RAJASTHAN ELECTRICITY REGULATORY COMMISSION

Petition No: RERC/2028/22

In the matter of Truing up of Aggregate Revenue Requirement for FY 2018-19 to FY 2020-21 for Chhabra Super Critical Thermal Power Project (CSCTPP) (Units 5 & 6) of Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

Coram: Dr. B.N. Sharma, Chairman Dr. Rajesh Sharma, Member

Petitioner: Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

Respondents:

- 1. Jaipur Vidyut Vitran Nigam Ltd.
- 2. Ajmer Vidyut Vitran Nigam Ltd.
- 3. Jodhpur Vidyut Vitran Nigam Ltd.
- 4. Rajasthan Urja Vikas Nigam Ltd.

Date of hearing:

22.09.2022 & 20.10.2022

Present:

- Sh. Ankit Sharma, Representative of Petitioner
- Sh. Amal Nair, Advocate for Respondents
- Sh. G.L. Sharma, Stakeholder

Date of Order:

02.12.2022

ORDER

- 1.1 Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (in short 'RVUN'), a Generating Company under the provisions of the Electricity Act 2003, has filed a petition on 24.06.2022for Truing-Up of ARR for FY 2018-19 to FY 2020-21for CSCTPP Units 5&6(2X660 MW).
- 1.2 In exercise of the powers conferred under Sections 62, 64 and other provisions of Electricity Act 2003, read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, RERC (Terms and Conditions for

Determination of Tariff) Regulations, 2019 and other enabling Regulations, the Commission, after carefully considering each of the submissions of the Petitioner and suggestions/objections submitted by the Stakeholder, has passed the following Order.

- 1.3 This Order has been structured in following sections as given under:
 - (1) Section 1: General
 - (2) Section 2: Summary of True-Up process.
 - (3) Section 3: Summary of objections/comments/suggestions received from Stakeholders/Respondent's and RVUN's response thereon.
 - (4) Section 4: Analysis of True-Up of CSCTPP Units 5&6 for FY 2018-19 to FY 2020-21.

SECTION 2 Summary of filing of True-Up process

- 2.1 CSCTPP Units 5&6 achieved COD on 09.08.2018 and 02.04.2019 respectively.
- 2.2 In compliance with RERC (Terms & Conditions of Determination of Tariff) Regulations, 2014 and RERC (Terms & Conditions of Determination of Tariff) Regulations,2019 issued under section 61of the Electricity Act, 2003, RVUN filed the Petition on 29.01.2021 for determination of Final Capital Cost and Annual Revenue Requirement (ARR) & Tariff for FY 2018-19 to FY 2021-22 for CSCTPP Units 5&6 (2X660MW), before the Commission.
- 2.3 On the aforesaid petition, the Commission vide its Order dated 28.12.2021, determined the Final Capital Cost and approved the ARR & Tariff for the FY 2018-19 to FY 2021-22. The Commission vide the aforesaid Order also directed RVUN to file the petition for true- up for FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6 within 3 months from the issuance of the Order.
- 2.4 RVUN filed the Review Petition on 28.01.2022 seeking review on certain aspects of the Order dated 28.12.2021. The Commission disposed of the Review Petition No. 1990/22 vide the Order dated 23.05.2022. RVUN filed the instant petition on 24.06.2022 for True Up of ARR for FY 2018-19 to FY 2020-21 in accordance with Regulation 8 of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 & Regulation 11 of RERC (Terms and Conditions for Determinations for Determination of Tariff) Regulations, 2014 & Regulations, 2019, hereinafter referred to as RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019 respectively.
- 2.5 As required under Section 64(2) of the Electricity Act, 2003, public notices with salient features of the petition inviting objections/comments/suggestions were published in the following newspapers on the dates mentioned against each:

| Sr. No. | Name of News Paper | Date of publishing |
|---------|--------------------|--------------------|
| (i) | Dainik Bhaskar | 12.07.2022 |
| (ii) | Rajasthan Patrika | 12.07.2022 |
| (iii) | Times of India | 12.07.2022 |

Table 1: Details of Newspapers

- 2.6 The Petition was also placed on the websites of the Commission and the Petitioner. The objections/comments/suggestions were received from Sh.G.L. Sharma and the Respondents.
- 2.7 The Commission forwarded the objections/ comments/ suggestions of the Stakeholder's/Respondents to RVUN for filing its reply.
- 2.8 The Commission vide its letter dated 26.07.2022 and 11.11.2022, communicated some data gaps and deficiencies in the Petition. The Petitioner furnished information on18.08.2022 and 16.11.2022. The Petitioner also replied to the objections/ comments/ suggestions made by the Stakeholder's/Respondents on 09.09.2022, 06.10.2022.

SECTION 3

<u>Summary of objections/comments/suggestions received from Stakeholders/</u> <u>Respondents and RVUN's response thereon</u>

<u>Audited Accounts/Allocation Statements</u> Stakeholders/Respondents Comments/Suggestions

3.1 Regulation 8 of the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019 specifies that the accounting statements shall be submitted for truing up purposes. Further Regulation 2(a)(1) specifies that the accounting statements include reconciliation statements maintained separately for each generating station. The allocation statements for FY 2018-19 are not available with the Petition and hence may be submitted by the Petitioner. The allocation statements submitted for FY 2019-20 does not include the details as to on what basis such figures have been arrived at. The accounting statements submitted by the Petitioner cannot be considered for truing up purposes. The Petitioner may submit proper audited accounting statements and copy of auditor's report thereon as specified in the Regulations.

RVUN's Response

3.2 The Commission vide its Order dated 11.09.2020 in Petition No. 1590/19 directed RVUN to submit the allocation statement in forthcoming Petitions. Accordingly, RVUN has submitted the allocation statement along with the true-up Petition for FY 2019-20 and FY 2020-21. The unit wise profit and loss statement for FY 2018-19 has been submitted in the replies to datagaps.

Additional Capitalization

Stakeholders/Respondents Comments/Suggestions

3.3 The Petitioner may submit the years in which the approved additional capitalization of Rs 0.63 Crore and Rs 0.948 Crore as approved by the Commission in the Review Order dated 23.05.2022 in Petition No. 1990/22 has been claimed.

RVUN's Response

3.4 The additional capitalization of Rs. 0.948 Crore and Rs. 0.63 Crore has been approved by the Commission in FY 2020-21.

O&M Expenses

Stakeholders/Respondents Comments/Suggestions

- 3.5 As per Regulation 2(a)(44)of the RERC Tariff Regulations, 2019, O&M expenses for generating station means the expenditure incurred on operation and maintenance and includes the expenditure on manpower, repairs, spares, consumables, water charges, petition filing fees and other heads but excludes fuel expenses. The Petitioner has claimed the actual O&M expenses of Rs. 37.08 Crore, Rs. 99.52 Crore and Rs. 146.43 Crore for FY 2018-19, FY 2019-20 and FY 2020-21 respectively but the details of such actual expenses are not available in the Petition. The Petitioner may submit the details of the same.
- 3.6 On comparison of the year wise O&M expenses, it appears that the actual O&M expenses for FY 2018-19 are on higher side.
- 3.7 For FY 2019-20, the aggregate of R&M expenses, establishment expenses and A&G expenses works out to Rs. 88.48 Crore whereas the Petitioner has claimed the actual O&M expenses of Rs. 99.52 Crore. The Petitioner may submit the clarification for the variation in O&M expenses. Further, the claimed O&M expenses are on higher side as the establishment expenses are inclusive of terminal benefits which have been claimed separately. The terminal benefits included in the establishment expenses have to be excluded for O&M expenses.
- 3.8 For FY 2020-21, the establishment expenses are inclusive of the terminal benefits which have to be excluded for O&M expenses.
- 3.9 The actual O&M expenses for FY 2018-19, FY 2019-20 and FY 2020-21 are lower than the normative expenses for the respective years and the savings on account of the same may be directed to be deposited in designated pension fund so as to project the interest of the Petitioner's employees.

RVUN's Response

- 3.10 The details of actual O&M expenses for FY 2019-20, FY 2020-21 & FY 2021-22, alongwith reconciliation has been submitted in the replies to data gaps.
- 3.11 RVUN has considered the expenses under the heads of R&M expenses, establishment expenses, A&G expenses, spares, consumables, water charges, petition filing fee and other head expenses, booked at plant and HO allocation, in accordance with the other true ups of RVUN.

3.12 The O&M expenses are allowable on normative basis and the gains/losses are borne by the generating company as per Regulations 9(2) and 9(3) of the RERC Tariff Regulations, 2019. The approved aggregate gain or loss to the generating company on account of uncontrollable factors shall be allowed as an adjustment in tariff over such period as may be stipulated by the Commission. RVUN requested the Commission to allow the normative O&M expenses as claimed.

Depreciation

Stakeholders/Respondents Comments/Suggestions

- 3.13 The Commission had approved by the capital cost for FY 2018-19, FY 2019-20 and FY 2020-21 as Rs. 4249.92 Crore, Rs 8258.77 Crore and Rs 8568.05 Crore respectively. Whereas the Petitioner has claimed the approved capital cost for FY 2018-19, FY 2019-20 and FY 2020-21 of Rs 4445.21 Crore, Rs 8462.97 Crore and Rs 8569.63 Crore respectively. The depreciation may be allowed only on the basis of approved capital cost.
- 3.14 The depreciation has been claimed as Rs. 154.24 Crore, Rs. 449.22 Crore and Rs. 453.00 Crore in Table 4 of the Petition and as Rs. 139.47 Crore, Rs. 406.09 Crore and Rs. 414.11 Crore in Form GT-6.1 for FY 2018-19, FY 2019-20 and FY 2020-21 respectively. The Petitioner may submit the basis of figures submitted in Table 4 and Form GT-6.1. Further, the asset class wise depreciation may be submitted by the Petitioner.
- 3.15 In accordance with Regulation 22(4) of the RERC Tariff Regulations, 2019, after the completion of twelve (12) years from COD, the depreciable value of the assets has to be spread over the balance useful life of the assets. RVUN has not submitted the date of purchase of the assets required for calculating the depreciation of the assets. In the absence of the requisite information, the computation of depreciation is not clear.

RVUN's Response

- 3.16 The depreciation has been claimed considering the capital cost approved by the Commission vide its Orders dated 28.12.2021 and 23.05.2022. The details of depreciation have been submitted in form GT-6.1 prescribed by the Commission. RVUN requested the Commission to allow depreciation as claimed in its Petition.
- 3.17 Depreciation has been claimed in accordance with Regulation 22 of the RERC Tariff Regulations, 2019. The methodology of depreciation computation stated by the stakeholder is not in accordance with the provisions of the RERC Tariff Regulations, 2019.

Interest and Finance Charges on Term Loan

Stakeholders/Respondents Comments/Suggestions

- 3.18 The interest on term loan may be allowed based on the capital cost and debt: equity ratio approved by the Commission. The debt-equity ratio for FY 2018-19 may be considered as 80:20 as approved in the Order dated 30.07.2019 in Petition No. 1439/18.
- 3.19 The interest on term loan and finance charges claimed by RVUN is higher than that approved by the Commission. With declining interest rates, the long-term interest rates have to be on lower side. RVUN may submit the reasons for increase in the interest on term loan and finance charges. RVUN may also submit the details of loan availed. RVUN may be directed to restructure its loan portfolio in view of the declining interest rates which would lead to saving in interest cost.
- 3.20 The finance charges may be admissible on the basis of term loan admitted or actual paid whichever is less.

RVUN's Response

3.21 The computation of interest on term loan has been done based on the capital cost and debt equity ratio approved by the Commission vide Order dated 28.12.2021 in Petition No. 1879/21. Further, the finance charges have been claimed on actual basis. RVUN requested the Commission to allow the interest on term loan and finance charges as claimed in its Petition.

Return on Equity (RoE)

Stakeholders/Respondents Comments/Suggestions

3.22 In compliance to the Government Order, the RoE for FY 2019-20 and FY 2020-21 has been withdrawn and such amount as approved by the Commission has been transferred to the distribution licensees. The RoE may be considered as zero in truing up.

RVUN's Response

3.23 In compliance to the Government Order dated 17.09.2021, RVUN has returned RoE for FY 2019-20 and FY 2020-21 RoE has not been considered in true-up on expenditure side as well as revenue side.

Interest on Working Capital

Stakeholders/Respondents Comments/Suggestions

3.24 The interest on working capital claimed is higher than that approved by the Commission. RVUN may submit the reasons for increase in the interest on working capital. Interest on working capital may be allowed on normative basis in accordance with Regulation 27 of the RERC Tariff Regulations, 2019.

RVUN's Response

3.25 The interest on working capital has been computed on normative basis in accordance with RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019. RVUN requested the Commission to allow the interest on working capital as claimed in its Petition. The interest on working capital is on higher side due to Fuel Price Adjustment and minor changes in fixed cost.

Insurance Charges

Stakeholders/Respondents Comments/Suggestions

3.26 The insurance charges covering the capital assets of CSCTPP Units 5&6 only have to be considered as per Regulation 25 of the RERC Tariff Regulations, 2019. The insurance charges pertaining to O&M is not to be considered. .

RVUN's Response

3.27 RVUN has claimed the insurance charges as actual incurred (policies enclosed in the Petition) as per Regulation 25 of RERC Tariff Regulations, 2019. The Petitioner requested the Commission to allow the insurance charges as claimed in its Petition.

Terminal Benefits

Stakeholders/Respondents Comments/Suggestions

- 3.28 RVUN has claimed the terminal benefits for FY 2019-20 and FY 2020-21 although the Commission had not approved the same in the Tariff Order. As the Commission had not approved the terminal benefits for FY 2019-20 and FY 2020-21 in the Tariff Order, the same may not be considered in true-up.
- 3.29 RVUN may submit the justification for claiming terminal benefits. The RERC Tariff Regulations, 2019 specify that the terminal benefits shall be considered only upon the submission of actuarial variation reports subject to prudence check by the Commission. RVUN may submit the details such as international and national benchmark for terminal benefits and assumptions considered in the actuarial report. In the absence of requisite information, terminal benefits may be allowed in accordance with the provisions of the RERC Tariff Regulations, 2019.
- 3.30 The terminal benefits for FY 2018-19 and FY 2019-20 are not admissible as no amounts have been deposited for the respective years. For FY 2020-21, the amount of Rs. 3.13 Crore may be allowed.

RVUN's Response

3.31 RVUN has claimed terminal benefits for FY 2019-20 and FY 2020-21 as per the Actuarial valuation report for the respective year duly certified by the statutory auditor. The terminal benefits have been claimed as per Regulation 47(7) of the RERC Tariff Regulations, 2019. The amounts deposited during the relevant years has been submitted in replies to datagaps. The Commission has allowed the terminal benefits for FY 2020-21 in the true-up of other generating stations of RVUN.

Tariff Petition Fee

Stakeholders/Respondents Comments/Suggestions

3.32 The Petitioner has claimed the tariff petition fee of Rs. 0.66 Crore as against the amount of Rs. 0.33 Crore approved vide the Commission's Order dated 30.07.2019 in Petition No. 1439/18. The tariff petition fee of Rs. 0.33 Crore is admissible as against the claimed amount of Rs. 0.66 Crore.

RVUN's Response

3.33 The tariff petition fee has been claimed as allowed by the Commission in its Order dated 28.12.2021 in Petition No. 1879/21. RVUN requested the Commission to allow the tariff petition fee as claimed in its Petition.

<u>Lease Rent</u>

Stakeholders/Respondents Comments/Suggestions

- 3.34 The Petitioner may submit the relevant documents for the claimed lease rent of Rs. 1.02 Crore and Rs. 0.77 Crore for FY 2019-20 and FY 2020-21 respectively.
- 3.35 RVUN has claimed the lease rent for FY 2019-20 and FY 2020-21 although the Commission had not approved the same in the Tariff Order. As the Commission had not approved the lease rent for FY 2019-20 and FY 2020-21 in the Tariff Order, the same may not be considered in true-up. Further, as RVUN has not submitted the copy of lease rent agreement, the lease rent claimed is not allowable.

RVUN's Response

3.36 The lease rent has been claimed as per actual incurred on the lease of land and the relevant documents have been submitted. The justification for the same has been submitted in the Petition.

<u>Availability</u>

Stakeholders/Respondents Comments/Suggestions

3.37 The Petitioner has claimed the target Availability as 83% for FY 2018-19 and as 84% for period from FY 2019-20 onwards. The Commission in its Review Order dated 23.05.2022 in Petition No. 1990/22 filed by RVUN for review of Commission's Order dated 28.12.2021 on approval of ARR and Tariff for CSCTPP Units 5&6 for FY 2018-19 to FY 2021-22 ruled as under:

> "47. On perusal of the above definition, it is clear that Cut-off date is defined from date of Commercial Operation of the Project and there is no provision of Unit-wise Cut-off date separately. Therefore, the Cutoff date should be considered from COD of the Project as defined in the RERC Tariff Regulations, 2019. Consequently, it is also clarified that the Commission will re-examine the other normative parameters as per the relevant Tariff Regulations."

- 3.38 Both the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019 specify the target Availability for recovery of full Annual Fixed Charges for the generating station and not unit wise. As the generating station viz., CSCTPP Units 5&6 achieved COD on 02.04.2019, the target Availability has to be considered as per the RERC Tariff Regulations, 2019 as 85% from the date of commissioning. The Commission had approved the target Availability as 83% for FY 2018-19 and 84% for the period from FY 2019-20 to FY 2021-22. However, for FY 2022-23, the Commission had approved the target Availability as 85%. Therefore, the target Availability has to be approved as 85% from FY 2018-19 onwards.
- 3.39 The actual Availability for FY 2018-19, FY 2019-20 and FY 2020-21 is 74.49%, 59.42% and 73.95% respectively which is lower than the target Availability of 85%. Therefore, the Annual Fixed Charges have to be reduced on proportionate basis.
- 3.40 From the copies of SLDC certificates submitted by the Petitioner, it has been observed that the basis considered for different generating stations is not uniform. The reasons for such variations have to be clarified. The Commission may direct SLDC and all other concerned entities to have similarity in light of the Regulation 10.11 of the Grid Code Regulations.
- 3.41 The actual Availability for FY 2018-19, FY 2019-20 and FY 2020-21 is lower than the target Availability approved by the Commission. RVUN has not submitted the reasons for lower Availability. Hence, the fixed charges have to be adjusted for lower actual Availability.

RVUN's Response

- 3.42 The target Availability for FY 2018-19 has been considered as 83% as per the RERC Tariff Regulations, 2014 and for the period from FY 2019-20 onwards as 84% which has been approved by the Commission in its Order dated 28.12.2021 and the same has attained finality. The contention of the stakeholder otherwise in this regard is denied. The Petitioner requested the Commission to consider the target Availability as claimed in its Petition.
- 3.43 The Availability certified by SLDC is as per the RERC Tariff Orders. For KTPS STPS etc., tariff is station-wise and hence the Availability is certified for whole station whereas, for CSCTPP, provisional tariff approved by the Commission vide its Order dated 11.09.2020 was unit-wise for FY 2018-19 and FY 2019-20 and station-wise for FY 2020-21. The SLDC has certified the Availability accordingly.
- 3.44 The recovery of fixed charges is in accordance with Regulation 50(1) of the RERC Tariff Regulations, 2019. As the Units were under stabilization, target Availability could not be achieved and hence, the fixed charges as claimed may be allowed.

Variable Charges

Stakeholders/Respondents Comments/Suggestions

- 3.45 The actual auxiliary consumption for FY 2018-19, FY 2019-20 and FY 2020-21 is 6.70%, 6.53% and 7.03% respectively which is higher than the norm of 5.25%. The normative auxiliary consumption of 5.25% has to be considered for truing up purposes.
- 3.46 The actual SHR is higher than that approved by the Commission. The normative SHR of 2123.44 kcal/kWh and 2133.60 kcal/kWh may be considered for FY 2018-19 and FY 2019-20 onwards respectively as approved by the Commission in the Order dated 28.12.2021.
- 3.47 The coal consumption is to be considered based on normative auxiliary consumption and SHR.
- 3.48 The coal transit loss of 0.8% may be allowed as per the Tariff Regulations.
- 3.49 The Petitioner may submit the analysis reports of coal received as well as coal burnt for the purpose of GCV of coal.
- 3.50 RVUN may submit the invoices certified by the auditor for substantiating the cost of fuel along with tax, transportation cost and transit loss.
- 3.51 In reference to the paragraphs 4.51 to 4.61 of the Commission's Order dated 23.06.2022, the Petitioner may submit the cost benefit analysis of

coal beneficiation charges. Further, the Petitioner may submit the government approval for the cost of coal.

3.52 RVUN submitted that the basic price of coal procured from Parsa Kente Collieries Limited (PCKL) is relatively less in comparison to that from CIL. RVUN may submit the copy of Fuel Supply Agreement (FSA) along with benchmarks and comparison for each sub-head of price of coal. RVUN may also submit the detailed audited reports for analysis of coal price.

RVUN's Response

- 3.53 The auxiliary consumption and SHR is on higher side due to frequent back down by SLDC for maintaining grid discipline which is beyond the control of the Petitioner. RVUN requested the Commission to allow the auxiliary consumption and SHR as claimed in its Petition.
- 3.54 RVUN requested the Commission to allow coal consumption as claimed in its Petition.
- 3.55 Since the coal is unloaded for PKCL coal and weighing is carried at receiving end hence, transit loss has not been claimed.
- 3.56 The samples of coal analysis as received and as fired have been submitted.
- 3.57 The bills of coal and oil are bulky in quantity as daily 5-6 rakes of coal are received and hence, the same invoices have been submitted.
- 3.58 The Expression of Interest (EoI) was invited from the prospective JV partners having technical and financial capabilities to join RVUN in the formation of Company to enter the business of captive coal mining in the Indian coal fields for meeting the increased coal requirement of RVUN's power stations. This EoI case was submitted to GoR for seeking approval. GoR vide letter dated 28/30.03.2005 directed RVUN to apply for captive coal blocks through a process of identification of the most suitable coal blocks that are presently available. RVUN was also permitted to select the most suitable joint venture partner through competitive bidding route from amongst the short listed firms who had been selected from amongst the 13 participating firms, without going in for another round of pre-qualification to avoid further delay in the matter. GoR was not to bear liability of any nature for any commercial losses, contingent upon the joint venture option.
- 3.59 The tender for formation of JV was invited in the year 2006 through open competitive bidding in two part bidding and the tender specification

was vetted by expert Sh. M. G. Ramachandran, New Delhi. The following 3 firms submitted the bids on scheduled ate i.e., 15.05.2006:

(i) M/s Adani Exports Limited, Ahmedabad

- (ii) M/s Essel Mining & Industries Limited, Mumbai
- (iii) M/s Sainik Mining and Allied Services Limited, New Delhi
- 3.60 The sub-committee vide their meeting dated 20.06.2006 considered the proposal in detail and approved the 2 firms as qualified and technically accepted for captive mining of coal through formation of JV company for opening of price bids:
 - (i) M/s Adani Exports Limited, Ahmedabad
 - (ii) M/s Sainik Mining and Allied Services Limited, New Delhi
- 3.61 The price bid for above firms was opened on 22.06.2006 and the subcommittee vide their meeting dated 24.08.2006 considered price of M/s Adani Exports Limited, Ahmedabad is the lowest and advised the case placed before the Board of Directors (BoD), RVUN for decision. The BoD in its 112th meeting dated 12.10.2006 and 13.10.2006 considered the confirmation and decided to select M/s Adani Exports Limited, Ahmedabad being L-1 bidder on the terms as specified in the Minutes as the JV partner for formation of the JV company with RVUN for captive mining for meeting the coal requirement of RVUN's power stations. It was also decided to refer the case to GoR for seeking No Objection before issue of a letter of intent to the selected JV partner.
- 3.62 In pursuance to the directions of BoD, RVUN vide letter dated 18.10.2006 intimated Secretary (Energy), GoR that BoD decided to select M/s Adani Exports Limited, Ahmedabad being L-1 bidder on the agreed terms as the JV partner for formation of the JV company with RVUN and requested the convey no objection of GoR for proceeding further in the matter. In response, GoR issued NOC vide letter dated 23.10.2006.
- 3.63 After formation of JV the detailed Coal Mining and Delivery Agreement (CMDA) was prepared and approved in 137th and 14th meetings of BoD held on 13.05.2008 and 04.07.2008 respectively. The Board further directed that approved CMDA may be apprised to GoR. The copy of CMDA approved by BoD was submitted to GoR vide letter dated 14.07.2008. GoR vide letter dated 25.07.2008 desired the signed copy of CMDA. Thus the whole process of formation of JV and CMDA was approved by GoR.
- 3.64 One of the conditions of tender floated in the year 2006 was that the JV company shall supply coal of GCV 4500 kcal/kg, ash of 30% and Total

Moisture (TM) of 10% for which JV company (if necessary) shall establish coal washery and supply coal of the required specification. As per tender condition, the bidder was required to quote coal cost per MT having GCV of 4500 kcal/kg (ADB), ash content of 30% (ADB) and TM of 10% (ARB) including all applicable charges of loading, crushing, surface transportation, washing, royalty, excise duty including any other incidental expenses upto loading in railway wagons/rake for delivering upto RVUN power stations excluding railway freight.

- 3.65 Further CMDA was executed between RVUN and PKCL on 16.07.2008 for development of the Parsa East and KantaBasan coal block allocated to RVUN, mining of coal, beneficiation of mined coal so that quality of beneficiated coal generated of GCV 4500 kcal/kg with ash of 30% and arranging transportation and delivery to RVUN's power stations for a period of 30 years. The RVUN's power stations are situated more than 800 km from the allocated coal blocks hence, coal extracted from the mine was required to be washed before transportation to end use plants of RVUN in compliance to the then prevailing MoEF&CC guidelines.
- 3.66 As per CMDA, PKCL coal is required to be beneficiated so that the guaranteed parameters of coal quality are met. The weighted average GCV of Run of Mine (RoM) coal of allocated coal blocks is approximately 3601 kcal/kg whereas the design GCV of boilers of CSCTPP Units 5&6 is 4649 kcal/kg therefore, raw coal having low GCV cannot be used. Based on the railway freight charges as on date, the transportation cost for 1000 GCV in respect of beneficiated coal having GCV of 4500 kcal/kg is lower than that of RoM coal having GCV of 3601 kcal/kg. Further, the transportation of washed coal is preferred over raw coal with ash content upto 45% to avoid expenditure on transportation of inert material (ash) and relieve railway rolling stock from transporting excess quantity of high ash coal.
- 3.67 As per CMDA, 1.29 tonne raw coal is consumed to generate one tonne washed coal. However, the component of increase in raw coal cost due to washery rejects and beneficiation charges is included while determination of ceiling price as per schedule 1 of the CMDA. Accordingly, contract price excluding railway freight is lower than ceiling price as per schedule 1 of the CMDA. The Parsa East and KantaBasan coal block was the greenfield project and there was no railway connectivity between pit head of mine to nearest railway siding of Indian Railways. RVUN has entered into a Track Access and Usage Agreement (TA&UA) with Sarguja Rail Corridor Private Limited (SRCPL) on 22.07.2015 for usage of 70 km private railway track constructed by SRCPL which was fully operational w.e.f. April 2018 for transportation of washed

coal from coal block. As per track access agreement, RVUN has to pay Rs. 353.69/MT (excluding applicable GST) as track access charges for utilisation of private track developed and operated by SRCPL.

- 3.68 There are distinct operational benefits of beneficiated coal with lower ash content of 30-34% in comparison to raw coal having ash content of 40-45% as below:
 - (i) Reduction in inorganic minerals like Sodium, Chlorine and Sulphur present in ash results lesser fouling and slagging of the boiler's combustion chamber for better heat transfer rate.
 - (ii) Heating value of coal improves significantly through washing leading to burning of lesser quantity to produce comparable amount of electricity.
 - (iii) Reduced ash content makes the coal and combustion produces less abrasive. Reducing the abrasiveness of ash and sulphur deposits on plant ducting work reduces corrosion that increases plant's expected life.
 - (iv) Higher ash content in the fuel has adverse effect on auxiliary power consumption of the equipment in processes such as stacker & reclaimer, conveyor drives, rotary breakers, crushes, pulverisers, boiler equipment handling excess ash etc.
 - (v) Beneficiation benefits the operation of emission control devices and extends their life by reducing the amount of air pollutants to be captured.
 - (vi) Lower dust emission during the pre-crushing operations before milling. The beneficiated coal has a maximum top size of 50 mm. There are fewer crushing activities for beneficiated coal in comparison to raw coal which has sometimes a top size of more than 200 mm.
 - (vii) Reduced auxiliary power consumption in various sub systems of power plant viz., coal handling, draught system, pulverisation system and ash handling systems.
 - (viii) Improvement in air quality as lesser burning of coal would produce the flue gases.
 - (ix) Reduction in transportation of inert material (ash).
- 3.69 All the relevant information has been submitted in the replies to datagaps.

- 3.70 All claims have been made as per audited accounts for the respective years. RVUN requested the Commission to allow the same.
- 3.71 The basic cost of PKCL coal is lower than that of CIL coal. The comparison of the same has been submitted in the Petition. The FSA was submitted by RVUN at the time of tariff determination. RVUN requested the Commission to approve the fuel cost as claimed by it.

Revenue from sale of fly ash

Stakeholders/Respondents Comments/Suggestions

3.72 RVUN may submit the revenue from sale of fly ash. The profit, if any, accrued on account of sale of fly ash has to be passed on to the beneficiaries.

RVUN's Response

- 3.73 The revenue from sale of fly ash is treated in accordance with para 6 of the Ministry of Environment and Forest Notification No. S.O. 2804(E) dated 03.11.2009 reproduced hereunder:
 - "The amount collected from sale of fly ash and fly ash based products by coal and/or lignite based thermal power stations or their subsidiary or sister concern until, as applicable should be kept in a separate account head and shall be utilized only for development of infrastructure or facilities, promotion and facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved; thereafter as long as 100% fly ash utilization level are maintained, the thermal power station would be free to utilize the amount collected for other development programme also and in case, there is a reduction in the fly ash utilization levels in the subsequent year(s), the use of financial return from fly ash shall get restricted to development of infrastructure or facilitation activities for fly ash utilization until 100 percent fly ash utilization activities for fly ash utilization until 100 percent fly ash utilization activities for fly ash utilization until 100 percent fly ash utilization activities for fly ash utilization until 100 percent fly ash utilization activities for fly ash utilization until 100 percent fly ash utilization level is again achieved and maintained."
- 3.74 The fly ash fund is being utilized in the manner mentioned above and cannot be treated as profit and details of fly ash fund of RVUN have been submitted in the Petition.

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SECTION 4 Analysis of True-Up of CSCTPP Units 5&6 for FY 2018-19 to FY 2020-21

Norms of Operation Availability RVUN's Submissions

4.1 The actual Availability submitted by RVUN for CSCTPP Units 5 & 6 as certified by SLDC for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is as shown in the table below:

| Table 2. Availability/Capacity index claimed by kvon | | | | | | |
|--|----------------------|--------------------|-------------------------|------------|--|--|
| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | |
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | |
| Target Availability for full recovery of fixed charges | 83.00% | 83.00% | 84.00% | 84.00% | | |
| Actual as claimed | 74.49% | 78.28% | 59.42% | 73.95% | | |

Table 2: Availability/Capacity Index claimed by RVUN

4.2 RVUN requested the Commission to consider the Availability for CSCTPP Units 5 & 6 for FY 2018-19 to FY 2020-21, as shown in the table below:

| | | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|-----------------------------|-------|----------------------|--------------------|-------------------------|------------|
| Particulars | Units | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Capacity | MW | 660 | 660 | 1320 | 1320 |
| Availability - Normative | % | 83.00% | 83.00% | 84.00% | 84.00% |
| Declared Capacity | MU | 2627.23 | 11.75 | 6510.48 | 8102.12 |
| Max. Sent Out | MU | 3526.97 | 15.01 | 10956.13 | 10956.13 |
| Availability ((A/B)*100) | % | 74.49% | 78.27% | 59.42 % | 73.95% |

Table 3: Availability Computation submitted by RVUN

Commission's Analysis

4.3 RVUN has claimed the normative Availability combined for Units 5&6 for FY 2019-20 and FY 2020-21 as 84% considering the normative Availability for Unit 5 and Unit 6 as 83% and 85% respectively. The Commission in its Review Order dated 23.05.2022 in Petition No. 1990/2022 ruled as under:

"47. On perusal of the above definition, it is clear that Cut-off date is defined from date of Commercial Operation of the Project and there is no provision of Unit-wise Cut-off date separately. Therefore, the Cut-off date should be considered from COD of the Project as defined in the RERC Tariff Regulations, 2019. Consequently, it is also clarified that the Commission will re-examine the other normative parameters as per the relevant Tariff Regulations."

4.4 In light of the Commission's ruling reproduced above, Commission has looked in to the availability of generating stations in terms of Regulation 45(1)(a) of the RERC Tariff Regulations, 2019 which reads as under:

"45. Norms of operation for Thermal Generating Stations

The norms of operation as given hereunder shall apply:

- (1) Target Availability for recovery of full Annual Fixed Charges for Thermal Generating Stations:
- a) Target Availability for full recovery of annual fixed charges shall be 85 per cent for all Thermal Generating Stations to be commissioned after April 1, 2019 and 83 percent for all existing Thermal Generating Stations, except those covered under sub-Regulation (1) b), and (1) c)."
- 4.5 On perusal of Regulation 45(1)(a) of the RERC Tariff Regulations, 2019, it is clear that the Target Availability is specified for thermal generating station, there is no provision for unit-wise Availability. Therefore, post the COD of Unit 6, the Target Availability of 85% as specified in the RERC Tariff Regulations, 2019 shall be applicable for the Station. The Commission therefore, approves the Target Availability of 85% for CSCTPP Units 5&6 for FY 2019-20 and FY 2020-21 as specified in the RERC Tariff Regulations, 2019. Similarly, norms for Target PLF for incentive shall also be as above.
- 4.6 The Commission observes that RVUN has computed actual Availability for FY 2020-21 considering the Declared Capacity. The Commission finds the computations of Availability submitted by RVUN are also certified by SLDC.The Commission, therefore, is approving the same as shown in thetable below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|---------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Actual as claimed | 74.49% | 78.28% | 59.42% | 73.95% |
| Approved on true up | 74.49% | 78.28% | 59.42% | 73.95% |

Table 4: Availability approved by the Commission

4.7 As per Regulation 45 of the RERC Tariff Regulation, 2019 and RERC Tariff Regulation, 2014, the full fixed charges are recoverable on achievement of target availability. The Commission has accordingly allowed the recovery of fixed charges on pro-rata basis in proportion to the actual availability achieved with respect to target availability as per the RERC Tariff Regulations.

<u>Plant Load Factor (PLF)</u> RVUN's Submission

4.8 The actual PLF as submitted by RVUN for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is shown in the Table below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | |
|-----------------------------|----------------------|--------------------|-------------------------|------------|--|--|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | |
| Target PLF for incentive | 83.00% | 83.00% | 84.00% | 84.00% | | |
| Approved in Tariff Order | 83.00% | 83.00% | 84.00% | 84.00% | | |
| Actual as claimed | 72.91% | 73.91% | 54.58% | 65.99% | | |

Table 5: PLF as submitted by RVUN

Commission's Analysis

4.9 The Commission, based on the actual Scheduled Generation from FY 2018-19 to FY 2020-21 submitted by RVUN and the normative auxiliary consumption, has recomputed the actual PLF. The PLF as submitted by the Petitioner and as approved by the Commission for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is as shown in the table below:

| Table 6: FLF approved by the Commission | | | | | | | |
|---|----------------------|--------------------|-------------------------|------------|--|--|--|
| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | | |
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | | |
| Actual as claimed | 72.91% | 73.91% | 54.58% | 65.99% | | | |
| Approved on true up | 71.80% | 73.91% | 54.58% | 65.99% | | | |

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Auxiliary Consumption RVUN's Submissions

4.10 The actual auxiliary consumption submitted by RVUN for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is as shown in the table below:

| 5 | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|--------------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Normative | 5.25% | 5.25% | 5.25% | 5.25% |
| Approved in Tariff Order | 5.25% | 5.25% | 5.25% | 5.25% |
| Actual as claimed | 6.70% | 6.59% | 6.53% | 7.03% |

Table 7: Auxiliary consumption as submitted by RVUN

4.11 RVUN requested the Commission to allow actual auxiliary consumption.

Commission's Analysis

- 4.12 The Commission observes that actual Auxiliary Consumption for CSCTPP Units 5&6 is higher than normative Auxiliary Consumption. Hon'ble APTEL vide its Judgment dated 18.09.2015 in Appeal Nos. 196 of 2014 and 326 of 2013 in Haryana Power Generation Corporation Ltd. Vs Haryana Electricity Regulatory Commission &Ors ruled as under:
 - "iii) According to the appellant/petitioner it is the PTPS Unit 1-4 which has outlived their useful economic life and the performance for the past few years has been well below the norm prescribed by the Tariff Regulations. Further, PTPS Unit-5, as per the appellant, is also nearing the end of its useful economic life due to which the auxiliary consumption remains high. Further, the submission of the appellant is that the other Unit of DCR Thermal Power Station had frequent shutdowns resulting in higher auxiliary energy consumption. The appellant contended that the large steps have been taken to reduce the auxiliary energy consumption of the power plants during the controlled period. The State Commission, after considering all these contentions of the appellant, has correctly and justly, not found it a fit case where power to relax could be exercised by the State Commission and the Commission has legally decided the issue as per the norms prescribed in MYT Regulations 2012. Further power to relax has to be exercised in exceptional cases when the same is in the public interest. In the case in hand if the contention of the appellant is allowed and norms for auxiliary are diluted or relaxed that would cost additional burden on the end consumers of the Discoms which should not be permitted considering the relevant provisions in this regard given in the Electricity Act, 2003. Consequently, this Issue No. (c) is also decided against the appellant." (emphasis supplied)

4.13 In light of the above Judgment of Hon'ble APTEL, the prayer of RVUN for

relaxing the normative auxiliary consumption is not allowable, as the same is not in public interest and it will result in further increase in tariff which will cause additional burden on the Respondents and ultimately the end consumers of the electricity. The Commission has allowed auxiliary consumption for CSCTPP Units 5 & 6, for FY 2018-19 to FY 2020-21, in accordance with the norms specified in RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019.

4.14 The auxiliary consumption approved by Commission for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is as shown in the table below:

| Tables: Auxiliary consumption approved by the Commission | | | | | | |
|--|----------------------|--------------------|-------------------------|------------|--|--|
| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | |
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | |
| Actual as claimed | 6.70% | 6.59% | 6.53% | 7.03% | | |
| Approved on true up | 5.25% | 5.25% | 5.25% | 5.25% | | |

Table8: Auxiliary consumption approved by the Commission

Station Heat Rate (SHR) RVUN's Submission

4.15 The actual Station Heat Rate submitted by RVUN for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is shown in the table below:

| Tuble 7. Actual | | | | | | | |
|--------------------------|----------------------|--------------------|-------------------------|------------|--|--|--|
| Danitionalana | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | | |
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | | |
| Normative | 2123.44 | 2133.60 | 2133.60 | 2133.60 | | | |
| Approved in Tariff Order | 2123.44 | 2133.60 | 2133.60 | 2133.60 | | | |
| Actual as claimed | 2771.77 | 2729.02 | 2703.72 | 2504.12 | | | |

Table 9: Actual Station Rate as submitted by RVUN (kcal/kWh)

4.16 RVUN requested the Commission to allow actual SHR in the true-up for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6.

Commission's Analysis

- 4.17 The Commission observes that actual SHR for CSCTPP Units 5&6is higher than normative SHR and RVUN has requested to allow variable charges as claimed.
- 4.18 In light of the Judgment of Hon'ble APTEL dated 18.09.2015 in Appeal

Nos. 196 of 2014 and 326 of 2013 and in absence of any proper justification, Commission is of the considered view that the prayer of RVUN for relaxing the normative SHR is not allowable as the same is not in public interest and it will result in further increase in tariff which will cause additional burden on the Respondents and ultimately the end consumers of the electricity. The Commission has allowed Station Heat Rate for CSCTPP Units 5 & 6, for FY 2018-19 to FY 2020-21, in accordance with the norms specified in RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019.

4.19 The Station Heat Rate approved by the Commission for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6 is as shown in the table below:

| Particulars | FY 2018-19 | FY 2019- 20 | FY 2019-20 | FY 2020-21 |
|----------------------|----------------------|--------------------|-------------------------|------------|
| ranicolars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Actual as claimed | 2771.77 | 2729.02 | 2703.72 | 2504.12 |
| Approved on true up | 2123.44 | 2133.60 | 2133.60 | 2133.60 |

Table 10: Station Heat Rate approved by the Commission (kcal/kWh)

Secondary Fuel Oil Consumption (SFOC) RVUN's Submission

4.20 The actual Secondary Fuel Oil Consumption submitted by RVUN for CSCTPP Units 5 & 6, for FY 2018-19 to FY 2020-21 is as shown in table below:

| Particulare | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|-----------------------------|-------------------|-----------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Normative | 0.50 | 0.50 | 0.50 | 0.50 |
| Approved in Tariff Order | 0.50 | 0.50 | 0.50 | 0.50 |
| Actual as claimed | 1.24 | 0.00 | 1.35 | 0.36 |

Table 11: SFOC as submitted by RVUN (ml/kWh)

Commission's Analysis

4.21 In light of the Judgment of Hon'ble APTEL dated 18.09.2015 in Appeal Nos. 196 of 2014 and 326 of 2013 and in absence of any proper

justification, Commission is of the considered view that the prayer of RVUN for relaxing the normative SHR is not allowable as the same is not in public interest and it will result in further increase in tariff which will cause additional burden on the Respondents and ultimately the end consumers of the electricity.

4.22 The Commission has allowed Secondary Fuel Oil Consumption for CSCTPP Units 5 & 6, for FY 2018-19 to FY 2020-21, in accordance with the norms specified in RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019. The SFOC approved by the Commission is shown in the table below:

| Dautieulaus | FY 2018-19 | FY 2019- 20 | FY 2019-20 | FY 2020-21 |
|----------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Actual as claimed | 1.24 | 0.00 | 1.35 | 0.36 |
| Approved on true up | 0.50 | 0.50 | 0.50 | 0.50 |

Table 12: SFOC approved by the Commission (ml/kWh)

Fuel Price and Calorific Value

RVUN's Submission

4.23 The actual fuel prices and GCV as submitted by RVUN for FY 2018-19 to FY 2020-21 for CSCTPP Units 5 & 6is shown in the table below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|------------------------|-------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Price of Coal (Rs./MT) | 4206.74 | 4187.39 | 4551.08 | 4556.13 |
| GCV of Coal (kCal/kg) | 4729.09 | 4689.61 | 4432.14 | 4312.98 |
| Price of Oil (Rs./kL) | 50744.96 | 49639.16 | 49639.16 | 42592.11 |
| GCV of Oil (kCal/kL) | 9514.04 | 9625.26 | 9625.26 | 9942.42 |

Table 13: Actual fuel prices and GCV as submitted by RVUN

Commission's Analysis

4.24 The Commission in its Order dated 28.12.2021 directed the RVUN to submit the detailed report on the issues related to Coal price of CSCTPP Units 5&6. RVUN submitted the report in compliance to the Commission's direction on 28.03.2022.

- 4.25 The Commission on perusal of above report directed the RVUN to submit supplementary report on following issues:
 - "(i) Increase in the cost of washed coal as compared to raw coal are mainly due to (a) increase in Raw Coal cost due to washery rejects (b) Beneficiation charges (c) Access Charges paid to Sarguja Rail Corridor Ltd. (SRCPL) for carrying the coal to washery. The cumulative impact of washing the coal is around Rs. 1000/- per MT. Therefore, RVUN may submit the cost benefit analysis of washing of coal.
 - (ii) As per agreement the washery rejects are the property of JV Company. RVUN may provide the details of washery rejects and income thereof.
 - (iii) On examination of the record provided by RVUN it could not be ascertained that whether the Coal Mining and Delivery Agreements (CMDA) dated 16.07.2008, 03.10.2013 and 24.05.2016 executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL) are approved by Government of Rajasthan. RVUN may submit a copy of approval of GoR of these agreements/Methodology for price determination."
- 4.26 RVUN vide its letter dated 27.05.2022 submitted the supplementary report, however, on perusal of the supplementary report, it could not be ascertained that whether the mechanism of determination of price of coal in Coal Mining and Delivery Agreement (CMDA) dated 16.07.2008, 03.10.2013 and 24.05.2016 executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL) is approved by Government of Rajasthan.
- 4.27 It is also observed that Commission in its order dated 23.06.2022, in the matter of ARR and Tariff for FY 2022-23 and true up for FY 2020-21 of RVUN's generating stations also directed the petitioner to get the specific approval from Government of Rajasthan in respect of the mechanism for determining the fuel price as agreed in Coal Mining and Delivery Agreements and ruled as under:
 - "4.26As per Regulation 11(8) of RERC Tariff Regulations, 2019 the price of fuel procured from captive coal mine for the generating company shall be approved by the Government or Government approved mechanism or by fuel regulator. However, On examination of the data provided by RVUN it could not be ascertained as to whether the

price mechanism for determining the fuel price as per Coal Mining and Delivery Agreements (CMDA) dated 16.07.2008, 03.10.2013 and 24.05.2016 executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL) are approved by Government of Rajasthan.

- 4.27 In view of above, the Petitioner is required to get the specific approval from Government of Rajasthan in respect of the price mechanism for determining the fuel price as per Coal Mining and Delivery Agreements."
- 4.28 It is observed that specific approval from Government of Rajasthan in respect of mechanism for determining the fuel price has not been submitted by RVUN.
- 4.29 The Commission, therefore, again directs the petitioner to submit the specific approval from Government of Rajasthan in respect of mechanism for determining the fuel price as per Coal Mining and Delivery Agreements for CSCTPP Units 5&6 alongwith next tariff petition, otherwise Commission may be constrained to not decide the variable price.
- 4.30 Further, Commission vide data gaps directed the Petitioner to submit calculation of monthly weighted average GCV of Coal on "As Received" basis certified by CIMFR.
- 4.31 In reply to Commission's query on above issue the Petitioner submitted as under:

"it has been requested to the Director CSIR-CIMFR vide letter dated 25.07.2022 to amend the bilateral agreement to provide the GCV of coal on 'as received' and 'as fired' basis certified by the CIMFR and also to certify the calculation of monthly weighted average data of GCV of coal 'as received' basis by CIMFER."

- 4.32 The Commission, in view of above, directs the Petitioner to submit the GCV of coal as certified by the CIMFR and also to certify the calculation of monthly weighted average data of GCV of coal 'as received' basis by CIMFER in the next true up petition.
- 4.33 The Commission for this true up petition has approved the Fuel prices and GCV as under:

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019- 20 Unit 5&6 (365 Days) | FY 2020- 21 Unit 5&6 |
|------------------------|--|-----------------------------------|--|----------------------------|
| Price of Coal (Rs./MT) | 4206.74 | 4187.39 | 4551.08 | 4556.13 |
| GCV of Coal (kCal/kg) | 4729.09 | 4689.61 | 4432.14 | 4312.98 |
| Price of Oil (Rs./kL) | 50744.96 | 49639.16 | 49639.16 | 42592.11 |
| GCV of Oil (kCal/kL) | 9514.04 | 9625.26 | 9625.26 | 9942.42 |

Table 15: Fuel prices and GCV considered by the Commission

Annual Fixed Charges

4.34 The Annual Fixed Charges comprise of the following elements:

- (i) Operation and Maintenance (O&M) Expenses
- (ii) Depreciation
- (iii) Interest on Long-Term Loans and Finance Charges
- (iv) Return on Equity
- (v) Interest on Working Capital
- (vi) Insurance Charges
- (vii) Recovery of ARR & Tariff Petition Fee
- (viii) Less: Non-tariff Income
- 4.35 Each of the annual fixed charges elements has been dealt with in the following paragraphs.

Operation and Maintenance (O&M) Expenses RVUN's Submission

4.36 RVUN has claimed the normative O&M expenses for FY 2018-19 to FY 2020-21 in accordance with the provisions of the RERC Tariff Regulations, 2014 and the RERC Tariff Regulations, 2019. The details of O&M expenses approved in the Tariff Order and claimed for truing up are shown in the table below:

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019-20 Unit 5&6 (365 Days) | FY 2020- 21 Unit 5&6 |
|--------------------------|--|-----------------------------------|--------------------------------------|----------------------------|
| Approved in Tariff Order | 77.25 | 0.33 | 239.32 | 248.40 |
| Claimed for True-up | 77.25 | 0.33 | 239.32 | 248.40 |

Table 16: O&M expenses claimed by RVUN (Rs. Crore)

4.37 RVUN requested the Commission to allow the normative O&M expenses as claimed.

Commission's Analysis

- 4.38 The Commission in the Tariff Order for FY 2018-19 to FY 2020-21had approved the O&M expenses considering the normative O&M expenses specified in the RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019.
- 4.39 The actual O&M expenses claimed by RVUN for FY 2018-19 to FY 2020-21 are as under:

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019- 20 Unit 5&6 (365 Days) | FY 2020- 21 Unit 5&6 |
|--------------------|------------------------------------|-----------------------------------|--|----------------------------|
| Actual O&M Expense | 37.08 | 99 | 2.52 | 146.43 |

Table 17: Actual O&M expenses for FY 2018-19 to FY 2020-21 claimed by the RVUN (Rs. Crore)

- 4.40 The Commission vide data gaps asked RVUN to submit the reconciliation of the actual O&M expenses as per the audited accounts of FY 2018-19 to FY 2020-21. The petitioner in its reply has submitted the reconciliation statement along with justification for actual O&M expenses being lower than the approved normative expenses. RVUN submitted that Units 5&6 being recently commissioned units requires less O&M. Further, RVUN submitted that the O&M funds were utilized economically due to delayed payments from Discoms and liquidity shortage experienced by the CSCTPP Power Station.
- 4.41 The reconciliation as submitted by RVUN is as shown in the table below:

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019-20 Unit 5&6 | FY 2020-21 Unit 5&6 |
|---|------------------------------------|------------------------|------------------------|
| Repairs and Maintenance | - | 37.95 | 58.39 |
| Employees Costs (actual at project | - | 27.26 | 28.42 |
| Employee cost – allocated (actuarial expenses) | - | 10.33 | - |
| Administration and Other Expenses | - | 19.56 | 20.67 |
| Total | 28.75 | 95.1 | 107.49 |
| Other Operating Expenses of CSCTPP | 2.31 | 10.8 | - |
| Capitalized R&M, Adm Exp, Employee Cost (Less) | - | - | - |
| Sub-Total O&M | - | 105.91 | - |

Table 18: Reconciliation of actual O&M expense as submitted by RVUN (Rs. Crore)

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019-20 Unit 5&6 | FY 2020-21 Unit 5&6 |
|---|------------------------------------|------------------------|------------------------|
| Less: Insurance | 1.78 | 6.39 | 7.42 |
| Less: Tariff Fee | 0.05 | - | - |
| Sub-Total O&M | 29.22 | - | - |
| HO Allocation | 7.86 | | 42.12 |
| O&M Spares | - | - | 0 |
| Other Operating Expenses of CSCTPP and O&M Spares to be claimed | - | - | 4.25 |
| Grand Total | 37.08 | 99.52 | 146.43 |

- 4.42 The Commission observes that the actual employee cost claimed in FY 2019-20 is inclusive of the allocated actuarial expenses of Rs. 10.33 Crore. This allocation is not the actual expense but provisioning of expenses. The Commission does not find it prudent to allow the provisioning of expenses in the actual expenses. The Commission sought the allocated actuarial expenses included in the actual employee cost for FY 2018-19 and FY 2020-21 and RVUN submitted the same as follows:
 - For FY 2018-19 the total allocated actuarial expenses are Rs 4.62 Crore which includes Rs 2.90 Crore pertaining to OCI and amount pertaining to OCI has already been deducted for computation of O&M of Rs 37.08 Crore. Hence the net allocated actuarial expenses are Rs 1.72 Crore and the Commission has deducted the same while approving the O&M expenses.
 - For FY 2020-21 the total allocated actuarial expenses are Rs 20.38 Crore and the Commission has deducted the same while approving the O&M expenses.
- 4.43 Therefore, the actual O&M expenses considered and approved by the Commission for true-up from FY 2018-19 to FY 2020-21 are as under:

| Particulars | FY 2018-19 Unit | FY 2019-20 | FY 2019-20 Unit | FY 2020-21 | |
|---|-----------------|-----------------|-----------------|------------|--|
| | 5 (235 Days) | Unit 5 (01 Day) | 5&6 (365 Days) | Unit 5&6 | |
| Approved in Tariff Order | 77.25 | 0.33 | 239.32 | 248.40 | |
| Claimed for True-up | 77.25 | 0.33 | 239.32 | 248.40 | |
| Actual O&M Expenses submitted by RVUN (A) | 37.08 | 9 | 9.52 | 146.43 | |
| Allocated Actuarial | 1.72 | 1 | 0.33 | 20.38 | |

| Table 19: Actual O&M Expense Considered by the Commission (Rs. Crore) |
|---|
|---|

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019-20 Unit 5 (01 Day) | FY 2019-20 Unit 5&6 (365 Days) | FY 2020-21 Unit 5&6 |
|--|---------------------------------|-------------------------------|-----------------------------------|------------------------|
| Expenses submitted by RVUN (B) | | | | |
| Actual O&M Expense Considered by the Commission (C=A-B) | 35.36 | 89.19 | | 126.05 |
| Approved on True-up as per Norms | 77.25 | 0.33 | 239.32 | 248.40 |
| Reduced normative O&M due to non- achievement of target Availability (D) | 69.33 | 0.31 | 167.31 | 216.11 |
| Difference in the Actual O&M Expense Considered by the Commission and Reduced normative O&M (E=D-C) | 33.97 | 78.43 | | 90.06 |

4.44 It is observed that as against the approved O&M expenses from FY 2018-19 to FY 2020-21, the actual O&M expenses as submitted by RVUN is considerably lower. There is saving of Rs. 202.46 Crore for RVUN with respect to the actual O&M expenses considered by the Commission for FY 2018-19 to FY 2020-21 and reduced normative O&M for nonachievement of target Availability. The Commission, therefore, directs RVUN to deposit this amount of Rs. 202.46 Crore to the Pension Fund. The Commission also directs RVUN to submit the documentary proof regarding depositing the above amount alongwith the next tariff petition.

Additional Capitalization

RVUN's Submission

4.45 The GFA balance claimed by the Petitioner from FY 2018-19 to FY 2020-21 is as shown in the table below:

| Year | Opening Balance | Addition during the year | Written off during the year | Closing Balance |
|------------------------------|--------------------|--------------------------------|-----------------------------------|--------------------|
| FY 2018-19 Unit 5 (235 Days) | 4445.21 | - | - | 4445.21 |
| FY 2019-20 Unit 5 (01 Day) | 4445.21 | - | - | 4445.21 |

Table 20: Additional Capitalization claimed by the Petitioner (Rs. Crore)

| Year | Opening Balance | Addition during the year | Written off during the year | Closing Balance |
|--------------------------------|--------------------|--------------------------------|-----------------------------------|--------------------|
| FY 2019-20 Unit 5&6 (365 Days) | 8259.72 | 203.26 | - | 8462.97 |
| FY 2020-21 Unit 5&6 | 8462.97 | 106.66 | - | 8569.63 |

4.46 RVUN submitted the justification for claiming additional capitalization that the Commission vide its Order dated 28.12.21 has approved the additional capitalization claimed by RVUN for FY 2019-20 to FY 2020-21. Further, the additional capitalization of Rs. 0.948 Crore against bulldozer cost for FY 2019-20 and hard cost of Rs. 0.63 Crore against cost of locomotive for FY 2020-21 is approved in the review order dated 23.05.2022. In view of above, the approved Gross Fixed Assets of Rs 8258.77 Crore as on COD of Unit 5&6 is revised to Rs. 8259.72 Crore after addition of Rs 0.948 Crore against bulldozer cost for FY 2019-20.Further, the approved additional capitalization of Rs 106.03 Crore for FY 2020-21 is revised to Rs. 106.66 Crore after addition of Rs. 0.63 Crore against cost of locomotive for FY 2020-21.

Commission's Analysis

4.47 The Commission in its Order dated 28.12.2021 approved the capital cost as under:

| Particulars | Approved |
|--|----------|
| Capital cost as on COD | 8543.20 |
| Less: LD | 284.44 |
| Capital cost after deducting LD | 8258.77 |
| Additional capitalization from | 203.26 |
| 02.04.2019 to 31.03.2020 | |
| Additional capitalization for FY 2020-21 | 106.03 |
| Total capital cost upto FY 2020-21 | 8568.05 |

Table 22: Capital Cost approved by Commission in Order dated 28.12.2021 (Rs. Crore)

- 4.48 RVUN has submitted the details of the LD amount recovered from the contractors. On perusal of the data submitted, it is observed that the Petitioner still has not finalized the LD amount for EPC contract and other contractors. LD amount of Rs. 83.25 Lacs is reported to be recovered from other contractors.
- 4.49 The Commission observes that even after passage of more than 3 years' time after the COD, RVUN is yet to finalize the LD amount attributable to

its contractors. The Commission is of the view that ample time and opportunity has been provided to the Petitioner for finalization of LD amount. Therefore, the Commission deems it appropriate to finalize the capital cost, without revision of LD amount, as considered in the Order dated 28.12.2021.

- 4.50 Further, the Commission in its Review Order dated 23.05.2022 in Petition No. 1990/22accepted the RVUN's claim of Rs. 0.948 Crore against bulldozer and Rs. 0.63 Crore against cost of locomotive for FY 2020-21 by allowing additional capitalisation before cut-off and re-iterated its views as follows:
 - 17. On the issue of entry tax and the spares of bulldozers procured for CSCTPP, the Petitioner has now furnished the supporting documents for its claim. In view of above, the entry tax being the statutory obligation of the Petitioner and spares of bulldozers procured for CSCTPP to the tune of Rs. 0.948 Crore are allowed.
 - 18. As the impact of Rs. 0.948 Crore additional capitalization will be miniscule in total approved ARR of CSCTPP, the Commission deems it appropriate not to revise the ARR computations at this stage. The Petitioner is directed to submit its claim in respect of entry tax and the spares of bulldozers procured for CSCTPP along with audited accounts in its true up Petition. The Commission will allow the impact of this additional capitalization in the petition to be filed by RVUN for truing up for respective financial year.

- 23. As the impact of Rs. 0.63 Crore capitalization will be miniscule in total approved ARR of CSCTPP, the Commission deems it appropriate not to revise the ARR computations at this stage. The Petitioner is directed to submit its claim in respect of revision in GST rates for procurement of locomotives along with audited accounts in its true up Petition. The Commission will allow the impact of this capitalization in the petition to be filed by RVUN for truing up for respective financial year."
- 4.51 In view of above, the Commission deems it fit to approve the additional capitalization of Rs. 0.948 Crore against bulldozer and Rs. 0.63 Crore against cost of locomotive for FY 2020-21.
- 4.52 In light of the above, the capital cost as on COD and additional capitalisation approved by the Commission is as shown in the Table

^{.....}

below:

| Particulars | | ital Cost as on .04.2019) | Revised Capital Cost up to FY 2020-21 | | |
|--|----------|------------------------------|--|---------------------|--|
| | Approved | Revised Approved | Approved | Revised Approved | |
| Land & Land Rights | 56.07 | 56.07 | 56.07 | 56.07 | |
| Building & Civil Works of Power Plant | 1636.97 | 1636.97 | 1706.13 | 1706.13 | |
| Hydraulic Works | 670.54 | 670.54 | 766 | 766.00 | |
| Plant & Machinery | 5825.07 | 5826.02 | 5946.87 | 5948.45 | |
| Lines & Cables Network | 68.71 | 68.71 | 91.58 | 91.58 | |
| Vehicles | 0.00 | 0.00 | 0.00 | 0.00 | |
| Furniture & Fixtures | 1.28 | 1.28 | 1.28 | 1.28 | |
| Office Equipment's | 0.12 | 0.12 | 0.12 | 0.12 | |
| Capital Spares | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total | 8258.77 | 8259.72 | 8568.05 | 8569.63 | |

Table 23: GFA of CSCTPP Units 5&6 as on COD (02.04.2019) &up to FY 2020-21 (Rs. Crore)

Depreciation

RVUN's Submission

4.53 The details of depreciation approved in the Tariff Order dated 28.12.21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | |
|-----------------------------|----------------------|--------------------|-------------------------|------------|--|--|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | |
| Approved in Tariff Order | 139.47 | 0.59 | 405.50 | 414.11 | | |
| Claimed for True-up | 139.47 | 0.59 | 405.55 | 414.17 | | |

Table 24: Depreciation claimed by RVUN (Rs. Crore)

Commission's Analysis

4.54 Depreciation has been computed considering the asset class wise GFA and the rates of depreciation as specified in the Tariff Regulations. The depreciation approved by the Commission for FY 2018-19 to FY 2020-21 is as shown in the table below:

| | Depreciation a | sproved by me | Commission (RS. | Crore) |
|-----------------------------|----------------------|--------------------|-------------------------|------------|
| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Approved in Tariff Order | 139.47 | 0.59 | 405.50 | 414.11 |

Table 25: Depreciation approved by the Commission (Rs. Crore)

| Claimed for True-up | 139.47 | 0.59 | 405.55 | 414.17 |
|------------------------|--------|------|--------|--------|
| Approved on True-up | 139.47 | 0.59 | 405.55 | 414.17 |

Interest on Long-Term Loans and Finance Charges RVUN's Submission

- 4.55 RVUN submitted that the interest on term loan and finance charges has been worked out in accordance with Regulation 21 of the RERC Tariff Regulations, 2014 and Regulation 21(8) of the RERC Tariff Regulations, 2019.
- 4.56 RVUN has considered the normative loan, approved by the Commission in its Order dated 28.12.21 and addition in loan corresponding to the capitalization of gross fixed asset in the respective years for computation of interest on loan.
- 4.57 Further, RVUN submitted that the loan repayment has been taken equal to the annual depreciation claimed for FY 2018-19 to FY 2020-21.
- 4.58 The details of interest on term loan and finance charges as approved in the Tariff Order dated 28.12.21 and petitioned for true up based on actual/audited accounts are shown in the table below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|--------------------------|----------------------|-----------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Approved in Tariff Order | 259.68 | 1.07 | 704.85 | 675.50 |
| Claimed for True-up | 259.82 | 1.07 | 704.61 | 681.27 |

Table 26: Interest and finance charges claimed by RVUN (Rs. Crore)

Commission's Analysis

4.59 It may be noted that the interest expenses would change from the approved figures only due to change in loan balances and due to interest rate variation. Interest on long-term loan has been computed in accordance with the provisions of the Tariff Regulations. The debt portion of the approved capital cost has been considered as the outstanding loan balance. The debt portion of the approved additional capitalization has been considered as the loan addition during the year. The Commission has considered the normative repayment for the year

as equivalent to the approved depreciation.

- 4.60 The Commission has considered the interest rates after excluding the penal interest from the actual interest claimed by RVUN.
- 4.61 Accordingly, the interest and finance charges approved by the Commission are as shown in the table below:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|------------------------------|-------------------|-----------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Opening loan | 3777.01 | 3637.54 | 6688.55 | 6445.60 |
| Addition | 0.00 | 0.00 | 162.60 | 85.33 |
| Repayment | 139.47 | 0.59 | 405.55 | 414.17 |
| Closing loan | 3637.54 | 3636.95 | 6445.60 | 6116.75 |
| Average loan | 3707.27 | 3637.24 | 6567.07 | 6281.17 |
| Interest rate | 10.86% | 10.73% | 10.73% | 10.81% |
| Interest | 259.18 | 1.07 | 702.72 | 678.99 |
| Finance charges | 0.51 | 0.00 | 0.19 | 0.76 |
| Interest and finance charges | 259.69 | 1.07 | 702.91 | 679.75 |

Table 27: Interest and finance charges on term loans approved by the Commission (Rs. Cr.)

Interest on Working Capital (IoWC) RVUN's Submission

4.62 The details of IoWC approved in the Tariff order dated 28.12.21 and petitioned for true up based on actual/audited accounts is as shown in the table below:

| Table 28:Interest on work | ing capital | claimed b | oy RVUN (| Rs. Crore) |
|---------------------------|-------------|-----------|-----------|------------|
| | | EV | | |

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019-20 Unit 5 (01 Day) | FY 2019- 20 Unit 5&6 (365 Days) | FY 2020- 21 Unit 5&6 |
|--------------------------|--|--|--|-------------------------------|
| Approved in Tariff Order | 26.69 | 0.12 | 88.63 | 90.50 |
| Claimed for True-up | 27.83 | 0.11 | 88.65 | 91.78 |

- 4.63 Regulation 27 of the RERC Tariff Regulations, 2014 and the RERC Tariff Regulations, 2019 specifies that the rate of interest on working capital is to be computed on normative basis.
- 4.64 RVUN has considered the interest rates as, 10.60% for FY 2018-19, 11.31% for FY 2019-20 and 11.18% for FY 2020-21 based on the aforesaid Regulations.

4.65 As per RERC Tariff Regulations, 2014 & 2019, RVUN after sharing of 50% gain/loss has claimed interest on working capital as mentioned in below table:

| | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|-----------------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Interest on Working | | | | |
| Capital as per Normative | 27.83 | 0.11 | 88.65 | 91.78 |
| Rate of Interest (A) | | | | |
| Actual rate of interest (B) | 10.60% | 11.31% | 11.31% | 11.18% |
| Interest on Working | | | | |
| Capital as | | 0.11 | 00.10 | 00.00 |
| perActual/Audited Rate | 25.54 | 0.11 | 89.13 | 90.09 |
| of Interest (C) | | | | |
| (Gain)/ Loss (D=C-A) | -2.29 | 0.00 | 0.48 | -1.69 |
| 50% Sharing (E=D*50%) | -1.14 | 0.00 | 0.24 | -0.85 |
| Interest on Working | 0/ /0 | 0.11 | 00.00 | 00.04 |
| Capital Claimed (F=A+E) | 26.69 | 0.11 | 88.89 | 90.94 |

Table 29: Interest on Working Capital Claimed by the Petitioner (Rs. Crore)

Commission's Analysis

- 4.66 Regulation 27(2) of the RERC Tariff Regulations, 2014 stipulates as follows:
 - "Rate of interest on working capital to be computed shall be on normative basis and shall be 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six month of the year previous to the relevant year. The interest on working capital shall be computed on normative basis notwithstanding that the generating company or licensee has not taken working capital loan from any outside agency. The variation in the interest amount on account of actual vis-à-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the generating company/licensee and the beneficiary."
- 4.67 Regulation 27(2) and 27(3) of the RERC Tariff Regulations, 2019 is stipulated as below:
 - "(2) Rate of interest on working capital to be computed shall be on normative basis and shall be 300 basis points higher than the average Base Rate prevalent during first six months of the year previous to the relevant year. The working capital and interest thereon shall be computed

on normative basis notwithstanding that the Generating Company or Licensee has not taken working capital loan from any outside agency.

- (3) The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the Generating Company/Licensee/SLDC and the beneficiary".
- 4.68 The computation of the base rate is as shown in the table below:

| Table 30: Computation of interest kate for working Capital | | | | | | |
|--|------------|------------|----------------|------------------|------------------------|---------------------------|
| Applicable for the Year | From Date | To Date | No. of Days | SBI Base Rate | 250/300 Basis Point | Approved Interest Rate |
| EX 2010-10 | 01-04-2017 | 30-06-2017 | 91 | 9.10% | 0 5007 | 11 5507 |
| FY 2018-19 | 01-07-2017 | 30-09-2017 | 92 | 9.00% | 2.50% | 11.55% |
| | 01-04-2018 | 31-05-2018 | 61 | 8.15% | 3.00% | 11.25% |
| FY 2019-20 | 01-06-2018 | 31-08-2018 | 92 | 8.25% | | |
| | 01-09-2018 | 30-09-2018 | 30 | 8.45% | | |
| | 01-04-2019 | 09-04-2019 | 9 | 8.55% | | |
| | 10-04-2019 | 09-05-2019 | 30 | 8.50% | | |
| | 10-05-2019 | 09-06-2019 | 31 | 8.45% | | |
| FY 2020-21 | 10-06-2019 | 09-07-2019 | 30 | 8.45% | 3.00% | 11.39% |
| | 10-07-2019 | 09-08-2019 | 31 | 8.40% | | |
| | 10-08-2019 | 09-09-2019 | 31 | 8.25% | | |
| | 10-09-2019 | 30-09-2019 | 21 | 8.15% | | |

Table 30: Computation of Interest Rate for Working Capital

https://sbi.co.in/web/interest-rates/interest-rates/base-rate-historical-data#show https://sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data

- 4.69 As IoWC is a controllable factor, the Commission has computed the sharing of gains/losses for FY 2018-19 to FY 2020-21in accordance with the RERC Tariff Regulations, 2014 and 2019.
- 4.70 RVUN, vide the data gaps submitted the actual weighted average rate of interest on working capital loans as 10.60%, 11.31% and 11.18% for FY 2018-19 to FY 2020-21 respectively. In accordance with the provision of RERC Tariff Regulations, 2014 and 2019, the Commission has considered the actual interest rates submitted by RVUN for working out the sharing of gains and losses.
- 4.71 The IoWC approved by the Commission for FY 2018-19 to FY 2020-21 is as shown in the Table below:

| Particulars | FY 2018-19 | FY 2019- 20 | FY 2019-20 | FY 2020-21 |
|-------------------------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| IoWC at normative rate of IoWC (A) | 27.47 | 0.11 | 87.76 | 90.98 |
| IoWC at actual rate of IoWC (B) | 25.21 | 0.11 | 88.24 | 89.34 |
| (Gain)/Loss C = B-A | -2.26 | 0.00 | 0.48 | -1.65 |
| Sharing of (Gain)/Loss D = 50%*C | -1.13 | 0.00 | 0.24 | -0.82 |

Table 31: Approved IoWC for FY 2018-19 to FY 2020-21(Rs. Crore)

Recovery of ARR and Tariff Petition Fees

RVUN's Submission

4.72 RVUN has submitted ARR and Tariff petition fees for FY 2018-19 to FY 2020-21 as shown in the table below:

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019- 20 Unit 5&6 (365 Days) | FY 2020-21 Unit 5&6 |
|--------------------------|--|-----------------------------------|--|------------------------------|
| Approved in Tariff Order | 0.66 | 0.00 | 0.00 | 0.00 |
| Claimed for True-up | 0.33 | 0.00 | 0.00 | 0.00 |

Table 32: ARR and tariff petition fees claimed by RVUN (Rs. Crore)

Commission's Analysis

4.73 The ARR and Tariff petition fee at the rate as specified in RERC (Fees for Petition) Regulations, 2018 is allowable as per RERC Tariff Regulation, 2014. There is no provision in RERC Tariff Regulation, 2019 for allowing ARR and Tariff petition fee separately. The Commission, therefore, has allowed ARR and Tariff petition fee for FY 2018-19 only as provided below:

| Table 33: ARR | and tariff petiti | on fees approv | ved (I | Rs. Crore |) |
|---------------|-------------------|----------------|--------|-----------|---|
| | | | | | |

| Bartioulare | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|--------------------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Approved in Tariff Order | 0.66 | 0.00 | 0.00 | 0.00 |
| Claimed for True-up | 0.33 | 0.00 | 0.00 | 0.00 |
| Approved on True-up | 0.33 | 0.00 | 0.00 | 0.00 |

Insurance on Fixed Assets

RVUN's Submission

4.74 RVUN submitted the actual insurance on fixed assets along with the supporting documents, as against that approved in Tariff Order dated 28.12.21 as follows:

| Dautionlaus | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | | |
|--------------------------|----------------------|--------------------|-------------------------|------------|--|--|--|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | | |
| Approved in Tariff Order | 1.78 | 0.02 | 6.37 | 7.42 | | | |
| Claimed for True-up | 1.78 | 0.01 | 6.38 | 7.42 | | | |

Table 34:Insurance on fixed assets claimed by RVUN (Rs. Crore)

Commission's Analysis

- 4.75 The Commission vide its data gaps asked RVUN to submit the reconciliation statement of the actual insurance charges as per the audited accounts. Accordingly, RVUN in its replies to the data gaps dated 18.08.2022 submitted the same.
- 4.76 The Commission observes that the insurance charges claimed by RVUN are in theceiling of 0.2% of average Net Fixed Assets for the year as per Regulation 25 of the Tariff Regulations, 2019.
- 4.77 Accordingly, the insurance charges on fixed assets for FY 2018-19 to FY 2020-21 approved by the Commission are as shown in the table below:

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019- 20Units 5&6 (365 Days) | FY 2020- 21 Units 5&6 |
|--------------------------|--|-----------------------------------|---------------------------------------|-----------------------------|
| Approved in Tariff Order | 1.78 | 0.02 | 6.37 | 7.42 |
| Claimed for True-up | 1.78 | 0.01 | 6.38 | 7.42 |
| Approved on True-up | 1.78 | 0.01 | 6.38 | 7.42 |

| Table 35: Approv | ed insurance | e on fixed as | ssets (R | s. Crore |) |
|------------------|--------------|---------------|----------|----------|---|
| | | | | | |

<u>Return on Equity (RoE)</u> RVUN's Submission

4.78 RVUN has claimed RoE at the rate of 15.50% for FY 2018-19 in accordance with Regulation 20 of the RERC Tariff Regulations, 2014. For FY 2019-20 and FY 2020-21, no RoE is claimed by RVUN in accordance with the instructions of GoR vide letter dated 17.09.2021. The details of RoE approved in the Tariff order dated 28.12.21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

| Particulars | FY 2018- 19 Unit 5 (235 Days) | FY 2019- 20 Unit 5 (01 Day) | FY 2019-20 Unit 5&6 (365 Days) | FY 2020-21 Unit 5&6 |
|--------------------------|--|-----------------------------------|--------------------------------------|---------------------------|
| Approved in Tariff Order | 66.68 | 0.00 | 0.00 | 0.00 |
| Claimed for True-up | 66.68 | 0.00 | 0.00 | 0.00 |

Table 36: RoE claimed by RVUN (Rs. Crore)

Commission's Analysis

4.79 The equity portion of the approved capital cost has been considered as the equity balance. The equity portion of the approved additional capitalization has been considered as the equity addition during the year. The equity balance considered by the Commission for FY 2018-19 to FY 2020-21 is as shown in the table below:

| | FY 2018-19 | FY 2019 | 7-20 | FY 2020-21 |
|----------------|----------------------|----------------|------------------------|------------------------|
| Particulars | Unit-5 (235 Days) | Unit-5 (1 Day) | Unit-5&6 (365 Days) | Unit-5&6 (365 Days) |
| | Approved | Approved | Approved | Approved |
| Opening Equity | 668.21 | 668.21 | 1431.11 | 1471.76 |
| Addition | 0.00 | 0.00 | 40.65 | 21.33 |
| Closing Equity | 668.21 | 668.21 | 1471.76 | 1493.09 |

Table 37: Equity Balance considered by the Commission (Rs. Crore)

- 4.80 For FY 2018-19, the rate of RoE has been considered as 15.50%, i.e., in accordance with the RERC Tariff Regulations, 2014.
- 4.81 RVUN as per GOR letter dated 17.09.2021 has not claimed ROE For FY 2019-20 and FY 2020-21, accordingly, the Commission has not approved ROE for FY 2019-20 to FY 2020-21.
- 4.82 RoE approved by the Commission for FY 2018-19 to FY 2020-21 is given in the table below:

| Table 38: Return on Equity approved by the Commission (Rs. Crore) | | | | | | |
|---|----------------------|----------------|------------------------|------------------------|--|--|
| | FY 2018-19 | FY 2019 | FY 2020-21 | | | |
| Particulars | Unit-5 (235 Days) | Unit-5 (1 Day) | Unit-5&6 (365 Days) | Unit-5&6 (365 Days) | | |
| Claimed | 66.68 | 0.00 | 0.00 | 0.00 | | |

| | FY 2018-19 | FY 2019 | FY 2020-21 | |
|-------------|----------------------|----------------|------------------------|------------------------|
| Particulars | Unit-5 (235 Days) | Unit-5 (1 Day) | Unit-5&6 (365 Days) | Unit-5&6 (365 Days) |
| Approved | 66.68 | 0.00 | 0.00 | 0.00 |

Terminal Benefit RVUN's Submission

4.83 RVUN submitted that the terminal benefits have been separately allowed over and above the normative O&M expenses as per Regulation 47(7) of the RERC Tariff Regulations, 2019 which is read as below:

"Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed through tariff separately."

4.84 The actual terminal benefits for FY 2019-20 are Rs. 13.47 Crore and For FY 2020-21 is Rs. 35 Crore as per the actuarial report. However, RVUN has claimed only Rs 24.23 Crore for FY 2020-21. RVUN submitted the actuarial report for FY 2019-20 and FY 2020-21. Therefore, it requested before Commission to allow the terminal benefits as submitted. The details of terminal benefits approved in the Tariff order dated 28.12.21 and petitioned for true up are as shown in the table below:

| Tables 7. Terminal benefits claimed by the Fellionel (ks. Clote) | | | | | | | |
|--|----------------------|--------------------|-------------------------|------------|--|--|--|
| Particulars | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | | | |
| T diffeoldis | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | | |
| Approved in Tariff Order | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| Claimed for True-up | 0.00 | 0.02 | 13.45 | 24.23 | | | |

Table39: Terminal Benefits claimed by the Petitioner (Rs. Crore)

Commission's Analysis

4.85 The Commission vide its data gaps asked RVUN to submit the station wise allocation of actual terminal benefits deposited for FY 2018-19 and FY 2019-20. RVUN vide its reply dated 18.08.2022 has submitted that no extra amount over and above the routine terminal liabilities has been deposited in the designated fund during those years. The terminal liabilities which are routine has to be deposited through normative O&M and extra amount deposited based on actuarial valuation shall be reimbursed as extra amount. Since, the amount deposited is not as per actuarial valuation, the Commission, therefore, does not allow the same for FY 2018-19 and FY 2019-20.

- 4.86 RVUN submitted the plant wise allocations of over and above routine terminal liabilities For FY 2020-21 only that amounts to Rs 3.13 Crore. The Commission deems it appropriate to consider the same for FY 2020-21.
- 4.87 The terminal benefits as approved by the Commission are as follows:

| | FY 2018-19 | FY 2019 | FY 2020-21 | | |
|-------------|------------|----------------|------------|------------|--|
| Particulars | Unit-5 | Unit-5 (1 Day) | Unit-5&6 | Unit-5&6 | |
| | (235 Days) | | (365 Days) | (365 Days) | |
| Claimed | 0.00 | 0.02 | 13.45 | 24.23 | |
| Approved | 0.00 | 0.00 | 0.00 | 3.13 | |

Table 40: Terminal Benefits approved for FY 2019-20 (Rs. Crore)

Lease Rent

RVUN's Submission

4.88 The details of lease rent approved in the Tariff Order dated 28.12.2021 and petitioned for true up are as shown in the table below:

| Particulars | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | |
|--------------------------|-------------------|-----------------|----------------------|------------|--|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | |
| Approved in Tariff Order | 0.00 | 0.00 | 0.00 | 0.00 | |
| Claimed for True-up | 0.00 | 0.00 | 1.02 | 0.77 | |

Table41: Lease Rent claimed by the Petitioner (Rs. Crore)

Commission's Analysis

4.89 The Commission vide its data gaps asked RVUN to submit the basis of its claim against Lease Rent from FY 2018-19 to FY 2020-21, along with its station wise reconciliation statement as per the audited accounts. RVUN in its replies to the data gaps submitted that in the Petition RVUN has claimed lease rents actually incurred on the lease hold land for FY 2018-19 to FY 2019-20 and for FY 2020-21 amortization has been claimed on the basis of audited accounts. The Petitioner submitted the revised statement regarding amortization of lease hold land for FY 2018-19 to FY 2020-21. The details are provided in the table below:

| FY 2018-19 | FY 2019 | 7-20 | FY 2020-21 | | |
|---------------------------------|----------------------|--------------------|----------------------|------------------|----------------------|
| Particulars | Amount (Rs Crore) | Particulars | Amount (Rs Crore) | Particulars | Amount (Rs Crore) |
| Lease Rent | 0.00 | Lease Rent | 0.51 | At Plant | 0.00 |
| Lease rent Allocated from HO | 0.00 | Ambikapur Share | 0.02 | HO Allocation | 0.77 |
| - | - | TD Share | 0.49 | - | - |
| Total | 0.00 | Total | 1.02 | Total | 0.77 |

Table 42: Reconciliation Statement for Lease Rents by RVUN (Rs Crore)

- 4.90 It is observed that RVUN in reply to the objections/comments of Stakeholder submitted the documentary proof for actual lease rent amount deposited against the land for CSCTPP Units 5&6. Further, RVUN has not claimed any amount under lease rents for FY 2018-19. Therefore, Commission doesn't approve lease rent expense for FY 2018-19.
- 4.91 For FY 2019-20, RVUN has submitted Rs. 0.02 Crore against Ambikapur share and Rs 0.49 Crore against TD share. In this regard, Commission vide its Order dated 20.10.2021 (Petition No.1872/21) while truing up of FY 2019-20 for RVUN Stations has not considered the lease rent expense towards Ambikapur Share and TD Share, which reads as under:
 - "4.118. The Commission observed that there is a variance in reconciliation statement of lease rent submitted vide instant petition and vide Petition No. 1880/21. Further, the Petitioner has not submitted the proper justification towards variation in lease rent. As the Commission has carried out the detailed analysis of lease rent submitted vide Petition No. 1880/21, the Commission has considered the same while approving the true up of RVUN for FY 2019-20. Also, the Commission does not find it prudent to consider lease rent expense towards Ambikapur Share and TD Share"
- 4.92 In light of above, Commission disallows the Ambikapur Share and TD Share expenses for FY 2019-20. Commission further observed that RVUN has claimed the actual lease rent of Rs 0.51 Crore for the plant land for FY 2019-20 and FY 2020-21 and submitted the supporting documents in this regard. Therefore, Commission deems it appropriate to consider the lease rent of Rs 0.51 Crore for FY 2019-20 and FY 2020-21.
- 4.93 In light of the above, the lease rent expense approved by the Commission for FY 2018-19 to FY 2020-21 is as shown in the Table below:

| Particulars | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | |
|--------------------------|-------------------|-----------------|----------------------|------------|--|
| rancolars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | |
| Approved in Tariff Order | 0.00 | 0.00 | 0.00 | 0.00 | |
| Claimed for True-up | 0.00 | 0.00 | 1.02 | 0.77 | |
| Approved on True-up | 0.00 | 0.00 | 0.51 | 0.51 | |

Table 43: Lease Rent approved by the Commission (Rs. Crore)

<u>Non-Tariff Income</u> RVUN's Submission

4.94 The details of non-tariff income approved in the Tariff Order dated 28.12.21 and petitioned for true up based on actual/audited accounts is as shown in the table below:

| D and a set and | FY 2018-19 FY 2019-20 | | FY 2019-20 | FY 2020-21 | | | |
|--------------------------|-----------------------|--------------------|-------------------------|------------|--|--|--|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 | | | |
| Approved in Tariff Order | 3.41 | 0.00 | 0.29 | 0.30 | | | |
| Claimed for True-up | 3.41 | 0.00 | 0.29 | 1.02 | | | |

Table 44: Non-tariff income claimed by RVUN (Rs. Crore)

Commission's Analysis

4.95 The Commission observed that RVUN has submitted the reconciliation statement of the actual non-tariff income as per the audited accounts. The Commission accordingly, approves the actual non-tariff income for FY 2018-19 to FY 2020-21 as shown in the table below:

| Table 45: Non-tariff income approved by the Commission | (Rs. Crore) | |
|--|-------------|--|
| | | |

| Baultanlaus | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 | |
|--------------------------|--------------------------------------|------------|-------------------------|------------|--|
| Particulars | Unit 5 (235 Unit 5 (01 Days) Day) | | Units 5&6 (365 Days) | Units 5&6 | |
| Approved in Tariff Order | 3.41 | 0.00 | 0.29 | 0.30 | |
| Claimed for True-up | 3.41 | 0.00 | 0.29 | 1.02 | |
| Approved on True-up | 3.41 | 0.00 | 0.29 | 1.02 | |

Annual Fixed Charges Commission's Analysis

4.96 The summary of year-wise AFC approved by the Commission upon truing

up is as given in Table below:

| | FY 2018- | 19 Unit 5 (2 | 46: Approve 35 Davs) | | -20 Unit 5 (| • | 2 | 0 Unit 5&6 (| 365 Davs) |
|---|--------------------------------|----------------------------|----------------------------|--------------------------------|----------------------------|----------------------------|--------------------------------|----------------------------|----------------------------|
| Particulars | Approved in Tariff Order | Claimed for True- up | Approved on True- up | Approved in Tariff Order | Claimed for True- up | Approved on True- up | Approved in Tariff Order | Claimed for True- up | Approved on True- up |
| Operation & Maintenance expenses | 77.25 | 77.25 | 77.25 | 0.33 | 0.33 | 0.33 | 239.32 | 239.32 | 239.32 |
| Interest on Ioan and finance charges | 259.68 | 259.82 | 259.69 | 1.07 | 1.07 | 1.07 | 704.85 | 704.61 | 702.91 |
| Depreciation | 139.47 | 139.47 | 139.47 | 0.59 | 0.59 | 0.59 | 405.50 | 405.55 | 405.55 |
| Interest on working capital | 26.69 | 27.83 | 27.47 | 0.12 | 0.11 | 0.11 | 88.63 | 88.65 | 87.76 |
| Return on Equity | 66.68 | 66.68 | 66.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Insurance | 1.78 | 1.78 | 1.78 | 0.02 | 0.01 | 0.01 | 6.37 | 6.38 | 6.38 |
| ARR & Tariff Petition fees | 0.66 | 0.33 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Terminal Benefit | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 13.45 | 0.00 |
| Lease Rent | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.02 | 0.51 |
| Less: Non- Tariff Income | 3.41 | 3.41 | 3.41 | 0.00 | 0.00 | 0.00 | 0.29 | 0.29 | 0.29 |
| Annual Fixed Charges | 568.81 | 569.75 | 569.26 | 2.13 | 2.13 | 2.11 | 1444.38 | 1458.69 | 1442.14 |

 Table 46: Approved AFC by the Commission (Rs. Crore)

| | F | FY 2020-21 Unit 5&6 | | | | | |
|--------------------------------------|-----------------------------|------------------------|------------------------|--|--|--|--|
| Particulars | Approved in Tariff Order | Claimed for True-up | Approved on True-up | | | | |
| Operation & Maintenance expenses | 248.40 | 248.40 | 248.40 | | | | |
| Interest on loan and finance charges | 675.50 | 681.27 | 679.75 | | | | |
| Depreciation | 414.11 | 414.17 | 414.17 | | | | |
| Interest on working capital | 90.50 | 91.78 | 90.98 | | | | |
| Return on Equity | 0.00 | 0.00 | 0.00 | | | | |
| Insurance | 7.42 | 7.42 | 7.42 | | | | |
| ARR & Tariff Petition fees | 0.00 | 0.00 | 0.00 | | | | |
| Terminal Benefit | 0.00 | 24.23 | 3.13 | | | | |
| Lease Rent | 0.00 | 0.77 | 0.51 | | | | |
| Less: Non-Tariff Income | 0.30 | 1.02 | 1.02 | | | | |
| Annual Fixed Charges | 1435.63 | 1467.03 | 1443.35 | | | | |

4.97 The full recovery of fixed charges is allowed if the actual availability is

equal to or more than the target availability. If the actual availability is lower than the target availability, the approved normative AFC is reduced proportionately as per RERC Tariff Regulations, 2014 and 2019. The actual availability for FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6 is lower than the normative availability approved by the Commission in this Order. For such years, the Commission has reduced the recovery of Annual Fixed Charge on pro-rata basis. The approved Annual Fixed Charges and Annual Fixed charges reduced by the Commission areas shown in table below:

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019-20 Unit 5 (01 Day) | FY 2019-20 Unit 5&6 (365 Days) | FY 2020-21 Unit 5&6 |
|---|------------------------------------|----------------------------------|--------------------------------------|------------------------|
| AFC after true up | 569.26 | 2.11 | 1442.14 | 1443.35 |
| Actual Availability considered by the Commission | 74.49% | 78.27% | 59.42% | 73.95% |
| Target Availability due to full recovery of fixed charges | 83.00% | 83.00% | 85.00% | 85.00% |
| Reduced AFC | 510.89 | 1.99 | 1008.20 | 1255.72 |
| AFC reduced | 58.37 | 0.12 | 433.95 | 187.63 |

Table 47: AFC reduced due to non-achievement of target Availability (Rs Crore)

Energy Charges

Commission's Analysis

4.98 The Commission has computed the energy charges for FY 2018-19 to FY 2020-21 considering the approved performance parameters and actual fuel prices and calorific value. The energy charges computed by the Commission for FY 2018-19 to FY 2020-21 are as shown in the table below:

| Table 48: Energ | y Charges | approved | by the | Commission |
|-----------------|-----------|----------|--------|------------|
| | | | | |

| Particulars | Units | | 9 Unit 5 (235 ays) | 35 FY 2019-20 Unit 5 (01 Day) | | FY 2019-20 Unit 5&6 (365 Days) | |
|--------------------------------|----------|---------|-----------------------|----------------------------------|----------|-----------------------------------|----------|
| | | Claimed | Approved | Claimed | Approved | Claimed | Approved |
| Gross Generation | MU | 2714.18 | | 11.88 | | 6397.21 | |
| Auxiliary Consumption | % | 6.70% | 5.25% | 6.59% | 5.25% | 6.53% | 5.25% |
| Net Generation | MU | 2532.25 | 2523.33 | 11.09 | 11.36 | 5979.45 | 6093.74 |
| Landed Price of Coal | Rs./kg | 4.21 | 4.21 | 4.19 | 4.19 | 4.55 | 4.55 |
| Gross Station Heat Rate | kcal/kWh | 2771.77 | 2123.44 | 2729.02 | 2133.60 | 2703.72 | 2133.60 |
| Price of Secondary fuel oil | Rs./ml | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |

| Particulars | Units | FY 2018-19 Unit 5 (235 Days) | | FY 2019-20 Unit 5 (01 Day) | | FY 2019-20 Unit 5&6 (365 Days) | | |
|---|-----------|---------------------------------|----------|-------------------------------|----------|-----------------------------------|----------|--|
| | | Claimed | Approved | Claimed | Approved | Claimed | Approved | |
| Secondary fuel oil Consumption | ml/kWh | 1.24 | 0.50 | 0.00 | 0.50 | 1.35 | 0.50 | |
| Gross Calorific Value of Secondary fuel oil | kcal/ml | 9.51 | 9.51 | 9.63 | 9.63 | 9.63 | 9.63 | |
| Heat Contribution from Secondary fuel oil | kcal/kWh | 11.82 | 4.76 | 0.00 | 4.81 | 12.98 | 4.81 | |
| Heat Contribution from Coal | kcal/kWh | 2759.94 | 2118.68 | 2729.02 | 2128.79 | 2690.74 | 2128.79 | |
| Gross Calorific Value of Coal | kcal/kg | 4729.09 | 4729.09 | 4689.61 | 4689.61 | 4432.14 | 4432.14 | |
| Specific coal consumption | kg/kWh | 0.58 | 0.45 | 0.58 | 0.45 | 0.61 | 0.48 | |
| Rate of Energy Charge | Rs./kWh | 2.70 | 2.02 | 2.61 | 2.03 | 3.03 | 2.33 | |
| Other Charges | Rs. Crore | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total Energy | Rs. Crore | 683.47 | 508.67 | 2.89 | 2.31 | 1810.33 | 1421.81 | |
| Charges | Rs./kWh | 2.70 | 2.02 | 2.61 | 2.03 | 3.03 | 2.33 | |

| Particulars | Units | FY 2020-21 Unit 5&6 | | | |
|--|-----------|---------------------|----------|--|--|
| | | Claimed | Approved | | |
| Gross Generation | MU | 7776.76 | | | |
| Auxiliary Consumption | % | 7.03% | 5.25% | | |
| Net Generation | MU | 7229.68 | 7584.22 | | |
| Landed Price of Coal | Rs./kg | 4.56 | 4.56 | | |
| Gross Station Heat Rate | kcal/kWh | 2504.12 | 2133.60 | | |
| Price of Secondary fuel oil | Rs./ml | 0.04 | 0.04 | | |
| Secondary fuel oil Consumption | ml/kWh | 0.36 | 0.50 | | |
| Gross Calorific Value of Secondary fuel oil | kcal/ml | 9.94 | 9.94 | | |
| Heat Contribution from Secondary fuel oil | kcal/kWh | 3.63 | 4.97 | | |
| Heat Contribution from Coal | kcal/kWh | 2500.49 | 2128.63 | | |
| Gross Calorific Value of Coal | kcal/kg | 4312.98 | 4312.98 | | |
| Specific coal consumption | kg/kWh | 0.58 | 0.49 | | |
| Rate of Energy Charge | Rs./kWh | 2.86 | 2.40 | | |
| Other Charges | Rs. Crore | 0.00 | 0.00 | | |
| Total Energy Charges | Rs. Crore | 2066.28 | 1816.96 | | |
| Total Energy Charges | Rs./kWh | 2.86 | 2.40 | | |

4.99 Based on above per unit Energy Charges, the Commission has computed the allowable total variable cost by multiplying the per unit Energy Charges with the total energy for the year to be considered for computation of allowable Energy Charges.

4.100 Further, Regulation 57(2) of RERC Tariff Regulations, 2014 states as follows:

"57. Sharing of gains and losses on account of controllable factors

(1) ...

(2) The Financial losses by a generating company on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption shall be borne by the Generating Company".

4.101 Regulation 56 (2) of the RERC Tariff Regulations, 2019 specifies as follows:

"56. Sharing of gains or losses on account of controllable factors

(1)....

(2)The Financial losses by a Generating Company on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption shall be borne by the Generating Company".

- 4.102 Therefore, from the Regulation 57(2) of the RERC Tariff Regulations 2014, and Regulation 56(2) of the RERC Tariff Regulations, 2019 it is clear that any loss on account of controllable factor has to be borne by the generator and no sharing of the same will be done. Therefore, the Commission in this order has not done the sharing of energy charges for FY 2018-19 to FY 2020-21.
- 4.103 The Commission has not allowed any incentive for CSCTPP Unit 5&6 as the Petitioner has not been able to achieve target PLF for FY 2018-19 to FY 2020-21.

<u>Revenue Side True Up</u> RVUN's Submission

4.104 RVUN has submitted the revenue for true up for FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6 as shown in the table below:

| Particulars | Revenue |
|---|-----------------|
| FY 2018-19 Unit 5 (235 Days) | 1050.81 |
| FY 2019-20 Unit 5 (01 Day) FY 2019-20 Unit 5&6 (365 Days) | 5.16 2455.14 |
| FY 2020-21 Unit 5&6 | 3038.61 |

Table 49: Actual Revenue as per Annual Accounts as submitted by the Petitioner(Rs. Crore)

Commission's Analysis

- 4.105 The Commission has considered the revenue earned from fixed charges, energy charges and Fuel Price Adjustment for carrying out the truing up FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6.
- 4.106 Vide the data gaps, the Commission sought reconciliation statement of the actual revenue, as per the audited accounts for FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6. RVUN submitted the same and were found to be prudent.
- 4.107 Accordingly, the revenue from sale of power considered by the Commission for truing up purposes is shown in the table below:

| Dentioulare | FY 2018-19 | FY 2019-20 | FY 2019-20 | FY 2020-21 |
|----------------|----------------------|--------------------|-------------------------|------------|
| Particulars | Unit 5 (235 Days) | Unit 5 (01 Day) | Units 5&6 (365 Days) | Units 5&6 |
| Fixed Charges | 521.96 | 2.39 | 975.09 | 1149.84 |
| Energy Charges | 552.86 | 2.46 | 1319.03 | 1651.09 |
| FPA | -24.02 | 0.31 | 161.02 | 237.68 |
| PLF Incentive | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 1050.81 | 5.16 | 2455.14 | 3038.61 |

Table 50: Revenue from sale of power considered by the Commission (Rs. Crore)

Summary of True Up RVUN's submission

4.108 The summary of true up for FY 2018-19 to FY 2020-21 for CSCTPP Units 5&6 claimed by RVUN is shown in the table below:

| | FY 2018-19 Unit 5 (235 Days) | | FY 2019-20 Unit 5 (01 Day) | | FY 2019-20 Unit 5&6 (365 Days) | |
|---|---------------------------------|---------------------------|-------------------------------|---------------------------|-----------------------------------|---------------------------|
| Particulars | As per Tariff Order | Claimed for true up | As per Tariff Order | Claimed for true up | As per Tariff Order | Claimed for true up |
| Cost side True Up | | | | | | |
| Total Fixed Cost | 568.81 | 569.75 | 2.13 | 2.13 | 1444.38 | 1458.69 |
| Variable cost | 585.52 | 683.47 | 2.98 | 2.89 | 2203.88 | 1810.33 |
| Add: PLF based Incentive | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Expenses | 1154.33 | 1253.22 | 5.11 | 5.03 | 3648.26 | 3269.02 |
| Extra Cost incurred By RVUN (A) | | 98.90 | | -0.08 | | -379.24 |
| <u>Revenue Side True up</u> | | | | | | |
| Revenue From electricity (Fixed And Energy charges) | 1154.33 | 1050.81 | 5.11 | 5.16 | 3648.26 | 2455.14 |
| Add: PLF based Incentive | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Revenue | 1154.33 | 1050.81 | 5.11 | 5.16 | 3648.26 | 2455.14 |
| Extra Amount billed to Discom by RVUN (B) | | -103.52 | | 0.05 | | -1193.12 |
| Total Amount Sought from Discom C=(A-B) | | 202.42 | | -0.13 | | 813.88 |

Table 51: Summary of true up claimed by RVUN (Rs. Crore)

| Dunkingulan | FY 2020-21 Unit 5&6 | | |
|---|---------------------------|------------------------|--|
| Particulars | As per Tariff Order | Claimed for true up | |
| Cost side True Up | | | |
| Total Fixed Cost | 1435.63 | 1467.03 | |
| Variable cost | 2217.96 | 2066.28 | |
| Add: PLF based Incentive | 0.00 | 0.00 | |
| Total Expenses | 3653.59 | 3533.31 | |
| Extra Cost incurred By RVUN (A) | | -120.28 | |
| <u>Revenue Side True up</u> | | | |
| Revenue From electricity (Fixed And Energy charges) | 3653.59 | 3038.61 | |
| Add: PLF based Incentive | 0.00 | 0.00 | |
| Total Revenue | 3653.59 | 3038.61 | |
| Extra Amount billed to Discom by RVUN (B) | | -614.98 | |
| Total Amount Sought from Discom C=(A-B) | | 494.70 | |

4.109 RVUN has claimed the net revenue gap/surplus for true-up of FY 2018-19 to FY 2020-21 as shown in the table below:

| Particulars | Revenue Gap/(Surplus) |
|--------------------------------|-----------------------|
| | Claimed |
| FY 2018-19 Unit 5 (235 Days) | 202.42 |
| FY 2019-20 Unit 5 (01 Day) | -0.13 |
| FY 2019-20 Unit 5&6 (365 Days) | 813.88 |
| FY 2020-21 Unit 5&6 | 494.70 |
| Total | 1510.86 |

 Table 52: Revenue Gap/(Surplus) claimed by the Petitioner (Rs. Crore)

Commission's Analysis

4.110 Based on component wise cost and revenue approved as discussed above, the summary of True Up for FY 2018-19 to FY 2020-21 as approved by the Commission is as shown in the table below:

Table 53: Summary of True up approved by the Commission for FY 2018-19 to FY 2020-21(Rs. Crore)

| Particulars | FY 2018-19 Unit 5 (235 Days) | FY 2019-20 Unit 5 (01 Day) | FY 2019-20 Unit 5&6 (365 Days) | FY 2020-21 Unit 5&6 |
|--|------------------------------------|----------------------------------|--------------------------------------|------------------------|
| <u>Cost side True Up</u> | | | | |
| Fixed Cost before subtracting Non-Tariff Income | 572.67 | 2.11 | 1442.33 | 1444.37 |
| Variable cost | 508.67 | 2.31 | 1421.81 | 1816.96 |
| Sharing of (gain)/loss in rate of IoWC | -1.13 | 0.00 | 0.24 | -0.82 |
| Add: PLF Based Incentive | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Reduction in AFC due to non-achievement of Target Availability | 58.37 | 0.12 | 433.95 | 187.63 |
| TOTAL (A) | 1021.84 | 4.30 | 2430.53 | 3072.88 |
| <u>Revenue Side True up</u> | | | | |
| Revenue From Fixed Charges | 521.96 | 2.39 | 975.09 | 1149.84 |
| Revenue from Variable Charges | 552.86 | 2.46 | 1319.03 | 1651.09 |
| Fuel Price Adjustment | -24.02 | 0.31 | 161.02 | 237.68 |
| Add: PLF Based Incentive | 0.00 | 0.00 | 0.00 | 0.00 |
| Non-tariff income | 3.41 | 0.00 | 0.29 | 1.02 |
| TOTAL (B) | 1054.22 | 5.16 | 2455.43 | 3039.63 |
| Revenue Gap/(surplus) (C=A-B) | -32.38 | -0.86 | -24.90 | 33.25 |

4.111 Accordingly, the Commission has approved the revenue gap/surplus as shown in the table below:

| Particulars | Revenue C | Revenue Gap/(Surplus) | | | |
|--------------------------------|-----------|-----------------------|--|--|--|
| | Claimed | Approved | | | |
| FY 2018-19 Unit 5 (235 Days) | 202.42 | -32.38 | | | |
| FY 2019-20 Unit 5 (01 Day) | (0.13) | -0.86 | | | |
| FY 2019-20 Unit 5&6 (365 Days) | 813.88 | -24.90 | | | |
| FY 2020-21 Unit 5&6 | 494.70 | 33.25 | | | |
| Total Revenue Gap/(Surplus) | 1510.86 | (24.89) | | | |

Table 54: Revenue gap/surplus claimed by RVUN and approved by the Commission (Rs. Crore)

- 4.112 The Commission directs RVUN to refund the net approved revenue surplus of Rs. 24.89 Crore for the period FY 2018-19 to FY 2020-21 to the Discoms in next billing cycle from the date of this Order, in the ratio of total energy purchased by them from FY 2018-19 to FY 2020-21.
- 4.113 Copy of this order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.
- 4.114 Petition is disposed of accordingly.

(Dr. Rajesh Sharma) Member (Dr. B. N. Sharma) Chairman