                               | 16472.19                     |  |  |  |
| Bandel I      | 152.32                   | 0.00                                 | 152.32                       |  |  |  |
| Bandel II     | 2390.05                  | 0.00                                 | 2390.05                      |  |  |  |
| Santaldih     | 9193.14                  | 0.00                                 | 9193.14                      |  |  |  |
| Sagardighi I  | 10290.54                 | 109.86                               | 10180.68                     |  |  |  |
| Sagardighi II | 20429.75                 | 0.00                                 | 20429.75                     |  |  |  |
| Total         | 60860.68                 | 551.25                               | 60309.43                     |  |  |  |

#### 3.13 Advance Against Depreciation/ Interest Credit

- 3.13.1 WBPDCL has claimed Advance Against Depreciation amounting to Rs. 264.61 Lakh, Rs. 251.20 Lakh and Rs. 6315.13 Lakh for Santaldih, Sagardighi Stage I and Sagardighi Stage II respectively for the year 2018 19.
- 3.13.2 The Commission observes that WBPDCL has submitted application for approval of the final project cost for the aforesaid generating stations. The Commission, at this juncture, is in process of scrutinizing the submitted applications. Therefore, the Commission does not admit any advance against depreciation for the aforesaid generating stations at this stage. WBPDCL may approach the Commission for approval AAD, if any, after finalization of the project cost.
- 3.13.3 Further, the Commission observes that the cumulative Depreciation and AAD admitted from 2007 08 to 2018 19 comes to Rs. 497178.55 Lakh against the Loan Repayment made by WBPDCL during the period is Rs. 499873.29 Lakh as given in the statement at Annexure 3A. Since, the amount of loan repayment exceeds the amount of cumulative depreciation, as such, no interest credit is admissible to WBPDCL.

#### 3.14 Reserve for Unforeseen Exigencies:

WBPDCL did not claim any amount in respect of Reserve for Unforeseen Exigencies. Hence, no amount is admitted by the Commission.

Further, in terms of regulation 5.11 read with 5.24 of the Tariff Regulation, the generating company is required to maintain the reserve/ fund and the interest accrued from the investment shall be reinvested under the same reserve/ fund. The Commission observes that WBPDCL has adhered to the provisions stated in the regulations and maintained the said reserve.



#### 3.15 O&M Charges paid to PGCIL for Sagardighi Transmission System:

WBPDCL has entered into agreement with PGCIL on 28.06.2017 for operation and maintenance of Farakka - Subhasgram 400 kV Single Circuit line LILO at Sagardighi and Sagardighi - Parulia 400 kV Double Circuit line and associated bays at Parulia (Durgapur) and Sagardighi TPP. WBPDCL has claimed a sum of Rs. 115.91 Lakh in their APR petition for FY 2018-19. The Commission admits the amount of Rs. 115.91 Lakh in FY 2018-19 for Sagardighi transmission system, being within the norms of CERC.

#### 3.16 Taxes payable under Income Tax Act:

3.16.1 WBPDCL has claimed for Rs. 829.40 Lakh in their APR petition. WBPDCL has also submitted documentary evidence of taxes paid for FY 2018-19. The Commission observes that the tax applicable for FY 2018-19 is Rs. 829.40 Lakh and accordingly admits the same.

Table 34: Income Tax admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff Order | Claimed | Admitted |
|---------------|--------------|---------|----------|
| Kolaghat      | 0.00         | 0.00    | 0.00     |
| Bakreswar     | 0.00         | 483.65  | 483.65   |
| Bandel I      | 0.00         | 0.00    | 0.00     |
| Bandel II     | 0.00         | 0.00    | 0.00     |
| Santaldih     | 0.00         | 117.77  | 117.77   |
| Sagardighi I  | 0.00         | 0.00    | 0.00     |
| Sagardighi II | 0.00         | 227.98  | 227.98   |
| Total         | 0.00         | 829.40  | 829.40   |

#### 3.17 Insurance Premium

3.17.1 WBPDCL has claimed an amount of Rs. 1658.99 Lakh for Insurance premium incurred during 2018 – 19 which corresponds to the amount appearing at note 38 to the Audited Financial Statements. The Commission accordingly admits the same.

Table 35: Insurance Premium admitted for FY 2018-19 (Rs. Lakh)

| <b>Power Station</b> | Tariff Order | Claimed | Admitted |
|----------------------|--------------|---------|----------|
| Kolaghat             | 310.04       | 310.11  | 310.11   |
| Bakreswar            | 449.24       | 667.56  | 667.56   |
| Bandel I             | 9.40         | 25.32   | 25.32    |
| Bandel II            | 16.85        | 45.37   | 45.37    |
| Santaldih            | 122.96       | 202.77  | 202.77   |
| Sagardighi I         | 169.75       | 230.19  | 230.19   |
| Sagardighi II        | 238.02       | 177.68  | 177.68   |
| Total                | 1316.26      | 1658.99 | 1658.99  |



#### 3.18 Rates and Taxes

3.18.1 In terms of Tariff Regulations, rates and taxes are recognized as separate items and categorized the same as uncontrollable. WBPDCL has claimed an amount of Rs. 61.59 Lakh under the head Rates and Taxes. WBPDCL has also claimed Rs. 24.25 Lakh as Filing Fees and Rs. 177.33 Lakh as 'License and Registration Fees'. The amount of Rs. 61.59 Lakh, Rs. 24.25 Lakh and Rs. 177.33 Lakh as "Rates and Taxes", 'Filing fees' and License and Registration Fees' respectively has been depicted in Note 38 on 'other expenses' of the Audited Financial Statements. The Commission has already considered 'License and Registration Fees' as part of A&G expenses under Operation and Maintenance Expenses. Accordingly, The Commission admits Rs. 85.84 Lakh as Rates and Taxes" and 'Filing fees' and allocated the same to different generating stations as per unit wise accounts as under:

Table 36: Rent. Rates and Taxes admitted for FY 2018-19 (Rs. Lakh)

| 01         | 0                     | As you Touiss       | Claim           | Claimed         |          |  |
|------------|-----------------------|---------------------|-----------------|-----------------|----------|--|
| SI.<br>No. | Generating<br>Station | As per Tariff order | Rates and Taxes | Filling<br>Fees | Admitted |  |
| 1          | Kolaghat              | 25.91               | 6.43            | 5.55            | 11.98    |  |
| 2          | Bakreswar             | 43.35               | 10.78           | 7.39            | 18.17    |  |
| 3          | Bandel-I              | 37.57               | 12.60           | 0.48            | 13.08    |  |
| 4          | Bandel-II             | 67.32               | 22.57           | 0.85            | 23.42    |  |
| 5          | Santaldih             | 43.16               | 3.18            | 3.67            | 6.85     |  |
| 6          | Sagardighi-I          | 25.06               | 3.40            | 3.56            | 6.96     |  |
| 7          | Sagardighi-II         | 16.63               | 2.63            | 2.75            | 5.38     |  |
|            | Overall               | 259.00              | 61.59           | 24.25           | 85.84    |  |

#### 3.19 Eastern Regional Power Committee (ERPC) Charges

3.19.1 WBPDCL has claimed a sum of Rs 16 Lakh towards ERPC charges which corresponds to the amount appearing at note 38 of Audited Financial Statements. The Commission accordingly admits the same.

Table 37: ERPC Charges admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff Order | Claimed | Admitted |
|---------------|--------------|---------|----------|
| Kolaghat      | 3.09         | 3.07    | 3.07     |
| Bakreswar     | 5.14         | 5.12    | 5.12     |
| Bandel I      | 0.33         | 0.33    | 0.33     |
| Bandel II     | 0.59         | 0.59    | 0.59     |
| Santaldih     | 2.54         | 2.54    | 2.54     |
| Sagardighi I  | 1.80         | 2.45    | 2.45     |
| Sagardighi II | 2.51         | 1.89    | 1.89     |
| Total         | 16.00        | 16.00   | 16.00    |

#### 3.20 Return on Equity

3.20.1 The return on Equity for different operating generating stations of WBPDCL, as were considered in the



tariff order for FY 2018-19 and as now being claimed by them are as under:

Table 38: RoE claimed for FY 2018-19 (Rs. Lakh)

| 30. NOE Claimed for FT 2010-13 (1 |              |          |  |  |  |
|-----------------------------------|--------------|----------|--|--|--|
| Power Station                     | Tariff Order | Claimed  |  |  |  |
| Kolaghat                          | 13817.00     | 14457.79 |  |  |  |
| Bakreswar                         | 19583.03     | 22290.26 |  |  |  |
| Bandel I                          | 251.00       | 280.09   |  |  |  |
| Bandel II                         | 2923.15      | 3144.95  |  |  |  |
| Santaldih                         | 9415.33      | 11533.24 |  |  |  |
| Sagardighi I                      | 11851.25     | 13691.15 |  |  |  |
| Sagardighi II                     | 26643.70     | 28312.30 |  |  |  |
| Total                             | 84484.46     | 93709.77 |  |  |  |

3.20.2 The Commission in the instant case decides to proceed with the ROE determination for FY 2018-19 after considering the figures approved in Order Case No. OA-430/22-23 dated 05.09.2023 and Order dated 11.12.2023 for Capital Cost of Santaldih Unit V. The Return on Equity for each generating station is calculated considering the admissible opening equity base for 2018 – 19 same as the closing equity base allowed in APR Order for 2017 – 18 and 30% of the asset addition admitted for 2018 – 19. The detailed computation is shown below:

Table 39: RoE calculated for FY 2018-19 (Rs. Lakh)

| SI No. | Particulars   | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi<br>I | Sagardighi<br>II |
|--------|---|----------|-----------|----------|-----------|-----------|-----------------|------------------|
| 1      | Actual Equity Base Opening (Govt. Sanction)                               | 87329.40 | 139910.14 | 5665.00  | 16957.00  | 72900.00  | 82500.00        | 180885.00        |
| 2      | Actual Equity from Free Reserve Opening                                   | 5142.83  | 1869.92   | 897.92   |           | 3137.30   | 3600.35         | 120.42           |
| 3      | Total Actual Opening Equity (1+2)   | 92472.23 | 141780.06 | 6562.92  | 16957.00  | 76037.30  | 86100.35        | 181005.42        |
| 4      | Actual Addition in Equity<br>Base (Govt. Sanction)                        | 0        | 0.00      | 0.00     | 0.00      | 0.00      | 0.00            | 0.00             |
| 5      | Available Free reserve at<br>the end of the year (less<br>equity in sl 2) |          |           |          | 113671.89 |           |                 |                  |
| 6      | Deletion in Equity Base   | . 0      | 0.00      | 0.00     | 0.00      | 0.00      | 0.00            | 0.00             |
| 7      | Admissible Opening Equity Base  | 90056.35 | 138840.72 | 6421.20  | 16957.00  | 72728.69  | 85664.59        | 180885.00        |
| 8      | Admissible Opening Free Reserve as Equity                                 | 2415.88  | 454.82    | 141.72   | 0.00      | 1465.22   | 435.76          | 120.42           |
| 9      | Total Admissible Opening Equity (7+8)                                     | 92472.23 | 139295.54 | 6562.92  | 16957.00  | 74193.91  | 86100.35        | 181005.42        |
| 10     | Net Addition in Fixed<br>Asset admitted (excluding<br>grant)              | 3894.33  | 764.00    | 49.43    | 349.09    | 379.53    | 365.51          | 282.17           |
| 11     | Normative Equity Addition 30% of 10                                       | 1168.30  | 229.20    | 14.83    | 104.73    | 113.86    | 109.65          | 84.65            |



#### Order on FPPCA and APR of WBPDCL for FY 2018-19

| SI No. | Particulars   | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi<br>I | Sagardighi<br>II |
|--------|---|----------|-----------|----------|-----------|-----------|-----------------|------------------|
| 12     | Addition of equity (Govt Sanction)                  | 0.00     | 0.00      | 0.00     | 0.00      | 0.00      | 0.00            | 0.00             |
| 13     | Addition in Equity Base (Free Reserve upto sl no 5) | 1168.30  | 229.20    | 14.83    | 104.73    | 113.86    | 109.65          | 84.65            |
| 14     | Admissible Equity Base Closing (9+12+13)            | 93640.53 | 139524.74 | 6577.75  | 17061.73  | 74307.77  | 86210.00        | 181090.07        |
| 15     | Avg. Equity Base                                    | 93056.38 | 139410.14 | 6570.34  | 17009.37  | 74250.84  | 86155.18        | 181047.75        |
| 16     | RoE at 15.5%  | 14423.74 | 21608.57  | 1018.40  | 2636.45   | 11508.88  | 13354.05        | 28062.40         |
| 17     | Admissible Equity Closing                           | 90056.35 | 138840.72 | 6421.20  | 16957.00  | 72728.69  | 85664.59        | 180885.00        |
| 18     | Admissible Free reserve Closing                     | 3584.18  | 684.02    | 156.55   | 104.73    | 1579.08   | 545.41          | 205.07           |

- 3.20.3 As enumerated in paragraph 3.2 above, 5% of Return on Equity in respect of Bakreswar Stage II, Bandel Stage II, Santaldih Unit VI, Sagardighi Stage I and Sagardighi Stage II has been withheld. Further, ROE for the transmission system for Bakreswar and Sagardighi Stage I being operated by WBSETCL is to be recovered from WBSETCL itself. The ROE claimed for Santaldih generating station includes an amount of Rs. 729.53 Lakh pertaining to transmission system related to Santaldih generating station (Units V & VI) as per Appendix to Form E in Annexure-1 of the petition. As the transmission system has not been handed over to WBSETCL and the system is not put to use, the said amount is neither to be recovered from WBSETCL by WBPDCL nor to be admitted as ROE for FY 2018-19. Accordingly, the same has been disallowed.
- 3.20.4 Accordingly, the admitted ROE for the generating stations of WBPDCL are as below:

Table 40: RoE admitted for FY 2018-19 (Rs. Lakh)

|                                     | lable    | 40. NOL au | IIIIttea ioi i | 1 2010 10 | (110. Eaiti) |              |               |
|-------------------------------------|----------|------------|----------------|-----------|--------------|--------------|---------------|
| Particulars                         | Kolaghat | Bakreswar  | Bandel I       | Bandel II | Santaldih    | Sagardighi I | Sagardighi II |
| Admissible ROE                      | 14423.74 | 21608.57   | 1018.40        | 2636.45   | 11508.88     | 13354.05     | 28062.40      |
| Withheld ROE @ 5%                   | 0.00     | 432.17     | 0.00           | 131.82    | 277.15       | 667.70       | 1403.12       |
| Disallowed ROE (Tr system)          | 0.00     | 0.00       | 0.00           | 0.00      | 729.53       | 0.00         | 0.00          |
| Admitted ROE                        | 14423.74 | 21176.40   | 1018.40        | 2504.63   | 10502.20     | 12686.35     | 26659.28      |
| ROE Allocated to Transmission Line  | 0.00     | 928.65     | 0.00           | 0.00      | 0.00         | 134.03       | 0.00          |
| Admitted ROE for Generating Station | 14423.74 | 20247.75   | 1018.40        | 2504.63   | 10502.20     | 12552.32     | 26659.28      |

#### 3.21 Interest on Working Capital

3.21.1 On the basis of Regulation 5.6.5.1 and 5.6.5.2 of the Tariff Regulations, Commission allowed interest on working capital for each generating stations in its tariff order for FY 2018-19. WBPDCL had taken working capital loans from the nationalized banks on payment of interest. It is observed that the opening balances of Working Capital Loans and Loans stated to have been availed of for Temporary



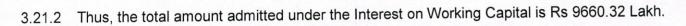
#### Order on FPPCA and APR of WBPDCL for FY 2018-19

accommodation as submitted in Form C are not tallying with the closing balances submitted by WBPDCL in their Petition of 2018-19 (Form C). Due to such data inconsistency, the figures of Form 1.17 (b) have been considered as actual interest paid. The Commission vide Paragraph 7 of its order dated April 6, 2022 in Case No SM-30/21-22 has ordered that "The interest on working capital which has already been determined for the period effective on and from 01.04.2016 in the tariff orders issued by the Commission considering the SBI PLR/MCLR without any float will be trued up based on actual working capital interest paid, subject to the ceiling of the interest on working capital assessed on normative basis at the rate of one-year MCLR of SBI, as on 1st April of the concerned year, plus 350 basis points." The one-year Marginal Cost of Lending Rates (MCLR of the State Bank of India as on 1st April, 2018 was 8.15%. The Commission thus has considered normative Interest on working capital at the rate of 11.65 % (8.15 % + 3.50 %) for interest calculation as per regulation 5.6.5.2 of Tariff Regulations. The following table shows the calculation in this regard:

Table 41: IoWC admitted for FY 2018-19 (Rs. Lakh)

| SI.<br>No. | Particulars   | Kolaghat  | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi<br>Stg I | Sagardighi<br>Stg II |
|------------|---|-----------|-----------|----------|-----------|-----------|---------------------|----------------------|
| Α          | Gross Sales   | 187696.23 | 253639.51 | 21563.66 | 46562.64  | 139482.95 | 126513.57           | 217339.97            |
| B1         | Less: Depreciation including Advance Depreciation               | 1491.30   | 16913.58  | 152.32   | 2390.05   | 9193.14   | 10290.54            | 20429.75             |
| B2         | Less: Deferred<br>Revenue<br>Expenditure                        | 0.00      | 0.00      | 0.00     | 0.00      | 0.00      | 0.00                | 0.00                 |
| В3         | Less: Return on<br>Equity                                       | 14423.74  | 21176.40  | 1018.40  | 2504.63   | 10502.20  | 12686.35            | 26659.28             |
| B4         | Less: Reserve for unforeseen exigencies                         | 0.00      | 0.00      | 0.00     | 0.00      | 0.00      | 0.00                | 0.00                 |
| В          | Total Deductions (sum B1:B4)                                    | 15915.04  | 38089.98  | 1170.72  | 4894.68   | 19695.34  | 22976.89            | 47089.03             |
| С          | Allowable Gross<br>Sales for Working<br>Capital (A-B)           | 171781.19 | 215549.53 | 20453.91 | 41794.85  | 119787.61 | 103840.07           | 170256.49            |
| D          | Allowable Working Capital @ 10% on C                            | 17178.12  | 21554.95  | 2045.39  | 4179.49   | 11978.76  | 10384.01            | 17025.65             |
| Е          | Interest Rate at SBI<br>MCLR+ 350 basis<br>points               | 11.65%    | 11.65%    | 11.65%   | 11.65%    | 11.65%    | 11.65%              | 11.65%               |
| F          | Interest on Working<br>Capital (E on D)                         | 2001.25   | 2511.15   | 238.29   | 486.91    | 1395.53   | 1209.04             | 1983.42              |
| G          | Actual interest paid  | 2951.93   | 4920.88   | 318.36   | 570.37    | 2444.55   | 2354.20             | 1817.45              |
|            | Interest on<br>working capital<br>allowable (Lower<br>of F & G) | 2001.25   | 2511.15   | 238.29   | 486.91    | 1395.53   | 1209.74             | 1817.45              |





#### 3.22 Income from Other Sources / Non-Tariff Income

3.22.1 WBPDCL has claimed an amount of Rs. 10048.23 Lakh as Non-Tariff Income for FY 2018 – 19. However, the Commission has referred to the relevant amount recognized in Note 34 of the Audited Financial Statement for 2018 – 19. From the said note, the Commission observed that sum of Rs. 7261.91 Lakh, Rs. 4.82 Lakh and Rs. 54.16 Lakh pertains to interest income on 'Term Deposits, Security Deposits, from employees' respectively. Besides, a sum of Rs. 14743.79 Lakh pertains to Miscellaneous receipts wherefrom after deduction of Liquidated Damage of Rs. 11922.77 Lakh, the net Miscellaneous receipts arrive at Rs. 2821.02 Lakh. Thus, the total amount admissible amount on account of Non-Tariff Income is Rs. 10141.91 Lakh (7261.91 + 4.82 + 54.16 + 2821.02). The Commission accordingly considers the same and allocates the Non-Tariff Income in proportion to the claim of respective generating stations of WBPDCL.

Table 42: NTI admitted for FY 2018-19 (Rs. Lakh)

| Power Station | Tariff<br>Order | Claimed  | Admitted |
|---------------|-----------------|----------|----------|
| Kolaghat      | 2309.46         | 2582.53  | 2606.61  |
| Bakreswar     | 1832.13         | 3071.71  | 3100.35  |
| Bandel I      | 532.96          | 305.33   | 308.18   |
| Bandel II     | 1129.69         | 547.06   | 552.16   |
| Santaldih     | 914.37          | 1326.89  | 1339.26  |
| Sagardighi I  | 1273.99         | 1390.48  | 1403.44  |
| Sagardighi II | 1698.33         | 824.23   | 831.91   |
| Total         | 9690.93         | 10048.23 | 10141.91 |

### 3.23 Cost of associated transmission system recoverable from West Bengal State Electricity Transmission Company Limited (WBSETCL)

3.23.1 The transmission systems constructed by WBPDCL for Bakreswar generating station is an integral part of the transmission system being operated by WBSETCL. The 220 kV transmission systems constructed by WBPDCL for Sagardighi generating Station is an integral part of the transmission system being operated by WBSETCL. For both the above associated transmission systems of Bakreswar and Sagardighi generating station operated by WBSETCL, WBPDCL has submitted the details of ROE, interest on loan and depreciation in appendix to Form E of the submitted petition of the respective generating stations. For Santaldih generating station no cost is, however, recoverable from WBSETCL for the reasons stated in earlier paragraphs. Thus, charges recoverable for the associated transmission assets of Bakreswar and Sagardighi generating stations are found in the table below:



Table 43: Cost Recoverable from WBSETCL for FY 2018-19 (Rs. Lakh)

| Particulars      | Bakreswar | Sagardighi I |
|------------------|-----------|--------------|
| Interest on Loan | 0.00      | 58.80        |
| Depreciation     | 441.09    | 109.86       |
| RoE              | 928.65    | 134.03       |
| Total            | 1369.74   | 302.69       |

- 3.23.2 In the tariff order for FY 2018-19 WBPDCL was allowed to recover the cost of Bakreswar transmission system from WBSETCL. Any difference in realization of cost of Bakreswar transmission system and the amount admitted in this APR order for 2018-19 shall be recoverable from WBSETCL by WBPDCL. The amount of Rs. 1369.74 Lakh and Rs. 302.69 Lakh are now admitted for recovery from WBSETCL being the charges for Bakreswar and Sagardighi transmission systems.
- 3.23.3 The recoverable amount has been considered as per WBPDCL Accounts at present. Commission hereby directs WBPDCL to take up the matter with WBSETCL and make proper reconciled statement by both parties and submit a report in the next APR application with due adjustment.

#### 3.24 Fixed Charges

3.24.1 Based on the foregoing analyses, the amount of fixed charges allowable under different heads in respect of the concerned generating stations have been shown in Annexure-3B. As shown in the referred annexure, the total amount of fixed charges for the concerned generating stations are given in the table below:

Table 44: Fixed Charges Admitted for FY 2018-19 (Rs. Lakh)

Figures in Rs. Lakh

|   | Particulars   | Kolaghat | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II |
|---|---------------|----------|-----------|----------|-----------|-----------|--------------|---------------|
| 1 | Fixed Charges | 48186.70 | 78278.26  | 5777.13  | 13808.75  | 46245.76  | 41595.87     | 102753.36     |

3.24.2 The above fixed charge is, however, recoverable at the level of Plant Availability Factor (PAF) achieved by the respective generating stations.

#### 3.25 Treatment of Inoperative Asset

3.25.1 WBPDCL has submitted that consequent upon the order of the National Green Tribunal, Unit I and Unit III of Kolaghat TPS remained inoperative during 2018 – 19. Similarly, Unit IV of Sagardighi Stage II TPS was under shutdown due to Turbine Vibration for 2150.90 Hours during 2018 – 19. This has resulted in reduced Plant Availability Factor for Kolaghat TPS and Sagardighi Stage II TPS. In view of the above, WBPDCL prayed to treat the assets as inoperative and allow the capacity charge following regulation 5.25 of the Tariff Regulations.



3.25.2 The Commission observes that in terms of regulation 5.25.1, any asset of a generating company remains inoperative for more than three months due to break down or force majeure events qualifies as inoperative asset. From the submission, the Commission observes that the order of National Green Tribunal is related to failure of Kolaghat TPS to comply with the pollution norms. Moreover, WBPDCL has not substantiated that such failure of controlling the pollution could not be prevented with exercise of reasonable care and diligence. Thus, the Commission is of the considered opinion that the same does not fall as 'Force Majeure Event' as defined under the Tariff Regulations. Accordingly, the Commission observes that Unit I and Unit III of Kolaghat TPS does not qualify under provisions of inoperative asset in terms of regulation 5.25.1 of the Tariff Regulations. Further, the Commission also observes that the shut-down of Unit IV of Sagardighi Stage II TPS for 2150.90 Hours does not qualify under the provisions of inoperative asset in terms of regulation 5.25.1 of the Tariff Regulations.

#### 3.26 Capacity Charge

3.26.1 The re-determined capacity charges of each generating station are now required to be adjusted as per PAF achieved during FY 2018-19 following the provisions of the Tariff Regulations. The computations in this regard are given in the table below:

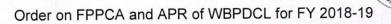
Table 45: Capacity Charge Admitted for FY 2018-19 (Rs. Lakh)

|           | l able 4  | o: Capacii | ly Charge A | unnitted it | 71 1 2010 | -10 (110. E | akiij        |               |
|-----------|---|------------|-------------|-------------|-----------|-------------|--------------|---------------|
| SI<br>No. | Particulars   | Kolaghat   | Bakreswar   | Bandel I    | Bandel II | Santaldih   | Sagardighi I | Sagardighi II |
| 1         | Target PAF (%)                                      | 75.00      | 85.00       | 70.00       | 77.00     | 85.00       | 85.00        | 85.00         |
| 2         | PAF Achieved (%)                                    | 42.30      | 82.53       | 37.08       | 54.01     | 84.48       | 53.35        | 41.18         |
| 3         | Fixed Charges (Rs. Lakh)                            | 48186.70   | 78278.26    | 5777.13     | 13808.75  | 46245.76    | 41595.87     | 102753.36     |
| 4         | Coal & Ash Handling Charges<br>(Rs. Lakh)           | 1880.51    | 1795.02     | 44.82       | 122.65    | 1646.54     | 234.19       | 181.34        |
| 5         | Water Charges (Rs. Lakh)                            | 0.00       | 0.00        | 0.00        | 0.00      | 455.07      | 0.00         | 0.00          |
| 6         | Capacity Charge to be considered (Rs. Lakh) (3-4-5) | 46306.19   | 76483.24    | 5732.31     | 13686.10  | 44144.15    | 41361.68     | 102572.02     |
| 7         | Proportionate Capacity Charge (Rs. Lakh)            | 26116.69   | 75137.13    | 3036.49     | 9599.82   | 44009.12    | 28742.02     | 55017.39      |
| 8         | Capacity Charge Admitted on PAF (Rs. Lakh) (7+4+5)  | 27997.20   | 76932.15    | 3081.31     | 9722.47   | 46110.73    | 28976.21     | 55198.73      |

#### 3.27 Performance Incentive

- 3.27.1 In terms of regulation 2.6.1 of the Tariff Regulations, the annual performance review of WBPDCL shall cover annual fixed charges and cost, incentives as per Schedule 10 and effects of gain sharing on the parameters under Schedule 9B which are not covered under the process of FPPCA.
- 3.27.2 From Table 1 above, it is observed that Kolaghat, Bakreswar and Sagardighi I have achieved oil rate lower than the normative oil rate. Therefore, the amount of incentive applicable for less oil consumption





than norms as per Paragraph 3 of Schedule 10 of the Tariff Regulations is detailed below:

Table 46: Incentive Admitted for FY 2018-19 (Rs. Lakh)

| Incentive     | Normative Oil<br>Consumption<br>(mL/kWh) | Actual Oil<br>Consumption<br>(mL/kWh) | Difference<br>(mL/kWh) | Gross Generation<br>(MU) | Applicable<br>Incentive<br>(paise./kWh) | Applicable<br>Incentive<br>(Rs. Lakh) |
|---------------|--|---------------------------------------|------------------------|--------------------------|---|---------------------------------------|
| Kolaghat#     | 2.00                                     | 1.76                                  | 0.24                   | 4422.867                 | 0.00                                    | 0.00                                  |
| Bakreswar     | 1.30                                     | 0.43                                  | 0.87                   | 7182.224                 | 0.30                                    | 215.47                                |
|               | 1.00                                     | 0.96                                  | 0.04                   | 2624.880                 | 0.00                                    | 0.00                                  |
| Sagardighi I# | 1.00<br>applicable for Kolaghat          |                                       |                        |                          |   | ns                                    |

3.27.3 The Commission admits Incentive for Improved Performance amounting to Rs. 215.47 Lakh for Bakreswar TPS on account of less oil consumption than norms.



# ANNEXURE-3A OAN REPAYMENT TILL 2018 -

| 4771.79           | 6.30                               | 9846.30      | 216815.37         | 199892.47                          | 1998         | 7904.99           | 15087.47                           | 150          | Cumulative        |
|-------------------|------------------------------------|--------------|-------------------|------------------------------------|--------------|-------------------|------------------------------------|--------------|-------------------|
| 0.00              | 0.00                               | 2543.39      | 10,187.43         | 0.00                               | 16913.58     | 0.00              | 0.00                               | 1491.30      | 2018 - 19         |
| 1420.38           | 0.00                               | 2532.04      | 11,010.77         | 0.00                               | 17657.11     | 0.00              | 0.00                               | 1133.37      | 2017 - 18         |
| 1445.35           | 0.00                               | 2629.50      | 83,834.50         | 0.00                               | 18123.03     | 0.00              | 0.00                               | 1086.81      | 2016 - 17         |
| 1331.94           | 0.00                               | 854.56       | 5,160.00          | 0.00                               | 18983.65     | 0.00              | 0.00                               | 748.33       | 2015 - 16         |
| 574.12            | 0.00                               | 120.73       | 5,460.00          | 0.00                               | 18939.90     | 0.00              | 0.00                               | 758.24       | 2014 - 15         |
| 0.00              | 0.00                               | 114.12       | 38,901.37         | 0.00                               | 18867.47     | 0.00              | 0.00                               | 761.54       | 2013 - 14         |
| 0.00              | 0.00                               | 134.05       | 1,200.00          | 0.00                               | 18839.03     | 0.00              | 0.00                               | 756.02       | 2012 - 13         |
| 0.00              | 0.00                               | 149.92       | 2,443.02          | 0.00                               | 19073.42     | 0.00              | 0.00                               | 825.23       | 2011 - 12         |
| 0.00              | 0.00                               | 160.02       | 256.98            | 0.00                               | 19008.02     | 409.37            | 0.00                               | 1248.98      | 2010 - 11         |
| 0.00              | 0.00                               | 202.88       | 18,638.10         | 0.00                               | 11923.52     | 654.88            | 0.00                               | 3305.68      | 2009 - 10         |
| 0.00              | 0.00                               | 192.35       | 7,664.82          | 0.00                               | 10782.42     | 939.90            | 0.00                               | 1317.86      | 2008 - 09         |
| 0.00              | 0.00                               | 212.74       | 32,058.38         | 0.00                               | 10781.32     | 5900.85           | 0.00                               | 1654.11      | 2007 - 08         |
| Loan<br>Repayment | Advance<br>Against<br>Depreciation | Depreciation | Loan<br>Repayment | Advance<br>Against<br>Depreciation | Depreciation | Loan<br>Repayment | Advance<br>Against<br>Depreciation | Depreciation | Financial<br>Year |
|                   | Bandel                             |              |                   | Bakreswar                          |              |                   | Kolaghat                           |              |                   |

| Cumulative | 2018 - 19 | 2017 - 18 | 2016 - 17 | 2015 - 16 | 2014 - 15 | 2013 - 14 | 2012 - 13 | 2011 - 12 | 2010 - 11 | 2009 - 10 | 2008 - 09 | 2007 - 08 |              | Year         | Financial |               |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|--------------|-----------|---------------|
| 970        | 9193.14   | 9754.07   | 9727.84   | 9762.23   | 9617.62   | 9617.62   | 10618.25  | 8616.42   | 6416.22   | 5891.52   | 266.12    | 238.06    |              | Depreciation |           |               |
| 97027.24   | 0.00      | 777.30    | 0.00      | 358.93    | 1317.31   | 0.00      | 4484.26   | 80.88     | 289.45    | 0.00      | 0.00      | 0.00      | Depreciation | Against      | Advance   | Santaldih     |
| 97342.96   | 11658.36  | 10917.35  | 7500.25   | 10826.60  | 11750.15  | 9452.94   | 15102.52  | 8697.30   | 6705.67   | 4731.82   | 0.00      | 0.00      | admitted     | Repayment    | Loan      |               |
| 123        | 10290.54  | 10973.96  | 11460.32  | 11665.50  | 11707.33  | 11291.63  | 11106.95  | 11027.89  | 10998.78  | 10983.94  | 5296.36   | 0.00      |              | Depreciation |           |               |
| 123402.82  | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 182.24    | 366.92    | 445.98    | 462.71    | 3512.59   | 1629.18   | 0.00      | Depreciation | Against      | Advance   | Sagardighi I  |
| 124556.64  | 11473.87  | 11356.00  | 11473.87  | 11473.87  | 11473.87  | 11473.87  | 11473.87  | 11473.87  | 11461.49  | 14496.52  | 6925.54   | 0.00      | Topal IIIoii | Renayment    | loan      |               |
| 519        | 20429.75  | 20530.67  | 10961.83  |           |           |           |           |           |           |           |           |           |              | Depreciation |           |               |
| 51922.25   | 0.00      | 0.00      | 0.00      |           |           |           |           |           |           |           |           |           | Depreciation | Against      | Advance   | Sagardighi II |
| 48481.53   | 28107.21  | 203/4.32  | 0.00      |           |           |           |           |           |           |           |           |           |              | Re           | Loan      |               |







## ANNEXURE-3B SUMMARY OF FIXED CHARGE FOR FY 2018-19

Figures in Rs. Lakh

| ې  | 22      | 21   | 20                                     | 16                          | 18                         | 17                        | 16     | 15                 | 14                           | 13       | 12            | -                           | 10                                  | 9                            | <sub>∞</sub>                     | 7                 | 6  | 5  | 4                                | ω               | 2                           | _                | <u>ه</u>              |
|--|---------|------|--|-----------------------------|----------------------------|---------------------------|--------|--------------------|------------------------------|----------|---------------|-----------------------------|-------------------------------------|------------------------------|----------------------------------|-------------------|--|--|----------------------------------|-----------------|-----------------------------|------------------|-----------------------|
| 23 Net Fixed Charges   |         |      | ) Less: Income from Non-Tariff Sources | 19 Gross Fixed Charges      | 18 Charges Payable to ERPC | Return on Equity          |        | Taxes under IT Act | Advance Against Depreciation | _        | $\rightarrow$ | Interest on Working Capital | Interest on Temporary Accommodation | 9 Interest on Normative Loan | 8 Interest on Capital Borrowings | Insurance Premium | Rates & Taxes, License & Registration Fee, Filing Fees, etc. | O&M Expenses for associated<br>Transmission System | Operation & Maintenance Expenses | 3 Water Charges | Coal & Ash Handling Charges | Employee Cost    | Head of Fixed Charges |
| 53130.63   | 0.00    |      | 2582.53                                | 55713.16                    | 3.07                       | 14457.79                  |        | 0.00               | 0.00                         | 1559.09  | 284.45        | 2951.93                     | 2484.04                             | 0.00                         | 0.00                             | 310.11            | 11.98  | 0.00   | 15963.10                         | 0.00            | 3363.68                     | 14024.55         | KTPS                  |
| 53130.63   90622.11   6858.21   18214.82                       | 1369.74 |      | 3071.71                                | 95063.56                    | 5.12                       | 14457.79 22074.81         |        | 483.65             | 0.00                         | 17803.98 | 472.87        | 4920.88                     | 4140.91                             | 208.98                       | 11274.46                         | 667.56            | 18.17  | 0.00   | 16594.43                         | 0.00            | 2100.31                     | 14209.12         | BKTPS                 |
| 6858.21  | 0.00    |      | 305.33                                 | 7163.54                     | 0.33                       | 346.39                    |        | 0.00               | 0.00                         | 159.46   | 30.60         | 318.34                      | 267.89                              | 0.00                         | 0.00                             | 25.32             | 13.08  | 0.00   | 3496.84                          | 0.00            | 73.36                       | 2430.98          | BTPSI                 |
| 18214.82   | 0.00    |      | 547.06                                 | 18761.88                    | 0.59                       | 3263.80                   |        | 0.00               | 0.00                         | 2559.43  | 54.83         | 570.37                      | 479.96                              | 0.00                         | 986.33                           | 45.37             | 23.42  | 0.00   | 6264.93                          | 0.00            | 131.43                      | 4355.50          | BTPS II               |
| 54079.79   |         |      | 1326.89                                | 5                           | 2.54                       | 11532.84                  |        | 117.77             | 264.61                       | 11393.75 | 236.53        | 2444.56                     | 2057.09                             | 0.00                         | 9820.37                          | 202.77            | 6.85   | 0.00   | 6561.67                          | 455.07          | 1767.00                     | 10412.40         | STPS                  |
| 53147.33   |         |      | 1390.48                                | 5                           |                            | 1369                      |        | 0.00               | 251.20                       | 1        | 3569.13       | 2354.20                     | 1981.05                             | 79.77                        | 6006.89                          | 230.19            | 6.96   | 115.91   | 7281.86                          | 0.00            | 574.11                      | 7418.12          | SGTPSI                |
| 116068.89  |         |      | 824.23                                 |                             |                            | 2831                      |        | 227.98             | 6315.32                      | 21791.88 | 173.96        | 1817.45                     | 1529.37                             | 0.00                         | 44952.58                         | 1//.68            | 5.38   | 0.00   | 5412.65                          | 0.00            | 443.14                      | 5725.92          | SGTPS II              |
| _  |         | 0.00 | 260                                    | 5                           | 3.07                       | -                         | +      |                    | 0.00                         | 149      | 284.46        | 2                           |                                     | 0.00                         |                                  | C.                |  | 0.00   | 16262.4/                         |                 | 188                         | 1                |                       |
| 18218.26   | 1369.74 | 0.00 | 310                                    | 82/48.35                    | 5.12                       | 117                       | 0.00   | 48                 |                              | 1691     | 472.87        | 2                           | 166.48                              | 0.00                         | 0.00 10/10./3                    | 00.700            | 18.17  | 0.00   | 13618.50                         | 0.00            | 1/95.02                     | 14209.12 2430.98 | BKTPS                 |
| 5///.13  | 0.00    | 0.00 | C.                                     | 6085.31                     | 0.33                       | 1018.40                   | 0.00   |                    |                              | 15       | 30.60         |                             | 118                                 | 0.00                         | 0.00                             | 25.52             | 13.08  | 0.00   | 2120.40                          | 0.00            | 44.82                       | 2430.98          | BTPSI                 |
| 13808.75   | 0.00    | 0.00 | 552.16                                 | 14360.91                    | 0.59                       | 2504.63                   | 0.00   | 0.00               | 0.00                         | 2390.05  | 54.83         | 486.97                      | 19.30                               | 0.00                         | 937.01                           | 40.07             | 23.42  | 0.00   | 3420.05                          | 0.00            | 122.65                      | 4355.50 10412.40 | BTPS II               |
| 46245.76   | 0.00    | 0.00 | 133                                    | 4/385.02                    | 2.54                       | 2504.63 10502.20 12686.35 | 0.00   | 111.11             | 0.00                         |          |               | 1395.53                     | 82.70                               | 0.00                         | 0310.90                          | 202.77            | 6.85   | 0.00   | 2020.00                          | 455.07          | 1646.54                     | 10412.40         | STPS                  |
| 41090.07   | 302.70  | 0.00 | 140                                    | 43302.01                    | 2.40                       | 12000.33                  | 100000 | 0.00               | 0.00                         | 3201     |               |                             | N H                                 | 0.00                         | 07.00.00                         | 5706 55           | 6.96   | 115.91   | 5130.00                          | 0.00            | 234.19                      | /418.12          | SGTPSI                |
| 48186./0 /82/8.26 5///.13 13808./3 45245./6 41393.6/ 102/33.36 | 0.00    | 0.00 | 0                                      | 4/385.02 43302.01 103385.27 | 103505 27                  | 20009.20                  | 0.00   | 00.00              | 0.00                         | 20429.75 | 1/3.96        | 1817.45                     | 61.49                               | 0.00                         | 42/04.93                         | 40704 05          | 5.38   | 0.00   | 2410.20                          | 0.00            | 101.34                      | 76.07/0          | SGTPS II              |





#### CHAPTER – 4 AMOUNT ADJUSTABLE ON APR

4.1 Based on the forgoing analysis and admissions of the adjustments under different factors / elements of fixed charges and fuel and power purchase cost, the re-determined admitted fixed charges as well as fuel cost of WBPDCL during FY 2018-19 along with sharing of gain and incentives came as under:

Table 47: Net ARR Admitted for FY 2018-19 (Rs. Lakh)

| SI<br>No. | Particulars                            | Kolaghat  | Bakreswar | Bandel I | Bandel II | Santaldih | Sagardighi I | Sagardighi II |
|-----------|--|-----------|-----------|----------|-----------|-----------|--------------|---------------|
| 1         | Admitted Fuel Cost                     | 139509.53 | 175361.25 | 15847.50 | 32880.78  | 93237.19  | 85221.09     | 114592.16     |
| 2         | Capacity Charge                        | 27997.20  | 76932.15  | 3081.31  | 9722.47   | 46110.73  | 28976.21     | 55198.73      |
| 3         | Less: Gain Sharing with WBSEDCL        | 0.00      | 0.00      | 0.00     | 0.00      | 4.97      | 0.00         | 0.00          |
| 4         | Add: Incentives                        | 0.00      | 215.47    | 0.00     | 0.00      | 0.00      | 0.00         | 0.00          |
| 5         | Admitted Net ARR<br>Recovery (1+2-3+4) | 167506.76 | 252508.87 | 18928.81 | 42603.25  | 139342.95 | 114197.30    | 169790.89     |

4.2 WBPDCL vide comprehensive supplementary petition dated 28.11.2022 has submitted the fuel cost and capacity charge recovered during 2018 – 19 in accordance with paragraph 6.5 of the Tariff Order dated 14.07.2021 as below:

Table 48: Revenue Recovered during FY 2018-19 (Rs. Lakh)

Figures in Rs. Lakhs

| Generating<br>Station | Energy Charges<br>Recovered | MFCA<br>Recovered | Capacity<br>Charges<br>Recovered | Total Revenue<br>Recovered |  |  |
|-----------------------|-----------------------------|-------------------|----------------------------------|----------------------------|--|--|
| Kolaghat              | 107636.36                   | 40628.30          | 30226.32                         | 178490.99                  |  |  |
| Bakreswar             | 136421.62                   | 24412.49          | 76130.52                         | 236964.63                  |  |  |
| Bandel I              | 12408.06                    | 2889.17           | 2598.79                          | 17896.02                   |  |  |
| Bandel II             | 24041.89                    | 7675.23           | 8845.74                          | 40562.86                   |  |  |
| Santaldih             | 75597.70                    | 10732.21          | 45739.56                         | 132069.46                  |  |  |
| Sagardighi I          | 54779.02                    | 25967.20          | 27532.00                         | 108278.23                  |  |  |
| Sagardighi II         | 71964.40                    | 25830.50          | 58911.51                         | 156706.41                  |  |  |

4.3 In view of the admitted net ARR in table 47 above, WBPDCL has to recover an amount of Rs. 33910.21 Lakh with cost centre-wise break-up analysis as given below:

Table 49: Amount Adjustable on APR for FY 2018-19 (Rs. Lakh)

| SI<br>No. | Generating<br>Station | Energy<br>Charges<br>Recovered | Capacity<br>Charges<br>Recovered | Revenue<br>Recovered | Fuel Cost<br>as<br>Admitted | Capacity<br>Charges as<br>Admitted | Sharing of<br>Gain with<br>WBSEDCL | Incentives | Revenue<br>Recoverab<br>le | Adjustable<br>Amount |
|-----------|-----------------------|--------------------------------|----------------------------------|----------------------|-----------------------------|------------------------------------|------------------------------------|------------|----------------------------|----------------------|
| 1         | Kolaghat              | 148264.66                      | 30226.32                         | 178490.98            | 139509.53                   | 27997.20                           | 0.00                               | 0.00       | 167506.73                  | 1                    |
| 2         | Bakreswar             | 160834.11                      | 76130.52                         | 236964.63            | 175361.25                   | 76932.15                           | 0.00                               | 215.47     | 252508.87                  | 15544.24             |
|           | Bandel I              | 15297.23                       | 2598.79                          | 17896.02             | 15847.50                    | 3081.31                            | 0.00                               | 0.00       | 18928.81                   | 1032.79              |





#### Order on FPPCA and APR of WBPDCL for FY 2018-19

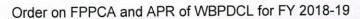
| SI<br>No. | Generating<br>Station    | Energy<br>Charges<br>Recovered | Capacity<br>Charges<br>Recovered | Revenue<br>Recovered | Fuel Cost<br>as<br>Admitted | Capacity<br>Charges as<br>Admitted | Sharing of<br>Gain with<br>WBSEDCL | Incentives | Revenue<br>Recoverab<br>le | Adjustable<br>Amount |
|-----------|--------------------------|--------------------------------|----------------------------------|----------------------|-----------------------------|------------------------------------|------------------------------------|------------|----------------------------|----------------------|
| 4         | Bandel II                | 31717.12                       | 8845.74                          | 40562.86             | 32880.78                    | 9722.47                            | 0.00                               | 0.00       | 42603.25                   | 2040.39              |
|           | Santaldih                | 86329.91                       | 45739.56                         | 132069.47            | 93237.19                    | 46110.73                           | 4.97                               | 0.00       | 139342.95                  | 7273.48              |
|           | Sagardighi I             | 80746.22                       | 27532.00                         | 108278.22            | 85221.09                    | 28976.21                           | 0.00                               | 0.00       | 114197.30                  | 5919.08              |
|           | Sagardighi II            | 97794.90                       | 58911.51                         | 156706.41            | 114592.16                   | 55198.73                           | 0.00                               | 0.00       | 169790.89                  | 13084.48             |
| 8         | Total                    | 620984.15                      | 249984.44                        | 870968.59            | 656649.50                   | 248018.80                          | 4.97                               | 215.47     | 904878.80                  | 33910.21             |
|           | Total Recoverable Amount |                                |                                  |                      |                             |                                    |                                    |            |                            | 33310.21             |

4.4 The Additional Secretary to the Government of West Bengal in the Department of Power & NES vide letter no. 148-PO/O/VS/55-30/2016 dated 05.09.2016 has communicated that in exercise of the power conferred by Section 108 read with Section 65 of the Electricity Act, 2003, the State Government has agreed for extension of grant equivalent to outstanding loan and interest for an amount of Rs. 456316.00 Lakh to WBSEDCL and WBPDCL in the following manner:

WBSEDCL WBPDCL Rs. 264709.00 Lakh Rs. 191607.00 Lakh

- 4.5 It is also mentioned in the aforesaid letter of Additional Secretary to the Government of West Bengal, Department of Power & NES that the grant may be adjusted with the balance regulatory assets up to 2012 - 2013 and realizable amount through APR and FCA / FPPCA claim of the two utilities from 2013 - 2014 onwards.
- 4.6 As per Order in Case No. OA-430/22-23 dated 05.09.2023, the Commission has stated that the balance amount of Government Grant available of Rs. 24443.10 Lakh shall be adjusted subsequently against any recoverable amount through APR and FPPCA claim of WBPDCL for the year 2018 19 onwards. The FPPCA and APR of WBPDCL for FY 2018-19 has now been finalized and total recoverable amount comes at Rs. 33910.21 Lakh. The Commission decides to adjust the recoverable against the remaining grant of 24443.10 Lakh and thus the net recoverable amount comes to Rs. 9467.11 Lakh (Rs. 33910.21 Lakh Rs. 24443.10 Lakh).
- 4.7 Carrying Cost: In terms of clause (iv) of regulation 2.6.6 of the Fourth Amendment of the Tariff Regulations, carrying cost is allowable from 01.04.2023, i.e., the date of effect of the amendment. The Commission noted that, the net recoverable amount is only due to variation of the Fuel Cost. WBPDCL has been allowed to recover variations of fuel cost through Monthly Fuel Cost Adjustment Formula (MFCA) in terms of regulation 5.8.9 of the Tariff Regulations and its annual reconciliation is to be carried out during FPPCA. From their submission in FPPCA petition (Table-B of page no 6), the Commission notes that, WBPDCL had not recovered MFCA during February 2019 and March





2019 amounting to Rs. 27736 Lakh. Thus, the Commission is of considered opinion that, if WBPDCL had recovered the MFCA on monthly basis, there would not be any additional recovery of Rs. 9467.11 Lakh mentioned in paragraph 4.6 above. Though, the Commission admits the recovery through this APR & FPPCA order amounting to Rs. 9467.11 Lakh, but decides not to allow any carrying cost on the amount.

- 4.8 In view of the above, the Commission, in terms of regulation 2.6.6 of the Tariff Regulations, decides to adjust the net recoverable amount of Rs. 9467.11 Lakh for the year 2018 19 from its purchaser of electricity i.e., WBSEDCL in twelve (12) monthly installments. The Commission directs WBPDCL to recover an amount of Rs. 788.93 Lakh from its sole beneficiary (WBSEDCL) along with its monthly bills commencing from April, 2025.
- 4.9 WBPDCL is to take note of this order.
- 4.10 The Petitions are thus disposed of.
- 4.11 A copy of the order shall be posted in the website of the Commission.
- 4.12 WBPDCL shall download the copy of the order from website of the Commission and act on it. Certified copy of the order, if applied for, be given to the parties on completion of formalities laid down in the West Bengal Electricity Regulatory Commission (Conduct of Business) Regulations, 2013 as amended and on submission of necessary fees.

Sd/-

(DR. MALLELA VENKATESWARA RAO) CHAIRPERSON

Dated: 12.03.2025

Sd/-

DEPUTY DIRECTOR, WBERC