

RAJASTHAN ELECTRICITY REGULATORY COMMISSION

Petition No: RERC/1980/22

In the matter of Truing up of ARR of FY 2020-21 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2), RGTPS (270.50 MW), Mahi Hydel and approval of Aggregate Revenue Requirement (ARR) & Tariff for FY 2022-23 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2), RGTPS (270.50 MW) and Mahi Hydel Power Stations of Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

Coram: **Dr. B.N. Sharma,** **Chairman**
Sh. S.C. Dinkar, **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: **02.05.2022**

Present:

Sh. Ankit Sharma, Authorised rep. for Petitioner
Sh. Sandeep Pathak, Advocate for Respondents
Sh. G.L. Sharma, Stakeholder
Sh. D. S. Agarwal, Stakeholder

Date of Order: **23.06.2022**

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 for Truing-Up of ARR for FY 2020-21 and approval of Aggregate Revenue Requirement (ARR) and determination of Tariff for sale of electricity from its existing Power Stations to Distribution Companies for FY 2022-23.

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, 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 and Tariff determination 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 RVUN stations for FY 2020-21
- (5) Section 5: Determination of ARR and Tariff for RVUN Generating Stations for FY 2022-23.

SECTION 2

Summary of filing of True-Up and Tariff Determination process

2.1 In accordance with Regulation 8 and Regulation 11 of the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, hereinafter referred to as RERC Tariff Regulations, 2019, RVUN filed a petition on 01.01.2022 for trueing up of ARR for FY 2020-21 and approval of ARR and determination of tariff for supply of electricity to Distribution Companies for FY 2022-23 in respect of the following Power Stations:

Table 1: RVUN's Generating Stations under True up for FY 2020-21 and under ARR & Tariff Determination for FY 2022-23

SR. No.	Particulars	Capacity (MW)
1	Kota Thermal Power Station (KTPS) (Units 1-7)	1240
2	Suratgarh Thermal Power Station (STPS) (Units 1-6)	1500
3	Chhabra Thermal Power Station (CTPP) (Units 1-4)	1000
4	Kalisindh Thermal Power Station (KaTPP) (Units 1-2)	1200
5	Ramgarh Gas Thermal Power Station (RGTPS) (270.50 MW)	270.50
6	Mahi Hydel Power Project (MAHI)	140
Total		5350.50

2.2 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:

Table 2: Details of Newspapers

Sr. No.	Name of News Paper	Date of publishing
(i)	Dainik Bhaskar	03.02.2022
(ii)	Dainik Navjyoti	03.02.2022
(iii)	Times of India	03.02.2022

2.3 The Petition was also placed on the websites of the Commission and the Petitioner. The objections/comments/suggestions were received from Shri G. L. Sharma, Shri D. S. Agarwal and the Respondents.

2.4 The Commission forwarded the objections/ comments/ suggestions of the

Stakeholder's/Respondents to RVUN for filing its reply.

- 2.5 The Commission vide letter dated 01.02.2022, communicated some data gaps and deficiencies in the Petition. The Petitioner furnished the information on 14.03.2022. The Petitioner also replied to the objections/ comments/ suggestions made by the Stakeholder's/Respondents vide its letter dated 08.04.2022, 26.04.2022. Shri D. S. Agarwal also submitted additional comments on 25.04.2022, which were replied by RVUN on 29.04.2022. The Petitioner also submitted its additional replies vide letter dated 16.05.2022 as per the Record of Proceedings of the hearing held on 02.05.2022.
- 2.6 The public hearing in the matter was held on 02.05.2022.
- 2.7 The Commission had approved the Tariff for FY 2020-21 in respect of KaTPP (Units 1-2) and KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), RGTPS (270.50 MW) , Mahi Hydel Power Project vide its Tariff Orders dated 11.08.2020 and 11.09.2020 respectively.
- 2.8 Subsequently, RVUN filed a Review Petition seeking review on the Commission's ruling on some of the issues of the tariff Order dated 11.09.2020. The Commission dismissed the review petition vide its Order dated 22.03.2021 as not admissible
- 2.9 The Commission had approved the tariff for FY 2021-22 for KaTPP (Units 1-2) and KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), RGTPS (270.50 MW) and Mahi Hydel Power Stations vide its Tariff Order dated 04.10.2021 and 15.12.2021 respectively.
- 2.10 Subsequently, RVUN filed a Review Petition seeking review on the Commission's ruling on some of the issues of the tariff Order dated 04.10.2021 and 15.12.2021. The Commission dismissed the Review Petition vide its Order dated 31.03.2022 as not admissible.
- 2.11 In this Order, the Commission has undertaken the truing up for FY 2020-21 and determination of tariff for FY 2022-23 for RVUN Generating Stations as Petitioned.
- 2.12 To facilitate reference, an index of the issues and points dealt with are placed at Annexure-1.

SECTION 3

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

A. Truing up of RVUN's Generating Station for FY 2020-21

Audited Accounts / Allocation Statements

Stakeholders / Respondents Comments/Suggestions

- 3.1 Regulation 11(5) of the RERC Tariff Regulations, 2019 states that the Petition for ARR and determination of tariff shall include the annual statements of accounts and annual reports including the Director's report along with an accounts of activities during the current, previous and ensuing year. The report of activities will also indicate the targets and achievements in respect of various performance parameters. Similar provision is also there in Regulation 8(2) of the aforesaid Tariff Regulations.
- 3.2 Further, as per definition 2(a)(i)(vi), Accounting Statement means cost records as well and the note below Regulation 2(a)(i) says Accounting Statement including reconciliation statements have to be maintained separately for each Generating Station.
- 3.3 The Stakeholder submitted that no such separately maintained accounting statements including Directors report etc. have been submitted in respect of each Generating Station by the Petitioner.
- 3.4 The Allocation Statement as submitted by the Petitioner are nothing but only a page containing the total of income and expenditure of the Station but no documents are there giving details of these amount duly reconciled with the total of company account as a whole, i.e., what are the details of employee benefits expense of a particular Station, basic pay, overtime, DA, other allowance, leave encashment etc. Similarly, it does not indicate the details of loan amount long-term loan and short term loan and the interest thereof etc. Therefore, the information submitted in one page does not meet the requirements of the Tariff Regulations.
- 3.5 The Stakeholder submitted that the Petitioner has to provide the Financial Statement, Allocation Statement, duly reconciled and duly certified by the Statutory Auditor as per requirements of Regulations.

- 3.6 The Commission has been issuing direction to the Petitioner for providing the required Financial Statements, Allocation Statements etc. as per Order dated 11.09.2020 and 15.12.2021. In spite of the above directions, Station wise Allocation Statement and audited accounts have not been submitted by the Petitioner, which is non-compliance of the Commission's directives and thus, necessary action for the default may be considered.
- 3.7 Even the audited accounts of FY 2020-21 as submitted do not contain the Director's report and cost report. These may now be provided by the Petitioner. With the accounts provided, the Petitioner's reply of CA observations are not available. The Petitioner to submit the same.

RVUN's Response

- 3.8 The Statement of accounts of the previous year, i.e., of FY 2020-21 has been submitted with the instant Petition and Annual Reports including Director's Report is submitted with the data gaps reply. The figures of previous, current and ensuing years for the computation of ARR and Tariff have been submitted with the instant petition.
- 3.9 The Allocation Statement of income and expenditure for FY 2020-21 duly reconciled and certified by the Auditor and books of accounts has been submitted with the instant Petition. The Director's report and cost audit report has been submitted with the data gaps reply. The reply of auditors observations are submitted with the data gaps reply. Therefore, RVUN requested the Commission to consider its submissions.

Additional Capitalization

Stakeholders / Respondents Comments/Suggestions

- 3.10 For KTPS (Units 1-7), additional capitalization claimed by the Petitioner is as below:
- i. Rs. 4.29 Crore under head of Plant and Machinery, which is said to be approved vide Order dated 10.05.2012;
 - ii. Rs. 0.0019 Crore under head of Furniture and Fixtures;
 - iii. Rs. 0.05 Crore under head of Office Equipment.
- 3.11 The Petitioner has claimed aforesaid expenses, i.e., against Furniture's and Fixtures and office equipment's under Regulation 17 (5) (e) of the RERC Tariff Regulations, 2019, which states that the Generating company shall file a Petition for in-principle

approval of the Commission before incurring any additional capitalization. No such approval has been taken by the Petitioner, hence not admissible. Also, in past such expenses has been considered by the Commission under regular O&M expenses.

3.12 For additional capitalization against Plant and Machinery, the Stakeholder submitted that the following:

- i. The Petitioner has not provided the compliance of Note 1-4 below Regulation 19 (1) (f) of the RERC Tariff Regulations, 2009 and has not filed the comparison of the benefit anticipated at this stage vis-à-vis actual benefits derived. This may now be provided by the Petitioner for admitting their claim.
- ii. Further, as per the proposals submitted before the Commission, this work was to be commissioned within a period of one year, but now the Petitioner says expenditure incurred in FY 2020-21. The Petitioner may state the date of installation of these vacuum pumps in Units 3&4 as also their commissioning date
- iii. Unit 3 achieved COD on 11.03.1989 and Unit 4 achieved COD on 06.03.1990 and their useful life of 25 years as per Regulation 2(13) of Tariff Regulations, 2019 has already expired since long. How and to what extent the benefits as were stated to be achieved will now be achieved are required to be brought out by the Petitioner. It may also be stated that during past 12 years (from date of approval of investment) cost of fuel has been increasing and therefore the quantum of benefit of Rs. 110 lac/year have been much more than stated earlier. Therefore, the Petitioner is required to state as to how they are going to compensate the benefit to have been achieved during past 12 years.
- iv. The Commission may kindly peruse the documents of purchase of these pumps. The order for purchase of these pumps were placed vide letter dated 09.11.2015. LOI has been dated 03.10.2015. This order is for testing and commissioning. Clause 17 of the order says delivery of material should be completed in all respect within the stipulated time. Clause 24 says period of contract completion has been 15 months. Accordingly, these pumps should have been commissioned on latest by 08.03.2017.
- v. The corrigendum has been issued on 02.07.2018 modifying the period of contract as scheduled contract completion period for the work will be 7 months from date of issue of this corrigendum for supply of balance material

and to complete the work at KTPS as per work order. Even according to this corrigendum, completion date comes as 02.02.2019. The Petitioner may state the reasons for modifying the period for the work.

- vi. The Petitioner may intimate the actual date of supply of receiving material at site and actual date of commissioning of the each of the pump at Unit 3&4.
- vii. However, it is noted that requisite performance period completed and performance has been found satisfying in May, 2020, i.e., after a period of 1 year and 3 months even as per modified completion period.
- viii. The Petitioner to intimate the amount of penal charges received from the contractor for delay in work
- ix. It may also be stated by the Petitioner that whether the performance bank guarantee worth Rs. 39,77,270/- has been released after recovering the penal charges or not.
- x. The Commission may kindly consider as to how the Petitioner has been vigilant/careful in respect of this expenditure. From the position mentioned Petitioner's action in respect of this expenditure has not in the interest of benefits to be arrived at and as a matter it has been allowed a great loss and has deprived us from the benefits.
- xi. In view of the above, the Commission is requested to disallow the additional capitalization as sought by the Petitioner as the Petitioner has put a loss of about of more than Rs. 10.00 Crore.

3.13 Regulation 8(1) &8(3) says about truing up of expenses and comparison with approved one. The Petitioner has not provided the audited expenses against approved one and instead has stated as claimed one. This is against the Regulations. The Commission is requested to issue directions to the Petitioner for proper compliance.

3.14 For STPS (Units 1-6), additional capitalization claimed by the Petitioner is Rs. 0.015 Crore under the head of Office Equipment. For CTPP (Units 1-4), additional capitalization claimed by the Petitioner is Rs. 0.07 Crore under the head of furniture and fixture and Rs. 0.03 Crore under the head of office equipment. For RGTPP - 270.50 MW, additional capitalization claimed by the Petitioner is Rs. 0.0028 Crore, under the head of furniture and fixture and Rs. 0.0016 Crore under the head of office equipment. For Mahi Hydel Station additional capitalization claimed by the Petitioner is Rs. 0.07 Crore under the head of furniture and fixture.

- 3.15 In this regard, it is submitted that the Petitioner has not complied as per Regulation 17 (5) (e) of the RERC Tariff Regulations, 2019, where the Petitioner is directed to file a petition for in-principle approval before incurring any additional expenditure in the activities as mentioned hereinabove. Also, in past such expenses has been considered by the Commission under regular O&M expenses. Therefore, it is requested to disallow additional capitalization claims as sought by the Petitioner.
- 3.16 Additional Capitalization claimed by the Petitioner for RGTPP - 270.50 MW for FY 2020-21 of Rs. 10.70 Crore is towards major inspection of GT-2. In this regard, it is submitted that the said expenses are to be claimed under the head of O&M expenses only. Therefore, it is not admissible.
- 3.17 Additional Capitalization claimed by the Petitioner for CTPP (Units 1-4) for FY 2020-21 of Rs 0.60 Crore is under the head of undischarged liabilities. In this regard, the Stakeholder submitted that the similar claims of Petitioner are rejected by the Commission vide Order dated 03.07.2019. Therefore, it is requested to disallow.
- 3.18 Additional Capitalization claimed by the petitioner for KaTPP (Units 1-2) for FY 2020-21 is as below:
- i. Rs. 0.102 Crore under the head of Hydraulic Works;
 - ii. Rs. 1.099 Crore under the head of Civil Works;
 - iii. Rs. 0.0108 Crore under the head of Furniture & Fixtures;
 - iv. Rs. 0.35 Crore under the head of Office Equipment; and
 - v. Rs. 4.61 Crore under the head of Capital Spares.
- In this regard, the Stakeholder submitted that the Commission has rejected similar claims of RVUN vide Order dated 11.08.2020. Further, the Cut-off date of KaTPP (Units 1-2) has been deceased and therefore, it is not admissible.

RVUN's Response

- 3.19 For additional capitalization against Plant & Machinery for KTPS (Units 1-7), the Petitioner submitted the following:
- i. The Petitioner submitted cost benefit analysis report.
 - ii. The vacuum pumps for Units 3&4 have been commissioned on 13.11.2018.
 - iii. The penalty charges of 10% of basic contract value Rs. 39,77,270/- has already been recovered from the firm on account of delay.

- iv. The additional capitalization has been made as per Regulations and after in-principle approval. Therefore, RVUN requested the Commission to approve the additional capitalization as claimed.
- 3.20 The audited expenses and the comparison of revenue / expenses has as a whole has been submitted for all station wise in respective plant section. Therefore, RVUN requested the Commission to approve the Annual Performance Review as claimed.
- 3.21 Additional Capitalization claimed by the Petitioner under Regulation 17 (5) (e) of the RERC Tariff Regulations, 2019 are essential for smooth functioning of Generating Stations. Therefore, the Petitioner requested the Commission to allow the additional capitalization as claimed.
- 3.22 For RGTPP – 270.50 MW additional capitalization of Rs. 10.70 crore under the head of the Plant & Machinery belongs to major inspection of the GT-2.
- 3.23 For CTPP (Units 1-4), it is the amount released to M/s Indure Pvt. Ltd. against un-discharge liability already approved by the Commission vide Order dated 08.03.2019. As per Regulation 17 (2) (d) of RERC Tariff Regulations, 2019 the liability for the work executed prior to the Cut-off date are allowed. Therefore, RVUN requested the Commission to allow undischarged liabilities released during FY 20-21.
- 3.24 For KaTPP (Units 1&2), it is submitted that the additional capitalization has been revised in data gaps reply, which is as shown below:

Table 3: Revised Add Caps for KaTPP (Units 1-2) for FY 2020-21

Head	Amount (Rs. Crore)	Remarks
Hydraulic Work	0.10	These are the expenditure incurred under original scope of the Capital Cost of the Plant on account of deferred works.
Office Equipment	0.36	The additional Capitalization is made under the head office equipment of Units 1-2 of KaTPP Power Station as per Regulation 17(5) (e) of the RERC Tariff Regulations, 2019 and these are necessary for efficient and successful operation of a Generating Station but not included in the original Capital Cost.
Capital Spares	-0.43	These are the expenditure incurred under original scope of the Capital Cost of the plant on account of deferred works.

O&M Expenses

Stakeholders/Respondents Comments/Suggestions

- 3.25 For KTPS (Units 1-7), actual O&M expenses as per the reconciliation/allocation statement submitted with the instant Petition works out to Rs. 242.80 Crore, which results in savings of Rs. 16.47 Crore with respect to the claimed normative O&M expenses, i.e., Rs. 259.27 Crore.
- 3.26 Actual O&M expenses for STPS (Units 1-6) as per the reconciliation/allocation statement submitted with the instant Petition works out to Rs. 174.68 Crore, which results in savings of Rs. 138.96 Crore with respect to the claimed normative O&M expenses, i.e., Rs. 313.64 Crore.
- 3.27 Actual O&M expenses for CTPP (Units 1-4) as per the reconciliation/allocation statement submitted with the instant Petition works out to Rs. 166.95 Crore, which results in savings of Rs. 42.14 Crore with respect to the claimed normative O&M expenses, i.e., Rs. 209.09 Crore.
- 3.28 Actual O&M expenses for KaTPP (Units 1-2) as per the reconciliation/allocation statement submitted with the instant Petition works out to Rs. 84.98 Crore, which results in savings of Rs. 140.84 Crore with respect to the claimed normative O&M expenses, i.e., Rs. 225.82 Crore.
- 3.29 Actual O&M expenses for RGTPP - 270.50 MW as per the reconciliation/allocation statement submitted with the instant Petition works out to Rs. 34.41 Crore, which results in savings of Rs. 11.69 Crore with respect to the claimed normative O&M expenses, i.e., Rs. 46.10 Crore.
- 3.30 In this regard, the Stakeholder requested the Commission to direct the Petitioner to deposit the savings amount for all the above Stations in the designated fund as per the decision already taken by the Commission vide Order dated 15.12.2021.
- 3.31 For Mahi Hydel Power Station, the Stakeholder sought the details of actual O&M expenses.

RVUN's Response

- 3.32 The Petitioner submitted that the actual O&M expenses for all the Stations as sought by the Stakeholder has been submitted with the write up of the instant Petition,

which has also been provided in the allocation statement duly signed by Statutory Auditor. Further, RVUN submitted that they deposited the regular contribution along with the additional deposit of Rs. 35 Crore in designated fund in FY 2020-21. Therefore, RVUN requested the Commission to allow the O&M expenses as claimed along with the terminal benefits over and above the O&M.

Depreciation

Stakeholders/Respondents Comments/Suggestions

- 3.33 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2) and RGTPP - 270.50 MW, the Stakeholder submitted that no depreciation is admissible in respect of any additional capitalization claimed, as the Petitioner has not provided the details of assets which have completed 12 years of life and which are of less than 12 years as per Regulation 22 (4) of the RERC Tariff Regulations, 2019. Hence, the Commission may deduct 5% in the instant Petition in respect of depreciation as done in case of RVPN and Discoms.
- 3.34 For Mahi Hydel Station, the Petitioner has not claimed additional capitalization. Therefore, the Commission may allow the depreciation on the approved capital cost of the Petitioner.

RVUN's Response

- 3.35 Depreciation has been computed considering approved capital cost by the Commission in its previous Orders and considering the additional capitalization during the year. For the units which have completed 12 years, the depreciation has been computed considering the remaining amount of depreciation spread over equally over the leftover useful life, as per Regulation 22 of the RERC Tariff Regulations, 2019 and the details of the assets has been provided. In view of the same, the Petitioner requested the Commission to allow depreciation as claimed.

Interest and Finance Charges on Term Loan and Carrying Cost

Stakeholders/Respondents Comments/Suggestions

- 3.36 As per CA report submitted with the instant Petition, the Petitioner has defaulted in repayment of loans taken from banks, financial institutions and the Government. The Stakeholder sought the additional amount of interest paid on account of default in payment and where this has been accounted for. The Petitioner also to clarify whether such additional interest has been claimed vide the instant Petition

and if so, such amount claimed in respect of each station be stated. Further, the Stakeholder submitted that the Interest and Finance charges on term loan may be allowed on approved term loans, whereas no interest amount is admissible on the claimed additional capitalization.

3.37 For CTPP (UNIT 1-4), for increased interest, the Petitioner states that it is due to rate variation, but has not provided the details of present rate and increased rate. The Petitioner to submit the same.

3.38 The Commission vide Order dated 15.12.2021 observed that the Petitioner has claimed higher interest rates though the actual trends of interest rates are declining in nature. In this regard, the Commission directed the Petitioner to constitute a committee headed by Director Finance, RVUN and submit a report within 2 months. The Copy of same may be submitted.

3.39 For Mahi Hydel Station, the Petitioner submitted an interest claim of Rs. 0.01 Crore, whereas, it is observed from the instant Petition that the total loan amount is already repaid by the Petitioner. Hence, in absence of valid reasons, the Commission is requested to disallow the interest claim.

RVUN's Response

3.40 The details of penal interest have been submitted with the reply of data gaps. The interest on term loans has been claimed as per Regulation 21 of the RERC Tariff Regulations, 2019 taking the rate of interest as per actual loan portfolio, normative debt and considering the additional capitalization. Therefore, RVUN requested the Commission to allow interest on term loan as claimed. For CTPP (Units 1-4), the Petitioner submitted the committee report as per the directions of Commission vide Order dated 15.12.2021.

Return on Equity (RoE)

Stakeholders/Respondents Comments/Suggestions

3.41 The Stakeholder submitted that as per the decision of the State Government, RoE allowed for FY 2019-20 and FY 2020-21 has been withdrawn. The Petitioner have recovered such amounts in their bills from Discoms. The Commission is requested to reduce such amounts for both these years in the instant true up Petition for FY 20-21.

RVUN's Response

3.42 For FY 2020-21, in view of Govt. decision dated 17.09.2021, RoE recovered from Discoms has already been returned through credit notes and same has been considered in the audited accounts. Accordingly, the effect of returning RoE to Discoms has taken in true up of FY 2020-21 both sides, i.e., revenue as well as expenses.

Insurance Charges on Fixed Assets

Stakeholders/Respondents Comments/Suggestions

3.43 For KTPS (Units 1-7), the actual insurance charges works out to Rs. 6.85 Crore against which the Petitioner has claimed Rs. 7.05 Crore. For STPS (Units 1-6), the actual insurance charges works out to Rs. 8.28 Crore, against which the Petitioner has claimed of Rs. 8.55 Crore. For CTPP (Units 1-4), the actual insurance charges works out to Rs. 5.52 Crore against which the Petitioner has claimed Rs. 5.70 Crore. For KaTPP (Units 1-2), the actual insurance charges works out to Rs. 6.63 Crore against which the Petitioner has claimed Rs. 6.84 Crore. In this regard, the Stakeholder submitted that the Commission may allow the actual insurance charges as per the statement submitted with the instant Petition. For RGTPP - 270.50 MW, the actual amount of insurance charges may be admitted based on the documentary evidence.

RVUN's Response

3.44 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and KaTPP (Units 1-2), the insurance charges have been claimed considering actual expenses during FY 2020-21. The Petitioner submitted that the Stakeholder has taken only the mega policy part and has not considered other fixed assets such as locomotive, bulldozer etc. Therefore, RVUN requested the Commission to allow the insurance charges as claimed. For RGTPP – 270.50 MW, the insurance charges have been claimed considering actual expenses during FY 2020-21 as Rs. 1.58 Crore.

Terminal Benefits

Stakeholders/Respondents Comments/Suggestions

3.45 For KTPS (Units 1-7), the Petitioner vide instant petition claimed Rs. 74.25 Crore of Terminal Benefit. For STPS(Units 1-6), the Petitioner claimed Rs. 68.34 Crore of Terminal Benefits. For CTPP (Units 1-4), KaTPP (Units 1-2), RGTPP - 270.50 MW and Mahi Hydrel, the Petitioner claimed Rs. 36.19 Crore, Rs. 30.11 Crore, Rs. 12.54 Crore

and Rs. 10.59 Crore respectively. Subsequently, as observed vide instant Petition, the Petitioner has deposited only Rs. 30.00 Crore in the designated fund with respect to all the Generating Stations. The Commission vide Order dated 15.12.2021 ruled as below:

"It is observed that Petitioner is claiming the terminal benefits, which is part of normal O&M. The Petitioner has not submitted supporting documents demonstrating that any extra amount over and above the routine terminal liabilities has been deposited in the designated fund. 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 2019-20".

3.46 Therefore, it is requested to disallow the claim of the Petitioner with respect to terminal benefit in line with the aforesaid ruling.

RVUN's Response

3.47 The Petitioner submitted that the terminal benefits are claimed as per the actuarial report. Further, RVUN has deposited Rs. 35.00 Crore in the said fund and deposit documents have been submitted with the instant Petition. Therefore, RVUN requested the Commission to allow terminal benefits as claimed. The Petitioner also submitted the Station wise allocation of terminal benefits of Rs. 35.00 Crore.

Availability

Stakeholders/Respondents Comments/Suggestions

3.48 For RGTPP - 270.50 MW, the Petitioner submitted actual availability of 24.00 % against 70.00 % of the approved normative. For Mahi Hydel Station, the Petitioner submitted actual availability claimed by the Petitioner is less than the approved normative. In view of above, the Stakeholder requested that the Fixed Charges are required to be deducted proportionately as per Regulations 50 of the RERC Tariff Regulations, 2019.

RVUN's Response

3.49 For RGTPP - 270.50 MW, the Petitioner submitted that the availability is claimed lower than the approved normative because of non-availability of gas. For Mahi Hydel Station, the Petitioner submitted that the issue of higher availability as approved by the Commission vide Order dated 11.09.2020 & 15.12.2021 is challenged in APTEL

and pending for Orders. Therefore, the Petitioner requested to allow Fixed Charges as claimed.

Auxiliary consumption

Stakeholders/Respondents Comments/Suggestions

- 3.50 For KTPS (Units 1-7), the Petitioner claimed auxiliary consumption of 11.90 % against the normative auxiliary consumption of 9.65 %. For STPS (Units 1-6), the Petitioner claimed auxiliary consumption of 9.80 % against the approved normative auxiliary consumption of 10.87 %. For KaTPP (Units 1-2), the Petitioner claimed auxiliary consumption of 6.12 % against the approved normative auxiliary consumption of 5.25%. For RGTPP - 270.50 MW, the Petitioner claimed auxiliary consumption of 4.64 % against the approved normative auxiliary consumption of 2.40 %.
- 3.51 In this regard, it is submitted that the auxiliary consumption may be allowed by the Commission on normative basis only. Further, on account of higher auxiliary consumption there has been additional consumption of fuel and subsequent loss of revenue. Therefore, the Commission may disallow the additional fuel cost on account of higher auxiliary consumption and may add the revenue of such losses in revenue receipt.

RVUN's Response

- 3.52 For KTPS (Units 1-7), STPS (Units 1-6) and KaTPP (Units 1-2), the Stakeholder submitted that the auxiliary consumption does not reduce in same proportion, in comparison to the reduction in generation, as major auxiliaries, i.e., Auxiliary Cooling Water System, Compressed Air System etc. run on their rated capacities, while a few auxiliaries, i.e., Coal Mills, ID Fan, FD Fan run on reduced load, though not in same proportion. Also, tube mills are installed at some Power Stations and the auxiliary consumption is higher than normative, as the tube mills are of higher ratings. Therefore, the Petitioner requested the Commission to allow auxiliary consumption as claimed.
- 3.53 For RGTPP - 270.50 MW, the Petitioner submitted that the main reason for claiming higher auxiliary consumption is the shortage of gas fuel and frequent tripping of Power Plant due to local grid disturbances. Therefore, the Petitioner requested the Commission to allow auxiliary consumption as claimed.

Variable Charges

Stakeholders/Respondents Comments/Suggestions

- 3.54 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and KaTPP (Units 1-2), the Petitioner vide instant Petition submitted that the Variable Charges are calculated on the basis of Scheduled Generation. The Stakeholder submitted that there is no regulatory provision that allows such methods of calculation. Therefore, the claims of the Petitioner with respect to Variable Charges are not admissible.
- 3.55 Further, the Stakeholder submitted that in case the Variable Charges are allowed on the basis of Scheduled Generation, then both the Energy Charges and Fixed Charges are also to be allowed on Scheduled Generation basis.

RVUN's Response

- 3.56 The Variable Charges are computed in accordance with Regulation 51(1) of the RERC Tariff Regulations, 2019. Therefore, RVUN requested the Commission to allow the Variable Charges on the basis of Scheduled Generation.
- 3.57 The Fixed Charges are computed as per the availability, i.e., in accordance with Regulations 50 (1) of the RERC Tariff Regulations, 2019. Therefore, RVUN requested the Commission to allow the Fixed Charges on the basis of Plant availability.

Station Heat Rate (SHR)

Stakeholders/Respondents Comments/Suggestions

- 3.58 For KTPS (Units 1-7), the Commission may allow the actual SHR, as the same being lower than the normative one.
- 3.59 For STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2) & RGTPP - 270.50 MW, the actual SHR claimed by the Petitioner is higher than the norms. This has also resulted higher fuel consumption and cost thereof. The Stakeholder requested the Commission to disallow such higher cost.

RVUN's Response

- 3.60 For KTPS (Units 1-7), the Energy Charges has been computed on the basis of normative SHR, i.e., in accordance with Regulation 51(1) of the RERC Tariff Regulations, 2019. Therefore, it is requested that the commission may allow the SHR as claimed.

3.61 For STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2), SHR has increased due to frequent back down / box-up instructions received from SLDC. Therefore, it is requested to allow as claimed.

3.62 For RGTPP - 270.50 MW, the actual SHR is on a higher side, because the Plant is running on partial load due to non-availability of gas and local grid disturbances, which causes frequent tripping of Petitioner's Plant. Therefore, the Petitioner requested the Commission to allow as claimed.

Quality of Coal

Stakeholders/Respondents Comments/Suggestions

3.63 The Stakeholder submitted that as per CA report the company has the system of reconciliation of quality/quantity of coal ordered through store receipts numbers and checks the grade of coal received and various claims have lodged to SECL in this regard. The Petitioner to provide the details of claims lodged with SECL and resulted thereof.

3.64 The Petitioner also to clarify whether payments have been made in respect of poor quality of coal on reduced rate or at full rate and what is total amount of such differences.

RVUN's Response

3.65 RVUN has the system of reconciliation of quality/quantity of coal ordered and the grade of coal received through store receipts numbers. Accordingly, various claims are being lodged and recorded in books of accounts which are reconciled on regular basis. The Petitioner submitted the details of claims lodged with SECL and accounted on actual receipt.

GCV of Coal/Gas

Stakeholders/Respondents Comments/Suggestions

3.66 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2), the Stakeholder sought the analysis report for GCV of Coal on "As received" and "As fired" basis. Similarly, the Stakeholder sought analysis report for GCV of Gas for RGTPP.

RVUN's Response

3.67 The GCV of Coal is measured by third party CIMFR and sample reports for CIMFR and as fired has been submitted with data gaps reply. The Petitioner also submitted the analysis report for GCV of Gas for RGTPP.

Price of Fuel

Stakeholders/Respondents Comments/Suggestions

3.68 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2) & RGTPP -270.50 MW, the Stakeholder sought the supporting documents to substantiate the Fuel Price. Further, for KaTPP (Units 1-2), the Commission vide Order dated 11.08.2020 ruled as below:

"Since, RVUN has JV Agreement with Adani Enterprises Ltd. regarding Parsa East Kanta Basan Coal mines through the procedure laid down by Govt. of Rajasthan and rates mentioned in these agreements have also been reported to be approved by Govt. of Rajasthan, onus to adhere to laid down procedures and rates are on RVUN. Therefore, the Commission expects that RVUN must have complied with the rates as determined by the Govt. approved mechanism".

3.69 In this regard, the Petitioner to provide information about the Government approved mechanism and details of approval of the Cost of Coal approved by the said mechanism in the instant case.

3.70 As per CA report, the amount of Rs. 248.98 Crore is receivable from railways towards fuel related. The Stakeholder sought the details of same for each Generating Station.

RVUN's Response

3.71 The Petitioner submitted sample copy of bills against fuel, as sought by the Stakeholder.

3.72 For KaTPP Units 1-2, the Petitioner submitted that the coal being procured from Parsa East and Kante Basin is as per the Coal mining and delivery agreement (CMDA). The prices derived for coal being supplied under CMDA is approved by the BOD of RVUN in the meeting dated 12.10.2006 and bears no objection of the State Government through communication dated 23.10.2006. CMDA is also approved by the BOD, RVUN vide meeting dated 13.05.2008 and 04.07.2008 and

the copy of the same has also been appraised to the State Government. Therefore, the Cost of Coal is as per the Government approved mechanism.

- 3.73 The reconciliation statement of receivables against fuel related from Railways is submitted by the Petitioner.

Utilization of Fly Ash Utilization Fund

Stakeholders/Respondents Comments/Suggestions

- 3.74 The Stakeholder submitted that as per CA Report submitted with the instant Petition, the Petitioner is not following the guidelines of MOEF dated 03.11.2009 by using fly ash fund for their own affairs. Hence, the Petitioner to submit as to how much has been the total amount in respect of fly ash fund as on 31.03.2021 and how much has been utilized for company's own affairs and at what affairs it has been utilized be also stated.

RVUN's Response

- 3.75 The amount of ash utilization fund as on 31.03.2021 is Rs. 463.95 Crore. Further, the Petitioner submitted that these funds are utilized only for development of infrastructure, promotion and facilitation activities until 100.00 % fly ash utilization level is achieved.

B. ARR and Tariff of RVUN's Generating Stations for FY 2022-23

Separate Tariff for each Generating Unit

Stakeholders / Respondents Comments/Suggestions

- 3.76 The Respondent submitted that the Petitioner should file separate ARR and determine the tariff for each unit. Many Generating Stations in the country compute unit wise ARR and Tariff. Power Purchase cost accounts for approximately 80.00 % of the total cost of Discom's expenses. Any increase in cost will lead to higher tariff for consumers. Any savings in Power Purchase Cost will result in lower tariff for the consumers and eventually help the State to prosper.

RVUN's Response

- 3.77 The Petitioner submitted that the Units have common auxiliaries and bus bar. It is technically difficult to segregate auxiliary consumption and metering of net sent out Unit Wise. Also, the parameters such as SHR, APC are defined for whole Station in

the RERC Tariff Regulations, 2019. Further, the Commission vide Order dated 28.10.2020 has turned down the request of Respondents for determination of tariff unit wise. The extract of Order is reproduced as below:

“Commission also observes that there are technical difficulties in segregating auxiliary power consumption and metering of net sent out while determining the unit wise tariff of the Power Plant”.

3.78 Therefore, RVUN requested the Commission to determine ARR and tariff for FY 2022-23 for Station as a whole.

Unit Wise Audited Books of Account

Stakeholders/Respondents Comments/Suggestions

3.79 Many Generating Stations in the country maintain unit wise audited accounts after apportioning common cost. Clubbing the cost of all Units hides the inefficiency of certain Units. The Discoms also have to pay the Fixed Costs of all units even if certain units are shut down. Therefore, the Respondent submitted that the Commission may take a strict view in this regard and direct the Petitioner to maintain unit wise books of account.

RVUN's Response

3.80 RVUN is preparing its Accounting Station wise, which is as per Regulation 2(3) (I -ii) of RERC Tariff Regulations, 2019. Further, RVUN is engaged in only one business, i.e., generation of electricity. RVUN is submitting its Station Wise accounting details for each true up. The allocation statement has already been submitted with the instant Petition. Therefore, RVUN requested the Commission to determine ARR and tariff for FY 2022-23 as claimed.

Depreciation

Stakeholders/Respondents Comments/Suggestions

3.81 The Stakeholder submitted that no depreciation is admissible in respect of additional capitalization claimed, as the Petitioner has not provided the details of assets which have completed 12 years of life and which are of less than 12 years as per Regulation 22 (4) of the RERC Tariff Regulations, 2019. Hence, the Commission may deduct 5% in the instant Petition in respect of depreciation as done for RVPN and Discoms. Also, RGTPP Stage - I has completed its 25 years of useful life. Hence, no depreciation is admissible against it.

RVUN's Response

3.82 The Petitioner submitted that depreciation has been computed considering additional capitalization claimed for FY 2020-21, Assets of 12 years and spreading remaining amount of depreciation over the leftover useful life for the units which have completed 12 years as per Regulation 22 of the RERC Tariff Regulations, 2019. The details of assets have been provided in the Form 6.1 (Fixed Asset and Provisions for Depreciation) of ARR 2022-23.

3.83 Also, depreciation in RGTPP Stage - I is on account of additional capitalization as per the details provided in the Form 6.1 (Fixed Asset and Provisions for Depreciation) of the instant Petition.

Interest on Term Loan

Stakeholders/Respondents Comments/Suggestions

3.84 Interest on loan may be allowed by the Commission considering the approved normative loan. Whereas, no interest charges on additional capitalization portion is admissible. Further, the Petitioner is required to provide separate information on Interest on Term Loan and Transitional Loan along with the details of month wise prevalent base rate during September, 2021 to February, 2022.

3.85 For Mahi Hydel Station, as per the Commission's Order dated 15.12.2021, it is observed that there is no term loan. The Petitioner to justify that on what basis amount of Rs. 0.01 Crore is being claimed against it. Also, the Petitioner vide instant Petition has shown Rs. 4.42 Crore in FY 2020-21, Rs. 4.43 Crore in FY 2021-22 and Rs. 4.43 Crore in FY 2022-23 as repayments of normative loan during these financial years. The Petitioner to clarify that when opening and closing balance of normative loan has been nil in the Order dated 15.12.2021, then on what basis loan amount have been indicated.

RVUN's Response

3.86 The Petitioner submitted that the details of term loan and transitional loan have been provided separately in the Form 6.2 a (Calculation of Interest on Normative Loan) of the instant Petition.

3.87 Additional Capitalization has been claimed as per the Tariff Regulations. Therefore, interest on term loan is computed considering the same, on the approved debt by

the Commission, considering rate of interest on actual term loan portfolio. Accordingly, RVUN requested the Commission to allow interest on loan as claimed.

- 3.88 For Mahi Hydel, Interest on Term Loan has been claimed as the additional capitalization is incurred during FY 2020-21. Further, the amount of Rs. 4.42 Crore in FY 2020-21, Rs. 4.43 Crore in FY 2021-22 and Rs. 4.43 Crore in FY 2022-23 are depreciation amounts.

Return on Equity (ROE)

Stakeholders/Respondents Comments/Suggestions

- 3.89 The State Government has withdrawn Return on Equity for FY 2019-20, FY 2020-21 and FY 2021-22. The Stakeholder sought the copy of letter of the State Government allowing Petitioner to claim the equity.

RVUN's Response

- 3.90 The Petitioner submitted that the ROE has been claimed as per the Government direction issued vide letter dated 17.09.2021 and 16.11.2021. The Government of Rajasthan has withdrawn ROE for FY 2019-20 and FY 2020-21 and allowed ROE from FY 2021-22 onwards vide letter dated 17.09.2021. Further, GOR withdrawn ROE for FY 2021-22 vide letter dated 16.11.2021.
- 3.91 Further, the Petitioner submitted that ROE was allowed from FY 2021-22 and onwards in the above letter. Later on same was withdrawn specifically for FY 2021-22 and not for FY 2022-23. Hence, RVUN is claiming ROE for FY 2022-23 as per GOR direction and Regulation 20 of the RERC Tariff Regulations, 2019. Therefore, RVUN requested the Commission to allow ROE as claimed.

Terminal Benefit

Stakeholders/Respondents Comments/Suggestions

- 3.92 The Stakeholder submitted that the Petitioner has not been depositing their regular contribution in the designated fund and the Commission has been disallowing the additional contribution allowed in the tariff Order in true-up finalization. Therefore, the Stakeholder submitted that in Tariff Determination, no incidence of terminal benefit be allowed in the first instance and if the Petitioner in true-up of the year produces authenticated documents that they have put any additional contribution

over and above their regular contribution, the same may be allowed in true up subject to ceiling the amount found out as per the actuarial report.

RVUN's Response

3.93 The Petitioner submitted that the terminal benefits are claimed as per the actuarial report. Further, RVUN has deposited Rs. 35.00 Crore in FY 2020-21 in the said fund and supporting documents have already been provided vide instant petition. Therefore, RVUN requested the Commission to allow terminal benefits as claimed in ARR and tariff for FY 2022-23.

Variable Charges

Stakeholders/Respondents Comments/Suggestions

3.94 The Stakeholder submitted that variable charges may be allowed by the Commission as per the approach adopted in the tariff Order dated 15.12.2021. However, the Petitioner to provide analysis report of coal received and coal fired of November, 2021 to January, 2022 as required under Regulation 51(2) of the RERC Tariff Regulations, 2019.

3.95 For RGTPP, in line with the Order dated 11.09.2020, the Petitioner to submit the GCV of Primary fuel of Gas along with the supporting documents of both 'as received' and 'as fired'. For Cost of Gas, necessary documents in its support be submitted by the Petitioner.

3.96 For CTPP Units 1-4, documentary evidence about Cost of Coal may be submitted by the Petitioner. In respect of coal being received from Parsa East Kanta basin coal mines, the Petitioner to provide information about the Government approved mechanism and the details of approved Cost of Coal by the said mechanism in the instant case as per the Commission's Order dated 11.09.2020.

3.97 For Mahi Hydel the Commission has been approving the target availability as 90.00 %. The same may be considered in the instant case. The Petitioner's claim for availability of 80.00 % has already been rejected by the Commission vide Order dated 15.12.2021.

3.98 Also, the Petitioner to provide the statement of current tariff and expected revenue from current tariff for the ensuing year for which the tariff is to be determined as per Regulation 11(5)(a) of the RERC Tariff Regulations, 2019.

RVUN's Response

- 3.99 The variable charges have been computed as per the norms of RERC Tariff Regulations, 2019, considering fuel cost and GCV of April – September, 2021. Further, the fuel price and GCV for October – December, 2021 has already been submitted.
- 3.100 For RGTPP, the fuel price and GCV for October - December, 2021 has already been submitted.
- 3.101 For CTPP Units 1-4, it is submitted that the coal being procured from Parsa East and Kante Basin is as per the Coal mining and delivery agreement (CMDA). The prices derived for coal being supplied under CMDA is approved by the BOD of RVUN in the meeting dated 12.10.2006 and bears no objection of the State Government through communication dated 23.10.2006. CMDA is also approved by the BOD, RVUN vide meeting dated 13.05.2008 and 04.07.2008 and the copy of same has also been appraised to the State Government. Therefore, the Cost of Coal is as per the Government approved mechanism.
- 3.102 RVUN has claimed target availability of Mahi Hydel as 85.00 % as the matter has been appealed before APTEL against the Commission Order dated 11.09.2020 and 15.12.2021. Since, the capacity index of MAHI for FY 2020-21 is 91.43 %, RVUN requested the Commission to allow the full capacity charges as claimed.
- 3.103 The statement of current tariff and expected revenue from current tariff for the ensuing year for which the tariff is to be determined as per Regulation 11(5)(a) of the RERC Tariff Regulations, 2019 has been provided vide instant Petition.

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SECTION 4

Analysis of True-Up of RVUN stations for FY 2020-21

Norms of Operation

Availability

RVUN's Submission

4.1 The actual Availability/ Capacity Index submitted by RVUN for its stations for FY 2020-21 are as shown in the table below:

Table 4: Availability/Capacity Index as submitted by RVUN

Particulars	FY 2020-21					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP (Units 1-2)	Mahi
Target Availability for full recovery of fixed charges	83.00%	83.00%	83.00%	70.00%	83.00%	85.00%
Actual as claimed	88.59%	95.43%	86.10%	24.00%	92.07%	91.43%

4.2 RVUN submitted that KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2) and Mahi Hydel have achieved availability factor higher than the normative, whereas RGTPS (270.50 MW) achieved availability factor lower than the normative availability factor.

4.3 RVUN requested the Commission to consider the availability for its stations for FY 2020-21, for recovery of fixed charges, as shown in the table below:

Table 5: Availability Computations submitted by RVUN

Particulars	FY 2020-21				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP (Units 1-2)
Installed Capacity (MW)	1240	1500	1000	270.50	1200
Normative Auxiliary Consumption (%)	9.65%	9.80%	9.80%	2.40%	5.25%
Declared Capacity Verified by SLDC (MU) (A)	8694.52	11310.72	6803.26	555.09	9170.35
Max. Capacity can be generated (MU) (B)	9814.18	11852.28	7901.52	2312.71	9960.12
Availability (%) ((A/B)*100)	88.59%	95.43%	86.10%	24.00%	92.07%

Commission's Analysis

- 4.4 The Commission observes that RVUN has computed Availability for FY 2020-21 considering the Declared Capacity. The Commission finds the computations of Availability submitted by RVUN to be in order. It is observed that for Mahi Hydel Station, the Petitioner has mentioned the Availability as 91.43% at one place and 82.99% at other place. However, in reply to Stakeholders comments, RVUN has submitted the availability of Mahi as 91.43%. The Petitioner has also provided the computation of availability as 91.43% which is found to be correct. The Petitioner at one place has mentioned Capacity Index as 82.99% which appears to be typographical error. Hence, the Commission has considered the actual Availability of Mahi as 91.43%.
- 4.5 The Commission vide data gaps sought justification for considering Target Availability of Mahi Hydel as 85%, though it has been rejected by the Commission vide Order dated 11.09.2020 against Petition No. 1590/19, vide Order dated 22.03.2021 against Review Petition No. 1818/2020 and vide Order dated 15.12.2021 against Petition No. 1872/21. The Petitioner submitted that the matter has been appealed before the Hon'ble APTEL against RERC Order dated 11.09.2020 against Petition No. 1590/19 and Order dated 15.12.2021 against Petition No. 1872/21. Since the matter is sub-judice before the Hon'ble APTEL, the Commission considers the target availability of 90.00% for Mahi Hydel for FY 2020-21 as approved in previous true-up Orders.
- 4.6 The full fixed charges are recoverable on achievement of target availability. The Commission had allowed the recovery of full fixed charges for the stations which have achieved the target availability and on pro-rata basis for the stations which have not achieved target Availability.
- 4.7 The Availability/Capacity Index approved by the Commission is as shown in the table below:

Table 6: Availability/Capacity Index approved by the Commission

Particulars	FY 2020-21					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP (Units 1-2)	Mahi
Target Availability	83.00%	83.00%	83.00%	70.00%	83.00%	90.00%
Actual as claimed	88.59%	95.43%	86.10%	24.00%	92.07%	91.43%
Approved on true up	88.59%	95.43%	86.10%	24.00%	92.07%	91.43%

Plant Load Factor (PLF)
RVUN's Submission

4.8 The actual PLF as submitted by RVUN for its stations for FY 2020-21 is as shown in the table below:

Table 7: PLF as submitted by RVUN

Particulars	FY 2020-21				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP (Units 1-2)
Target PLF for incentive	83.00%	83.00%	83.00%	70.00%	83.00%
Approved in Tariff Order	83.00%	83.00%	83.00%	70.00%	83.00%
Actual as claimed	46.64%	7.44%	76.39%	22.43%	57.40%

Commission's Analysis

4.9 The Commission is of the view that under the RERC Tariff Regulations, 2019, RVUN is being allowed all the prudent expenses based on the availability of its stations, however, at the same time, RVUN must also strive to achieve higher PLF so that more energy is made available to the Discoms within the State at a lower price.

4.10 RERC Tariff Regulations, 2019 specifically define the PLF as specified below:

“(46) “Plant Load Factor”, for a given period, means the total sent- out energy during such period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

$$Plant\ Load\ Factor\ (\%) = \frac{10000 \times \sum_{i=1}^N AG_i}{\{N \times IC \times (100 - AUX_n)\}} \%$$

*where - N = number of time blocks in the given period,
 AG_i = Actual ex-bus Generation in MW for the ith time block in such period IC = Installed Capacity of the generating station in MW,
 AUX_n = Normative Auxiliary Consumption in MW, expressed as a percentage of gross generation”*

4.11 The Commission, based on the actual net generation submitted and the normative net generation considering the normative auxiliary consumption, has recomputed the actual PLF as per the above specified formula. The PLF as submitted by the Petitioner and as approved by the Commission for FY 2020-21 is as shown in the

table below:

Table 8: PLF approved by the Commission

Particulars	FY 2020-21				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP(Units 1-2)
Actual as claimed	46.64%	7.44%	76.39%	22.43%	57.40%
Approved on true up	46.64%	7.44%	76.39%	22.52%	57.40%

Auxiliary Consumption
RVUN's Submissions

4.12 The actual auxiliary consumption submitted by RVUN for its stations for FY 2020-21 is as shown in the table below:

Table 9: Auxiliary consumption as submitted by RVUN

Particulars	FY 2020-21						
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)		KaTPP (Units 1-2)	Mahi
				CC	OC		
Normative	9.65%	9.80%	9.80%	3.00 %	1.00 %	5.25%	1.02%
Approved in Tariff Order	9.65%	9.80%	9.80%	2.40%		5.25%	-
Actual as claimed	11.90%	10.87%	9.44%	4.64%		6.12%	0.67%

4.13 RVUN submitted that in case of backing down of generation, though the load is reduced, but all the auxiliary equipment like CW, ACW, DMCCW, Water system, FD Fan, Compressed Air system of the Station has to run on rated capacities and therefore, the auxiliary consumption in percentage terms is higher during the low load operation. RVUN submitted that if such loss of generation is considered, the overall auxiliary consumption would be within the norms.

4.14 RVUN further submitted that at KTPS, as the tube mills are used instead of bowl mills, the auxiliary consumption for FY 2020-21 is higher than the normative, because tube mills are of high rating than the bowl mills.

4.15 RVUN submitted that based on the hours of operation in combined cycle and open cycle mode, the normative auxiliary consumption of RGTPP 270.50 MW works out as 2.82% against the actual auxiliary consumption of 4.64% for FY 2020-21.

Commission's Analysis

- 4.16 The Commission observes that RVUN has stated that the reason for higher auxiliary consumption as compared to the normative values is on account of instructions from SLDC for back-down/box-up of its stations.
- 4.17 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."*
- 4.18 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.
- 4.19 It is also observed that RGTPS have been operated in open cycle and combined cycle mode. RVUN has submitted the number of hours of operation in both modes of operation. The Commission has worked out the auxiliary consumption for it considering the number of hours of operation in open and combined cycle mode.
- 4.20 With regards to the normative auxiliary consumption of Mahi station for FY 2020-21,

Regulation 46 of the RERC Tariff Regulations, 2019 stipulates as:

“46. Norms of Operation for Hydro Power Generating Stations:

(2) Auxiliary energy consumption

(c) Auxiliary energy consumption for existing hydro power stations

i. Mahi PH 2- 3.0 Lakhs Units per annum + 0.75% of energy generated

ii. Mahi PH 1- 4.0 Lakhs units per annum + 0.65% of energy generated”

4.21 The Commission has considered the normative auxiliary consumption for Mahi considering the phase wise gross generation of Mahi PH - 1 and Mahi PH - 2 in accordance with the Regulation 46 of the RERC Tariff Regulations, 2019.

4.22 The auxiliary consumption approved by Commission for FY 2020-21 is as shown in the table below:

Table 10: Auxiliary consumption approved by the Commission

Particulars	FY 2020-21					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1&2)	RGTPS (270.50 MW)	KaTPP (Units 1-2)	Mahi
Actual as claimed	11.90%	10.87%	9.44%	4.64%	6.12%	0.67%
Approved on true up	9.65%	9.80%	9.80%	2.82%	5.25%	1.02%

Station Heat Rate (SHR)

RVUN's Submission

4.23 The actual station heat rate submitted by RVUN for its stations for FY 2020-21 is as shown in the table below:

Table 11: Actual Station Heat Rate as submitted by RVUN (kcal/kWh)

Particulars	FY 2020-21					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)		KaTPP (Units 1-2)
				CC	OC	
Normative	2561.70	2476.28	2400.00	1950.00	2830.00	2333.28
Approved in Tariff Order	2561.70	2476.28	2400.00	2038.00		2333.28
Actual as claimed	2491.78	2512.46	2508.72	2323.23		2399.55

- 4.24 RVUN submitted that for RGTPS, due to shortage of gas, which is beyond their control, there has been increased SHR of the plant. RVUN requested the Commission to allow actual SHR achieved in the true-up for FY 2020-21.
- 4.25 RVUN submitted that based on the hours of operation in open cycle and closed cycle mode, the normative SHR of RGTPS 270.50 MW works out as 2030.57 kCal/kWh for FY 2020-21 against the actual SHR of 2323.23 kCal/kWh for FY 2020-21.

Commission's Analysis

- 4.26 The actual SHR of KTPS for FY 2020-21 is lower than the normative SHR. Further, as regards the higher SHR for STPS, CTPP, RGTPS, KaTPP the reasons submitted by RVUN are similar to the reasons submitted in the true up petitions for previous years, which the Commission has not considered as prudent for relaxing the norms of SHR. In line with the approach adopted in the true up for FY 2019-20, the Commission has considered the normative SHR as per the provisions of the RERC Tariff Regulations, 2019 for all the stations in true-up of FY 2020-21.
- 4.27 Also, it is observed that RGTPS have been operated in open cycle mode and combined cycle mode and RVUN has submitted the number of hours of operation in both modes of operation. The Commission has worked out the normative SHR for RGTPS stations considering the hours of operation in open cycle mode and combined cycle mode. The Station Heat Rate approved by the Commission for FY 2020-21 is as shown in the table below:

Table 12: Station Heat Rate approved by the Commission (kcal/kWh)

Particulars	FY 2020-21				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	KaTPP(Units 1-2)
Actual as claimed	2491.78	2512.46	2508.72	2323.23	2399.55
Approved on true up	2561.70	2476.28	2400.00	2030.57	2333.28

Secondary Fuel Oil Consumption (SFOC)

RVUN's Submission

- 4.28 The actual SFOC submitted by RVUN for its stations for FY 2020-21 is as shown in table below:

Table 13: SFOC as submitted by RVUN (ml/kWh)

Particulars	FY 2020-21			
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	KaTPP (Units 1-2)
Normative	0.50	0.50	0.50	0.50
Actual as claimed	0.81	3.53	0.18	0.57

Commission's Analysis

4.29 The Commission has allowed SFOC for all generating stations for FY 2020-21 in accordance with the norms specified in the RERC Tariff Regulations, 2019. The SFOC approved by the Commission is as shown in the table below:

Table 14: SFOC approved by the Commission (ml/kWh)

Particulars	FY 2020-21			
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	KaTPP (Units 1-2)
Actual as claimed	0.81	3.53	0.18	0.57
Approved on true up	0.50	0.50	0.50	0.50

Coal Transit Loss**Commission's Analysis**

- 4.30 RVUN has not submitted the Coal Transit Loss separately in percentage terms as specified by RERC Tariff Regulations, 2019. The Commission has computed the transit Loss in percentage terms from the actual coal cost data submitted by RVUN.
- 4.31 RVUN in its reply to data gaps submitted the actual transit loss for FY 2020-21. For CTPP(Units 1 to 4) and KaTPP (Units 1-2), RVUN has not claimed any transit loss. The Commission therefore has not considered the same.
- 4.32 The Commission, for the purpose of truing up, has considered the normative transit loss of 0.80% for domestic coal for FY 2020-21 as specified in RERC Tariff Regulations, 2019. The transit loss approved by the Commission for FY 2020-21 is as shown in the table below:

Table 15: Transit loss approved by the Commission

Particulars	FY 2020-21	
	KTPS (Units 1-7)	STPS (Units 1-6)
Actual as claimed	0.12%	-0.20%
Approved on true up	0.80%	0.80%

Fuel Price and Calorific Value
RVUN's Submission

4.33 The actual fuel prices and GCV as submitted by RVUN for FY 2020-21 are as shown in the table below:

Table 16: Actual fuel prices and GCV for FY 2020-21 as submitted by RVUN

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV	Price	GCV	Price
	kcal/kg / kcal/SCM	Rs./MT / Rs./SCM	kcal/lt	Rs./kL
KTPS(Units 1-7)	3508.12	4241.10	10000.25	35305.29
STPS(Units 1-6)	3738.20	5519.04	9783.86	43315.84
CTPP (Units 1-4)	4157.47	4424.84	9967.71	42327.04
RGTPS (270.50 MW)	5366.02	6.32	9300.00	52878.00
KaTPP(Units 1-2)	4118.30	5061.30	9606.65	44509.75

4.34 RVUN also submitted the month-wise details of the fuel prices and GCV for its stations for FY 2020-21.

Commission's Analysis

4.35 The Commission observes that RVUN has not used any imported coal for power generation in FY 2020-21. The Commission has considered the fuel prices and GCV as submitted by RVUN and has recomputed the landed price of coal for KTPS, STPS considering the normative transit loss for FY 2020-21 for the computations of energy charges for FY 2020-21.

4.36 For CTPP and KaTPP, RVUN submitted that GCV of coal from Parsa East Kanta Basan Coal Mines are measured at receiving end. As per the provision of coal mining and delivery agreement executed between RVUN and PKCL, the contract price in consideration of the services and performances work rendered by PKCL is payable for the quantity delivered at the RVUN power plant and quality observed at power plant, i.e., delivery point and not as per the quality and quantity of loading end, i.e., at mines. Mining fees paid to PKCL is deemed to include loss of quantity and quality during transit and no compensation is allowed to PKCL for difference in GCV of coal at mines and as received basis. The difference in GCV at coal mines and at plant arises due to deterioration of coal quality in transportation.

4.37 The Commission, however in the instant petition observes that as the coal is being

supplied under CMDA, the Commission has considered the actual landed fuel prices and GCV as submitted by RVUN for the computations of energy charges for FY 2020-21 for CTPP & KaTPP and the Commission has not specifically dealt with the issue of landed price of coal including transit loss.

4.38 The fuel prices and GCV for the purpose of this Order considered by the Commission in the true up for FY 2020-21 are as shown in the table below:

Table 17: Fuel prices and GCV considered by the Commission for FY 2020-21

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV	Price	GCV	Price
	kcal/kg / kcal/SCM	Rs./MT / Rs./SCM	kcal/lt	Rs./kL
KTPS(Units 1-7)	3508.12	4270.31	10000.25	35305.29
STPS(Units 1-6)	3738.20	5563.55	9783.86	43315.84
CTPP (Units 1-4)	4157.47	4424.84	9967.71	42327.04
RGTPS (270.50 MW)	5366.02	6.32	9300.00	52878.00
KaTPP(Units 1-2)	4118.30	5061.30	9606.65	44509.75

4.39 As regards for the coal received from PKCL, the Commission observed that cost of coal procured from PKCL in terms of heat value is higher than or equal to coal procured from CIL. It is also observed that cumulative impact of washing the coal received from PKCL is around Rs. 1000/MT. RVUN should therefore carryout the cost benefit analysis of coal beneficiation charges.

4.40 As 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.

4.41 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.

4.42 On perusal of data submitted by the Petitioner, the Commission observed that

there is wide variation in the GCV of coal on Air-Dried Basis (ADB) certified by CIMFR and GCV of coal as claimed by the petitioner on as received basis which are not certified by the CIMFR. The Petitioner is directed to submit the GCV of coal on as received basis certified by the CIMFR and shall also get certified the calculation of monthly weighted average data of GCV of coal as received basis by CIMFR. The Petitioner should claim the GCV accordingly in next petitions.

Other Charges

RVUN's Submission

- 4.43 In addition to fuel cost, RVUN has claimed other charges under the heads of fuel related cost. The other charges claimed by the Petitioner for FY 2020-21 are as shown in the table below:

Table 18: Other charges claimed by RVUN (Rs. Crore)

Station	FY 2020-21
	Claimed
KTPS (Units 1-7)	14.10
STPS (Units 1-6)	1.83
CTPP (Units 1-4)	0.62
RGTPS (270.50 MW)	-1.12
KaTPP (Units 1-2)	0.00
Total	15.43

Commission's Analysis

- 4.44 The amount claimed by RVUN under other charges are towards the expenses related to fuel handling charges within the power station like coal handling contract charges, demurrage on coal wagons, payment to railway staff etc. Further, RVUN submitted that the Other Charges for RGTPP 270.50 MW pertains to recovery of gas supplied at Ramgarh for previous year.
- 4.45 It is observed that there is wide variation in the other fuel related costs claimed by the petitioner for the different power stations. Petitioner has claimed Rs. 14.10 cr. For KTPS whereas Rs. 0.62 Crore in CTPP.
- 4.46 As per Regulation 51(4) of RERC Tariff Regulations, 2019, the landed cost of fuel shall include price of fuel corresponding to the grade/quality/calorific value of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by

rail/road/gas pipe line (overseas or inland or both), handling cost, washery charges wherever applicable, charges for third party sampling and applicable statutory charges, and, for the purpose of computation of energy charges shall be arrived at after considering normative transit and handling losses as percentage of the quantity of fuel dispatched by the fuel supply company during the month as specified in Regulation 45(7). The Petitioner, therefore, should not claim any other fuel related costs under fuel cost/ energy charges except as specified in Regulation 51(4). Therefore, the Energy Charges should be claimed considering the landed fuel cost as per as per Regulation 51(4) of RERC Tariff Regulations, 2019.

4.47 The Commission however in the instant petition has considered the fuel related costs as claimed by RVUN while approving the variable charges.

4.48 The other charges approved by the Commission for FY 2020-21 are as shown in the table below:

Table 19: Other charges approved by the Commission (Rs. Crore)

Station	FY 2020-21	
	Claimed	Approved
KTPS (Units 1-7)	14.10	14.10
STPS (Units 1-6)	1.83	1.83
CTPP (Units 1-4)	0.62	0.62
RGTPS (270.50 MW)	-1.12	-1.12
KaTPP (Units 1-2)	0.00	0.00
Total	15.43	15.43

Annual Fixed Charges

4.49 The Annual Fixed Charges comprise of the following elements:

- i. Operation and Maintenance (O&M) expenses;
- ii. Depreciation;
- iii. Interest and Finance Charges on Term Loans;
- iv. Interest on Working Capital;
- v. Return on Equity;
- vi. Insurance Charges;
- vii. Less: Non-Tariff Income

4.50 Each of these elements has been dealt with in the following paragraphs.

Operation and Maintenance (O&M) Expenses

RVUN's Submission

- 4.51 RVUN claimed the normative O&M expenses for FY 2020-21 as approved by the Commission. The details of O&M expenses approved in the tariff Order for FY 2020-21, and claimed for truing up are as shown in the table below:

Table 20: O&M expenses claimed by RVUN (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Actual	Claimed for true up
KTPS (Units 1-7)	259.27	320.33	259.27
STPS (Units 1-6)	313.64	243.17	313.64
CTPP (Units 1-4)	209.09	211.34	209.09
KaTPP (Units 1-2)	225.82	114.89	225.82
RGTPS (270.5 MW)	46.10	43.49	46.10
Mahi	18.04	30.65	18.04
Total	1071.96	963.88	1071.96

Commission's Analysis

- 4.52 The Commission in the Tariff Order for FY 2020-21 had approved the O&M expenses considering the normative O&M expenses specified in the RERC Tariff Regulations, 2019.
- 4.53 As against the approved O&M expenses of Rs. 1071.96 Crore, RVUN submitted that the actual O&M expenses of Rs. 963.88 Crore. Thus, the actual O&M expenses submitted by RVUN are lower than the approved O&M expenses by Rs. 108.08 Crore.
- 4.54 The Petitioner for FY 2020-21 has claimed additional capitalization pertaining to vehicles, furniture and fixtures, Office Equipment's etc. The Commission in this Section of Order under head of Additional Capitalization have ruled that the cost of assets pertaining to procurement of vehicles, furniture and fixtures, Office Equipment's, R&M expenses etc. are to be treated as revenue expenses and not capital expenses. Hence, the Commission has considered the cost of the same as part of actual O&M expenses for FY 2020-21. Therefore, the actual O&M expenses considered by the Commission for FY 2020-21 are as under:

**Table 21: Actual O&M expenses for FY 2020-21 considered by the Commission
(Rs. Crore)**

Station	Actual as claimed by RVUN	Cost of minor assets including assets pertaining to R&M	Total actual O&M expenses considered by the Commission
KTPS (Units 1-7)	320.33	0.05	320.38
STPS (Units 1-6)	243.17	0.01	243.18
CTPP (Units 1-4)	211.34	0.70*	212.04
KaTPP (Units 1-2)	114.89	0.46*	115.35
RGTPS (270.50 MW)	43.49	10.70*	54.20
Mahi	30.65	0.07	30.72
Total	963.88	12.00	975.88

* Including R&M assets as discussed in Additional Capitalization Section

4.55 Thus, considering the normative O&M expense after reduction considering actual availability and actual O&M expenses approved by the Commission, there is a savings of Rs. 65.78 Crore. O&M expenses are approved on normative basis as per RERC Tariff Regulation, 2019. The approved O&M expenses for FY 2020-21 are as under:

Table 22: O&M expenses approved by the Commission (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS (Units 1-7)	259.27	259.27	259.27
STPS (Units 1-6)	313.64	313.64	313.64
CTPP (Units 1-4)	209.09	209.09	209.09
KaTPP (Units 1-2)	225.82	225.82	225.82
RGTPS (270.5 MW)	46.10	46.10	46.10
Mahi	18.04	18.04	18.04
Total	1071.96	1071.96	1071.96

Additional Capitalization **RVUN's Submission**

4.56 RVUN has claimed the additional capitalization of Rs. 22.01 Crore for true up for FY 2020-21 vide its petition and submitted its revised claim of Rs. 15.87 Crore vide data gaps reply dated 14.03.2022 as shown in the table below:

Table 23: Additional capitalization claimed by RVUN (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for True-up	Revised Claim for True-up
KTPS(Units 1-7)	0.00	4.34	4.34
STPS(Units 1-6)	0.00	0.01	0.01
CTPP(Units 1&2)	0.00	0.00	0.00
CTPP(Units 3&4)	0.00	0.70	0.70
RGTPS (110.5 MW)	0.00	10.70	10.70
RGTPS (160 MW)	0.00	0.00	0.00
KaTPP (Units 1-2)	0.00	6.17	0.03
Mahi	0.00	0.07	0.07
Total	0.00	22.01	15.87

4.57 RVUN claimed the additional capitalization of Rs. 4.34 Crore for KTPS (Units 1-6) for FY 2020-21. The details of the additional capitalization are as follows:

- i. Rs. 4.29 Crore towards plants and machinery;
- ii. Rs. 0.0019 Crore towards purchase of furniture and fixtures;
- iii. Rs. 0.05 Crore towards purchase of office equipment's.

RVUN submitted that the aforesaid additional capitalization towards plants and machinery has been approved by the Commission vide its Order dated 10.05.2012 against engineering, supply, erection, testing and commissioning of two stage vacuum pump, one each in Units 3&4 (2x210 MW) as Rs 4.50 Crore and IDC of Rs. 0.63 Crore, totaling Rs. 5.13 Crore.

The aforesaid additional capitalization towards furniture's and fixtures and purchase of office equipment's has been claimed as per Regulation 17(5)(e) of RERC Tariff Regulation 2019, as it is inevitable for smooth functioning of plant and was not covered under original scope of work, so RVUN requested the Commission to approve the same.

4.58 RVUN submitted that for STPS (Units 1-5), it has incurred the additional capitalization of Rs. 0.01 Crore towards purchase of office equipment's as per Regulation 17(5)(e) of RERC Tariff Regulation 2019, as it is inevitable for smooth functioning of plant and was not covered under original scope of work, so RVUN requested the Commission

to approve the above additional capitalization.

4.59 RVUN claimed the additional capitalization of Rs. 0.70 Crore for CTPP Units 1-4 for FY 2020-21. The details of the additional capitalization are as follows:

- i. Rs.0.60 Crore towards undischarged liability;
- ii. Rs. 0.07 Crore towards purchase of furniture and fixtures;
- iii. Rs. 0.03 Crore towards purchase of office equipment's.

RVUN submitted that the aforesaid additional capitalization towards undischarged liability has been approved by the Commission vide Order dated 08.03.2019. Further, RVUN submitted that as per Regulation 17 (2) (d) of the RERC Tariff Regulations, 2019 the liability for the works executed prior to the cut-off date are to be allowed. Therefore, RVUN requested the Commission to allow undischarged liability released during FY 2020-21.

Further, the aforesaid additional capitalization towards furniture's and fixtures and purchase of office equipment's has been claimed as per Regulation 17(5)(e) of RERC Tariff Regulation 2019, as it is inevitable for smooth functioning of plant and was not covered under original scope of work, so RVUN requested the Commission to approve the same

4.60 RVUN claimed the additional capitalization of Rs. 6.17 Crore for KaTPP Units 1-2 for FY 2020-21. The details of the additional capitalization are as follows:

- i. Rs. 0.10 Crore towards Hydraulic Works;
- ii. Rs. 1.10 Crore towards Other Civil Works;
- iii. Rs. 0.01 Crore towards purchase of furniture and fixtures;
- iv. Rs. 0.35 Crore towards purchase of office equipment's;
- v. Rs. 4.61 Crore towards purchase of Capital Spares.

Vide initial data gaps replies dated 14.03.2022, RVUN submitted revised additional capitalization towards KaTPP Units 1-2as shown below:

- i. Rs. 0.10 Crore towards Hydraulic Works;
- ii. Rs. 0.36 Crore towards purchase of office equipment's.

RVUN submitted that it has incurred the aforesaid additional capitalization towards Hydraulic Works under original scope of work of the Capital Cost of the plant on

account of deferred works.

Whereas additional capitalization towards purchase of office equipment's has been claimed as per Regulation 17(5)(e) of the RERC Tariff Regulations, 2019 as it is inevitable for smooth functioning of plant, so, RVUN requested the Commission to approve the same.

RVUN also claimed de-capitalization of Rs. 0.43 Crore towards Capital Spares under original scope of work of the Capital Cost.

4.61 RVUN claimed the additional capitalization of Rs. 10.70 Crore for RGTPS (270.50 MW) for FY 2020-21. The details of the additional capitalization are as follows:

- i. Rs. 10.70 Crore towards plant and machinery;
- ii. Rs. 0.0028 Crore towards purchase of furniture and fixtures;
- iii. Rs. 0.0016 Crore towards purchase of office equipment's.

RVUN submitted that it has incurred the aforesaid additional capitalization towards as per Regulation 17 (5) (e) of the RERC Tariff Regulations, 2019 as it is inevitable for smooth functioning of plant, but not included in the original scope of work, so, RVUN requested the Commission to approve the same.

4.62 RVUN claimed the additional capitalization of Rs. 0.07 Crore towards furniture and fixtures for Mahi Hydel for FY 2020-21 citing Regulation 17(5)(e) of the RERC Tariff Regulations, 2019, as it is inevitable for smooth functioning of plant, but not included in the original scope of work, so, RVUN requested the Commission to approve the same.

Commission's Analysis

4.63 Regarding the additional capitalization of existing stations, Regulation 17 of RERC Tariff Regulations, 2019 specifies as follows:

"17. Additional capitalization

(1) The following capital expenditure in respect of a new project or existing project, actually incurred within original scope of work, after the date of commercial operation and upto the cut-off date and duly audited, may be considered by the Commission against the original scope of work, subject to prudence check:

(a) Due to undischarged liabilities recognized to be payable at a future date;

- (b) *On works deferred for execution;*
- (c) *Liabilities to meet award of arbitration or for compliance of direction or order of any statutory authority or satisfaction of order or decree of any court of law;*
- (d) *On account of change in law or compliance of any existing law within cut-off date;;*
- (e) *On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 16(8).*

Provided that the details of the work included in the original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff:

Provided further that a list of the undischarged liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the Generating Station.

Provided also that the Generating Company or the transmission Licensee, as the case may be, shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution giving reasons therefor.

(2) *The additional capital expenditure incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) *Change in law;*
- (c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) *Liability for works executed prior to the cut-off date; and*
- (e) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*

.....”

4.64 Any additional capitalization has to be claimed in accordance with Regulation 17 of the RERC Tariff Regulations, 2019 giving a detailed justification for the same.

4.65 It is pertinent to mention that it may not be appropriate to consider the above

Regulation in isolation. For the stations in service before the regulatory regime in the State, the Commission had not determined the capital cost of such stations. It is for this reason that the Commission had emphasized on the prior approval for capital expenditure in the true up of previous years. The Commission had disallowed the capital expenditure for which the prior approval was not obtained in the true up for previous years. RVUN had not contested this decision of the Commission in the past.

- 4.66 RVUN has also sought the capitalization of cost of assets pertaining to procurement of vehicles, office equipment and furniture and fixtures in FY 2020-21 which are minor in nature, as shown in the table below:

Table 24: Cost of minor assets claimed by RVUN (Rs. Crore)

Station	Particulars	FY 2020-21
KTPS (Units 1-6)	Furniture	0.0019
	Office equipment	0.0490
Total KTPS (Units 1-7)		0.0509
STPS (Units 1-5)	Office equipment	0.0148
Total STPS (Units 1-6)		0.0148
CTPP (Units 3&4)	Furniture & Fixtures	0.07
	Office Equipment's	0.03
Total CTPP (Units 1-4)		0.100
RGTPS (110.50 MW)	Furniture & Fixtures	0.0029
	Office Equipment's	0.0016
Total RGTPS (270.50 MW)		0.0045
KaTPP (Units 1-2)	Office Equipment's	0.3600
Total KaTPP(Units 1-2)		0.3600
Mahi	Furniture & Fixtures	0.0714
Total Mahi		0.0714

- 4.67 The Commission finds that procurement of vehicles, office equipment, furniture and fixtures etc. cannot be considered as part of capital expenses due to the nature of such assets. Regarding the cost of minor assets claimed by the Petitioner for FY 2020-21, the Commission has adopted the same approach as was adopted during the true-up of FY 2019-20. Accordingly, the Commission has not approved the cost incurred towards the minor assets, as additional capitalization for FY 2020-21 rather approved as actual O&M expenses.
- 4.68 For additional capitalization claimed towards RGTPP 110.50 MW, the Commission considers the claimed additional capitalization of Rs. 10.70 Crore under Repairs & Maintenance expenses and accordingly, the cost against it has been considered under actual O&M expenditure in the above paragraphs.

- 4.69 Regarding additional capitalization claimed towards CTPP (Units 1-4), KaTPP (Units 1-2), the Commission is of the view that in accordance with the Regulation 2(15) of the RERC Tariff Regulations, 2019, the cut-off date of these stations have already been over. Hence, the Commission has not approved the additional capitalization claimed by RVUN for the same separately. However the additional capitalization for CTPP and KaTPP has been considered under actual O&M expenditure in the above paragraphs.
- 4.70 Further, the Commission has considered the de-capitalization of Rs. 0.43 Crore against KaTPP (Units 1-2) as claimed by the Petitioner.
- 4.71 Regarding additional capitalization claimed towards KTPS (Units 1-7), the Commission observed that the Petitioner has claimed the same as per the Regulations and based on the in-principle approval made by the Commission vide Order dated 10.05.2012 (Petition No. 273/11). Therefore, the Commission approves the cost of Rs. 4.29 Crore as claimed by the Petitioner.
- 4.72 In light of the above, the additional capitalization approved by the Commission for FY 2020-21 is as shown in the table below:

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

Station	FY 2020-21			
	Approved in the Tariff Order	Claimed for true up	Revised Claimed for true up	Approved on true up
KTPS(Units 1-7)	0.00	4.34	4.34	4.29
STPS(Units 1-6)	0.00	0.01	0.01	0.00
CTPP(Units 1&2)	0.00	0.00	0.00	0.00
CTPP(Units 3&4)	0.00	0.70	0.70	0.00
RGTPS(110.5 MW)	0.00	10.70	10.70	0.00
RGTPS(160 MW)	0.00	0.00	0.00	0.00
KaTPP (Units 1-2)	0.00	6.17	0.03	-0.43
Mahi	0.00	0.07	0.07	0.00
Total	0.00	22.01	15.87	3.86

Gross Fixed Asset (GFA)

Commission's Analysis

- 4.73 The details of GFA base considered by the Commission for KTPS (Units 1-6), STPS (Units 1-5), RGTPP (110.50 MW) and Mahi is as under:

Table 26: GFA base for KTPS (Units 1-6), STPS (Units 1-5), RGTPS (110.50 MW) and Mahi (Rs. Crore)

Particulars	KTPS Units (1-6)	STPS Units (1-5)	RGTPS (110.50 MW)	Mahi
Original Cost	1185.17	4223.32	311.08	259.02
Additional Capitalization approved till FY 2018-19	102.44	11.31	(0.05)	0.00
Opening GFA base for FY 2019-20	1287.61	4234.63	311.03	259.02
Additional Capitalization approved in FY 2019-20	0.00	0.00	0.00	0.00
Closing GFA base for FY 2019-20	1287.61	4234.63	311.03	259.02
Opening GFA base for FY 2020-21	1287.61	4234.63	311.03	259.02
Additional Capitalization approved in FY 2020-21	4.29	0.00	0.00	0.00
Closing GFA base for FY 2020-21	1291.90	4234.63	311.03	259.02

4.74 The opening GFA for FY 2020-21 considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP (Units 1&2), CTPP (Units 3-4), RGTPP (160 MW) and KaTPP (Units 1-2) is as shown in the table below:

Table 27: Opening GFA for FY 2020-21 (Rs. Crore)

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-2)	CTPP (Units 3-4)	RGTPP (160 MW)	KaTPP (Units 1-2)
Land & Land Rights	0.00	0.00	12.73	0.00	0.00	18.56
Building & Civil Works of Power Plants	126.19	209.48	257.85	315.51	64.04	1194.54
Hydraulic Works	10.98	15.73	20.84	135.41	31.24	1088.40
Other Civil Works	4.70	7.10	88.55	83.58	0.10	266.61
Plant & Machinery	705.38	768.70	2005.79	2226.50	711.13	5450.37
Lines & Cable Net work	0.00	0.45	28.97	38.36	0.00	6.42
Vehicles	0.00	0.00	0.12	0.00	0.00	0.18
Furniture & Fixtures	0.04	0.10	0.72	1.41	0.00	2.10
Office Equipment	-3.19	4.63	6.84	0.02	0.00	0.32
Capital Spares	7.76	20.60	37.66	52.11	0.00	188.22
Total	851.86	1026.79	2460.06	2852.90	806.52	8215.73

4.75 Since, the Commission has not considered any additional capitalization for FY 2020-21, the closing GFA for FY 2020-21 will remain same as opening GFA for FY 2020-21 for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-2), CTPP (Units 3-4) and RGTPP (160 MW), i.e., as per the aforesaid table.

4.76 Whereas since the Commission has considered the de-capitalization of Rs. 0.43

Cre against Capital Spares for KaTPP (Units 1-2) as discussed in the aforesaid paragraphs, the closing GFA for it is as shown in the table below:

Table 28: Closing GFA for FY 2020-21 (Rs. Crore)

Particulars	KaTPP (Units 1-2)
Land & Land Rights	18.56
Building & Civil Works of Power Plants	1194.54
Hydraulic Works	1088.40
Other Civil Works	266.61
Plant & Machinery	5450.37
Lines & Cable Net work	6.42
Vehicles	0.18
Furniture & Fixtures	2.10
Office Equipment	0.32
Capital Spares	187.79
Total	8215.30

Depreciation

RVUN's Submission

4.77 The details of depreciation approved in the tariff Order for FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 29: Depreciation claimed by RVUN (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS (Units 1-7)	67.87	68.00
STPS (Units 1-6)	164.22	164.22
CTPP (Units 1-4)	265.49	265.51
KaTPP (Units 1-2)	404.49	404.65
RGTPS (270.50 MW)	42.58	42.86
Mahi	4.42	4.42
Total	949.07	949.66

4.78 RVUN submitted that the variation in depreciation for KTPS, STPS, CTPP (Units 1-4), RGTPP 270.50 MW and KaTPP (Units 1-2) in FY 2020-21 is due to additional capitalization claimed for FY 2020-21.

Commission's Analysis

4.79 The Commission in this Order has approved the depreciation of KTPS (Unit 1- 6), STPS (Unit 1-5), RGTPS 110.50 MW and Mahi Hydel Power Station for FY 2020-21 by adopting the provisions of the RERC Tariff Regulations, 2019. The Commission has computed the depreciation for in the following manner:

- i. Considered Accumulated Depreciation till FY 2019-20 by adding year wise depreciation allowed in Tariff Orders/True up Orders from FY 2009-10 to FY 2019-20 to the accumulated depreciation till FY 2009-10.
- ii. Depreciation @5.28% if the Station/Stage/Unit has not completed 12 years life from the date of commissioning.
- iii. If the Station/Stage/Unit has completed 12 years life, depreciation computed by spreading remaining depreciation to be charged over the balance useful life of the asset.

4.80 For KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4), RGTPS (160 MW) and KaTPP (Units 1-2), the Commission has approved the depreciation for FY 2020-21 considering the closing GFA approved in true up for FY 2019-20 as the opening GFA for FY 2020-21.

4.81 The Commission for computing depreciation of FY 2020-21 has considered the additional capitalization and de-capitalization as discussed in aforesaid paragraphs. Accordingly, the depreciation approved for FY 2020-21 is as shown in the table below:

Table 30: Depreciation approved by the Commission (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	67.87	68.00	67.99
STPS(Units 1-6)	164.22	164.22	164.22
CTPP(Units 1-4)	265.49	265.51	265.49
KaTPP (Units 1-2)	404.49	404.65	404.49
RGTPS(270.50 MW)	42.58	42.86	42.58
Mahi	4.42	4.42	4.42
Total	949.07	949.66	949.17

Interest and Finance Charges on Term Loans

RVUN's Submission

4.82 The details of interest and finance charges as approved in the tariff Order of FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 31: Interest and finance charges claimed by RVUN (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	22.96	25.38
STPS(Units 1-6)	32.32	34.59
CTPP(Units 1-4)	236.38	249.27
KaTPP (Units 1-2)	439.23	467.66
RGTPS(270.5 MW)	39.65	42.65
Mahi	0.00	0.01
Total	770.54	819.56

*Claimed value of Rs. 249.27 Crore includes cost towards carrying cost also, i.e., Rs. 3.17 Crore

4.83 RVUN submitted that the variation in interest and finance charge for KTPS, STPS, CTPP Unit (1-4), KaTPP (Units 1-2) and RGTPP (270.50 MW) is due to variation in interest rate, additional capitalization during FY 2020-21 and actual finance charges.

4.84 With respect to carrying cost recovery of allowed expenditure on reconstruction of Road for CTPP (Units 3-4), RVUN submitted that the Commission vide Order dated 03.07.2019 in Petition No. 1478/19 has allowed carrying cost while truing up. Accordingly, RVUN has computed the same as shown in the table below:

Table 32: Carrying cost of allowed expenditure on reconstruction of road claimed by Petitioner (Rs. Crore)

Parameters	FY 2020-21
Opening balance	32.18
Recovered	7.96
Closing Balance	24.22
Average Balance	28.20
Rate of interest as on term loan	11.25%
Interest Amount	3.17

Commission's Analysis

- 4.85 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. The Commission has computed the interest on term loans considering the closing loan balance for the respective stations approved in the true up for FY 2019-20 as the opening balance for FY 2020-21 and rate of interest in accordance with the RERC Tariff Regulations, 2019. The Commission has considered approved additional capitalization and de-capitalization as discussed in aforesaid paragraphs in debt component. The Commission has considered the normative repayment as equivalent to the approved depreciation.
- 4.86 With respect to the carrying cost on allowed expenditure for reconstruction of road, claimed against CTPP (Units 3-4), the Commission vide Order dated 08.03.2019 and review Order dated 03.07.2019 against Petition No. 1334/19 and 1478/19 respectively allowed the recovery of Rs. 40.80 Crore as a separate reimbursement over the period of 5 years in equal installments and has ruled as under:

"73. As regards the interest cost on the deferred recovery, the Commission grants liberty to the Petitioner to make its submissions regarding the same in the true-up petition for the future years during which the allowed amount of Rs. 40.80 Crore is recovered and the Commission shall take an appropriate view based on the Petitioner's submissions".

- 4.87 Accordingly, the Commission allows the carrying cost for FY 2020-21 on recovery of allowed expenditure for reconstruction of road as shown in the table below:

Table 33: Carrying cost of allowed expenditure on reconstruction of road approved by the Commission (Rs. Crore)

Parameters	FY 2020-21
Opening balance	32.11
Addition	0.00
Amount allowed for Recovery	8.16
Closing Balance	23.95
Average Balance	28.03
Rate of interest as on term loan	11.20%
Interest Amount	3.14

- 4.88 However, the same has been considered separately while computing revenue gap/surplus.

4.89 The Commission vide data gaps asked RVUN to submit the basis of its claim against Finance charges for FY 2020-21. RVUN submitted that the same is claimed on actual basis. The Commission has considered the same.

4.90 RVUN also submitted the weighted average rate of interest after deducting penal interest amount which has been considered by the Commission. Further, the Commission directs the Petitioner to submit the Computation of Weighted average Actual interest rate against term loan after deducting penal interest amount, if any, certified by the statutory auditor for each of its stations in its subsequent years true-up petition.

4.91 The loan balance considered by the Commission for FY 2020-21 is as shown in the table below:

Table 34: Interest and finance charges on term loans approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	KTPS (Units 1-6)	KTPS Unit 7	Total KTPS	STPS (Units 1-5)	STPS Unit 6	Total STPS
Op. balance	0.00	236.31	236.31	0.00	308.50	308.50
Addition	3.44	0.00	3.44	0.00	0.00	0.00
Repayment	3.44	42.41	45.84	0.00	50.06	50.06
Closing balance	0.00	193.90	193.90	0.00	258.44	258.44
Interest rate			11.29%			12.08%
Interest			24.29			34.24
Finance charges			0.98			0.22
Interest and finance charges			25.26			34.47

Particulars	CTPP (Units 1&2)	CTPP (Units 3&4)	RGTPS (110.50 MW)	RGTPS (160 MW)	KaTPP (Units 1-2)	Mahi
Op. balance	850.20	1463.92	0.00	392.85	4417.16	0.00
Addition	0.00	0.00	0.00	0.00	-0.34	0.00
Repayment	122.58	142.91	0.00	41.34	404.49	0.00
Closing balance	727.61	1321.02	0.00	351.51	4012.33	0.00
Interest rate	11.20%	11.20%	11.19%	11.19%	10.82%	10.75%
Interest	88.36	155.96	0.00	41.65	456.04	0.00
Finance charges	0.00	0.66	0.45	0.00	10.06	0.01
Interest and finance charges	88.36	156.62	0.45	41.65	466.09	0.01

4.92 The interest and finance charges approved by the Commission are as shown in the

table below:

Table 35: Interest and finance charges on term loans approved by the Commission (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	22.96	25.38	25.26
STPS(Units 1-6)	32.32	34.59	34.47
CTPP(Units 1-4)	236.38	249.27	244.97
KaTPP (Units 1-2)	439.23	467.66	466.09
RGTPS(270.5 MW)	39.65	42.65	42.10
Mahi	0.00	0.01	0.01
Total	770.54	819.56	812.91

4.93 It is observed that the rate of interest on long term loans claimed by the Petitioner is on rising trend when compared with the previous year data. In this regard, Petitioner is directed to calculate actual weighted average interest rate on long term loans considering only those long term loans taken at the time of COD of the Stations duly certified by the auditor in the next true up petition.

Interest on Working Capital
RVUN's Submission

4.94 The details of IoWC approved in the tariff Order for FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 36: Interest on working capital claimed by RVUN (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	94.10	95.33
STPS(Units 1-6)	135.03	132.79
CTPP(Units 1-4)	66.74	71.88
KaTPP (Units 1-2)	91.16	92.07
RGTPS(270.5 MW)	14.03	11.96
Mahi	1.20	0.96
Total	402.26	404.99

4.95 RVUN submitted that the variation in interest on working capital is due to variation in actual expense for variable cost than that approved in the tariff Order.

Commission's Analysis

4.96 The Commission has computed the normative interest on working capital in accordance with Regulation 27(2) and 27(3) of the RERC Tariff Regulations, 2019, which specifies that:

"(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 of State Bank of India prevalent during first six month 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-à-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."

4.97 The computation of the bank rate is as shown in the table below:

Table 37: Computations of Bank rate as considered by the Commission

Applicable for the Year	From Date	To Date	No. of Days	SBI Base Rate	300 Basis Point	Approved Interest Rate
FY 2020-21	01-04-2019	09-04-2019	9	8.55%	3.00%	11.39%
	10-04-2019	09-05-2019	30	8.50%		
	10-05-2019	09-06-2019	31	8.45%		
	10-06-2019	09-07-2019	30	8.45%		
	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%		

<https://sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data>

4.98 Further, as IoWC is a controllable factor, the Commission has computed the sharing of gains/losses in accordance with Regulation 27(3) of the RERC Tariff Regulations, 2019.

4.99 As per Regulation 27(3) of the RERC Tariff Regulations, 2019 sharing of gains and losses has to be carried out with regards to variation in normative rate of interest and actual rate of interest. The normative rate of interest applicable is 11.39%.

4.100 RVUN has submitted the actual weighted average rate of interest as 11.18% on working capital loans. The IoWC approved by the Commission for FY 2020-21 considering actual weighted average rate of interest as 11.18% on working capital loans is as shown in the table below:

Table 38: Approved IoWC by the Commission for FY 2020-21 (Rs. Crore)

Station	IoWC at normative rate of IoWC	IoWC at actual rate of IoWC	(Gain)/Loss	Sharing of (Gain)/Loss
	A	B	C=B-A	D=50%*C
KTPS(Units 1-7)	95.12	93.40	-1.72	-0.86
STPS(Units 1-6)	132.84	130.43	-2.41	-1.20
CTPP(Units 1-4)	71.35	70.05	-1.29	-0.65
RGTPS(270.5 MW)	11.58	11.37	-0.21	-0.10
KaTPP (Units 1-2)	96.08	94.34	-1.74	-0.87
Mahi	0.83	0.81	-0.02	-0.01
Total	407.79	400.40	-7.39	-3.69

Insurance on Fixed Assets**RVUN's Submission**

4.101 RVUN submitted the actual insurance charges on fixed assets along with supporting documents. The details of Insurance Charges approved in the tariff Order for FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 39: Insurance on fixed assets claimed by RVUN (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	3.89	7.05
STPS(Units 1-6)	6.58	8.55
CTPP(Units 1-4)	4.46	5.70
RGTPS (270.5 MW)	1.09	1.58
KaTPP (Units 1-2)	9.23	6.84
Mahi	0.00	0.00
Total	25.25	29.72

4.102 RVUN submitted that variation in Insurance on fixed assets is due to actual expense claimed as per Regulation 25 of RERC Tariff Regulations, 2019.

Commission's Analysis

4.103 The Commission vide data gaps asked RVUN to submit the following:

- a. Computations in soft (excel with formulas) and hard copy stating that Actual insurance expenses incurred by the Generating Company for each of its stations is less than or equal to a ceiling of 0.2% of average Net Fixed Assets for the year;

- b. Station wise reconciliation statement of it with the audited accounts of FY 2020-21;

4.104 RVUN in its replies to the data gaps submitted the same.

It was observed that the Petitioner through its various submissions submitted different figures against actual insurance charges for FY 2020-21. Vide data gaps reply, RVUN submitted station wise reconciliation statement against insurance charges as under:

Station	Claimed vide Petition
KTPS(Units 1-7)	7.05
STPS(Units 1-6)	8.55
CTPP(Units 1-4)	5.70
RGTPS (270.5 MW)	1.58
KaTPP (Units 1-2)	6.84
Mahi	0.00
Total	29.72

- The total insurance charges for all RVUN stations submitted by RVUN vide data gaps reply is Rs. 41.33 Crore. However, in the Audited accounts for FY 2020-21 submitted by RVUN, total insurance charges on fixed assets are Rs. 39.34 Crore.
- Vide excel form (P&L 20-21) submitted Insurance Charges on fixed assets is Rs. 39.49 Crore. In this regard, RVUN was asked to submit the following:
- Justification for such variance in its various submissions;
- To submit the revised station wise reconciliation statement of insurance charges duly reconciled with the audited accounts for FY 2020-21.

4.105 RVUN vide its reply submitted that the booking of amount against insurance charges in the audited accounts is done as per the days pertaining to that year for mega insurance policy is done at head quarter level and also the insurance charges equipment like fire tender, Locomotives, Bulldozers etc. are done at the plant level.

4.106 The Commission found the reasons for variation in Insurance Charges as

appropriate and accordingly, approves the actual insurance charges on fixed assets for FY 2020-21 as shown in the table below:

Table 40: Approved insurance on fixed assets by the Commission (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	3.89	7.05	7.05
STPS(Units 1-6)	6.58	8.55	8.55
CTPP(Units 1-4)	4.46	5.70	5.70
KaTPP (Units 1-2)	9.23	6.84	6.84
RGTPS (270.5 MW)	1.09	1.58	1.58
Mahi	0.00	0.00	0.00
Total	25.25	29.72	29.72

Return on Equity (RoE)

RVUN's Submission

4.107 The details of RoE approved in the tariff Order for FY 2020-21 and petitioned for true up are as shown in the table below:

Table 41: RoE claimed by RVUN (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	75.43	0.00
STPS(Units 1-6)	176.43	0.00
CTPP(Units 1-4)	160.06	0.00
KaTPP (Units 1-2)	246.47	0.00
RGTPS (270.5 MW)	42.31	0.00
Mahi	25.56	0.00
Total	726.26	0.00

Commission's Analysis

4.108 The Commission has considered the closing equity balance approved for FY 2019-20 on truing up, as the opening equity balance for FY 2020-21. Further, the Commission has considered equity addition of 20.00 % of the approved additional capitalization and de-capitalization for FY 2020-21 as discussed on the aforesaid paragraphs.

4.109 Rate of RoE for FY 2020-21 has been considered as 0.00%, i.e., in accordance with

the letter dated 17.09.2021, issued by Energy Department, GOR on Return on Equity for RVUNL. The relevant part of it is as below:

“The issue of granting RoE to RRVUNL has been deliberated by GOR after considering all aspects relating to RoE and its effects on books of RVUNL and Discoms and specially looking to the severe effect of COVID on the revenue stream of Discoms it has been decided that RoE charge by RVUNL in the year 2019-20 and 2020-21 which is yet to be true up by RERC be withdrawn.....”.

4.110 The opening equity base approved by the Commission for FY 2020-21 is as shown in the table below:

Table 42: Opening Equity base approved for FY 2020-21 (Rs. Crore)

Particulars	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1&2)	CTPP (Units 3&4)
Opening Equity	510.07	1176.19	496.48	570.58
Addition	0.86	0.00	0.00	0.00
Closing Equity	510.92	1176.19	496.48	570.58

Particulars	RGTPS (110.50 MW)	RGTPS (160 MW)	KaTPP (Units 1-2)	Mahi
Opening Equity	120.11	161.96	1643.15	170.38
Addition	0.00	0.00	-0.09	0.00
Closing Equity	120.11	161.96	1643.06	170.38

4.111 Accordingly, the Commission, has not approved RoE while carrying out true up of FY 2020-21 as the Energy Department, GOR have decided to withdraw RoE charge for FY 2020-21, which is as shown in the table below:

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

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	75.43	0.00	0.00
STPS(Units 1-6)	176.43	0.00	0.00
CTPP(Units 1-4)	160.06	0.00	0.00
KaTPP (Units 1-2)	246.47	0.00	0.00
RGTPS (270.50MW)	42.31	0.00	0.00
Mahi	25.56	0.00	0.00
Total	726.26	0.00	0.00

Non-Tariff Income
RVUN's Submission

4.112 The details of plant-wise non-tariff income approved in the tariff Order for FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

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

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	31.15	9.77
STPS(Units 1-6)	17.78	6.17
CTPP(Units 1-4)	19.79	6.24
KaTPP (Units 1-2)	10.92	4.28
RGTPS (270.50 MW)	1.37	0.12
Mahi	1.30	0.11
Total	82.31	26.69

Commission's Analysis

4.113 The Commission has considered the non-tariff income as per the petition, based on actual/audited accounts in true up for FY 2020-21 as under:

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

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	31.15	9.77	9.77
STPS(Units 1-6)	17.78	6.17	6.17
CTPP(Units 1-4)	19.79	6.24	6.24
KaTPP (Units 1-2)	10.92	4.28	4.28
RGTPS (270.50 MW)	1.37	0.12	0.12
Mahi	1.30	0.11	0.11
Total	82.31	26.69	26.69

Terminal Benefit
RVUN's Submission

4.114 RVUN submitted that terminal benefits have been separately allowed over and above the normative O&M expenses in accordance with Regulation 47(7) of the RERC Tariff Regulations, 2019 as specified 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.”

4.115 RVUN in its petition has claimed terminal benefits for FY 2020-21 based on actuarial valuation for FY 2020-21. The details are as shown in the table below:

Table 46: Terminal Benefit claimed by the Petitioner (Rs. Crore)

Station	FY 2020-21	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	26.17	74.25
STPS(Units 1-6)	31.66	68.34
CTPP(Units 1-4)	21.10	36.19
KaTPP (Units 1-2)	25.33	30.11
RGTPS (270.50 MW)	5.71	12.54
Mahi	2.95	10.59
Total	112.92	232.02

Commission’s Analysis

4.116 It is observed that Petitioner is claiming the terminal benefits, which is part of normal O&M. The Petitioner submitted supporting documents demonstrating that Rs. 35.00 Crore of amount over and above the routine terminal liabilities has been deposited in the designated fund. 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 Petitioner has not deposited complete amount as per actuarial valuation report of FY 2020-21, the Commission, therefore, has considered the proportionate amount of Rs. 35.00 Crore against each station for which the instant true-up Petition has been filed and has been deposited in the designated fund as submitted by the Petitioner vide reply to the Stakeholder’s objection.

Table 47: Terminal Benefit approved by the Commission (Rs. Crore)

Station	FY 2020-21		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	26.17	74.25	9.58
STPS(Units 1-6)	31.66	68.34	8.82
CTPP(Units 1-4)	21.10	36.19	4.67
KaTPP (Units 1-2)	25.33	30.11	3.88
RGTPS (270.50 MW)	5.71	12.54	1.62
Mahi	2.95	10.59	1.37
Total	112.92	232.02	29.94

Amortization

RVUN's Submission

4.117 The details of plant-wise Amortization approved in the tariff Order for FY 2020-21 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 48: Amortization claimed by RVUN (Rs. Crore)

Particulars		FY 2020-21					
		KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	RGTPS (270.5 MW)	KaTPP (Units 1-2)	Mahi
Approved in Tariff Order		0.00	0.00	0.00	0.00	0.00	0.00
Claimed	At Plant	0.02	0.00	0.01	0.01	0.02	0.00
	HO Allocation	0.13	0.26	0.49	0.09	0.82	0.00
	Total	0.15	0.26	0.50	0.10	0.84	0.00

Commission's Analysis

4.118 The Commission vide data gaps asked RVUN to submit the basis of its claim of Amortization for FY 2020-21 for all of its stations along with the supporting documents and reconciliation statement of it with the audited accounts of FY 2020-21.

4.119 RVUN vide its initial data gaps replies dated 14.03.2022 submitted that only amortization against leasehold rent for all power station has been claimed in accordance to applicable provisions of IND-AS. Accordingly, any booking against lease rent paid during the year is being adjusted through amortization account as per the lease term period. RVUN also submitted the reconciliation of amortization with the audited accounts. Accordingly, the amortization considered by the Commission for FY 2020-21 is as shown in the table below:

Table 49: Amortization Approved by the Commission

Particulars		FY 2020-21					
		KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	RGTPS (270.50 MW)	KaTPP (Units 1-2)	Mahi
Claimed	At Plant	0.02	0.00	0.01	0.01	0.02	0.00
	HO Allocation	0.13	0.26	0.49	0.09	0.82	0.00
	Total	0.15	0.26	0.50	0.10	0.84	0.00
Approved on True-up		0.15	0.26	0.50	0.10	0.84	0.00

Adjustment of excess depreciation

Commission's Analysis

4.120 The Commission in the Tariff Order for FY 2016-17 ruled as under:

"7.49.The Commission finds that the outstanding balance of transitional loan is getting repaid completely for KTPS while the outstanding balance for RGTPS is already zero in FY 2016-17. However, the depreciation is allowable for those stations in accordance with the Tariff Regulations. The advance against depreciation allowed by the Commission was for the repayment of term loans and the transitional loans. The term loans & transitional loans for some of the old stations have already been repaid in full. Hence, the depreciation over and above the repayment of the term loans and the transitional loans is in excess with RVUN. As the depreciation admissible for the year is in excess of the repayment of term loans and the transitional loans, the excess amount of depreciation over and above of the term loan and transitional loans has been adjusted against the balance of AAD already allowed to RVUN. Accordingly, the Commission has adjusted such advance against depreciation from the AFC for the respective stations for FY 2016-17 as shown in the Table below:

.....

The Commission shall carry out this adjustment of advance against depreciation for each year from FY 2016-17 onwards till the cumulative adjustment reaches equal to the AAD allowed by the Commission for the respective stations."

4.121 The Commission at the time of tariff determination for FY 2020-21 had only carried out the true-up up to FY 2018-19 only. Subsequently, the Commission had carried out the true up for FY 2019-20 wherein, the Commission had approved the additional capitalization for the respective years. Therefore, the adjustment of excess depreciation as determined in the Tariff Order for FY 2020-21 need to be reworked considering the revised loan balances for FY 2019-20. Accordingly, the adjustment of advance against depreciation reworked for FY 2020-21 is as shown in the table below:

Table 50: Adjustment of Advance against Depreciation (Rs. Crore)

Particulars	KTPS (Units 1-6)	STPS (Units 1-5)	RGTPS (110.50 MW)
AAD allowed till FY 2008-09 and after adjustment in FY 2009-10, FY 2013-14, FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20	167.79	430.12	11.25
Outstanding transitional loan	0.00	0.00	0.00
Depreciation for the year	25.58	114.15	1.24
Repayment of LT loan	3.44	0.00	0.00
Balance Depreciation available for repayment of transitional loan	22.15	114.15	1.24
Repayment of transitional Loan	0.00	0.00	0.00

Particulars	KTPS (Units 1-6)	STPS (Units 1-5)	RGTPS (110.50 MW)
Excess depreciation to be deducted from AFC of FY 2020-21	22.15	114.15	1.24
Balance AAD to be adjusted in subsequent years	145.64	315.96	10.01

Annual Fixed Charges

4.122 The actual availability of some of the stations of RVUN has been lower than the normative availability approved by the Commission in this Order. For such stations, 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 are as shown in table below:

Table 51: Approved AFC for FY 2020-21 (Rs. Crore)

Station	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up
O&M expenses	259.27	259.27	313.64	313.64	209.09	209.09
Depreciation	68.00	67.99	164.22	164.22	265.51	265.49
Interest on term loans & finance charges	25.38	25.26	34.59	34.47	249.27	244.97
Interest on working capital	95.33	95.12	132.79	132.84	71.88	71.35
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00
Amortization	0.15	0.15	0.26	0.26	0.50	0.50
Insurance on fixed assets	7.05	7.05	8.55	8.55	5.70	5.70
Terminal Benefit	74.25	9.58	68.34	8.82	36.19	4.67
Minus: Non-tariff income	9.77	9.77	6.17	6.17	6.24	6.24
Minus: Adjustment of excess depreciation	22.12	22.15	114.14	114.15	0.00	0.00
Annual Fixed Charges	497.54	432.51	602.07	542.47	831.89	795.52

Station	RGTPS(270.50 MW)		KaTPP(Units 1-2)		Mahi	
	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up
O&M expenses	46.10	46.10	225.82	225.82	18.04	18.04
Depreciation	42.86	42.58	404.65	404.49	4.42	4.42
Interest on term loans & finance charges	42.65	42.10	467.66	466.09	0.01	0.01
Interest on working capital	11.96	11.58	92.07	96.08	0.96	0.83

Station	RGTPS(270.50 MW)		KaTPP(Units 1-2)		Mahi	
	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up	Claimed for true up	Approved on true up
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00
Amortization	0.10	0.10	0.84	0.84	0.00	0.00
Insurance on fixed assets	1.58	1.58	6.84	6.84	0.00	0.00
Terminal Benefit	12.54	1.62	30.11	3.88	10.59	1.37
Minus: Non-tariff income	0.12	0.12	4.28	4.28	0.11	0.11
Minus: Adjustment of excess depreciation	0.00	1.24	0.00	0.00	0.00	0.00
Annual Fixed Charges	157.67	144.30	1223.71	1199.75	33.93	24.57

Station	Total RVUN		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
O&M expenses	1071.96	1071.96	1071.96
Depreciation	949.07	949.66	949.17
Interest on term loans & finance charges	770.54	819.56	812.91
Interest on working capital	402.26	404.99	407.79
Return on Equity	726.26	0.00	0.00
Amortization	0.00	1.86	1.86
Insurance on fixed assets	25.25	29.72	29.72
Terminal Benefit	112.92	232.02	29.94
Minus: Non-tariff income	82.31	26.69	26.69
Minus: Adjustment of excess depreciation	139.62	136.26	137.54
Annual Fixed Charges	3836.31	3346.81	3139.12

4.123 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 in trueing up of FY 2020-21.

Table 52: AFC reduced for non-achievement of target Availability

Station	AFC after true up	Actual Availability considered by the Commission	Target Availability for full recovery of fixed charges	Reduced AFC	AFC reduced
KTPS(Units 1-7)	432.51	88.59%	83.00%	432.51	0.00
STPS(Units 1-6)	542.47	95.43%	83.00%	542.47	0.00
CTPP(Units 1-4)	795.52	86.10%	83.00%	795.52	0.00
RGTPS(270.50 MW)	144.30	24.00%	70.00%	49.48	94.82
KaTPP (Units 1-2)	1199.75	92.07%	83.00%	1199.75	0.00

Station	AFC after true up	Actual Availability considered by the Commission	Target Availability for full recovery of fixed charges	Reduced AFC	AFC reduced
Mahi	24.57	91.43%	90.0%	24.57	0.00
Total	3139.12			3044.30	94.82

Energy Charges **Commission's Analysis**

4.124 Regulation 51 of the RERC Tariff Regulations, 2019 specifies as under:

"51. Energy Charges

The energy (variable) charges for Thermal Generating Stations shall cover landed fuel costs and shall be computed as follows:

Energy Charges (Rs.) = Rate of Energy Charges in Rs/kWh X Scheduled Energy (ex-bus) for the month in kWh corresponding to scheduled generation. "

4.125 The Deviation Settlement Mechanism (DSM) has been implemented in the State of Rajasthan w.e.f. 01.01.2018. Therefore, the Energy Charges are to be allowed based on the scheduled generation.

4.126 The Commission has computed the energy charges for FY 2020-21 considering the approved performance parameters and actual fuel prices and calorific value.

4.127 Since, RVUN has JV Agreement with Adani Enterprises Ltd. regarding Parsa East Kanta Basan Coal mines and rates mentioned in these agreements have also been reported to be approved by Govt. of Rajasthan, onus to adhere to laid down procedures and rates are on RVUN. Therefore, RVUN must ensure compliance of the same strictly. The price of coal must be as determined by the Govt. approved mechanism.

4.128 The energy charges computed by the Commission for FY 2020-21 are as shown in the table below:

Table 53: Energy Charges approved for FY 2020-21

Particulars	Units	KTSPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	5195.56		989.69		6665.15	
Auxiliary Consumption	%	11.90%	9.65%	10.87%	9.80%	9.44%	9.80%
Net Generation	MU	4577.26	4757.18	882.10	912.10	6035.71	6262.24
Landed Price of Coal	Rs./kg	4.24	4.27	5.52	5.56	4.42	4.42
Gross Station Heat Rate	kcal/kWh	2491.78	2561.70	2512.46	2476.28	2508.72	2400.00

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Price of Secondary fuel oil	Rs./ml	0.04	0.04	0.04	0.04	0.04	0.04
Secondary fuel oil Consumption	ml/kWh	0.81	0.50	3.53	0.50	0.18	0.50
Gross Calorific Value of Secondary fuel oil	kcal/ml	10.00	10.00	9.78	9.78	9.97	9.97
Heat Contribution from Secondary fuel oil	kcal/kWh	8.15	5.00	34.58	4.89	1.81	4.98
Heat Contribution from Coal	kcal/kWh	2483.64	2556.70	2477.88	2471.39	2506.91	2395.02
Gross Calorific Value of Coal	kcal/kg	3508.12	3508.12	3738.20	3738.20	4157.47	4157.47
Specific coal consumption	kg/kWh	0.71	0.73	0.66	0.66	0.60	0.58
Rate of Energy Charge	Rs./kWh	3.44	3.46	4.28	4.10	2.95	2.85
Other Charges	Rs. Crore	14.10	14.10	1.83	1.83	0.62	0.62
Total Energy Charges	Rs. Crore	1589.04	1662.04	379.04	375.96	1784.09	1785.01
	Rs./kWh	3.472	3.494	4.297	4.122	2.956	2.850

Particulars	Units	RGTPS (270.50 MW)		KaTPP (Units 1-2)		Total	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	543.93		6089.98		19484.31	0.00
Auxiliary Consumption	%	4.64%	2.82%	6.12%	5.25%		
Net Generation	MU	518.67	550.00	5717.4553	5795.05	17731.21	18276.58
Landed Price of Gas/Coal	Rs./SCM and Rs./kg	6.32	6.32	5.0613	5.06		
Gross Station Heat Rate	kcal/kWh	2323.23	2030.57	2399.5488	2333.28		
Price of fuel oil	Rs./ml	0.05	0.05	0.0445	0.04		
Fuel oil Consumption	ml/kWh	0.01	0.01	0.5681	0.50		
Gross Calorific Value of fuel oil	kcal/ml	9.30	9.30	9.6067	9.61		
Heat Contribution from fuel oil	kcal/kWh	0.12	0.11	5.4571	4.80		
Heat Contribution from Gas	kcal/kWh	2323.11	2030.47	2394.0917	2328.48		
Gross Calorific Value of Gas	kcal/SCM	5366.02	5366.02	4118.2978	4118.30		
Specific Gas consumption	SCM/kWh	0.43	0.38	0.5813	0.57		
Rate of Energy Charge	Rs./kWh	2.87	2.46	3.1609	3.04		
Other Charges	Rs. Crore	-1.12	-1.12	0.0000	0.00	15.43	15.43
Total Energy Charges	Rs. Crore	147.66	134.18	1807.25*	1763.84	5707.08	5721.03
	Rs./kWh	2.847	2.440	3.161	3.04	3.219	3.130

*Claimed figure for KaTPP Units 1-2 changed from Rs. 1808.31 Crore to Rs.1807.25 Crore considering the fuel price and consumption submitted by Petitioner

4.129 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.

4.130 Further, Regulation 56(2) of RERC Tariff Regulations, 2019 states as follows:

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

(1) The financial gains by a Generating Company as approved by the Commission on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption shall be shared between Generating Company and the Distribution Licensee, in the ratio of 60:40 between the Generating Company and beneficiary as per the following formulae:

...

(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"

4.131 Therefore, from the Regulation 56(1) of the RERC Tariff Regulations, 2019, it is clear that any gains on account of controllable factor have to be shared between Generating Company and Distribution Licensee in the ratio of 60:40. Also, from the 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. Accordingly, the computation of it is as shown in the table below:

Table 54: Sharing of Gains/Loss for FY 2020-21 as per Regulation 56 (Rs. Crore)

Particulars	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP(Units 1-4)	RGTPS (270.5 MW)	KaTPP (Units 1-2)	Total
Actual energy billed (A)	4577.26	882.10	6035.71	518.67	5717.46	17731.21
ECRN (B)	3.46	4.10	2.85	2.46	3.04	
ECRA (C)	3.44	4.28	2.95	2.87	3.16	
Gain/ (loss) {D=(B-C)*A}	10.67	-15.39	-63.63	-21.19	-67.02	-156.56
Sharing of Gain {E=40%*D}	4.27	0.00	0.00	0.00	0.00	4.27

4.132 Regulation 52 of the RERC Tariff Regulations, 2019 states as follows:

"52. Incentive

(1) For Thermal Power Generating Stations

(a) Incentive shall be payable by the beneficiary at a flat rate of 30 paise/kWh for actual ex-bus energy in excess of ex-bus energy corresponding to target Plant Load Factor.

(b) The incentive amount shall be computed and billed on monthly basis, subject to cumulative adjustment in each month of the financial year, and final adjustment shall be made at the end of the financial year."

4.133 The Commission has not allowed any incentive for RVUN stations as the Petitioner has not been able to surpass target PLF for FY 2020-21.

Revenue Side True up

RVUN's Submission

4.134 RVUN has claimed the revenue for true up of FY 2020-21 as shown in the table below:

**Table 55: Actual Revenue as per Annual Accounts
as submitted by the Petitioner(Rs. Crore)**

Station	Claimed
KTPS(Units 1-7)	2071.21
STPS(Units 1-6)	925.17
CTPP(Units 1-4)	2575.22
RGTPS(270.5 MW)	185.79
KaTPP (Units 1-2)	2946.21
Mahi	25.31
Total	8728.91

Commission's Analysis

4.135 The Commission has considered the revenue earned from fixed charges, energy charges and Fuel Price Adjustment for carrying out the truing up of FY 2020-21.

4.136 Vide the data gaps, the Commission sought reconciliation statement of the actual revenue, as per the audited accounts for FY 2020-21. RVUN submitted the same and were found to be prudent.

4.137 Accordingly, the revenue from sale of power considered by the Commission for truing up purposes is shown in the table below:

Table 56: Annual Revenue as per annual accounts for FY 2020-21 (Rs. Crore)

Station	Fixed Charges	Energy Charges	FPA	Total
KTPS(Units 1-7)	417.65	1613.16	40.40	2071.21
STPS(Units 1-6)	551.50	372.68	0.99	925.17
CTPP(Units 1-4)	783.47	1559.30	232.45	2575.22
RGTPS(270.50 MW)	50.67	166.65	-31.53	185.79
KaTPP (Units 1-2)	1184.35	1558.87	202.99	2946.21
Mahi	19.28	6.03	0.00	25.31
Total	3006.92	5276.69	445.30	8728.91

Summary of True Up **RVUN's submission**

4.138 The summary of true up claimed by RVUN is as shown below:

Table 57: Summary of true up for FY 2020-21 claimed by RVUN (Rs. Crore)

Particulars	As per Tariff Order	Claimed for true up
Cost side True Up		
Total Fixed Cost	3836.31	3346.81
Variable cost	11137.50	5707.08
Total Expenses	14973.81	9053.89
Extra Cost incurred By RVUNL (A)		-5919.92
Revenue Side True up		
Revenue From electricity (fixed And Energy charges)	14973.81	8728.91
Total Revenue	14973.81	8728.91
Extra Amount billed to Discom by RVUNL		-6244.90
Total Amount Sought from Discom C=(A-B)		324.98

4.139 RVUN has claimed the net gap of Rs. 324.98 Crore on true-up for FY 2020-21.

Commission's Analysis

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

Table 58: Summary of true up approved by the Commission for FY 2020-21 (Rs. Crore)

Particulars	Approved
Cost side True Up	
Fixed Cost before Non-Tariff Income	3165.81
Variable cost	5721.03
Sharing of (gain)/loss	-7.96

Add: PLF based Incentive	0.00
Add: Carrying Cost of allowed expenditure on reconstruction of road against CTPP Units 3-4	3.14
Less: Reduction in AFC due to non-achievement of Target Availability	94.82
TOTAL (A)	8787.19
Revenue Side True up	
Revenue From sale of electricity	8728.91
Add: PLF based Incentive	0.00
Non-tariff income	26.69
TOTAL (B)	8755.60
Revenue Gap/(Surplus) (C=A-B)	31.59

4.141 Accordingly, the Commission has approved the net revenue gap of Rs. 31.59 Crore as against the revenue gap of Rs. 324.98 Crore claimed by RVUN for FY 2020-21. The Commission allows RVUN to recover the net approved revenue gap of Rs. 31.59 Crore for the period FY 2020-21 from the Discoms in next billing cycle from the date of this Order, in the ratio of total energy purchased by them in FY 2020-21.

4.142 As per Regulation 2(a)(3) of the RERC Tariff Regulations, 2019, Allocation Statement is defined as below:

"Allocation Statement" means for each financial year, a statement in respect of each of the separate businesses of the Licensee/Generating Company and further in case of Generating Company for each Generating Station, showing the amounts of any revenue, cost, asset, liability, reserve or provision, which has been either:

(i) charged from or to each such separate business together with a description of the basis of the apportionment or allocation;

(ii) determined by apportionment or allocation between the Licensed/Regulated Business and every other separate business of the Licensee/Generation Company, together with a description of the basis of the apportionment or allocation;"

4.143 In this regard, RVUN is directed to submit the Allocation Statement station wise in accordance with the RERC Tariff Regulations, 2019 duly certified by its Statutory Auditor, along with the audited accounts, in its true up petition for the subsequent years.

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SECTION 5

Determination of ARR and Tariff for FY 2022-23

- 5.1 RVUN in the instant petition has sought approval of ARR and Tariff for FY 2022-23 for the following Generating Stations:
- i. Kota Thermal Power Station (KTPS) (Units 1-7);
 - ii. Suratgarh Thermal Power Station (STPS) (Units 1-6);
 - iii. Chhabra Thermal Power Station (CTPP)(Units 1-4);
 - iv. Kalisindh Thermal Power Station (KaTTP) (Units 1-2);
 - v. Ramgarh Gas Thermal Power Station (RGTPS) (270.50 MW);
 - vi. Mahi Hydrel Power Project (Mahi);
- 5.2 The Tariff determination for FY 2022-23 has been done in accordance with the RERC Tariff Regulations, 2019. The Annual Fixed Charges comprises of the following elements:
- i. Operation and Maintenance (O&M) Expenses;
 - ii. Depreciation;
 - iii. Interest on Term Loans;
 - iv. Interest on Transitional Loans;
 - v. Return on Equity;
 - vi. Interest on Working Capital;
 - vii. Insurance Charges;
 - viii. Less: Non-tariff Income.
- 5.3 Each of the Annual Fixed Charges elements has been dealt with in the following paragraphs.

Operation and Maintenance Expenses

RVUN's Submission

- 5.4 RVUN submitted that the Operation & Maintenance Expenses for FY 2022-23 have been computed on the basis of norms prescribed under Regulation 47 of RERC Tariff Regulations, 2019.
- 5.5 The details of the O&M expenses as claimed in Petition for FY 2022-23 are as shown in the table below:

Table 59: O&M expenses claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	277.79
STPS (Units 1-6)	336.04
CTPP (Units 1-4)	224.03
KaTPP (Units 1-2)	241.95
RGTPS (270.50 MW)	49.39
Mahi	19.33
Total	1148.53

Commission's Analysis

- 5.6 The Commission has verified RVUN's computations of normative O&M expenses and found it to be in order, i.e., as per the provisions of RERC Tariff Regulations, 2019 and accordingly, the same has been approved.
- 5.7 The O&M expenses as approved by the Commission for FY 2022-23 are as shown in the table below:

Table 60: O&M expenses approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	277.79	277.79
STPS (Units 1-6)	336.04	336.04
CTPP (Units 1-4)	224.03	224.03
KaTPP (Units 1-2)	241.95	241.95
RGTPS (270.50 MW)	49.39	49.39
Mahi	19.33	19.33
Total	1148.53	1148.53

Depreciation

RVUN's Submission

- 5.8 RVUN submitted that, for computation of depreciation, it has considered the capital cost of KTPS (Units 1-6) as Rs. 1287.01 Crore for FY 2020-21 as per the Commission's Order dated 15.12.2021. Similarly, as per the aforesaid true-up Order of FY 2019-20, the approved cost of capital for KTPS Unit 7 as on 01.04.2020 is considered as Rs. 851.86 Core. Further, in FY 2020-21, RVUN has booked an

additional capitalization of Rs. 4.29 Crore under head of Plant and Machinery as approved by the Commission vide Order dated 10.05.2012 (Petition No. 273/11), Rs. 0.0019 under head of furniture and fixture, Rs. 0.05 Crore under head of office equipment's for KTPS (Units 1-6), i.e., in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations have also been considered.

- 5.9 For STPS (Units 1-5) and Unit 6, RVUN has considered the approved capital cost as on 01.04.2020, i.e., Rs. 4234.63 Crore and Rs. 1026.79 Crore respectively for FY 2020-21, as per the aforesaid true up Order of FY 2019-20. Further, in FY 2020-21, RVUN has booked an additional capitalization of Rs. 0.15 Crore towards office equipment's for STPS (Units 1-5) in accordance with the Regulation 17(5)(e) of RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations have also been considered.
- 5.10 For CTPP (Units 1-4), RVUN has considered the approved capital cost as on 01.04.2020, i.e., Rs. 5312.96 Crore for FY 2020-21, as per the RERC Order dated 15.12.2021. Further, in FY 2020-21, RVUN has booked an additional capitalization of Rs. 0.60 Crore for Plant and Machinery, Rs. 0.07 Crore for Furniture and Fixtures, Rs. 0.03 Crore for office equipment's in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations have also been considered.
- 5.11 RVUN submitted that it has considered the opening balance of Capital cost as on 01.04.2020 of KaTPP as Rs. 8215.73 Crore, as per the Commission's Order dated 04.10.2021. Further, in FY 2020-21, RVUN has booked an additional capitalization of Rs. 0.10 Crore under head of Hydraulic Works, Rs. 0.36 Crore against office equipment's and de-capitalization of Rs. 0.43 Crore against capital spares. While computing the depreciation, these additional capitalizations and de-capitalization has also been considered.
- 5.12 RVUN submitted that it has considered the opening balance of Capital cost as on 01.04.2020 of RGTPP as Rs. 1117.55 Crore, as per the Commission's Order dated 15.12.2021. Further, in FY 2020-21, RVUN has booked an additional capitalization of Rs. 10.70 Crore under head of Plant and Machinery, Rs. 0.003 Crore towards furniture & fixtures and Rs. 0.002 Crore towards office equipment in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations have also been considered.

- 5.13 RVUN submitted that it has considered the opening balance of capital cost as on 01.04.2020 of Mahi Hydel as Rs. 259.02 Crore as per the Commission's Order dated 15.12.2021. Further, RVUN has booked an additional capitalization of Rs. 0.07 Crore towards furniture and fixture in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations have also been considered.
- 5.14 The details of depreciation as claimed in the Petition for FY 2022-23 are as shown in the table below:

Table 61: Depreciation claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	44.87
STPS (Units 1-6)	138.19
CTPP (Units 1-4)	265.52
KaTPP (Units 1-2)	404.80
RGTPS (270.50 MW)	41.90
Mahi	4.43
Total	899.72

Commission's Analysis

- 5.15 The Commission has approved the depreciation for FY 2022-23 in accordance with Regulation 22 of RERC Tariff Regulations, 2019.
- 5.16 The Commission has considered the closing GFA approved for FY 2020-21 as the opening GFA for FY 2021-22. RVUN has not claimed any additional capitalization for FY 2021-22. Accordingly, the Commission has not considered any additional capitalization for FY 2021-22. The closing GFA for FY 2021-22 has been considered as the opening GFA for FY 2022-23. RVUN has not claimed any additional capitalization for FY 2022-23. Accordingly, the Commission has not considered any additional capitalization for FY 2022-23.
- 5.17 The details of GFA base considered by the Commission for KTPS (Units 1-6), STPS (Units 1-5), RGTPP (110.50 MW) and Mahi is as under:

Table 62: GFA base for KTPS (Units 1-6), STPS (Units 1-5), RGTPS (110.50 MW) and Mahi (Rs. Crore)

Particulars	KTPS Units (1-6)	STPS Units (1-5)	RGTPS (110.50 MW)	Mahi
Original Cost	1185.17	4223.32	311.08	259.02
Additional Capitalization approved till FY 2022-23	106.73	11.31	(0.05)	0.00
Total	1291.90	4234.63	311.03	259.02

5.18 The details of GFA base considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP(Units 1-4) and RGTPP (160 MW) for computing the depreciation for FY 2022-23 are as under:

Table 63: GFA base for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4) and RGTPP (160 MW)

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-4)	RGTPP (160MW)
Land & Land Rights	0.00	0.00	12.73	0.00
Building & Civil Works of Power Plants	126.19	209.48	573.36	64.04
Hydraulic Works	10.98	15.73	156.25	31.24
Other Civil Works	4.70	7.10	172.13	0.10
Plant & Machinery	705.38	768.70	4232.28	711.13
Lines & Cable Net work	0.00	0.45	67.32	0.00
Vehicles	0.00	0.00	0.12	0.00
Furniture & Fixtures	0.04	0.10	2.13	0.00
Office Equipment	-3.19	4.63	6.86	0.00
Capital Spares	7.76	20.60	89.77	0.00
Total	851.86	1026.79	5312.96	806.52

5.19 Also, KTPS Unit 7 and STPS Unit 6 have completed its 12 years of useful life. Therefore, in accordance with the RERC Tariff Regulations, 2019 depreciation for these Units has been computed by spreading remaining depreciation to be charged over the balance useful life of the asset. The computation of it is as shown in the table below:

Table 64: Depreciation Approved for KTPS Unit 7 for FY 2022-23

Particulars	
COD	31-12-2009
Plant Life (Years)	25
Balance Useful Life as on 31-03-2022 (Years)	13.00
Capital Cost (Rs. Crore)	851.86
Depreciable value=90% of capital cost (Rs. Crore)	766.67
Cumulative depreciation approved upto FY 31.03.2022 (Rs. Crore)	517.26

Particulars	
Balance Depreciation to be allowed (Rs. Crore)	249.41
Depreciation approved for FY 2022-23 (Rs. Crore)	19.19

Table 65: Depreciation Approved for STPS Unit 6 for FY 2022-23

Particulars	
COD	30-12-2009
Plant Life (Years)	25
Balance Useful Life as on 31-03-2022 (Years)	13.00
Capital Cost (Rs. Crore)	1026.79
Depreciable value=90% of capital cost (Rs. Crore)	924.11
Cumulative depreciation approved upto FY 31.03.2022 (Rs. Crore)	611.56
Balance Depreciation to be allowed (Rs. Crore)	312.55
Depreciation approved for FY 2022-23 (Rs. Crore)	24.04

5.20 For KTPS (Units 1-6), STPS (Units 1-5), RGTPS (110.50 MW), and Mahi, depreciation has been computed as per the approach adopted in MYT Order for FY 2009-10 to FY 2013-14. The Commission has computed the depreciation for the Control Period in the following manner:

- i. Considered Accumulated Depreciation till FY 2021-22 by adding year wise depreciation allowed in Tariff Orders/True up Orders from FY 2009-10 to FY 2021-22 to the accumulated depreciation till FY 2009-10.
- ii. Depreciation @5.28% if the Station/Stage/Unit has not completed 12 years life from the date of commissioning.
- iii. If the Station/Stage/Unit has completed 12 years life, depreciation computed by spreading remaining depreciation to be charged over the balance useful life of the asset.

Table 66: Details of accumulated depreciation of old stations for FY 2022-23 (Rs. Crore)

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)	RGTPS (110.50 MW)	Mahi
Capital Cost	1185.17	4223.32	311.08	259.02
Depreciable value=90% of capital cost	1066.65	3800.99	279.97	233.11

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)	RGTPS (110.50 MW)	Mahi
Cumulative depreciation approved upto FY 2020-21	902.41	3339.74	279.97	224.28
Depreciation for FY 2021-22	20.53	113.63	0.00	4.42
Depreciation approved for FY 2022-23	20.53	113.63	0.00	4.42
Cumulative depreciation approved upto FY 2022-23	943.47	3567.00	279.97	233.11
Balance depreciation allowable	123.18	233.99	0.00	0.00

5.21 Accordingly, the depreciation approved by the Commission for FY 2022-23, is as shown in the table below:

Table 67: Depreciation approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	44.87	44.88
STPS (Units 1-6)	138.19	138.20
CTPP (Units 1-4)	265.52	265.49
KaTPP (Units 1-2)	404.80	404.50
RGTPS (270.50 MW)	41.90	41.34
Mahi	4.43	4.42
Total	899.72	898.82

Interest and Finance Charges on Term Loan

RVUN's Submission

5.22 RVUN submitted that loan-wise interest expenses & finance charges, which includes term loans have been worked-out and taken as part of fixed cost. The loan repayment amount for term loans has been taken equal to the depreciation. Further, interest on term loan has been claimed in accordance with Regulation 21 of the RERC Tariff Regulations, 2019.

5.23 The details of interest charges on long term loans as submitted by RVUN in its Petition for FY 2022-23 are as shown in the table below:

Table 68: Interest on term loan claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	17.08
STPS (Units 1-6)	24.04

Station	FY 2022-23
	Claimed
CTPP (Units 1-4)	229.46*
KaTPP (Units 1-2)	380.09
RGTPS (270.50 MW)	33.76
Mahi	0.01
Total	684.44

*Claimed value of Rs. 229.46 Crore includes cost towards carrying cost also, i.e., Rs. 1.38 Crore

Commission's Analysis

- 5.24 The Commission has considered the closing term loan balance approved in true up for FY 2020-21 as the opening loan balance for FY 2021-22. Thereafter, the Commission has worked out the closing loan balances for FY 2021-22 considering the normative repayment for FY 2021-22 as the allowable depreciation for the year. The Commission has considered the closing loan balance for FY 2021-22 as the opening loan balance for FY 2022-23. The allowable depreciation for the year has been considered as the normative repayment for the year.
- 5.25 As per Regulation 21(5) of the RERC Tariff Regulations, 2019, the rate of interest to be considered is weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year.
- 5.26 The Commission has considered the interest rate after deducting the penal interest amount of FY 2020-21 on long term loans considering the information submitted by RVUN vide reply to initial data gaps dated 14.03.2022.

Table 69: Loan balances approved for FY 2022-23 (Rs. Crore)

Particulars	KTPS (Units 1-6)	KTPS Unit 7	Total KTPS	STPS (Units 1-5)	STPS Unit 6	Total STPS
Op. balance	0.00	151.50	151.50	0.00	208.37	208.37
Addition	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	0.00	19.19	19.19	0.00	24.04	24.04
Closing balance	0.00	132.31	132.31	0.00	184.33	184.33
Interest rate		11.29%			12.08%	
Interest	0.00	16.02	16.02	0.00	23.72	23.72
Finance charges		0.98	0.98			0.22
Interest and finance charges	0.00	17.00	17.00	0.00	23.72	23.94

Particulars	CTPP (Units 1-4)	KaTPP (Units 1-2)	RGTPS (270.5 MW)	Mahi
Op. balance	1783.14	3607.84	310.18	0.00
Addition	0.00	0.00	0.00	0.00
Repayment	265.49	404.50	41.34	0.00
Closing balance	1517.65	3203.34	268.84	0.00
Interest rate	11.20%	10.82%	11.19%	10.75%
Interest	184.84	368.48	32.40	0.00
Finance charges	0.66	10.06	0.45	0.01
Interest and finance charges	185.50	378.54	32.85	0.01

Table 70: Interest and finance charges on term loans approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	17.08	17.00
STPS (Units 1-6)	24.04	23.94
CTPP (Units 1-4)	229.46	185.50
KaTPP (Units 1-2)	380.09	378.54
RGTPP (270.50 MW)	33.76	32.85
Mahi	0.01	0.01
Total	684.44	637.85

- 5.27 The reason for variation in interest and finance charges approved by the Commission and claimed by the Petitioner for CTPP (Units 1-4) is because of the variance in approved opening loan balance for FY 2022-23 and repayment amount with respect to the claimed opening balance of FY 2022-23 and repayment amount.
- 5.28 Also, the Commission also observed that for CTPP (Units 1-4), RVUN vide excel Form 6.2 a (Calculation of Interest on Normative Loan) claimed total interest on normative loan as Rs. 229.46 Crore for FY 2022-23, whereas total of Interest on normative loan, carrying cost and Finance Charges as per the same form is Rs. 187.76 Crore. The Petitioner has increased its claim against IoTL by 5% on its revised projection for FY 2021-22, which has been wrongly claimed because of which there is variation in claimed and approved figures of IoTL for CTPP (Units 1-4).
- 5.29 The Commission for the purpose of this Order has considered the Finance Charges for FY 2022-23 as claimed by the Petitioner, i.e., as per the actual for FY 2020-21. Any

variation shall be adjusted during the truing up exercise for FY 2022-23.

- 5.30 The Commission w.r.t. carrying cost against Reconstruction of Road of CTPP Units 3-4, in its review petition Order dated 03.07.2019 ruled as below:

“As regards the interest cost on the deferred recovery, the Commission grants liberty to the Petitioner to make its submissions regarding the same in the true-up petition for the future years during which the allowed amount of Rs. 40.80 Crore is recovered and the Commission shall take an appropriate view based on the Petitioner's submissions”.

- 5.31 Therefore, it will be examined in the true-up petition for FY 2022-23 and accordingly, the Commission does not find merit in its prudence check at this stage.

Interest on Working Capital (IoWC)

RVUN's Submission

- 5.32 RVUN submitted that the requirement for working capital loan has been computed on the basis of Regulation 27 of RERC Tariff Regulations, 2019 and the rate of interest on Working Capital Loan has been taken equal to 300 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year.
- 5.33 The details of interest on working capital as claimed in petition for FY 2022-23 have been provided in the table below:

Table 71: IoWC claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	83.72
STPS (Units 1-6)	122.85
CTPP (Units 1-4)	68.70
KaTPP (Units 1-2)	79.01
RGTPP (270.50 MW)	12.16
Mahi	1.21
Total	367.65

Commission's Analysis

- 5.34 Regulation 27(2) of the RERC Tariff Regulations, 2019 specifies that the rate of interest on working capital to be computed shall be on normative basis and shall

be 300 basis points higher from SBI base rate prevalent during first six months of the year previous to the relevant year. Accordingly, for working out interest on working capital, weighted rate of interest has been considered as per admissible rates during the previous year. The same works out to 10.00% p.a. which has been used for calculating interest on working capital. The computation of the bank rate is as shown in the table below:

Table 72: Computations of Bank rate as considered by the Commission for FY 2022-23

Applicable for the Year	From Date	To Date	No. of Days	SBI Base Rate	300 Basis Point	Approved Interest Rate
FY 2022-23	01-04-2021	09-04-2021	9.00	7.00%	3.00%	10.00%
	10-04-2021	14-04-2021	5.00	7.00%		
	15-04-2021	14-05-2021	30.00	7.00%		
	15-05-2021	14-06-2021	31.00	7.00%		
	15-06-2021	14-07-2021	30.00	7.00%		
	15-07-2021	14-08-2021	31.00	7.00%		
	15-08-2021	14-09-2021	31.00	7.00%		
	15-09-2021	30-09-2021	16.00	7.00%		

<https://sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data>

5.35 Further, the Commission has worked out the working capital requirement in accordance with Regulation 27 of the RERC Tariff Regulations, 2019. The interest on working capital as approved by the Commission for FY 2022-23 has been provided in the table below:

Table 73: IoWC approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	83.72	82.77
STPS (Units 1-6)	122.85	120.61
CTPP (Units 1-4)	68.70	66.12
KaTPP (Units 1-2)	79.01	75.87
RGTPP (270.50 MW)	12.16	11.60
Mahi	1.21	0.89
Total	367.65	357.86

Return on Equity (RoE)

RVUN's Submission

5.36 RVUN submitted that the equity shall be reduced after useful life of the plant from

balance of depreciation in accordance with Regulation 19 of the RERC Tariff Regulations, 2019.

- 5.37 RVUN submitted that KTPS (Units 1-5) has completed their useful life. The Commission has approved additional capitalization for these units. Further, considering the additional capitalization for KTPS (Units 1-5), the depreciation is over and above term loan for KTPS (Units 1-3). Accordingly, equity has been reduced for computation of RoE. RVUN requested the Commission to consider net equity of Rs. 495.74 Crore for KTPS for computation of RoE.
- 5.38 RVUN further submitted that Government of Rajasthan has withdrawn RoE for FY 2019-20 and FY 2020-21 and allowed RoE for RVUN from FY 2021-22 onwards vide letter dated 17.09.2021. Further, Government of Rajasthan withdrawn RoE for FY 2021-22 vide letter dated 16.11.2021.
- 5.39 RVUN submitted that RoE for RVUN was allowed from FY 2021-22 onwards and withdrawn only for FY 2021-22. Accordingly, RoE is being claimed for FY 2022-23 as per Government of Rajasthan direction and Regulation 20 of RERC Tariff Regulations, 2019.
- 5.40 The details of Return on equity as claimed for FY 2022-23 is as shown in the table below:

Table 74: RoE claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	74.73
STPS (Units 1-6)	176.43
CTPP (Units 1-4)	160.08
KaTPP (Units 1-2)	246.66
RGTPS (270.50 MW)	42.63
Mahi	25.56
Total	726.09

Commission's Analysis

- 5.41 The Commission has considered the closing equity balance approved for FY 2020-21 as the opening balance for FY 2021-22. RVUN has not claimed any additional

capitalization for FY 2021-22 and accordingly no equity addition has been claimed in FY 2021-22. The closing equity balance for FY 2021-22 has been considered as the opening balance for FY 2022-23.

5.42 Regulation 19 of the RERC Tariff Regulations, 2019 specifies that:

"In case of Generating Station or a transmission system or distribution system, which has completed its useful life as on or after 1.04.2019, the accumulated depreciation as on the completion of the useful life less cumulative repayment of loan shall be utilized for reduction of the equity and depreciation admissible after the completion of useful life and the balance depreciation, if any, shall be first adjusted against the repayment of balance outstanding loan and thereafter shall be utilized for reduction of equity."

5.43 RVUN submitted that KTPS (Units 1-5) have completed their useful life and accordingly, claimed the reduced RoE for KTPS. Accordingly, the Commission has worked out the amount of equity to be reduced from the opening equity base of KTPS (Units 1-6) for FY 2022-23 as shown in table below:

Table 75: Equity reduction for KTPS in accordance with Regulation 19

Particulars	Units	Legend	KTPS						HO	Total for old units
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6			
Installed capacity	MW	A	220	210	210	210	195		1045	
COD	Date	B	01-Apr-84	11-Mar-89	06-Mar-90	18-Jul-95	01-Aug-04			
Trigger date	Date	C	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
No. of years in operation	No.	D	35	30	29	24	15			
Original capital cost	Rs. Crore	E	93.29	168.62	137.96	131.39	564.06	89.84	1185.17	
Additional capitalisation allowed till FY 2021-22	Rs. Crore	F	22.47	21.45	21.45	21.45	19.92	0.00	106.74	
Equity portion of original capital cost	Rs. Crore	G	20.46	36.98	30.25	28.81	190.00	0.00	306.50	
Equity portion of additional capitalisation	Rs. Crore	H	4.57	4.36	4.36	4.36	4.05	0.00	21.69	
Debt portion of original capital cost	Rs. Crore	I=E-G	72.83	131.64	107.71	102.58	374.06	89.84	878.67	

Particulars	Units	Legend	KTPS							Total for old units
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6	HO		
Debt portion of additional capitalisation	Rs. Crore	J=F-H	17.90	17.09	17.09	17.09	15.87	0.00	85.04	
Total Debt	Rs. Crore	K=I+J	90.73	148.73	124.80	119.67	389.93	89.84	963.71	
Outstanding Debt as on 01.04.2022	Rs. Crore	L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Outstanding Transitional loan as on 01.04.2022	Rs. Crore	M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cumulative repayment as on 01.04.2022	Rs. Crore	N=K-L-M	90.73	148.73	124.80	119.67	389.93	89.84	963.71	
Total depreciation on original capital cost allowable till FY 2021-22	Rs. Crore	O	83.96	151.76	124.17	118.26	363.94	80.85	922.94	
AAD allowed till FY 2008-09 and adjusted thereafter till FY 2021-22	Rs. Crore	P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total depreciation on additional capitalisation allowable till FY 2021-22	Rs. Crore	Q	5.17	4.93	4.93	4.93	4.58	0.00	24.55	
Total depreciation	Rs. Crore	R=O+P+Q	89.13	156.69	129.10	123.19	368.52	80.85	947.49	
Accumulated depreciation less cumulative repayment	Rs. Crore	S=R-N	-1.60	7.96	4.30	3.51	-21.41	-8.98	-16.23	
Accumulated depreciation less cumulative repayment for Regulation 19	Rs. Crore	T	-1.60	7.96	4.30	3.51	-21.41	-8.98	-16.23	
HO allocation	Rs. Crore	U	-2.33	-2.22	-2.22	-2.22			-8.98	
Accumulated depreciation less cumulative repayment for Regulation 19	Rs. Crore	V	-3.93	5.74	2.08	1.29	-21.41			

Particulars	Units	Legend	KTPS						
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6	HO	Total for old units
with HO allocation									
Depreciation admissible for FY 2022-23	Rs. Crore	W	0.00	0.00	0.00	0.00			0.00
Equity reduction for FY 2022-23	Rs. Crore	X=V+W	0.00	5.74	2.08	1.29			9.11

5.44 RVUN has not claimed any additional capitalization for FY 2022-23 and accordingly, no equity addition has been claimed in FY 2022-23. Accordingly, the Commission has not considered any equity addition in FY 2022-23. The equity base considered by the Commission for computing RoE for FY 2022-23 is as shown in the table below:

Table 76: Equity base considered by the Commission (Rs. Crore)

Station	FY 2022-23
KTPS (Units 1-7)	501.81
STPS (Units 1-6)	1176.19
CTPP (Units 1-4)	1067.06
KaTPP (Units 1-2)	1643.06
RGTPS (270.50 MW)	282.08
Mahi	170.38
Total	4840.57

5.45 The Commission during the proceedings of hearing dated 02.05.2022 directed RVUN to submit a letter from Government of Rajasthan stating that RoE from FY 2022-23 be allowed for RVUN stations. Against this RVUN vide its reply as per the ROP of the held on 02.05.2022 submitted the following:

"It is also submitted that GoR has issued fresh directions to RVUN vide letter dated 26.04.2022 for additional capital cost and equity support for implementation of revised emission norms to RVUN power stations allowing equity support, the extracts of which reproduced as below:

"FD concurs additional Project cost Rs. 1602.74 Crore against proposed 2627.77 Crore for implementation of revised emission norms as under subject to that Rs 320.55 Crore state equity support (20% of Rs. 1602.74 Crore) will be used from Return on equity (RoE) which will be allowed @ 15% for the FY 2022-23 to RVUNL,

It is clear from the above letter of Government, where government is directing the

RVUN to utilize the RoE approved for FY 2022-23 towards equity fund of FGD project. Thus, it is clear that RoE for FY 2022-23 is not withdrawn and approved for FY 2022-23. Therefore, no clarity is required on this issue.

Similarly, vide letter dated 05.05.22 GoR issued direction in the matter of equity approval of CSCTPP for Units 5&6.

However, on the direction of Commission, RVUN has also made pursuance to GoR on 06.05.2022 with a request for clarification of Govt. of Rajasthan for claiming of RoE by RVUNL from FY 2022-23 and onwards. The copy of GoR letters dated 11.09.2021, 16.11.2021, 26.04.2022 and 05.05.2022 and RVUN letter dated 06.05.2022 are being submitted by RVUN."

- 5.46 The Commission has considered the submissions of RVUN for allowing RoE from FY 2022-23 onwards, however, the Petitioner has not submitted any specific document from the GOR stating that the RoE for RVUN from FY 2022-23 may be allowed. Therefore, the Commission for the purpose of this Order has not considered the same. However, the Commission grants liberty to the Petitioner to come up with the aforesaid document from GOR for its claim on ROE during the true-up Petition for FY 2022-23. The RoE allowed by the Commission for FY 2022-23 is as shown in the table below:

Table 77: RoE approved for FY 2022-23 (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	74.73	0.00
STPS (Units 1-6)	176.43	0.00
CTPP (Units 1-4)	160.08	0.00
KaTTP (Units 1-2)	246.66	0.00
RGTPS (270.50 MW)	42.63	0.00
Mahi	25.56	0.00
Total	726.09	0.00

Insurance on fixed assets

RVUN's Submission

- 5.47 RVUN in its Petition has claimed insurance charges for FY 2022-23 based on the estimates of actual insurance charges paid in FY 2020-21 with an increment of 5% YoY (Year on Year). The details are as shown below:

Table 78: Insurance on fixed assets claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	7.77
STPS (Units 1-6)	9.43
CTPP (Units 1-4)	6.28
KaTPP (Units 1-2)	7.54
RGTPS (270.50 MW)	1.75
Mahi	0.00
Total	32.77

Commission's Analysis

5.48 The Commission has approved the insurance charges in this Order as claimed by RVUN. Any variation shall be adjusted during the truing up exercise for FY 2022-23. The insurance charges as approved by the Commission are as follows:

Table 79: Insurance on fixed assets approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	7.77	7.77
STPS (Units 1-6)	9.43	9.43
CTPP (Units 1-4)	6.28	6.28
KaTPP (Units 1-2)	7.54	7.54
RGTPS (270.50 MW)	1.75	1.75
Mahi	0.00	0.00
Total	32.77	32.77

Non-Tariff Income**RVUN's Submission**

5.49 The Non-tariff income as proposed by RVUN for FY 2022-23 is provided in the table below:

Table 80: Non-tariff income claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	10.77
STPS (Units 1-6)	6.80

Station	FY 2022-23
	Claimed
CTPP (Units 1-4)	6.88
KaTPP (Units 1-2)	4.72
RGTPS (270.50 MW)	0.14
Mahi	0.12
Total	29.42

Commission's Analysis

5.50 The Commission has approved the Non-Tariff Income for FY 2022-23 as claimed by the Petitioner. Any variation shall be adjusted during the truing up exercise for FY 2022-23. The Non-Tariff Income as approved by the Commission is as shown in the table below:

Table 81: Non-tariff income approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	10.77	10.77
STPS (Units 1-6)	6.80	6.80
CTPP (Units 1-4)	6.88	6.88
KaTPP (Units 1-2)	4.72	4.72
RGTPS (270.50 MW)	0.14	0.14
Mahi	0.12	0.12
Total	29.42	29.42

Terminal Benefit

RVUN's Submission

5.51 RVUN submitted that terminal benefits have been separately allowed over and above the normative O&M expenses in accordance with Regulation 47(7) of the RERC Tariff Regulations, 2019 as specified 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."

5.52 RVUN in its petition has claimed terminal benefits for FY 2022-23 based on actuarial

valuation for FY 2020-21. The details are as shown in the table below:

Table 82: Terminal Benefits claimed by RVUN (Rs. Crore)

Station	FY 2022-23
	Claimed
KTPS (Units 1-7)	74.25
STPS (Units 1-6)	68.34
CTPP (Units 1-4)	36.19
KaTPP (Units 1-2)	30.11
RGTPS (270.50 MW)	12.54
Mahi	10.59
Total	232.02

Commission's Analysis

5.53 The Commission has provisionally approved the terminal benefits in this Order as claimed by RVUN. Any variation shall be adjusted during the truing up exercise for FY 2022-23. The terminal benefits as approved by the Commission are as follows:

Table 83: Terminal Benefit approved by the Commission (Rs. Crore)

Station	FY 2022-23	
	Claimed	Approved
KTPS (Units 1-7)	74.25	74.25
STPS (Units 1-6)	68.34	68.34
CTPP (Units 1-4)	36.19	36.19
KaTPP (Units 1-2)	30.11	30.11
RGTPS (270.50 MW)	12.54	12.54
Mahi	10.59	10.59
Total	232.02	232.02

Adjustment of Excess Depreciation

Commission's Analysis

5.54 In line with the approach adopted by the Commission in the Tariff Orders for FY 2019-20, FY 2020-21 and FY 2021-22, the Commission has carried out the adjustment of excess depreciation in FY 2022-23 as shown in the table below:

Table 84: Adjustment of Advance against Depreciation (Rs. Crore)

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)	RGTPS (110.50 MW)
AAD allowed till FY 2008-09 and after adjustment in FY 2009-10, FY 2013-14, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 & FY 2020-21	119.95	201.81	10.00
Outstanding transitional loan	0.00	0.00	0.00
Depreciation for the year	25.70	114.15	0.00
Repayment of LT loan	0.00	0.00	0.00
Balance Depreciation available for repayment of transitional loan	25.70	114.15	0.00
Repayment of transitional Loan	0.00	0.00	0.00
Excess depreciation to be deducted from AFC of FY 2021-22	25.70	114.15	0.00
Balance AAD to be adjusted in subsequent years	94.25	87.65	10.00

Annual Fixed Charges for FY 2022-23

5.55 Based on the above analysis, the approved Station wise AFC for FY 2022-23 is as shown in the table below:

Table 85: AFC for FY 2022-23 (Rs. Crore)

Station	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expenses	277.79	277.79	336.04	336.04	224.03	224.03
Depreciation	44.87	44.88	138.19	138.20	265.52	265.49
Interest on term loans & finance charges	17.08	17.00	24.04	23.94	229.46	185.50
Interest on working capital	83.72	82.77	122.85	120.61	68.70	66.12
Return on Equity	74.73	0.00	176.43	0.00	160.08	0.00
Insurance on fixed assets	7.77	7.77	9.43	9.43	6.28	6.28
Towards Terminal Benefits	74.25	74.25	68.34	68.34	36.19	36.19
Amortization	0.15	0.15	0.26	0.26	0.50	0.50
Minus: Non-tariff income	10.77	10.77	6.80	6.80	6.88	6.88
Minus: Adjustment of excess depreciation	25.71	25.70	114.15	114.15	0.00	0.00
Annual Fixed Charges	543.89	468.15	754.62	575.86	983.88	777.23
Net Generation (MU)	8145.77	8145.77	9837.39	9837.39	6558.26	6558.26
Per unit fixed cost (Rs./kWh) (indicative only)	0.67	0.57	0.77	0.59	1.50	1.19

Station	KaTPP (Units 1-2)		RGTPS (270.50 MW)		Mahi	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expenses	241.95	241.95	49.39	49.39	19.33	19.33
Depreciation	404.80	404.49689	41.90	41.34	4.43	4.42
Interest on term loans & finance charges	380.09	378.54	33.76	32.85	0.01	0.01
Interest on working capital	79.01	75.87	12.16	11.60	1.21	0.89
Return on Equity	246.66	0.00	42.63	0.00	25.56	0.00
Insurance on fixed assets	7.54	7.54	1.75	1.75	0.00	0.00
Towards Terminal Benefits	30.11	30.11	12.54	12.54	10.59	10.59
Amortization	0.84	0.84	0.10	0.10	0.01	0.01
Minus: Non-tariff income	4.72	4.72	0.14	0.14	0.12	0.12
Minus: Adjustment of excess depreciation	0	0	0.00	0.00	0.00	0.00
Annual Fixed Charges	1386.28	1134.63	194.10	149.42	61.03	35.13
Net Generation (MU)	8266.90	8266.90	1612.26	1612.26	138.60	138.60
Per unit fixed cost (Rs./kWh) (indicative only)	1.677	1.372	1.204	0.927	4.403	2.535

Determination of Energy Charges for FY 2022-23

RVUN's Submissions

- 5.56 RVUN submitted that SHR has been considered in accordance with Regulation 45(3)(a) of the RERC Tariff Regulations, 2019 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and KaTPP (Units 1-2).
- 5.57 RVUN claimed SHR for RGTPS (270.5 MW) as 2038.00 kcal/kWh considering 90% closed cycle operation and 10% open cycle operation.
- 5.58 RVUN submitted that availability and PLF have been considered in accordance with Regulations 45(1) (a) & Regulation 45(2) (a) of the RERC Tariff Regulations, 2019.
- 5.59 RVUN submitted that the auxiliary power consumption has been considered in accordance with Regulation 45(6)(d) of the RERC Tariff Regulations, 2019. RVUN further submitted that the KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) are having tube type coal mills so the norm has been increased by 0.8% in accordance with the Regulation 45(6)(d) of the RERC Tariff Regulations, 2019 as specified below:

“Provided that for Thermal Generating Stations where tube type coal mill is used, the norm shall be further increased by 0.8%.”

- 5.60 RVUN submitted that Gross Calorific Value and the average rate of coal and oil supply for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and KaTPP (Units 1-2) have been calculated on the basis of receipts during first and second quarter of FY 2021-22.
- 5.61 RVUN submitted that Gross Calorific Value and the average rate of gas have been calculated on the basis of receipts during first and second quarter of FY 2021-22 for RGTPS (270.50 MW).

Commission’s Analysis

- 5.62 The Commission has approved the Energy Charges for the FY 2022-23 on the basis of following:
- i. While allowing the variable cost of the generating stations, the Commission has considered normative Station Heat Rate and Plant Load Factor.
 - ii. Auxiliary Consumption has been considered on normative basis. For KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) the auxiliary consumption has been considered as per Regulation 45(6)(d) of the RERC Tariff Regulations, 2019.
 - iii. For RGTPS (270.50 MW), the Commission has considered the proportion of operation in closed cycle and open cycle for FY 2022-23 as proposed by RVUN and has accordingly considered the Station Heat Rate and Auxiliary Consumption same as that proposed by RVUN.
 - iv. As regards GCV and price of fuels, the Commission has considered the actual prices and GCV of primary and secondary fuel as submitted by RVUN in its replies to data gaps, for the months of October, 2021 to December, 2021. Whereas for RGTPP (270.50) the GCV and price of secondary fuel oil has been considered for the months of July, 2021 to September, 2021.
 - v. For the instant petition Commission has considered the rates of coal as submitted by RVUN as per JV agreements. Therefore, onus to adhere to laid down procedures and rates are on RVUN. RVUN, therefore, must ensure strict compliance of the same.

vi. Secondary fuel oil consumption has been allowed as per Regulation 45(4) of RERC Tariff Regulations, 2019.

5.63 Regulation 51(2) of the RERC Tariff Regulations, 2019 stipulates the GCV of coal or gas to be considered as the higher value of 'as received less 85 kcal/kg' or 'as fired'. The Petitioner vide data gaps submitted the GCV of coal 'as received' and 'as fired'. For the purpose of tariff determination, the Commission has considered the GCV of coal "as received" as submitted by the Petitioner and subtracted 85 kcal/kg from the same. The Commission directs the Petitioner to submit CIMFR certified 'as received' and 'as fired' GCV of primary fuel for each station separately along with supporting documents for the same in its forthcoming Petitions for tariff determination and/or true-up.

5.64 Plant wise energy charges determined by Commission for FY 2022-23 are as under:

Table 86: Energy Charges approved for FY 2022-23

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed*	Approved	Claimed*	Approved	Claimed*	Approved
Gross Generation	MU	9015.79	9015.79	10906.20	10906.20	7270.80	7270.80
Auxiliary Consumption	%	9.65%	9.65%	9.80%	9.80%	9.80%	9.80%
Net Generation	MU	8145.77	8145.77	9837.39	9837.39	6558.26	6558.26
Landed Price of Coal	Rs./kg	4.14	4.14	5.38	5.38	4.21	4.21
Gross Station Heat Rate	kcal/kWh	2561.70	2561.70	2476.28	2476.28	2400.00	2400.00
Price of Secondary fuel oil	Rs./ml	0.05	0.05	0.05	0.05	0.05	0.05
Secondary fuel oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Gross Calorific Value of Secondary fuel oil	kcal/ml	9.97	9.97	9.87	9.87	9.98	9.98
Heat Contribution from Secondary fuel oil	kcal/kWh	4.99	4.99	4.93	4.93	4.99	4.99
Heat	kcal/kWh	2556.71	2556.71	2471.35	2471.35	2395.01	2395.01

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed*	Approved	Claimed*	Approved	Claimed*	Approved
Contribution from Coal							
Gross Calorific Value of Coal	kcal/kg	3491.87	3491.87	3517.71	3517.71	3706.91	3706.91
Specific coal consumption	kg/kWh	0.73	0.73	0.70	0.70	0.65	0.65
Rate of Energy Charge	Rs./kWh	3.39	3.39	4.22	4.22	3.05	3.05
Total Energy Charges	Rs. Crore	2758.05	2758.05	4150.92	4150.92	1999.10	1999.10
	Rs./kWh	3.386	3.386	4.220	4.220	3.048	3.048

Particulars	Units	KaTPP (Units 1-2)		RGTPS (270.50 MW)	
		Claimed*	Approved	Claimed*	Approved
Gross Generation	MU	8724.96	8724.96	1658.71	1658.71
Auxiliary Consumption	%	5.25%	5.25%	2.80%	2.80%
Net Generation	MU	8266.90	8266.90	1612.26	1612.26
Landed Price of Gas	Rs./SCM	4.72	4.72	9.32	9.32
Gross Station Heat Rate	kcal/kWh	2333.28	2333.28	2038.00	2038.00
Price of fuel oil	Rs./ml	0.05	0.05	0.04	0.04
Fuel oil Consumption	ml/kWh	0.50	0.50	0.20	0.20
Gross Calorific Value of fuel oil	kcal/ml	9.36	9.3611466	9.30	9.30
Heat Contribution from fuel oil	kcal/kWh	4.68	4.68	1.90	1.90
Heat Contribution from Gas	kcal/kWh	2328.60	2328.60	2036.10	2036.10
Gross Calorific Value of Gas	kcal/SCM	3964.96	3964.96	6711.46	6711.46
Specific Gas consumption	SCM/kWh	0.59	0.59	0.30	0.30
Rate of Energy Charge	Rs./kWh	2.95	2.95	2.92	2.92
Total Energy Charges	Rs. Crore	2441.45	2441.45	470.42	470.42
	Rs./kWh	2.953	2.953	2.918	2.918

*Claimed figures revised considering the latest 3 months fuel price and GCV

Tariff for Mahi Hydel Generating Station

5.65 In accordance with RERC Tariff Regulations, 2019, the Commission approves the two-part tariff for sale of electricity from Mahi Hydel generating station comprising annual capacity charges and primary energy charge.

5.66 Regulation 51(6) of RERC Tariff Regulations, 2019 states that rate of Primary Energy for hydro power stations shall be 50% of cost of generation or incentive rate applicable for thermal power stations, whichever is less. Accordingly, the primary energy rate approved by the Commission is 30 Paise/kWh.

5.67 The tariff for Mahi approved by the Commission for FY 2022-23 is as shown in the table below:

Table 87: Approved tariff for Mahi Hydel Power Project for FY 2022-23

Annual Fixed Charges (Rs. in Crore)	Net Energy (MU)	Energy Rate (Paise/kWh)	Energy Charges (Rs. in Crore)	Capacity Charges (Rs. in Crore)
35.13	138.60	0.30	4.16	30.98

5.68 Incentive for Thermal and Mahi Hydel Station shall be claimed by RVUN as per Regulation 52(1) and 52(2) respectively of RERC Tariff Regulations, 2019.

5.69 Recovery of Capacity Charges shall be in accordance with Regulation 50 of RERC Tariff Regulations, 2019.

5.70 The Summary of tariff as approved by the Commission for FY 2022-23 is as shown in the table below:

Table 88: Approved tariff for FY 2022-23

Station	Units	KTSPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Fixed charges	Rs. Crore	543.89	468.15	754.62	575.86	983.88	777.23
Rate of fixed charges	Rs./kWh	0.67	0.57	0.77	0.59	1.50	1.19
Energy charges	Rs. Crore	2758.05	2758.05	4150.92	4150.92	1999.10	1999.10
Rate of energy charges	Rs./kWh	3.39	3.39	4.22	4.22	3.05	3.05
Total tariff	Rs./kWh	4.05	3.96	4.99	4.80	4.55	4.23

Station	Units	KaTTP (Units 1-2)		RGTPS (270.50 MW)	
		Claimed	Approved	Claimed	Approved
Fixed charges	Rs. Crore	1386.28	1134.63	194.10	149.42
Rate of fixed charges	Rs./kWh	1.68	1.37	1.20	0.93
Energy charges	Rs. Crore	2441.45	2441.45	470.42	470.42
Rate of energy charges	Rs./kWh	2.95	2.95	2.92	2.92
Total tariff	Rs./kWh	4.63	4.33	4.12	3.84

- 5.71 The tariff approved by the Commission for RVUN Stations for FY 2022-23 shall be effective from 01.04.2022 and shall remain in force till next Order of the Commission.
- 5.72 Copy of this Order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.

(S. C. Dinkar)
Member

(Dr. B. N. Sharma)
Chairman

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