#### RAJASTHAN ELECTRICITY REGULATORY COMMISSION

Petition No: RERC/1880/21

In the matter of Annual Performance Review (APR) for FY 2014-15 to FY 2019-20 and Determination of Annual Revenue Requirement (ARR) and Tariff for FY 2021-22 for Kalisindh Thermal Power Project (KaTPP) (Units 1&2) of Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

Coram: Dr. B. N. Sharma, Chairman

Sh. S.C. Dinkar, Member Sh. Prithvi Raj, 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.

Dates of hearing: 27.07.2021 & 17.08.2021

Present:

1. Sh. Ankit Sharma, Authorized Rep. for Petitioner

2. Sh. Ashwin Ramanathan, Advocate for Respondents

3. Sh. G. L. Sharma, Stakeholder

Date of Order: 04.10.2021

#### **ORDER**

1.1 Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (in short 'RVUN'), a Generating Company under the provisions of the Electricity Act 2003, has filed a petition on 01.02.2021 for Annual Performance Review (True-Up) for FY 2014-15 to FY 2019-20 and Determination of Annual Revenue Requirement (ARR) and Tariff for FY 2021-22 for KaTPP Units 1&2 (2 X 600 MW)

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- 1.2 In exercise of the powers conferred under Sections 62, 64 and other provisions of Electricity Act 2003, read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 and other enabling Regulations, the Commission, after carefully considering each of the submissions of the Petitioner and suggestions/objections submitted by the Stakeholder, has passed the following Order.
- 1.3 This Order has been structured in following sections as given under:
  - (1) Section 1: General
  - (2) Section 2: Summary of True-Up process and Tariff determination process.
  - (3) Section 3: Summary of objections/comments/suggestions received from Stakeholders and RVUN's response thereon.
  - (4) Section 4: Analysis of True-Up of KaTPP Units 1&2 for FY 2014-15 to FY 2019-20.
  - (5) Section 5: Determination of ARR and Tariff for KaTPP Units 1&2 for FY 2021-22.

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## **SECTION 2**

## Summary of True-Up process and Tariff Determination Process

- 2.1 KaTPP Units 1&2 achieved COD on 07.05.2014 and 25.07.2015 respectively.
- 2.2 In compliance with RERC (Terms & Conditions of Determination of Tariff) Regulations, 2014 & 2019 issued under section 62 of the Electricity Act, 2003, RVUN filed the Petition on 21.06.2019 for determination of Final Capital Cost and Annual Revenue Requirement (ARR) & Tariff for FY 2014-15 to FY 2019-20 for KaTPP Units 1&2 (2 X 600 MW), before the Commission.
- 2.3 On the aforesaid petition, the Commission vide its order dated 12.05.2020 determined the Final Capital Cost and approved the ARR & Tariff for the FY 2014-15 to FY 2019-20. The Commission vide the aforesaid Order also directed RVUN to file the petition for true-up for FY 2014-15 to FY 2018-19 for KaTPP Units 1&2 within 3 months from the issuance of the order.
- 2.4 RVUN vide letter dated 31.12.2020 requested the Commission to allow Petitioner to file the Petition for True up of FY 2014-15 to FY 2019-20 and ARR for FY 2021-22 within one month after finalization of Review Petition No. 1744/20 (Review Petition filed on 18.01.2021 for Determination of Final Capital Cost and Annual Revenue Requirement (ARR) & Tariff for FY 2014-15 to FY 2019-20). However, the Commission did not consider the request of the Petitioner and directed to file the aforesaid Petition by 31.01.2021 vide letter dated 11.01.2021. The Commission issued Order on the Review Petition No. 1744/20 filed by RVUN on 18.01.2021. RVUN filed the instant petition on 01.02.2021 for True-Up of FY 2014-15 to FY 2019-20 and determination of ARR and Tariff for KaTPP Units 1&2 for FY 2021-22 in accordance with Regulation 8 of RERC (Terms and Conditions for Determination of Tariff) Tariff Regulations, 2014 & Regulation 11 of RERC (Terms and Conditions for Determination of Tariff) Tariff Regulations, 2019 respectively, hereinafter referred to as RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019.
- 2.5 As required under Section 64(2) of the Electricity Act, 2003, public notices with salient features of the petition inviting

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objections/comments/suggestions were published in the following newspapers on the dates mentioned against each:

Table 1: Details of Newspapers

| Sr. No. | Name of News Paper | Date of publishing |
|---------|--------------------|--------------------|
| (i)     | Dainik Navajyoti   | 18.02.2021         |
| (ii)    | Rashtrafal         | 18.02.2021         |
| (iii)   | The Times of India | 18.02.2021         |

- 2.6 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. Sh. Shanti Prasad and RUVNL.
- 2.7 The Commission forwarded the objections/comments/suggestions of the Stakeholders to RVUN for filing its reply. The Petitioner replied to the objections/comments/suggestions made by objectors vide its letters dated 09.06.2021 and 13.08.2021.
- 2.8 The Commission vide letter dated 22.03.2021 and 25.08.2021, communicated some data gaps and deficiencies in the Petition. The Petitioner furnished information vide its letter dated 09.06.2021, 09.09.2021, 14.09.2021 and 20.09.2021. The public hearing in the matter was held on 27.07.2021 and 17.08.2021.
- 2.9 To facilitate reference, an index of the issues and points dealt with are placed at Annexure-1.

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## **SECTION 3**

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

#### A. Truing-Up of KaTPP for FY 2014-15 to FY 2019-20

# <u>Station Wise Allocation Statement</u> Stakeholder's Comments/Suggestions

- 3.1 The Stakeholder submitted that the Commission vide True-Up Order of RVUN for FY 2017-18 dated 05.08.2019, directed RVUN to submit the station wise allocation statements in accordance with the RERC Tariff Regulations, duly certified by its Statutory Auditor, along with the audited accounts in its true-up petition. Further submitted that the Commission vide Order dated 11.09.2020 (ARR for FY 2020-21 and True-Up for FY 2018-19) again directed RVUN as below:
  - "...the Commission directed RVUN in previous orders to submit the station wise allocation statement in accordance with the RERC Tariff Regulations duly certified by its Statutory Auditor, along with the audited accounts. However, RVUN has not compiled with the directions of the Commission in this regard. The Commission has taken a serious note of this. The Commission again directs RVUN to submit the station wise accounts duly certified by its Statutory Auditor, with its true up petition from FY 2019-20 onwards. The Commission may impose penalty on responsible officers on further non-compliance of the direction".

In view of the above, the stakeholder requested the Commission to consider imposing penalty on the officers responsible for not submitting such statements with the instant true-up petition.

## **RVUN's Reply**

3.2 The Petitioner submitted that in compliance to the Commission's Order dated 11.09.2020, the allocation statement duly certified by statutory auditor of each Generating Station for FY 2019-20 has already been submitted with the instant petition. As the directions of the Commission

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were duly complied, the Petitioner requested not to impose any penalty.

#### **Additional Capitalization**

## Stakeholder's Comments/Suggestions

3.3 Vide instant petition, RVUN claimed additional capital cost of Rs. 32.07 Crore for FY 2017-18, Rs. 5.72 Crore for FY 2018-19 and Rs. 0.15 Crore for FY 2019-20. Also, RVUN submitted that cut-off date of KaTPP (Units 1&2) was 31.03.2017 and it may be extended by the Commission. In this regard, the Stakeholder submitted that the claim of additional capitalization after cut-off date and request for extension of cut-off date was also made earlier by the Petitioner in Petition No. 1515/19 (Final Capital Cost, ARR & Tariff for FY 2014-15 to FY 2019-20). The Commission after considering the matter vide Order dated 12.05.2020 ruled as under:

"RVUN has claimed the additional capitalization of Rs. 32.07 Crore after cut-off date. Regulation 2(17) of the RERC Tariff Regulations, 2014 specifies that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalization could not be made within the cut-off date for reasons beyond the control of the generator. In the instant case, the reasons submitted by RVUN for delay in additional capitalization cannot be held as beyond the control of RVUN as it was well aware of the provisions of the RERC Tariff Regulations, 2014 and there was ample time of more than 1.5 years between the COD of the project and the cut-off date. Further, some of the contracts are not yet closed and expenditure may be incurred even 2 years beyond the cut-off date. The documentary evidences for the actual expenditure incurred cannot be treated documentary evidences for treating the additional capitalization after cut-off date as beyond the control of RVUN. In view of the above, the Commission does not deem it prudent to approve the additional capitalization beyond cut-off date claimed by RVUN ".

3.4 The Stakeholder further submitted that the Petitioner has again claimed additional capitalization after cut-off date vide Review Petition No. 1744/20. The Review Petition of the Petitioner has been dismissed by the Commission vide Order dated 18.01.2021, with disallowance of additional

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capitalization after cut-off date. Therefore, question for consideration of any additional capitalization after cut-off date does not arise.

## **RVUN's Reply**

3.5 The Petitioner submitted that the additional capitalization claimed vide instant Petition is as per the audited accounts of FY 2017-18, FY 2018-19 and FY 2019-20. Also, the detailed justification for claiming additional capitalization has been submitted with the instant Petition. Therefore, the Petitioner requested the Commission to allow the additional capitalization as claimed.

#### **Plant Availability**

## Stakeholder's Comments/Suggestions

- 3.6 COD of Unit 1 is 07.05.2014 and of Unit 2 is 25.07.2015. Therefore, both the units can be assumed to run together from 25.07.2015 onwards. From the certificate of SLDC, as available, it is observed that back down of KaTPP during FY 2015-16 is in the month of November, 2015, December, 2015 and January, 2016 to March, 2016. Accordingly, back down period pertains when both the units were in operation. Thus, during FY 2015-16, when Unit 1 was only in operation there has been no back down/box up. In this regard, the Petitioner to submit justification for submitting "verified deemed generation" of FY 2015-16 as 243.52 MU for Unit 1. Also, SLDC certificates do not indicate the breaking down energy separately for KaTPP Units 1&2 for FY 2015-16.
- 3.7 Vide instant Petition, RVUN submitted that ABT system has been implemented from 01.01.2018. Therefore, position of actual generation and deemed energy for FY 2017-18 has to be provided in 2 parts by the Petitioner, i.e., one from April, 2017 to December, 2017 and second from January, 2018 to March, 2018.
- 3.8 PLF & Availability claimed by the Petitioner from FY 2014-15 to FY 2019-20 is less than normative. Therefore, the Stakeholder requested the Commission to reduce the Fixed Charges proportionately.
- 3.9 The Petitioner has taken the availability along with the deemed generation verified by the SLDC, and still the availability is extremely low

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as compared to 83%, which had been approved by the Commission in the tariff Order dated 12.05.2020.

## **RVUN's Reply**

3.10 The Petitioner has considered deemed generation verified by SLDC on pro-rata basis of generation made by Unit 1 and Unit 2 in FY 2015-16, which comes out to be 243.52 MU and 196.61 MU respectively. Accordingly, the PLF for Unit 1 is 71.41% and for Unit 2 is 69.58% respectively. The details as sought by the Stakeholder are as below:

Table 2: Position of actual generation and deemed energy for FY 2017-18

| Particular   | From 01.04.2017 to 31.12.2017 |
|--|-------------------------------|
| Actual sent out (In MU)  | 4062.59                       |
| Deemed Generation (In MU)  | 1842.10                       |
| Total  | 5904.68                       |
| Particular   | From 01.01.2018 to 31.03.2018 |
| Implemented DC (In MU)   | 2412.80                       |
| Total Sent out plus Deemed Generation and Implemented DC (In MU) | 8317.48                       |

- 3.11 The actual data of PLF and Availability have already been submitted with the instant petition. Therefore, the Petitioner requested the Commission to allow the PLF and Fixed Charges for FY 2014-15 to FY 2019-20 as claimed.
- 3.12 The Petitioner submitted that the low availability in FY 2014-15 to FY 2016-17 and in FY 2019-20 were mainly due:
  - a) Stabilization period of new units (600 MW each) commissioned for the first time by RVUN in initial years;
  - b) Sudden failure of Generator of Unit 2 as well as CRH line of Unit 1 due to unforeseen technical conditions, which were beyond the control of RVUN;
  - c) Further, the low PLF resulted due to frequent box-up and back down of units by SLDC, which was also beyond the control of RVUN.

## **Auxiliary Consumption**

## Stakeholder's Comments/Suggestions

3.13 Auxiliary Consumption claimed by the Petitioner from FY 2014-15 to FY

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2019-20 is more than normative and therefore, necessary reduction is required against it. The Commission vide Order dated 05.08.2019 (True-Up of RVUN stations for FY 2017-18) had decided, that in the view of the APTEL Judgment dated 18.09.2015 in Appeal No. 196 of 2014 and 326 of 2013, not to allow Auxiliary Consumption beyond normative. Therefore, the Stakeholder requested the Commission to apply the same ruling in the instant case too.

## **RVUN's Reply**

- 3.14 The Auxiliary Consumption is on the higher side due to the frequent back down/box up of units, as per the instructions of SLDC.
- 3.15 Further, it is to clarify that Auxiliary Consumption does not reduce in the same proportion of generation, because of electric motors of major auxiliaries, i.e., CW, ACW, DMCCW Water System, Compressed Air System has been designed to run on their rated capacities, whereas few auxiliaries, i.e., Coal Mills, ID Fan, FD Fan could run on reduced load, but their power consumption does not reduce in the same proportion of generation.
- 3.16 Further, the Petitioner submitted that the Central Electricity Regulatory Commission (CERC) has come up with the regulations, where the Central Utilities are getting benefit of additional Auxiliary Consumption on account of operation of plant at technical minimum standards due to back down of power stations. Therefore, the Petitioner requested the Commission to allow Auxiliary Consumption as claimed and provide the benefit of additional Auxiliary Consumption on account of back down of Power Plant.

## **Depreciation**

## Stakeholder's Comments/Suggestions

3.17 Depreciation may be allowed by the Commission on the approved Capital Cost. No capitalization, already disallowed by the Commission be considered for allowing the depreciation.

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## **RVUN's Reply**

3.18 Depreciation has been computed considering the additional capitalization as per the audited accounts and therefore, the Petitioner requested the Commission to allow depreciation as claimed.

#### Interest on Loan

## Stakeholder's Comments/Suggestions

- 3.19 The Stakeholder submitted that the Petitioner has claimed Interest on Loan considering additional capitalization after cut-off date. As additional capitalization claimed by Petitioner is not admissible, Interest on Loan may be allowed accordingly by the Commission.
- 3.20 The Petitioner has also included carrying cost of Rs. 3.32 Crore while computing Interest on Loan. In this regard, the Stakeholder submitted that the Commission vide Order dated 12.05.2020 has mentioned that it is not prudent to capitalize the expense incurred by RVUN towards remodelling of road, not owned by RVUN. However, the Commission allowed Rs. 3.32 Crore actually incurred on this account to be recovered separately as reimbursement. Thus, the amount of Rs. 3.32 Crore and any carrying cost thereon cannot form part of ARR. Further, the Petitioner submitted their claim vide Review Petition No. 1744/20 for carrying cost/interest on Rs. 3.32 Crore. However, the Commission dismissed the Review Petition of the consumer vide Order dated 18.01.2020 and thus, the claim is not admissible. Hence, it may be reduced from the interest charges.
- 3.21 Interest charges are therefore admissible only in respect of debt considered in the Final Capital Cost approved.

## **RVUN's Reply**

3.22 Interest on Term Loans has been claimed considering the Final Capital Cost approved by the Commission vide its Order dated 12.05.2020, additional capitalization of Rs. 32.07 Crore for FY 2017-18, Rs. 5.07 Crore for FY 2018-19 and Rs. 0.15 Crore for FY 2019-20 as per the audited accounts. Further, the Commission in its approval for Final Capital Cost vide Order dated 12.05.2020 has also allowed expenditure of remodelling of bitumen road.

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- 3.23 Further, the expenses towards construction of road amounting to Rs. 3.32 Crore was earlier considered under Capital Cost and accordingly was part of term loan, hence, components like Interest on term loan and finance charges were also applicable. As the Commission has allowed its recovery as reimbursement, carrying cost may also be allowed as claimed.
- 3.24 Accordingly, the Petitioner has also claimed interest amount on the same and therefore, the Petitioner requested the Commission to allow Interest on Term Loan and Carrying Cost as claimed.

#### **O&M Expense**

## Stakeholder's Comments/Suggestions

3.25 The Petitioner has not submitted actual expenditure incurred against O&M Expenses as per the format approved by the Commission. Therefore, it may be submitted by the Petitioner in the prescribed format.

## **RVUN's Reply**

3.26 The Petitioner submitted the actual O&M expenses as per the audited accounts for FY 2014-15 to FY 2019-20.

#### <u>Terminal Benefits</u>

## Stakeholder's Comments/Suggestions

- 3.27 Vide Petition No. 1515/19 (Final Capital Cost, ARR & Tariff for FY 2014-15 to FY 2019-20), the Petitioner has not claimed any terminal benefits from FY 2014-15 to FY 2018-19. For FY 2019-20, the Petitioner claimed Rs. 30.10 Crore whereas, vide instant petition actuals for FY 2019-20 has been stated as Rs. 19.25 Crore, but for this the Petitioner has not provided any document stating that the amount has been deposited in the designated fund. The necessary supporting document against it may be submitted by the Petitioner.
- 3.28 The Petitioner while recovering the Fixed Charges for FY 2019-20 has recovered the total amount against terminal benefit from the Discoms, based on the Commission's tariff. The Petitioner cannot keep such recovered amount with itself and should have deposited the total

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- amount instead of Rs. 19.25 Crore, for which too no supporting documents has been submitted by the Petitioner stating whether it has been deposited or not in the designated fund. The Commission may direct the Petitioner to pay necessary interest for the same in this regard.
- 3.29 The Stakeholder requested that the Commission to allow the terminal benefits by thorough Prudence Check. Further, the Petitioner should submit the man megawatt ratio, as well as the comparison to what the terminal benefits being incurred by other Generating Companies operating 600 MW units for the Commission to take a realistic view on the terminal benefits to be allowed.

#### **RVUN's Reply**

3.30 Regulation 47(7) of the RERC Tariff Regulations, 2019 states that the terminal liabilities based on actuarial valuation over and above the normative O&M Expenses subject to prudence check shall be allowed through tariff separately. The details of total amount deposited against terminal benefit for FY 2019-20 is as below:

Table 3: Amount Deposited against Terminal Benefit for FY 2019-20

| Particular       | Amount (Rs. Crore) |
|------------------|--------------------|
| Pension Fund     | 13.40              |
| Gratuity         | 11.31              |
| Leave Encashment | 7.82               |

3.31 The actual terminal benefit for FY 2019-20 amounting to Rs. 19.25 Crore is as per the actuarial report of FY 2019-20. The reason for claiming Rs. 19.25 Crore against Rs. 30.10 Crore is due to the different procedure followed in computation of terminal benefits in the audited accounts of FY 2019-20. During the determination of ARR for FY 2019-20, plant wise allocations of terminal benefits was made on the basis of capacity of plant. However, in the truing up of FY 2019-20, allocation of terminal benefits has been made on the basis of employee cost of respective power stations by the Statutory Auditor and the same has been claimed in the truing up of FY 2019-20. Although, total claimed amount against terminal benefits for RVUN shall remain same, so no interest would be liable. Therefore, the Petitioner requested the Commission to consider and allow terminal benefits as claimed.

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#### **Lease Rent**

## Stakeholder's Comments/Suggestions

3.32 The Petitioner vide instant Petition claimed Lease Rent from FY 2014-15 to FY 2019-20, but nowhere in the instant petition it has been mentioned as to on what accounts such charges have been included in the Capacity Charges. This may be clarified by the Petitioner in detail. It is further submitted by the Stakeholder that such charges are not the components of Fixed Charges as per the Tariff Regulations. The Commission may therefore disallow these charges.

## **RVUN's Reply**

- 3.33 The Petitioner submitted that only amortization of lease hold land in the instant petition has been claimed for FY 2014-15 to FY 2019-20 on the basis of audited accounts of respective year.
- 3.34 The revised statement including lease rental and amortization of lease hold land for FY 2014-15 to FY 2019-20 on the basis of audited accounts of respective year is as shown below:

Table 4: Lease rental and Amortization of lease hold land (Rs. Crore)

| Particular                      | FY 2014-15 | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 |
|---------------------------------|------------|------------|------------|------------|------------|------------|
| Amortization of lease hold Land | 0.07       | 0.08       | 0.09       | 0.09       | 0.09       |            |
| Lease Rent                      | 0          | 0.60       | 0.22       | 0.21       | 0.22       |            |
| Total Lease Rent                | 0.07       | 0.69       | 0.31       | 0.30       | 0.31       | 0.69       |

3.35 As the lease rent is the part of finance charges. Hence, the Petitioner has claimed the same as per the actual audited accounts of FY 2014-15 to FY 2019-20. Further, lease charges are considered as per lease agreement and actual out go as per Regulation 23 of the RERC tariff Regulations, 2014. Therefore, the Petitioner requested the Commission to consider and allow lease rent as submitted above.

#### Insurance charges

#### Stakeholder's Comments/Suggestions

3.36 Insurance Charges incurred by the Petitioner is lower than the amount allowed by the Commission in the Order dated 12.05.2020. Since, the

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insurance charges is being allowed over and above the normative O&M expenses, the same needs to be trued up based on actuals and the amounts need to be passed on to the Discoms.

#### **RVUN's Reply**

3.37 The Petitioner submitted that the Insurance Charges for FY 2014-15 to FY 2019-20 is claimed as per the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019. The Insurance Charges is claimed on actual basis as reflected in audited accounts of respective years. Therefore, the Petitioner requested the Commission to allow Insurance Charges as claimed.

## Sharing of Gains/Losses

## Stakeholder's Comments/Suggestions

3.38 The Stakeholder claimed that truing up is not the stage to decide afresh the tariff principles for truing up of various components of Capacity Charges including Depreciation, Interest on Loan, Interest on Working Capital etc., and requested the Commission to verify whether the expenditure allowed under these heads have been incurred or not. Further, if there is a saving, the same needs to be passed on to the Discoms. In case of excess, it may be assessed, whether such excess is due to controllable or uncontrollable factors.

#### **RVUN's Reply**

3.39 The Petitioner submitted that Depreciation, Interest on Loan, Interest on Working Capital etc. are claimed on the basis of Capital Cost as approved by the Commission and considering additional capitalization during FY 2017-18, FY 2018-19 and FY 2019-20. Also, Regulation 9 of the RERC Tariff Regulations, 2014 and 2019 has allowed Gains and Losses to be retained or borne by Generating Company or Licensee on account of uncontrollable and controllable factors. Hence, the Petitioner requested the Commission to allow Capacity Charges including Depreciation, Interest on Loan, Interest on Working Capital as claimed.

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# Expenditure on Construction of road Stakeholder's Comments/Suggestions

3.40 The Stakeholder submitted that the Petitioner is seeking Interest on Loan, Finance Charges etc. along with carrying cost on the expenditure, which has been allowed by the Commission amounting to Rs 3.32 Crore towards the construction of road. The Commission has not permitted the capitalization of the expenditure, but only permitted the Petitioner to recover separately as a reimbursement. The expenditure is not included in the Capital Cost and the various elements of tariff/fixed charges cannot be recovered on this cost. Hence, the claim for carrying cost on the construction of road should not be permitted.

#### **RVUN's Reply**

- 3.41 The Petitioner submitted that it has claimed an amount of Rs. 2.92 Crore towards reconstruction of road up to COD of project, (as hard cost) and Rs 0.40 Crore incurred after COD and up to cut-off date of the project. Further, the Commission has allowed the same amount to be recovered in one go in the Order dated 12.05.2020. On the similar issue, the Commission in its Order dated 08.03.2019 in Petition No. 1334/18 while approving the Final Capital Cost of CTPP Stage I, Phase II, Units 3 & 4 has not capitalized the cost towards construction of road and has allowed RVUN to recover such cost separately as reimbursement with carrying cost. Following the same approach, the Commission allowed the cost of Rs. 3.32 Crore actually incurred for construction of road in case of KaTPP project to be recovered separately as reimbursement but Carrying Cost was not allowed in the current case.
- 3.42 The Petitioner has also submitted that the Commission, in its order for review petition of CTPP 3 & 4 Order dated 03.07.2019, has considered expenditure against interest cost on deferred recovery with the following observation:

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" ......, 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 Cr is recovered and the Commission shall take an appropriate view based on the Petitioner's Submissions."

In view of above directions, the Commission approved the carrying cost in its True-up Order of CTPP 3&4 dated 27.05.2020.

3.43 Hence, in view of the above submission, the Petitioner requested the Commission to allow carrying cost on expenditure incurred towards construction of road, as claimed.

#### **Non-Tariff Income**

## Stakeholder's Comments/Suggestions

3.44 The Stakeholder requested the Commission to apply strict Prudence Check to maximize the proposed Non-Tariff Income.

## **RVUN's Reply**

3.45 The Petitioner submitted that the Non-tariff Income has been claimed as per the audited accounts of respective years and hence, requested the Commission to consider it as claimed.

#### Variable Charges

#### Stakeholder's Comments/Suggestions

- 3.46 Station Heat Rate (SHR) claimed by the Petitioner vide instant petition for FY 2014-15 to FY 2019-20 has been on higher side. This may be allowed by the Commission on normative basis as has been done in the previous year's petition. Because of higher SHR claimed by the Petitioner, the coal consumption has increased. Thus, the cost of coal may be allowed on the coal consumption arrived based on normative SHR.
- 3.47 The Petitioner to submit analysis report against "GCV of Coal".
- 3.48 The Stakeholder submitted that there is a variance in "Energy Sent Out" submitted vide table 1 (Generation of KaTPP Unit 1&2 for FY 2014-15 to FY 2019-20) and "Energy Sold" submitted vide Form 3.1 (Revenue from Sale

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of Power) of the instant petition as shown in the table below:

Table 5: Variance in "Energy Sent Out" submitted by RVUN

| Particulars | "Energy Sent Out" in MU submitted vide table 1 (Generation of KaTPP Unit 1&2 for FY 2014-15 to FY 2019-20) of the instant Petition | "Energy Sold" in MU submitted<br>vide Form 3.1 (Revenue from<br>Sale of Power) of the instant<br>Petition |
|-------------|--|---|
| FY 2017-18  | 6258.49  | 6271.25   |
| FY 2018-19  | 5205.48  | 5245.48   |
| FY 2019-20  | 5342.38  | 5398.82   |

The Petitioner to submit justification in this regard.

- 3.49 The Petitioner vide instant petition submitted Annexure F (Balance Sheet and P&L Statement) copies of P&L statements from FY 2014-15 to FY 2019-20, where revenue from sale of power has been shown as "zero". The Petitioner to submit justification in this regard.
- 3.50 The Petitioner has claimed substantially higher Variable Charges in comparison to what has been allowed by the Commission in the tariff Order dated 12.05.2020. The Petitioner has added certain unilateral claim such as cost of HFO, LDO, Other charges, price of oil (LDO). The Petitioner has not been able to adhere to the technical parameters which have been stipulated by the RERC Tariff Regulations, 2014 as determined by the Commission in the tariff Order dated 12.05.2020.

## **RVUN's Reply**

- 3.51 Station Heat Rate (SHR) has increased due to frequent back down/box up instructions received from SLDC. Therefore, the Petitioner requested the Commission to allow SHR and coal consumption as claimed.
- 3.52 The Petitioner submitted analysis report against "GCV of Coal".
- 3.53 The data submitted vide table 1 (Generation of KaTPP Unit 1&2 for FY 2014-15 to FY 2019-20) of the instant petition is the actual "energy sent out". Further, the Petitioner submitted that in the state of Rajasthan, ABT system was implemented from 01.01.2018 due to which Fixed Charges and Variable Charges is recovered on the basis of Declared Capacity & Scheduled Generation. Whereas the data submitted vide Form 3.1

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- (Revenue from Sale of Power) is as per the Scheduled Generation duly certified by SLDC and the Petitioner has done the billing accordingly.
- 3.54 The Petitioner submitted the Station wise reconciliation statement for FY 2014-15 to FY 2019-20.
- 3.55 The Petitioner submitted that the Energy Charges are claimed considering actual expenses incurred based on audited accounts of FY 2014-15 to FY 2019-20. Further, the Petitioner submitted that the performance parameters in the form of SHR, APC, Specific Oil Consumption etc. cannot be maintained as per normative allowed under the Regulation due to frequent breakdown/box up of units by SLDC on the instructions of RUVNL/Discoms, which is practically non achievable. The issue of technical minimum and compensation provision in line with IEGC is already sub-judice before the Commission. In such a scenario, when there is no suitable compensation allowed to RVUN, the Petitioner requested the Commission to allow Variable Charges as claimed in the instant Petition.

## B. ARR and Tariff of KaTPP for FY 2021-22 Stakeholder's Comments/Suggestions

- 3.56 Vide instant petition, the Petitioner submitted that the last supplementary PPA is of 29.06.2015, whereas correct date of the agreement is 26.06.2015. In the aforesaid agreement and the agreement dated 15.12.2010, it has been mentioned that all other clauses of PPA dated 22.06.2004 to the extent modified in the supplementary PPA dated 30.11.2005; supplementary PPA dated 28.09.2006; PPA dated 18.05.2010 shall remain unchanged.
- 3.57 In the PPA dated 18.05.2010; Clause 3 relating to allocation of power, following is mentioned:

"Following shall be added after the existing provision:

Provided that in respect of Chhabra Thermal Power Station Stage-1, Phase-II and Kalisindh Thermal Power Station, 95% of the Installed Capacity will be available for allocation to three Discoms in a fixed ratio prescribed by the Government of Rajasthan.

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Remaining 5% capacity of the two Power Stations will be considered as unallocated capacity and its allocation will be done under the direction of Government of Rajasthan either to Discoms themselves or to third party in the ratio prescribed by the Government of Rajasthan, although first right of refusal will be of the Discoms.

Provided further that the allocation of power in respect of the projects is to be decided under mega power project status, if any, shall be regulated as per the direction of the State Government in view of the mega power project policy of Government of India".

3.58 Vide PPA dated 18.05.2010, following is also mentioned:

"The following clauses are added to this PPA and existing PPA:

Clause No. 16 - Third Party Sale of Energy

RRVUNL can undertake the third party sale of energy within the State or outside the State if the procurer of the energy does not clear its dues as per the schedule".

- 3.59 Further, in the PPA dated 26.06.2015 it is mentioned that "the ROE shall be claimed as per directions of the State Government and tariff order of RERC".
- 3.60 In view of the above, the Stakeholder sought the following:
  - d) Copy of Government Order/letter under which 100% Installed Capacity as against 95% mentioned in the PPA of this Generating Station has been allocated to three Discoms:
  - e) Copy of direction of the State Government for claiming ROE be submitted by the Petitioner;
  - f) RVUN to intimate, if their power procurer, i.e., Discoms have cleared their dues as per the schedule or not;
  - g) In absence of any allotment for full capacity of KaTPP, RVUN to justify their claim for full Installed Capacity and of Deemed Generation.

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## **RVUN's Reply**

- 3.61 The Petitioner submitted that the Stakeholder has misinterpreted the Clause 3 of the PPA dated 18.05.2010. It is evident that the allocation of 100% power lies at first place with the Discoms and accordingly, all the calculation have been done in the instant Petition. As 100% power of the Petitioner has been tied up with the Discoms, therefore, the Petitioner has claimed for full Installed Capacity and Deemed Generation for KaTPP.
- 3.62 The Petitioner submitted that Return on Equity has been claimed as per the RERC Tariff Regulations, 2019 and therefore, the Petitioner requested the Commission to allow the same.
- 3.63 Further, the Discoms have not cleared their dues, the outstanding amount as on 31.03.2021 is Rs. 27,648 Crore.

## **Depreciation**

## Stakeholder's Comments/Suggestions

3.64 The Petitioner has claimed depreciation considering additional capitalization, which has already been disallowed by the Commission. Even the Review Petition filed by the Petitioner has been rejected by the Commission. Therefore, Depreciation is to be allowed only on the Gross Assets admitted. However, considering allocated capacity of power as 95%, i.e., as per the provisions of PPA narrated above, the depreciation allowable may be reduced accordingly.

## **RVUN's Reply**

3.65 Depreciation has been claimed considering the additional capitalization as per RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019 and therefore, the Petitioner requested the Commission to allow the same.

## **O&M Expenses**

#### Stakeholder's Comments/Suggestions

3.66 O&M Expenses is admissible as per the norms prescribed in the Tariff Regulation. Here also, considering 95% power allocation, i.e., as per the provisions of PPA, O&M Expenses may be allowed by the Commission.

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3.67 The Petitioner to submit justification for the variance in actual O&M Expense of FY 2019-20 submitted vide Form 1.2 (Aggregate Revenue Requirement) and Form 4.1 (O&M Expenses), i.e., of Rs 218.16 Crore, in comparison to the actual figures submitted vide P&L statement, i.e., of Rs. 100.26 Crore.

## **RVUN's Reply**

3.68 O&M expenses has been computed as per Regulation 47 of the RERC Tariff Regulations, 2019. Hence, the details submitted vide Form 1.2 (Aggregate Revenue Requirement) and Form 4.1 (O&M Expenses) of the instant Petition is true. Therefore, the Petitioner requested the Commission to allow O&M expenses as claimed.

#### <u>Interest on Loan</u>

## Stakeholder's Comments/Suggestions

3.69 Interest on Loan may be allowed only on the admitted debt in the approved Capital Cost. Further, the Stakeholder submitted that no Finance Charges have been claimed by the Petitioner. Here also, considering 95% power allocation, i.e., as per the provisions of PPA, Interest on Loan may be allowed by the Commission.

#### **RVUN's Reply**

3.70 Interest on Term Loan has been claimed as per the RERC Tariff Regulations, 2019 and therefore, the Petitioner requested the Commission to allow the same.

### **Interest on Working Capital**

## Stakeholder's Comments/Suggestions

3.71 Interest on Working Capital may be allowed as per the norms prescribed in the Tariff Regulations. Here also, considering 95% power allocation, i.e., as per the provisions of PPA, Interest on Working Capital may be allowed by the Commission.

## **RVUN's Reply**

3.72 Interest on Working Capital has been claimed as per the RERC Tariff

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Regulations, 2019 and therefore, the Petitioner requested the Commission to allow the same.

## **Return on Equity**

## Stakeholder's Comments/Suggestions

3.73 Return on Equity may be allowed only if it is proved that the Government has allowed the Petitioner to claim in this respect. Here also, considering 95% power allocation, i.e., as per the provisions of PPA, Return on Equity may be allowed by the Commission.

#### **RVUN's Reply**

3.74 Return on Equity has been claimed as per the RERC Tariff Regulations, 2019 and therefore, the Petitioner requested the Commission to allow the same.

#### Insurance charges

## Stakeholder's Comments/Suggestions

3.75 The Petitioner has not provided any supporting documents against Insurance charges for FY 2021-22 or for FY 2020-21 to substantiate its claim. The Petitioner may submit the same. Here also, considering 95% power allocation, i.e., as per the provisions of PPA, Insurance Charges may be allowed by the Commission.

## **RVUN's Reply**

3.76 Insurance Charges for FY 2021-22 has been calculated on the basis of actual insurance expenses booked in the audited accounts of FY 2019-20. Further, the Petitioner has taken 5% year wise escalation for calculating insurance charges for FY 2021-22. The Petitioner also submitted the reconciliation statement of the actual insurance as per the audited accounts for FY 2019-20.

#### **Terminal Benefit**

## Stakeholder's Comments/Suggestions

3.77 Vide Tariff Order of FY 2019-20, the Commission allowed Rs. 30.10 Crore against Terminal Benefits, against which the Petitioner has spent only Rs.

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19.25 Crore, i.e., about 50% as per the information submitted through the instant petition. For this too, it cannot be said, if the amount has been deposited in the designated fund or not. The Stakeholder further submitted that for such expenditure, admissibility for FY 2021-22 may be considered while deciding the true-up of FY 2019-20, i.e., as per the amount deposited in the designated fund.

## **RVUN's Reply**

3.78 The reason for claiming Rs. 19.25 Crore against Rs. 30.10 Crore is due to the different procedure followed in computation of terminal benefits in audited accounts of FY 2019-20. During the determination of ARR for FY 2019-20, plant wise allocations of terminal benefits was made on the basis of capacity of plant. However, in the truing up of FY 2019-20, allocation of terminal benefits has been made on the basis of employee cost of respective power stations by the Statutory Auditor and the same has been claimed in the truing up of FY 2019-20. Further, the terminal benefit for FY 2021-22 is computed on the basis of actual audited account and actuarial valuation report of FY 2019-20.

#### Variable Charges

#### Stakeholder's Comments/Suggestions

- 3.79 The Petitioner to submit readable copies of Form 5.1 (Fuel Consumption Details in respect of KaTPP). Average GCV of Coal comes out to be 4339.45 kCal/kg as could be read from the forms submitted. Therefore, Net GCV will be 4254.45 kCal/kg (4339.45 85). In view of the above, Coal consumption and its cost will be on the lower side.
- 3.80 Transit loss of 0.80% may be allowed by the Commission.

## **RVUN's Reply**

- 3.81 The Petitioner submitted readable copies of Form 5.1 (Fuel Consumption Details in respect of KaTPP).
- 3.82 The weighted average "GCV of Coal" submitted vide the instant Petitioner is correct. Accordingly, the coal consumption is being done.

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3.83 Transit Loss may be allowed by the Commission on normative basis.

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# SECTION 4 Analysis of True-Up of KaTPP Units 1&2 for FY 2014-15 to FY 2019-20

## **Norms of Operation**

## **Availability**

## **RVUN's Submissions**

4.1 The actual Availability submitted by RVUN for KaTPP Units 1 & 2 as certified by SLDC for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is as shown in the table below:

Table 6: Availability/Capacity Index claimed by RVUN

| Particulars  | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit<br>1&2 | FY<br>2017-18<br>Unit<br>1&2 | FY<br>2018-19<br>Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--|--|-----------------------------|--|------------------------------|------------------------------|------------------------------|----------------------------|
| Target Availability for full recovery of fixed charges | 83.00%                                 | 83.00%                      | 83.00%                                 | 83.00%                       | 83.00%                       | 83.00%                       | 83.00%                     |
| Actual as claimed                                      | 23.56%                                 | 71.41%                      | 69.58%                                 | 65.51%                       | 83.51%                       | 59.75%                       | 64.91%                     |

- 4.2 RVUN submitted that for FY 2017-18, Intra State ABT system was implemented from 01.01.2018. Therefore, in FY 2017-18 Energy Sent Out (ESO) and Schedule Generation (SG) were in two parts, i.e., Energy Sent Out from 01.04.2017 to 31.12.2017 is 4062.588 MU and Scheduled Generation from 01.01.2018 to 31.03.2018 is 2208.66 MU. Therefore, RVUN requested the Commission to consider total Energy Sent Out and Schedule Generation for FY 2017-18.
- 4.3 RVUN requested the Commission to consider the Availability for KaTPP Units 1 & 2 for FY 2014-15 to FY 2019-20, as shown in the table below:

Table 7: Availability Computation submitted by RVUN

| Particulars                   | Units | FY<br>2014-15<br>Unit 1<br>(329<br>Days) | FY<br>2015-16<br>Unit 1 | FY<br>2015-16<br>Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 | FY<br>2018-19<br>Unit 1&2 | FY<br>2019-20<br>Unit 1&2 |
|-------------------------------|-------|--|-------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Sent Out                      | MU    | 1057.63                                  | 3322.40                 | 2186.36                                  | 5531.33                   | 4062.59                   | N/A                       | N/A                       |
| Deemed Generation<br>Verified | MU    | 0.00                                     | 243.52                  | 196.61                                   | 993.56                    | 1842.10                   | N/A                       | N/A                       |
| Implemented DC                | MU    | N/A                                      | N/A                     | N/A                                      | N/A                       | 2412.80                   | 5951.43                   | 6482.98                   |

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| Particulars   | Units | FY<br>2014-15<br>Unit 1<br>(329<br>Days) | FY<br>2015-16<br>Unit 1 | FY<br>2015-16<br>Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 | FY<br>2018-19<br>Unit 1&2 | FY<br>2019-20<br>Unit 1&2 |
|---|-------|--|-------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Sent Out including Deemed Generation and Implemented DC (A) | MU    | 1057.63                                  | 3565.92                 | 2382.97                                  | 6524.89                   | 8317.48                   | 5951.43                   | 6482.98                   |
| Max. Capacity can be generated (B)                          | MU    | 4488.88                                  | 4993.70                 | 3424.64                                  | 9960.12                   | 9960.12                   | 9960.12                   | 9987.41                   |
| Deemed PLF (%)<br>((A/B)*100)                               | %     | 23.56%                                   | 71.41%                  | 69.58%                                   | 65.51%                    | 83.51%                    | 59.75%                    | 64.91%                    |

## Commission's Analysis

- 4.4 The Commission, in its order dated 05.08.2019 on approval of true-up of FY 2017-18 for RVUN generating stations, had considered the actual Availability equal to deemed PLF, which was computed, considering the actual net generation and generation loss due to back-down/box-up as certified by SLDC. As per the submitted SLDC Certificate, SLDC has certified the actual generation and generation loss due to back-down/box-up during FY 2014-15 to FY 2016-17 and from 01.04.2017 to 31.03.2017 in FY 2017-18. Post implementation of Intra-State ABT mechanism, it is observed that SLDC has certified Declared Capacity. In accordance with the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019, Availability is to be computed considering the Declared Capacity in MW, whereas, SLDC has certified the Declared Capacity in Million Units.
- 4.5 The Commission observed that RVUN has computed Availability for FY 2014-15 to FY 2016-17 and from 01.04.2017 to 31.03.2017 in FY 2017-18, considering the summation of Actual Energy sent out and Generation loss due to backdown/box-up as certified by SLDC. It is further observed that post implementation of ABT Mechanism i.e., from 01.01.2018, RVUN has computed availability till FY 2019-20 on the basis of Declared Capacity certified by SLDC. The Commission has gone through the submissions made by the Petitioner and finds the computations of Deemed PLF/Availability, submitted by RVUN to be in order.
- 4.6 The Availability approved by the Commission considering the actual Availability equal to deemed PLF as shown in the table below:

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Table 8: Availability/Capacity Index approved by the Commission

| Particulars         | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 | FY<br>2018-19<br>Unit 1&2 | FY<br>2019-20<br>Unit 1&2 |
|---------------------|--|-----------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Actual as claimed   | 23.56%                                 | 71.41%                      | 69.58%                                 | 65.51%                    | 83.52%                    | 59.75%                    | 64.91%                    |
| Approved on true up | 23.56%                                 | 71.41%                      | 69.58%                                 | 65.51%                    | 83.52%                    | 59.75%                    | 64.91%                    |

<sup>\*</sup>Claimed figure for FY 2017-18 has been changed because of revised submission of **Implemented DC** as 8318.34 MU vide reply to data gaps

- 4.7 The full fixed charges are recoverable on achievement of target Availability. In accordance with the Regulation 45(1)(a) of the RERC Tariff Regulations, 2014 and 2019, target availability for recovery of full fixed charges for KaTPP Units 1 & 2 is 83%.
- 4.8 The Commission had accordingly allowed the full recovery of fixed charges for the years in which the actual availability is higher than the target availability and for other years, in which the availability is lower than target availability, the recovery of fixed charges have been allowed on pro-rata basis in proportion to the actual availability achieved with respect to target available as per the RERC Tariff Regulations.

## Plant Load Factor (PLF)

#### **RVUN's Submission**

4.9 The actual PLF as submitted by RVUN for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is shown in the Table below:

Table 9: PLF as submitted by RVUN

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|-----------------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Target PLF for incentive    | 83.00%                             | 83.00%                | 83.00%                             | 83.00%                     | 83.00%                     | 83.00%                     | 83.00%                     |
| Approved in Tariff<br>Order | 83.00%                             | 83.00%                | 83.00%                             | 83.00%                     | 83.00%                     | 83.00%                     | 83.00%                     |
| Actual as claimed           | 23.60%                             | 66.71%                | 63.84%                             | 55.53%                     | 62.84%                     | 52.26%                     | 53.49%                     |

#### **Commission's Analysis**

4.10 The Commission is of the view that under the RERC Tariff Regulations, 2014 & 2019, RVUN is being allowed all the prudent expenses based on the

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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.

4.11 Regulation 2(a)(44) of the RERC Tariff Regulations, 2014 and Regulation 2(a)(46) of the RERC Tariff Regulations, 2019 define the PLF as specified below:

"Plant Load Factor", for a given period, means the total sent-out energy generation 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:

Ν

Plant Load Factor (%) =  $10000 \times \Sigma AG_i / \{N \times IC \times (100 - AUX_n)\} \%$ 

i=1

where - N = number of time blocks in the given period,

AG<sub>i</sub> = Actual Generation in MW for the i<sup>th</sup> 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"

4.12 The Commission, based on the actual net generation from FY 2014-15 to 31.12.2017 and Scheduled Generation from 01.01.2018 to FY 2019-20 submitted by RVUN and 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 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is as shown in the table below:

Table 10: PLF approved by the Commission

| Particulars         | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|---------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed   | 23.60%                             | 66.71%                | 63.84%                             | 55.53%                     | 62.84%                     | 52.26%                     | 53.49%                     |
| Approved on true up | 23.56%                             | 66.53%                | 63.84%                             | 55.53%                     | 62.96%                     | 52.66%                     | 54.06%                     |

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## **Auxiliary Consumption**

#### **RVUN's Submissions**

4.13 The actual auxiliary consumption submitted by RVUN for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is as shown in the table below:

Table 11: Auxiliary consumption as submitted by RVUN

| Particulars              | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 | FY<br>2018-19<br>Unit 1&2 | FY<br>2019-20<br>Unit 1&2 |
|--------------------------|--|-----------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Normative                | 5.25%                                  | 5.25%                       | 5.25%                                  | 5.25%                     | 5.25%                     | 5.25%                     | 5.25%                     |
| Approved in Tariff Order | 5.25%                                  | 5.25%                       | 5.25%                                  | 5.25%                     | 5.25%                     | 5.25%                     | 5.25%                     |
| Actual as claimed        | 7.82%                                  | 6.95%                       | 6.98%                                  | 6.94%                     | 6.47%                     | 6.21%                     | 6.41%                     |

4.14 RVUN requested the Commission to allow actual auxiliary consumption.

#### **Commission's Analysis**

4.15 The Commission observes that actual Auxiliary Consumption for KaTPP Units 1 & 2 is higher than normative Auxiliary Consumption. Hon'ble APTEL vide its Judgment dated 18.09.2015 in Appeal Nos. 196 of 2014 and 326 of 2013 in Haryana Power Generation Corporation Ltd. Vs Haryana Electricity Regulatory Commission & Ors ruled as under:

> "iii) According to the appellant/petitioner it is the PTPS Unit 1-4 which has outlived their useful economic life and the performance for the past few years has been well below the norm prescribed by the Tariff Regulations. Further, PTPS Unit-5, as per the appellant, is also nearing the end of its useful economic life due to which the auxiliary consumption remains high. Further, the submission of the appellant is that the other Unit of DCR Thermal Power Station had frequent shutdowns resulting in higher auxiliary energy consumption. The appellant contended that the large steps have been taken to reduce the auxiliary energy consumption of the power plants during the controlled period. The State Commission, after considering all these contentions of the appellant, has correctly and justly, not found it a fit case where power to relax could be exercised by the State Commission and the Commission has legally decided the issue as per the norms prescribed in MYT Regulations 2012. Further power to relax has to be exercised in exceptional cases when the same is in the public interest. In the case in hand if the contention of the appellant is allowed and norms for auxiliary are diluted or relaxed that would cost additional burden on the

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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."

- 4.16 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.
- 4.17 The auxiliary consumption approved by Commission for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is as shown in the table below:

Table 12: Auxiliary consumption approved by the Commission

| Particulars         | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|---------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed   | 7.82%                              | 6.95%                 | 6.98%                              | 6.94%                      | 6.47%                      | 6.21%                      | 6.41%                      |
| Approved on true up | 5.25%                              | 5.25%                 | 5.25%                              | 5.25%                      | 5.25%                      | 5.25%                      | 5.25%                      |

## Station Heat Rate (SHR)

#### **RVUN's Submission**

4.18 The actual Station Heat Rate submitted by RVUN for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is shown in the table below:

Table 13: Actual Station Rate as submitted by RVUN (kcal/kWh)

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|-----------------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Normative                   | 2322.17                            | 2322.17               | 2322.17                            | 2322.17                    | 2322.17                    | 2322.17                    | 2333.28                    |
| Approved in<br>Tariff Order | 2322.17                            | 2322.17               | 2322.17                            | 2322.17                    | 2322.17                    | 2322.17                    | 2333.28                    |
| Actual as claimed           | 2742.18                            | 2594.37               | 2612.73                            | 2417.32                    | 2388.67                    | 2435.28                    | 2397.63                    |

4.19 RVUN requested the Commission to allow actual SHR in the true-up for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2.

#### **Commission's Analysis**

4.20 The Commission observes that actual SHR for KaTPP Units 1 & 2 is higher than normative SHR. Hon'ble APTEL vide its Judgment dated 18.09.2015 in Appeal Nos. 196 of 2014 and 326 of 2013 ruled as under:

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"ii) Thus this Appellate Tribunal in Appeal No. 168 of 2012 while dealing with the same contention, namely that the backing down instructions caused higher station heat rate has been rejected, observing that if any power station has not achieved the same norms due to various factors like manufacturing design data curve, operation of station at 60% PLF, frequent backing down as per direction of SLDC resulting in partial operation, then the said power generating company has to make out the cause for relaxation of norms specified for that purpose and if the appellant fails to make out the specific case then, it is not entitled to the relaxation of the said Tariff Regulations. We note that in the case in hand the appellant has miserably failed to establish that the relaxation of the norms prescribed in MYT Regulations 2012 is sought by the appellant in public interest. Further if the relaxation of the norms is not in public interest the same is bound to be rejected. Further, if the said contention of the appellant is accepted it will result in further increase in tariff which will cause additional burden on the respondents and ultimately the end consumers of the electricity, Besides it the appellant has failed to give any technical reason to explain why it has not achieved the said norms prescribed in MYT Regulations 2012. The State Commission is vested with powers to relax any of the provisions of MYT Regulations 2012 in the public interest but for exercising the power to relax, reasons are required to be recorded in writing by the State Commission. In the case in hand the State Commission has rightly and legally refused to exercise the power to relax in favour of the appellant on this aspect while passing the impugned order. No doubt discretionary power is vested with the State Commission but the discretion should be exercised judicially and judiciously that needs recording of special reasons in writing for the exercise of such power to relax. Thus in the aforesaid circumstances, the appellant has completely failed to give any reason whatsoever justifying the relaxation of the operational norms fixed in MYT Regulations 2012 on the aspect of station heat rate."

- 4.21 In light of the above Judgment of Hon'ble APTEL, and in absence of any proper justification, the prayer of RVUN for relaxing the normative SHR is not allowable as the same is not in public interest and it will result in further increase in tariff which will cause additional burden on the Respondents and ultimately the end consumers of the electricity.
- 4.22 The Station Heat Rate approved by the Commission for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is as shown in the table below:

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Table 14: Station Heat Rate approved by the Commission (kcal/kWh)

| Particulars         | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|---------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed   | 2742.18                            | 2594.37               | 2612.73                            | 2417.32                    | 2388.67                    | 2435.28                    | 2397.63                    |
| Approved on true up | 2322.17                            | 2322.17               | 2322.17                            | 2322.17                    | 2322.17                    | 2322.17                    | 2333.28                    |

## Secondary Fuel Oil Consumption (SFOC)

## **RVUN's Submission**

4.23 The actual Secondary Fuel Oil Consumption submitted by RVUN for KaTPP Units 1 & 2, for FY 2014-15 to FY 2019-20 is as shown in table below:

Table 15: SFOC as submitted by RVUN (ml/kWh)

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |  |  |
|-----------------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|--|
| Normative                   | 0.50                               | 0.50                  | 0.50                               | 0.50                       | 0.50                       | 0.50                       | 0.50                       |  |  |
| Approved in<br>Tariff Order | 0.50                               | 0.50                  | 0.50                               | 0.50                       | 0.50                       | 0.50                       | 0.50                       |  |  |
| Actual as claimed           | 11.16                              | 2.42                  | 1.97                               | 1.11                       | 0.83                       | 0.77                       | 0.81                       |  |  |

## **Commission's Analysis**

4.24 The Commission has allowed Secondary Fuel Oil Consumption for KaTPP Units 1 & 2 for FY 2014-15 to FY 2019-20, in accordance with the norms specified in RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019. The SFOC approved by the Commission is shown in the table below:

Table 16: SFOC approved by the Commission (ml/kWh)

| Particulars         | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|---------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed   | 11.16                              | 2.42                  | 1.97                               | 1.11                       | 0.83                       | 0.77                       | 0.81                       |
| Approved on true up | 0.50                               | 0.50                  | 0.50                               | 0.50                       | 0.50                       | 0.50                       | 0.50                       |

## Fuel Price and Calorific Value

#### **RVUN's Submission**

4.25 The actual fuel prices and GCV as submitted by RVUN for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 is shown in the table below:

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Table 17: Actual fuel prices and GCV as submitted by RVUN

| Particulars            | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|------------------------|--|-----------------------|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Price of Coal (Rs./MT) | 4220.11                                | 4091.39               | 4091.39                                | 4388.88                    | 4439.95                    | 4806.21                    | 5454.13                    |
| GCV of Coal (kCal/kg)  | 4497.81                                | 4316.07               | 4316.07                                | 4251.62                    | 4204.08                    | 4322.43                    | 4158.93                    |
| Price of Oil (Rs./kL)  | 51879.04                               | 36850.74              | 37845.14                               | 33418.57                   | 36377.21                   | 43971.76                   | 52035.78                   |
| GCV of Oil (kCal/kL)   | 9883.00                                | 9883.00               | 9883.00                                | 9596.78                    | 9776.77                    | 9725.44                    | 9704.70                    |

## **Commission's Analysis**

- 4.26 RVUN submitted that the coal being procured from Parsa East and Kante Basin is as per Coal mining and delivery agreement executed on 16.07.2008. 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 in their meeting dated 13.05.2008 and 04.07.2008 and the copy of the same has also been appraised to the State Government. It is the responsibility of RVUN to ensure that the landed price of coal being paid to coal supplier is strictly in accordance with the agreement.
- 4.27 As the coal is being supplied under CMDA approved by the State Government, the Commission has considered the actual landed fuel prices and GCV as submitted by RVUN for the computations of energy charges for FY 2014-15 to FY 2019-20 and the Commission has not specifically dealt with the issue of landed price of coal including transit loss. The fuel prices and GCV considered by the Commission in the true up for FY 2014-15 to FY 2019-20 are as shown in the table below:

Table 18: Fuel prices and GCV considered by the Commission

| Particulars            | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|------------------------|--|-----------------------|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Price of Coal (Rs./MT) | 4220.11                                | 4091.39               | 4091.39                                | 4388.88                    | 4439.95                    | 4806.21                    | 5454.13                    |
| GCV of Coal (kCal/kg)  | 4497.81                                | 4316.07               | 4316.07                                | 4251.62                    | 4204.08                    | 4322.43                    | 4158.93                    |
| Price of Oil (Rs./kL)  | 51879.04                               | 36850.74              | 37845.14                               | 33418.57                   | 36377.21                   | 43971.76                   | 52035.78                   |
| GCV of Oil (kCal/kL)   | 9883.00                                | 9883.00               | 9883.00                                | 9596.78                    | 9776.77                    | 9725.44                    | 9704.70                    |

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## **Other Charges**

#### **RVUN's Submission**

4.28 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 2014-15 to FY 2019-20 are as shown in the table below:

Table 19: Other charges claimed by RVUN (Rs. Crore)

| Station           | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|-------------------|--|-------------------------|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed | 16.47                                  | 1.39                    | 0.91                                   | 2.71                       | 0.02                       | 4.00                       | 0.00                       |

## Commission's Analysis

- 4.29 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.
- 4.30 The Commission is of the view that the cost related to arrangement of fuel can only be considered as part of fuel cost to work out the variable charges.
- 4.31 The other charges approved by the Commission for FY 2014-15 to FY 2019-20 are as shown in the table below:

Table 20: Other charges approved by the Commission (Rs. Crore)

| Station             | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|---------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Actual as claimed   | 16.47                              | 1.39                  | 0.91                               | 2.71                       | 0.02                       | 4.00                       | 0.00                       |
| Approved on true up | 16.47                              | 1.39                  | 0.91                               | 2.71                       | 0.02                       | 4.00                       | 0.00                       |

#### **Annual Fixed Charges**

- 4.32 The Annual Fixed Charges comprise of the following elements:
  - (i) Operation and Maintenance (O&M) Expenses
  - (ii) Depreciation
  - (iii) Interest on Long-Term Loans and Finance Charges
  - (iv) Return on Equity
  - (v) Interest on Working Capital
  - (vi) Insurance Charges
  - (vii) Recovery of ARR & Tariff Petition Fee

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(viii) Less: Non-tariff Income

4.33 Each of the annual fixed charges elements has been dealt with in the following paragraphs.

## Operation and Maintenance (O&M) Expenses

#### **RVUN's Submission**

4.34 RVUN has claimed the normative O&M expenses for FY 2014-15 to FY 2018-19 and FY 2019-20 in accordance with the Regulation 47 of the RERC Tariff Regulations, 2014 and the RERC Tariff Regulations, 2019 respectively. The details of O&M expenses approved in the Tariff Order and claimed for truing up are shown in the table below:

Table 21: O&M expenses claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Days) |       | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Units<br>1&2 | FY 2018-<br>19 Units<br>1&2 | FY 2019-<br>20 Units<br>1&2 |
|--------------------------|------------------------------------|-------|------------------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Approved in Tariff Order | 78.31                              | 91.96 | 63.07                              | 194.68                     | 206.07                      | 218.13                      | 218.13                      |
| Claimed for True-up      | 78.31                              | 91.96 | 63.07                              | 194.68                     | 206.07                      | 218.13                      | 218.16                      |

4.35 Therefore, RVUN requested the Commission to allow the normative O&M expenses as claimed.

#### **Commission's Analysis**

- 4.36 The Commission in the Tariff Order for FY 2014-15 to FY 2019-20 had approved the O&M expenses considering the normative O&M expenses specified in the RERC Tariff Regulations, 2014 & RERC Tariff Regulations, 2019.
- 4.37 The actual O&M expenses claimed by RVUN for FY 2014-15 to FY 2019-20 are as under:

Table 22: Actual O&M expenses for FY 2014-15 to FY 2019-20 claimed by the RVUN (Rs. Crore)

|                    | FY 2014-15  | FY      | FY 2015-16  | FY 2016- | FY 2017- | FY 2018- | FY 2019- |
|--------------------|-------------|---------|-------------|----------|----------|----------|----------|
| Particulars        | Unit 1 (329 | 2015-16 | Unit 2 (251 | 17 Unit  | 18 Unit  | 19 Unit  | 20 Unit  |
|                    | Days)       | Unit 1  | Days)       | 1&2      | 1&2      | 1&2      | 1&2      |
| Actual O&M Expense | 16.61       | 98.95   | 0.00        | 121.28   | 127.86   | 142.21   | 120.40   |

4.38 The Commission vide data gaps asked RVUN to submit justification for not allocating any O&M cost for KaTPP Unit 2 in FY 2015-16, though Unit 2 has been operated for 251 days in the year. The Petitioner in its reply submitted revised unit wise allocation of O&M expenses for FY 2015-16 as shown in the

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table below:

Table 23: Revised Actual O&M expense for FY 2015-16 as claimed by RVIIN (Rs. Crore)

| a cialifie         | a by kvois | (Ka. Ciole) |          |
|--------------------|------------|-------------|----------|
|                    | FY         | FY 2015-    | Total FY |
| Particulars        | 2015-16    | 16 Unit 2   | 2015-16  |
|                    | Unit 1     | (251 Days)  | Unit 1&2 |
| Actual O&M Expense | 58.70      | 40.25       | 98.95    |

4.39 The Commission vide data gaps also asked RVUN to submit the reconciliation of the actual O&M expenses as per the audited accounts of FY 2014-15 to FY 2019-20. The reconciliation as submitted by RVUN is as shown in the table below:

Table 24: Reconciliation of actual O&M expense as submitted by RVUN (Rs. Crore)

| Particulars   | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1&2 | FY 2016-17 Units<br>1&2 | FY 2017-18<br>Units 1&2 | FY 2018-19<br>Units 1&2 | FY 2019-<br>20 Units<br>1&2 |
|---|------------------------------------|------------------------|-------------------------|-------------------------|-------------------------|-----------------------------|
| Repairs and Maintenance   | 7.36                               | 32.48                  | 51.18                   | 44.70                   | 74.34                   | 48.95                       |
| Employees Costs   | 14.78                              | 20.21                  | 21.80                   | 30.14                   | 33.88                   | 53.73                       |
| Administration and Other Expenses                                       | 6.49                               | 8.74                   | 18.85                   | 17.69                   | 19.89                   | 19.45                       |
| Total   | 28.64                              | 61.42                  | 91.83                   | 92.53                   | 128.10                  | 122.13                      |
| Capitalized R&M,<br>Adm Exp,<br>Employee Cost<br>(Less)                 | 15.46                              | 7.13                   | 0.00                    | 0.00                    | 0.00                    | 0.00                        |
| Sub-Total O&M   | 13.18                              | 54.29                  | 91.83                   | 92.53                   | 128.10                  | 122.13                      |
| Less: Insurance   | 0.06                               | 0.19                   | 5.83                    | 8.98                    | 8.376                   | 5.83                        |
| Less: Tariff Fee  | 0.60                               | 0.60                   | 0.60                    | 0.60                    | 0.15                    | 0.00                        |
| Sub-Total O&M   | 12.52                              | 53.51                  | 85.39                   | 82.95                   | 119.57                  | 116.30                      |
| HO Allocation   | 3.18                               | 38.42                  | 16.08                   | 20.86                   | 22.20                   | 0.00                        |
| Total of KaTPP  | 15.70                              | 91.93                  | 101.48                  | 103.81                  | 141.77                  | 116.30                      |
| Other Operating Expenses of KaTPP                                       | 0.91                               | 7.02                   | 2.85                    | 0.69                    | 0.44                    | 4.09                        |
| O&M Spares  | 0.00                               | 0.00                   | 16.95                   | 23.35                   | 0.00                    | 0.00                        |
| Other Operating<br>Expenses of KaTPP<br>and O&M Spares<br>to be claimed | 0.00                               | 0.00                   | 0.00                    | 0.00                    | 0.00                    | 0.00                        |
| Grand Total   | 16.61                              | 98.95                  | 121.28                  | 127.86                  | 142.21                  | 120.40                      |

4.40 The Commission in the Para 4.68 have ruled that the cost of assets pertaining to procurement of vehicles, furniture and fixtures, Office Equipment's etc. in FY 2019-20 are to be treated as revenue expenses and not capital expenses

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due to the nature of such small works. Hence, the Commission has considered the cost of the same as part of actual O&M expenses for FY 2019-20.

4.41 Therefore, the actual O&M expenses considered by the Commission and approved for true-up from FY 2014-15 to FY 2019-20 are as under:

Table 25: Actual O&M Expense Considered by the Commission (Rs. Crore)

| Particulars                         | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY<br>2016-17<br>Unit<br>1&2 | FY<br>2017-18<br>Unit<br>1&2 | FY<br>2018-19<br>Unit<br>1&2 | FY<br>2019-20<br>Unit<br>1&2 |
|-------------------------------------|------------------------------------|-----------------------------|------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Approved in<br>Tariff Order         | 78.31                              | 91.96                       | 63.07                              | 194.68                       | 206.07                       | 218.13                       | 218.13                       |
| Claimed for True-up                 | 78.31                              | 91.96                       | 63.07                              | 194.68                       | 206.07                       | 218.13                       | 218.16                       |
| Total Actual O&M Expense Considered | 16.61                              | 58.70                       | 40.25                              | 121.28                       | 127.86                       | 142.21                       | 120.55                       |
| Approved on True-up                 | 78.31                              | 91.96                       | 63.07                              | 194.68                       | 206.07                       | 218.13                       | 218.13                       |

4.42 It is observed that as against the approved O&M expenses from FY 2014-15 to FY 2019-20, the actual O&M expenses as submitted by RVUN is considerably lower. RVUN is therefore directed to submit the reasons behind its actual O&M expenses being considerably lower than the norms in its future true up fillings.

### **Additional Capitalization**

### **RVUN's Submission**

4.43 The additional capitalization claimed by the Petitioner from FY 2017-18 to FY 2019-20 is as shown in the table below:

Table 26: Additional Capitalization claimed by the Petitioner (Rs. Crore)

| Year                      | Opening | Addition during | Written off     | Closing |
|---------------------------|---------|-----------------|-----------------|---------|
| ledi                      | Balance | the year        | during the year | Balance |
| Capital cost as on        |         |                 |                 | 8215.73 |
| 31.03.2017 – Cut-off Date | _       | _               | -               | 0213.73 |
| FY 2017-18                | 8215.73 | 32.07           | -               | 8247.80 |
| FY 2018-19                | 8247.80 | 5.72            | -               | 8253.53 |
| FY 2019-20                | 8253.53 | 0.15            | -               | 8253.68 |

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#### Regulation 17(2) of the RERC Tariff Regulations, 2014 specifies that:

- "17. Additional capitalization
- 2. The capital expenditure incurred on the following counts after the cut-off date may, at its discretion, be admitted by the Commission, subject to prudence check:
- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court:
- (ii) Change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (iv) Any additional works/ services, which have become necessary for efficient and successful operation of a generating station or transmission system but not included in the original capital cost".

#### Whereas Regulation 17(2) of the RERC Tariff Regulations, 2019 specifies that:

- "17. Additional capitalization
- "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
- 4.44 Keeping in view the above Regulation, RVUN has claimed the following capital expenditure of Rs. 32.07 Crore, Rs. 5.72 Crore & 0.15 Crore for FY 2017-18 to FY 2019-20 as shown in the table below:

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Table 27: Additional Capitalization for FY 2017-18 to FY 2019-20 as submitted by the Petitioner (Rs. Crore)

|        | ,                                     | Additional     | Additional     | Additional     |
|--------|---------------------------------------|----------------|----------------|----------------|
| S. No. | Name of package                       | Capitalization | Capitalization | Capitalization |
|        |                                       | FY 2017-18     | FY 2018-19     | FY 2019-20     |
| 1      | Land & land rights                    | 0.02           | 0.01           | 0.00           |
| 2      | Building & Civil works of Power plant | 0.80           | 0.65           | 0.00           |
| 3      | Hydraulic works                       | 16.75          | 0.61           | 0.00           |
| 4      | Other Civil Works                     | 0.19           | 0.15           | 0.00           |
| 5      | Plant & machinery                     | 3.71           | 2.97           | 0.00           |
| 6      | Lines and Cable Networks              | 0.00           | 0.00           | 0.00           |
| 7      | Vehicles                              | 0.00           | 0.00           | 0.07           |
| 8      | Furniture & fixtures                  | 0.02           | 0.01           | 0.03           |
| 9      | Office Equipment's                    | 0.02           | 0.04           | 0.05           |
| 10     | Capital Spares                        | 10.57          | 1.28           | 0.00           |
|        | Total                                 | 32.07          | 5.72           | 0.15           |

4.45 The detailed justification for additional capitalization as submitted by RVUN is as below:

# Water Storage System (Construction of Kalisindh Dam)

- 4.46 The construction work of Kalisindh Dam was executed by Water Resources Department under deposit work. The cost of Dam was Rs 798.16 Crore and was approved by BOD in its 235<sup>th</sup> meeting dated 27.03.2014 and confirmed vide the Secretary, Energy letter dated 11.08.2014. The entire cost of dam was to be borne by RVUN.
- 4.47 The WRD raised the demand from time to time for the construction of dam and RVUN has made the payments. A total payment of Rs. 710.62 Crore has been made as on cut-off-date, i.e., 31.03.2017 against WRD demand.
- 4.48 Further, WRD vide letter dated 27.09.2017 informed about the revised cost of dam of Rs. 766.22 Crore. The payment of Rs. 15.50 Crore has been made to WRD in FY 2017-18, out of the amount of Rs. 55.60 Crore (Rs. 766.22 Crore Rs. 710.62 Crore) to be paid for demand of WRD after stipulated cut-off-date, i.e., 31.03.2017 for the construction of Kalisindh Dam. The balance payment of Rs. 40.10 Crore is further likely to be incurred. The delay in making payment to

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WRD is due to lack of timely issuing of demand by the WRD. The demand raised by the WRD is beyond the control of RVUN.

#### 4.49 Further, the Petitioner submitted that:

- a) The payments made after the Cut-off date is towards the works, which were completed before the Cut-off date;
- b) Further, payment to WRD of the aforesaid works is purely depending on the demand of WRD (as and when bill are raised by WRD).
- c) WRD sought the payment of Rs. 15.50 Crore after the cut-off date, i.e., 31.03.2017, therefore, looking at the financial principles as well as consumer's interest, RVUN has made the payment as and when the demand of payment was raised by WRD.
- d) To meet the regulatory requirement (Tariff Regulations, 2014), i.e., for approval of the capital cost, if the payment were made before the cut-off date, then the consumer of the State would have been burdened with extra interest cost. Therefore, looking to the financial principles and interest of consumers, RVUN has made payment to WRD as per billing of WRD.
- The aforesaid deferred payments, defers the interest on e) additional capitalization. However, disallowance of such deferred payment compel the utilities to make the advance payment which would not only hamper the financial health of utilities but would also burden the State Consumers with extra interest cost. Therefore, RVUN requested the Commission to allow capital cost of dam the as per incurred/payments released to WRD as and when demand raised by WRD.
- f) As per Regulation 2(17) of RERC Tariff Regulations, 2014, cut-off-date of KaTPP Units 1&2 was 31.03.2017 and it may be extended by the Commission:

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#### Regulation 2(17) is reproduced as under:

"cut-off-date" means 31st March of the year closing after 365 days from the date of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off-date shall be 31st March of the year closing after 730 days from the date of commercial operation:

Provided that the cut-off-date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off-date for reasons beyond the control of the project developer";

4.50 Due to above reasons which were beyond the control of RVUN, capital expenditure of KaTPP Units 1&2 could not be made up to 31.03.2017. Therefore, RVUN requested the Commission to extend the cut-off date up to 31.03.2020 for capitalisation of Units 1&2.

#### Overheads (including CSR works):-

- 4.51 An amount of Rs. 24.00 Crore was allocated under the capital cost of 2 X 600 MW KaTPP Units at Rs. 2.00 lakhs per MW as per the CSR Policy. The work amounting to Rs. 23.95 Crore was sanctioned by the Committee chaired by the Collector, Jhalawar for various development works in nearby plant affected villages.
- 4.52 An amount of Rs. 13.44 Crore was deposited with various departments up to the Cut-off date, i.e., 31.03.2017 after receiving utilization certificate. The balance amount of Rs. 10.51 Crore was to be paid to various departments after receiving utilization certificate. An amount of Rs. 5.52 Crore & Rs. 4.39 Crore has been paid during FY 2017-18 & FY 2018-19 respectively and balance Rs. 0.60 Crore are to be paid to complete the CSR activities.
- 4.53 Since, the CSR works does not affect COD or any other work of the power station and the amount has to be paid after approval of the CSR Committee and receipt of utilization certificate, which is beyond the control of RVUN. Therefore, payment against the CSR be allowed as and when paid even after cut-off date.
- 4.54 RVUN again reiterated that aforesaid deferred payments, defers the interest

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on additional capitalization. However, disallowance of such deferred payment compel the utilities to make the advance payment, which not only hamper the financial health of utilities but also burden the State consumers with extra interest cost. Therefore, RVUN requested the Commission to extend the cut-off date as per Regulation 2(17) and allow capital cost of CSR after Cut-off date as per the expenditure incurred/payments released for CSR as and when demands were raised by CSR committee.

#### **Initial Spares**

- 4.55 RVUN awarded order for supply of spares of BTG & their auxiliaries to M/s BGRESL amounting to Rs. 166.00 Crore (excluding Taxes). An expenditure of Rs. 155.67 Crore was incurred up to cut-off date against Rs. 169.32 Crore (including taxes) and balance supply of spares amounting to Rs. 13.65 Crore was pending after cut-off date. Whereas, Rs. 10.55 Crore and Rs. 1.28 Crore have been paid against supply of spares during FY 2017-18 & FY 2018-19 respectively. Balance Rs. 1.82 Crore is likely to be incurred.
- 4.56 RVUN submitted that they were not having past experience of 600 MW units and requirement of spares was assessed after COD, when the unit was handed over and operation of the unit was done by RVUN. The receipt of spares were delayed from OEM because of off shore supply despite RVUN all out efforts for timely supply. The receipt of spares for an amount of Rs.13.65 Crore were delayed due to offshore supply item, which is beyond the control of RVUN.
- 4.57 RVUN further submitted that the initial spares are generally purchased at later stage of construction of the plant on the advice of OEM, which is also advantageous to the beneficiaries (Discoms) as in this case the IDC shall be lower compared to purchase of initial spares made at initial stage of the project. The purchase of initial spares is the supply part of the OEM contract and does not affect the schedule of commissioning of the project in any manner. Therefore, RVUN requested the Commission to extend the cut-off date as per Regulation 2(17) and consider the Initial spares supplied beyond cut-off date as already claimed by RVUN in the petition.
- 4.58 RVUN submitted that for the above mentioned reasons for expenditure after cut-off date there are sufficient grounds for the Commission to deviate from

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the provisions of the Tariff Regulations in terms of Regulation 94 and consider approving the cost after the cut-off date amounting to Rs. 32.07 Crore & Rs 5.72 Crore.

- 4.59 Further, during FY 2019-20, RVUN has incurred additional capitalisation of Rs 0.07 Crore under head of vehicle, Rs. 0.03 Crore under the head of furniture and fixture and Rs. 0.05 Crore under the head of office equipment as per Regulation 17(5)(e) of RERC, Tariff Regulations, 2019. RVUN submitted that the above additional capitalization was inevitable for smooth functioning of plant and was not covered under original scope of work, thus, RVUN requested the Commission to approve the aforesaid additional capitalization during FY 2019-20.
- 4.60 Accordingly, RVUN requested the Commission to allow the depreciation on the aforesaid assets as claimed.

#### Commission's Analysis

4.61 Regarding the additional capitalization of KaTPP Units 1 & 2 for FY 2017-18 and FY 2018-19, Regulation 17 of RERC Tariff Regulations, 2014 specifies as follows:

#### "17. Additional capitalization

- (1) The following capital expenditure, actually incurred after the date of commercial operation and up to the cut-off date and duly audited, may be considered by the Commission against the original scope of work, subject to prudent check
- (a) Due to undischarged liabilities;
- (b)On works deferred for execution;
- (c)To meet award of arbitration or satisfaction of order or decree of a court;
- (d)On account of change in law;
- (e)On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in regulation 16.

Provided that the details of the work included in the original scope of work

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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.

- (2) The capital expenditure incurred on the following counts after the cut-off date may, at its discretion, be admitted by the Commission, subject to prudence check:
- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (iv) Any additional works/ services, which have become necessary for efficient and successful operation of a generating station or transmission system but not included in the original capital cost.

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ,, |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| • | • | ٠ | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | ٠ |    |

4.62 Regulation 2(17) of the RERC Tariff Regulations, 2014 specifies as under:

"cut-off date" means 31st March of the year closing after 365 days from the date of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after 730 days from the date of commercial operation:

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;"

4.63 The COD of KaTPP Units 1 & 2 is 25.07.2015. Therefore, in accordance with Regulation 2(17) of the RERC Tariff Regulations, 2014 the cut-off date for the project is 31.03.2017. RVUN has claimed the additional capitalization of Rs. 32.07 Crore and Rs. 5.72 Crore incurred during FY 2017-18 and FY 2018-19

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- respectively after cut-off date.
- 4.64 Any additional capitalization has to be claimed in accordance with Regulation 17 of the RERC Tariff Regulations, 2014 giving a detailed justification for the same.
- 4.65 It is observed that the Commission in its Order dated 12.05.2020 in Petition No. 1515/19 has already rejected RVUN's claim seeking additional capitalisation after cut-off and has ruled as follows:
- 4.66 Further, the Commission in its Review Order dated 18.01.2021 in Petition No. 1744/20 rejected the RVUN's claim of allowing additional capitalisation after cut-off and re-iterated its views as follows:
  - "113. It is observed that in the instant petition, RVUN is only rearguing the case and seeking revision of Commission's Order without pointing out any error apparent on the face of the record.
  - 114. The Commission vide order dated 12.05.2020 has given detailed reasoning on each of the issue raised by the Petitioner, there is nothing new to be considered on the same issues for which review is sought by the Petitioner.
  - 115. As RVUN could neither point out any apparent error nor provided any new information which satisfies the conditions for review of the impugned order the submissions of RVUN are not maintainable in the Review Petition".
- 4.67 It is observed that in the instant petition, RVUN is again rearguing its claim of additional capitalization for FY 2017-18 and FY 2018-19 though the

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Commission has given its detailed ruling in Petition No. 1515/19 (Determination of Final Capital Cost and tariff for KaTPP Units 1 & 2 from COD of Unit 1, i.e., 07.05.2014 to FY 2019-20), i.e., Order dated 12.05.2020, Petition No. 1591/19 (Determination of ARR and Tariff for FY 2020-21), i.e., Order dated 11.08.2020 and in Review Petition No. 1744/20 (Review of Commission's Order dated 12.05.2020), i.e., Review Order dated 18.01.2020 and seeking revision of Commission's order through this instant Petition.

4.68 Hence, the Commission has not approved the additional capitalization for FY 2017-18 and FY 2018-19. Further, for FY 2019-20, the cost of assets pertaining to procurement of vehicles, furniture & fixture and Office Equipment's are to be treated as revenue expenses and not capital expenses due to the nature of such small works.

#### **Liquidated Damages**

#### **Commission Analysis**

- 4.69 The Commission vide Order dated 12.05.2020 against Petition No. 1515/2019 has ruled as below:
  - "4.149 ......RVUN did not submit justification for not complying with the directions of the Commission. Further, RVUN submitted that the LD against EPC contract has been finalized by BOD of the Petitioner at 10% of contract price of Unit 2, i.e., Rs. 217.37 Crore (131.86 Crore in INR and 16.20 Crore USD @ Rs. 52.78/- per USD) However, the matter is under adjudication and for other contracts too, RVUN submitted that it is under progress to finalize the LD.
  - 4.150 The Commission observed that even after more than 4 years from the date of COD, RVUN has not finalized the LD amount. In the absence of the same, the Commission at this stage has considered the liquidated damages as submitted by RVUN. The Commission directs RVUN to submit details of the amount of LD determined and recovered from the Contractors in its true up filings, failing which the Commission will consider the maximum LD amount that can be levied as per the Contracts for this project and finalize the Capital Cost accordingly.
  - 4.151 In accordance with the APTEL Judgment, the Commission has reduced the Liquidated Damages from the Capital Cost in the same proportion in

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which the increase in IDC has been allowed as discussed above i.e., 50%".

4.70 With the instant Petition, RVUN did not submit any details on it. The Commission for the purpose of this Order has considered the same capital cost as approved vide Order dated 1515/2019. The Commission directs RVUN to submit details of the amount of LD determined and recovered from the Contractors within 3 months of finalisation of LD with each Contractor. The Commission will appropriately consider the LD amount while carrying out the truing up of the year in which LD amount is received.

#### **Gross Fixed Assets (GFA)**

# Commission's Analysis

- 4.71 The Commission vide its order dated 12.05.2020 has approved the capital cost of KaTPP Units 1 & 2 of Rs. 7870.16 Crore as on COD of the project and Rs. 8215.73 Crore up to cut-off date of the project.
- 4.72 The GFA of KaTPP Units 1 & 2 as on COD (25.07.2015) and up to cut-off date (31.03.2017) considered by the Commission is as shown in the table below:

Table 28: GFA of KaTPP Units 1 & 2 as on COD & cut-off date (Rs. Crore)

| Particulars                     | Capital Cost as on | Capital Cost up to Cut-off |
|---------------------------------|--------------------|----------------------------|
| raniculais                      | COD                | Date                       |
| Land & Land Rights              | 18.48              | 18.56                      |
| Building & Civil Works of Power | 1157.34            | 1194.54                    |
| Plant                           | 1137.34            | 1174.54                    |
| Hydraulic Works                 | 1028.45            | 1088.40                    |
| Other Civil Works               | 253.34             | 266.61                     |
| Plant & Machinery               | 5385.55            | 5450.37                    |
| Lines & Cables Network          | 6.36               | 6.42                       |
| Vehicles                        | 0.18               | 0.18                       |
| Furniture & Fixtures            | 1.46               | 2.10                       |
| Office Equipment's              | 0.21               | 0.32                       |
| Capital Spares                  | 18.80              | 188.22                     |
| Total                           | 7870.16            | 8215.73                    |

#### **Depreciation**

#### **RVUN's Submission**

4.73 The details of depreciation approved in the Tariff Order dated 12.05.2020 and

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petitioned for true up based on actual/audited accounts are as shown in the table below:

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

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 | FY 2017-18<br>Unit 1&2 | FY 2018-19<br>Unit 1&2 | FY 2019-20<br>Unit 1&2 |
|-----------------------------|------------------------------------|----------------------|------------------------------------|------------------------|------------------------|------------------------|------------------------|
| Approved in<br>Tariff Order | 197.04                             | 224.85               | 116.57                             | 403.47                 | 404.49                 | 404.49                 | 404.49                 |
| Claimed for True-up         | 197.04                             | 224.85               | 116.57                             | 403.47                 | 405.33                 | 406.31                 | 406.46                 |

# **Commission's Analysis**

4.74 The approved capital cost has been considered as the basis for the purpose of depreciation. Depreciation has been computed considering the asset class wise GFA and the rates of depreciation as specified in the Tariff Regulations. The Commission has not considered any additional capitalization after cut-off date. The depreciation approved by the Commission for FY 2014-15 to FY 2019-20 is as shown in the table below:

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

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 | FY 2017-18<br>Unit 1&2 | FY 2018-19<br>Unit 1&2 | FY 2019-<br>20 Unit<br>1&2 |
|-----------------------------|------------------------------------|----------------------|------------------------------------|------------------------|------------------------|------------------------|----------------------------|
| Approved in<br>Tariff Order | 197.04                             | 224.85               | 116.57                             | 403.47                 | 404.49                 | 404.49                 | 404.49                     |
| Claimed for True-up         | 197.04                             | 224.85               | 116.57                             | 403.47                 | 405.33                 | 406.31                 | 406.46                     |
| Approved on True-up         | 197.04                             | 224.85               | 116.57                             | 403.47                 | 404.50                 | 404.50                 | 404.50                     |

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

- 4.75 RVUN submitted that the interest on term loan and finance charges has been worked out in accordance with Regulation 21 of the RERC Tariff Regulations, 2014 and the RERC Tariff Regulations, 2019.
- 4.76 RVUN has considered the normative loan, approved by the Commission in its Order dated 12.05.2020 and addition in loan corresponding to the capitalization of gross fixed asset in the respective years for computation of interest on loan.

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- 4.77 Further, RVUN submitted that the loan repayment has been taken equal to the annual depreciation claimed for FY 2014-15 to FY 2019-20.
- 4.78 The details of interest on term loan and finance charges as approved in the Tariff Order dated 12.05.2020 and petitioned for true up based on actual/audited accounts are shown in the table below:

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

| Particulars              | FY<br>2014-15<br>Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY<br>2015-16<br>Unit 2<br>(251<br>Days) | FY<br>2016-<br>17 Unit<br>1&2 | FY<br>2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-<br>20 Unit<br>1&2 |
|--------------------------|--|-----------------------------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Approved in Tariff Order | 403.77                                   | 406.36                      | 225.85                                   | 701.98                        | 618.65                        | 533.09                        | 480.95                        |
| Claimed for True-up      | 403.68                                   | 407.63                      | 226.72                                   | 736.13                        | 577.99                        | 535.11                        | 507.67                        |

# **Commission's Analysis**

- 4.79 It may be noted that the interest expenses would change from the approved figures only due to change in loan balances and due to interest rate variation. Interest on long-term loan has been computed in accordance with the provisions of the Tariff Regulations. The debt portion of the approved capital cost has been considered as the outstanding loan balance. The debt portion of the approved additional capitalization has been considered as the loan addition during the year. The Commission has considered the normative repayment for the year as equivalent to the approved depreciation.
- 4.80 Vide the data gaps, the Commission sought the computations of weighted average interest rate considered for computing the interest on long term loans for FY 2014-15 to FY 2019-20, along with the supporting documents. RVUN submitted the same vide its reply dated 09.06.2021 and 09.09.2021.
- 4.81 RVUN has claimed the finance charges as shown below:

Table 32: Finance Charges Claimed by the Petitioner (Rs Crore)

| Particulars                  | Amount |
|------------------------------|--------|
| FY 2014-15 Unit 1 (329 Days) | 11.13  |
| FY 2015-16 Unit 1            | 3.00   |
| FY 2015-16 Unit 2 (251 Days) | 2.05   |
| FY 2016-17 Unit 1&2          | 57.89  |
| FY 2017-18 Unit 1&2          | 8.68   |
| FY 2018-19 Unit 1&2          | 8.88   |
| FY 2019-20 Unit 1&2          | 9.26   |

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- 4.82 The Commission vide its deficiency note queried RVUN to submit the basis of claiming the finance charges for FY 2014-15 to FY 2019-20. RVUN, in its reply submitted that finance charges have been claimed based on the actual expenses. The Commission observed that the Finance charges were revised by the RVUN in its data gaps replies to Rs. 8.69 Crore for FY 2014-15 for Unit 1, Rs. 0.41 Crore and Rs. 0.39 Crore for FY 2015-16 for Unit 1 & 2 respectively and Rs. 0.16 Crore for FY 2017-18.
- 4.83 The Commission observes that the Petitioner during the proceedings of Petition No. 1515/19 filed on 21.06.2019 (Determination of Final Capital Cost and Tariff for FY 2014-15 to FY 2019-20) has not claimed any finance charges. The tariff order on this Petition was issued on 12.05.2020. The actual figures till FY 2018-19 were available before the Order in the matter was issued and the Petitioner had not submitted the correct facts and figures before the Commission at that time. The Commission for the purpose of this Order has approved the Finance Charges as claimed by the Petitioner, however, RVUN while making future tariff fillings is directed to project these expenses and submit the basis of expenses along with the allocation principle for each station.
- 4.84 Accordingly, the interest and finance charges approved by the Commission is as shown in the table below:

Table 33: Interest and finance charges on term loans approved (Rs. Crore)

| Particulars              | FY<br>2014-15<br>Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY<br>2015-16<br>Unit 2<br>(251<br>Days) | FY<br>2016-<br>17 Unit<br>1&2 | FY<br>2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-<br>20 Unit<br>1&2 |
|--------------------------|--|-----------------------------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Approved in Tariff Order | 403.77                                   | 406.36                      | 225.85                                   | 701.98                        | 618.65                        | 533.09                        | 480.95                        |
| Claimed for True-up      | 403.68                                   | 407.63                      | 226.72                                   | 736.13                        | 577.99                        | 535.11                        | 507.67                        |
| Approved on True-up      | 403.68                                   | 407.63                      | 226.72                                   | 736.13                        | 576.67                        | 532.38                        | 504.81                        |

<sup>\*</sup>Claimed figures are changed because of revised claim of Finance Charges by RVUN and revised claim of Interest Rate for FY 2018-19

#### **Carrying Cost**

#### **RVUN's Submission**

4.85 With respect to carrying cost recovery of allowed expenditure on reconstruction of Road, RVUN claimed an amount of Rs. 2.92 Crore towards reconstruction of road up to COD of project (as hard cost). Rs 0.40 Crore

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incurred after COD and up to cut-off date of the Project. RVUN submitted that on the similar issue, the Commission in its Order dated 08.03.2019 in Petition No. 1334/18 while approving the Final Capital Cost of CTPP Stage-I, Phase II, Units 3 & 4 has not capitalized the cost towards reconstruction of road not owned by RVUN and has allowed RVUN to recover such cost separately as reimbursement.

- 4.86 Following the same approach, the Commission allowed the cost of Rs. 3.32 Crore vide Order dated 12.05.2020 against Petition No. 1515/19 actually incurred on this account to be recovered separately as reimbursement. However, the Commission did not give any concurrence for expenditure incurred on account interest/carrying cost on the said amount.
- 4.87 Earlier, the Commission, in its order for Review Petition of CTPP Units 3&4 Order dated 03.07.2019 has considered expenditure against interest cost on deferred recovery with the following observation:

"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"

- 4.88 In pursuant to above Order, RVUN submitted that it is entitled to the interest/carrying cost on the said amount, as it has already incurred the expenditure which shall now be reimbursed. Therefore, the Petitioner requested that RVUN be allowed to recover the below mentioned impact of interest cost due to such deferment of Capital Cost or give a direction for recovery of interest cost as directed vide its order dated 03.07.2019.
- 4.89 Accordingly, RVUN has computed carrying cost of allowed expenditure on reconstruction of road as shown in the table below:

Table 34: Carrying cost of allowed expenditure on reconstruction of road claimed by Petitioner (Rs. Crore)

|                 |                                    | 1 01                    | moner (Ks. Ch                      | 510)                       |                            |                            |                            |
|-----------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Parameters      | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
| Opening balance | 0.00                               |                         | 2.92                               |                            | 3.32                       | 3.32                       | 3.32                       |
| Addition        | 2.92                               | (                       | 0.40                               |                            | 0.00                       | 0.00                       | 0.00                       |
| Closing Balance | 2.92                               |                         | 3.32                               | 3.32                       | 3.32                       | 3.32                       | 3.32                       |

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| Parameters                       | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|----------------------------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Average Balance                  | 1.46                               | 3                       | 3.12                               |                            | 3.32                       | 3.32                       | 3.32                       |
| Rate of interest as on term loan | 12.70%                             | 12                      | 12.19%                             |                            | 10.62%                     | 10.49%                     | 10.73%                     |
| Interest Amount                  | 0.19                               | 0.23                    | 0.15                               | 0.39                       | 0.35                       | 0.35                       | 0.36                       |

#### **Commission Analysis**

- 4.90 The Petitioner has raised the same issue in Review Petition and the Commission vide its Order in Petition No. 1744/21 has ruled as follows:
  - "112. The Commission has considered the submissions of the Petitioner, Respondents and stakeholders in light of the section 94(1)(f) of Electricity Act, 2003 read with CPC and the aforesaid judgement of Hon"ble APTEL.
  - 113. It is observed that in the instant petition, RVUN is only rearguing the case and seeking revision of Commission's order without pointing out any error apparent on the face of the record.
  - 114. The Commission vide order dated 12.05.2020 has given detailed reasoning on each of the issue raised by the Petitioner, there is nothing new to be considered on the same issues for which review is sought by the Petitioner.
  - 115. As RVUN could neither point out any apparent error nor provided any new information which satisfies the conditions for review of the impugned order the submissions of RVUN are not maintainable in the Review Petition".
- 4.91 Accordingly, the Commission does not find it prudent to allow the carrying cost on recovery of allowed expenditure for reconstruction of road.

# Interest on Working Capital (IoWC)

#### **RVUN's Submission**

4.92 The details of IoWC approved in the Tariff order dated 12.05.2020 and petitioned for true up based on actual/audited accounts is as shown in the table below:

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Table 35: Interest on working capital claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-<br>17 Unit<br>1&2 | FY<br>2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-20<br>Unit 1&2 |
|--------------------------|--|-----------------------------|--|-------------------------------|-------------------------------|-------------------------------|---------------------------|
| Approved in Tariff Order | 38.37                                  | 46.31                       | 29.02                                  | 96.74                         | 93.89                         | 94.65                         | 92.21                     |
| Claimed for True-up      | 39.43                                  | 46.34                       | 29.25                                  | 97.17                         | 93.22                         | 94.54                         | 104.06                    |

- 4.93 Regulation 27 of the RERC Tariff Regulations, 2014 and the RERC Tariff Regulations, 2019 specifies that the rate of interest on working capital is to be computed on normative basis.
- 4.94 RVUN has considered the interest rates as 12.21% for FY 2014-15, 12.50% for FY 2015-16, 12.26% for FY 2016-17, 11.80% for FY 2017-18, 11.55% for FY 2018-19 and 11.25% for FY 2019-20 based on the aforesaid Regulations.
- 4.95 As per the Regulation 9(2)(a) & 9(3)(a) and Regulation 27 of the RERC Tariff Regulations, 2014 & 2019, which is read as below:

"Gain or loss to the Generating Company or Licensee on account of controllable factors shall be retained or borne by the Generating Company or Licensee, as the case may be, except in case of the following"

Regulations 27 is re-produced as under:

"The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the generating company/licensee and the beneficiary."

4.96 Keeping in view the above Regulation, RVUN after sharing of 50% gain/loss has claimed interest on working capital as mentioned in below table:

Table 36: Interest on Working Capital Claimed by the Petitioner

| Particulars                                  | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-20<br>Unit 1&2 |
|--|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|-------------------------------|---------------------------|
| Interest on Working Capital as per Normative | 39.43                              | 46.34                 | 29.25                              | 97.17                      | 93.22                      | 94.54                         | 104.06                    |
| Rate of Interest (A)                         |                                    |                       |                                    |                            |                            |                               |                           |
| Actual rate of interest (B)                  | 12.37%                             | 12.66%                | 12.66%                             | 12.12%                     | 12.14%                     | 10.60%                        | 11.31%                    |

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| Particulars             | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-20<br>Unit 1&2 |
|-------------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|-------------------------------|---------------------------|
| Interest on Working     |                                    |                       |                                    |                            |                            |                               |                           |
| Capital as per          | 39.94                              | 46.94                 | 29.62                              | 96.06                      | 95.91                      | 86.77                         | 104.61                    |
| Actual/Audited Rate of  | O7.7 ¬                             | 40.74                 | 27.02                              | 70.00                      | 70.71                      | 00.77                         | 104.01                    |
| Interest (C)            |                                    |                       |                                    |                            |                            |                               |                           |
| (Gain)/ Loss (D=C-A)    | 0.52                               | 0.59                  | 0.37                               | -1.11                      | 2.69                       | -7.78                         | 0.55                      |
| 50% Sharing (E=D*50%)   | 0.26                               | 0.30                  | 0.19                               | -0.55                      | 1.34                       | -3.89                         | 0.28                      |
| Interest on Working     | 39.68                              | 46.64                 | 29.44                              | 96.62                      | 94.57                      | 90.65                         | 104.33                    |
| Capital Claimed (F=A+E) | 37.00                              | 40.04                 | 27.44                              | 70.02                      | /4.3/                      | 70.03                         | 104.33                    |

# Commission's Analysis

4.97 Regulation 27(2) of the RERC Tariff Regulations, 2014 stipulates as follows:

"Rate of interest on working capital to be computed shall be on normative basis and shall be 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six month of the year previous to the relevant year. The interest on working capital shall be computed on normative basis notwithstanding that the generating company or licensee has not taken working capital loan from any outside agency. The variation in the interest amount on account of actual vis-à-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the generating company/licensee and the beneficiary."

- 4.98 Whereas Regulation 27(2) and 27(3) of the RERC Tariff Regulations, 2019 is stipulated as below:
  - "(2) Rate of interest on working capital to be computed shall be on normative basis and shall be 300 basis points higher than the average Base Rate prevalent during first six months of the year previous to the relevant year. The working capital and interest thereon shall be computed on normative basis notwithstanding that the Generating Company or Licensee has not taken working capital loan from any outside agency.
  - (3) The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the Generating Company/Licensee/SLDC and the beneficiary".

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4.99 The computation of the base rate is as shown in the table below:

Table 37: Computation of Interest Rate for Working Capital

| Table 37. Composition of inferest rate for Working Capital |            |            |                |                  |                        |                              |  |  |  |  |  |  |
|--|------------|------------|----------------|------------------|------------------------|------------------------------|--|--|--|--|--|--|
| Applicable for the Year                                    | From Date  | To Date    | No. of<br>Days | SBI Base<br>Rate | 250/300<br>Basis Point | Approved<br>Interest<br>Rate |  |  |  |  |  |  |
| FV 0014 1F   | 01-04-2013 | 18-09-2013 | 171.00         | 9.70%            | 0.5097                 | 10 0197                      |  |  |  |  |  |  |
| FY 2014-15   | 19-09-2013 | 30-09-2013 | 12.00          | 9.80%            | 2.50%                  | 12.21%                       |  |  |  |  |  |  |
| FY 2015-16   | 01-04-2014 | 30-09-2014 | 183.00         | 10.00%           | 2.50%                  | 12.50%                       |  |  |  |  |  |  |
|  | 01-04-2015 | 09-04-2015 | 9.00           | 10.00%           |                        |                              |  |  |  |  |  |  |
| FY 2016-17   | 10-04-2015 | 07-06-2015 | 59.00          | 9.85%            | 2.50%                  | 12.26%                       |  |  |  |  |  |  |
|  | 08-06-2015 | 30-09-2015 | 115.00         | 9.70%            |                        |                              |  |  |  |  |  |  |
| FY 2017-18   | 01-04-2016 | 30-09-2016 | 183.00         | 9.30%            | 2.50%                  | 11.80%                       |  |  |  |  |  |  |
| FV 0010 10   | 01-04-2017 | 30-06-2017 | 91.00          | 9.10%            | 0.5097                 | 11 5507                      |  |  |  |  |  |  |
| FY 2018-19   | 01-07-2017 | 30-09-2017 | 92.00          | 9.00%            | 2.50%                  | 11.55%                       |  |  |  |  |  |  |
|  | 01-04-2018 | 31-05-2018 | 61.00          | 8.15%            |                        |                              |  |  |  |  |  |  |
| FY 2019-20   | 01-06-2018 | 31-08-2018 | 92.00          | 8.25%            | 3.00%                  | 11.25%                       |  |  |  |  |  |  |
|  | 01-09-2018 | 30-09-2018 | 30.00          | 8.45%            |                        |                              |  |  |  |  |  |  |

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

- 4.100 As IoWC is a controllable factor, the Commission has computed the sharing of gains/losses for FY 2014-15 to FY 2019-20 in accordance with the Regulation 27(2) of the RERC Tariff Regulations, 2014 and Regulation 27(2) and 27(3) of the RERC Tariff Regulations, 2019.
- 4.101 As per Regulation 27(2) of the RERC Tariff Regulations, 2014 and Regulation 27(2) and 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.
- 4.102 RVUN, vide the data gaps submitted the actual weighted average rate of interest on working capital loans as 12.37%, 12.66%, 12.12% and 12.14%, 10.60% and 11.31% for FY 2014-15 to FY 2019-20 respectively. In accordance with the provision of Regulation 27(2) of the RERC Tariff Regulations, 2014 and Regulation 27(2) and 27(3) of the RERC Tariff Regulations, 2019, the Commission has considered the actual interest rates submitted by RVUN for working out the sharing of gains and losses.
- 4.103 The IoWC approved by the Commission for FY 2014-15 to FY 2019-20 is as shown in the Table below:

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Table 38: Approved IoWC for FY 2014-15 to FY 2019-20 (Rs. Crore)

| Particulars                         | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|-------------------------------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| IoWC at normative rate of IoWC (A)  | 39.63                              | 46.24                 | 29.24                              | 97.23                      | 93.05                      | 94.46                      | 100.16                     |
| loWC at actual rate of loWC (B)     | 40.16                              | 46.83                 | 29.61                              | 96.10                      | 95.73                      | 86.69                      | 100.70                     |
| (Gain)/Loss C = B-A                 | 0.53                               | 0.59                  | 0.37                               | -1.13                      | 2.68                       | -7.77                      | 0.54                       |
| Sharing of (Gain)/Loss<br>D = 50%*C | 0.27                               | 0.30                  | 0.19                               | -0.57                      | 1.34                       | -3.88                      | 0.27                       |

# Recovery of ARR and Tariff Petition Fees RVUN's Submission

4.104 RVUN has submitted ARR and Tariff petition fees for FY 2014-15 to FY 2019-20 as shown in the table below:

Table 39: ARR and tariff petition fees claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 | FY<br>2018-19<br>Unit 1&2 | FY<br>2019-20<br>Unit 1&2 |
|--------------------------|--|-----------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Approved in Tariff Order | 0.30                                   | 0.30                        | 0.30                                   | 0.60                      | 0.60                      | 0.60                      | 0.00                      |
| Claimed for True-up      | 0.30                                   | 0.30                        | 0.30                                   | 0.60                      | 0.60                      | 0.60                      | 0.00                      |

#### **Commission's Analysis**

4.105 The ARR and Tariff petition fees is allowed at the rate as specified in RERC (Fees for Petition) Regulations, 2005 and RERC (Fees for Petition) Regulations, 2018. Accordingly, the Commission has computed the ARR and Tariff petition fees at the rate of Rs. 5000/MW for KaTPP Units 1 & 2. The details of Recovery of ARR and Tariff petition fees approved by the Commission for True-up of FY 2014-15 to FY 2019-20 are provided below:

Table 40: ARR and tariff petition fees approved (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--------------------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Approved in Tariff Order | 0.30                               | 0.30                    | 0.30                               | 0.60                       | 0.60                       | 0.60                       | 0.00                       |
| Claimed for True-up      | 0.30                               | 0.30                    | 0.30                               | 0.60                       | 0.60                       | 0.60                       | 0.00                       |
| Approved on True-up      | 0.30                               | 0.30                    | 0.30                               | 0.60                       | 0.60                       | 0.60                       | 0.00                       |

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#### **Insurance on Fixed Assets**

#### **RVUN's Submission**

4.106 RVUN submitted the actual insurance on fixed assets along with the supporting documents, as against that approved in Tariff Order dated 12.05.2020 as follows:

Table 41: Insurance on fixed assets claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Davs) |      | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--------------------------|------------------------------------|------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Approved in Tariff Order | 0.06                               | 0.11 | 0.08                               | 5.83                       | 8.98                       | 9.43                       | 9.90                       |
| Claimed for True-up      | 0.06                               | 0.11 | 0.08                               | 5.83                       | 8.98                       | 8.38                       | 5.83                       |

### **Commission's Analysis**

- 4.107 The Commission vide its data gaps asked RVUN to submit the reconciliation statement of the actual insurance charges as per the audited accounts. RVUN in its replies to the data gaps dated 09.06.2021 submitted the same. The Commission observed that for FY 2016-17, insurance charges allocated towards STPS Units 1-6 is Rs. 2.59 Crore, Whereas the Commission vide its true-up Order dated 18.05.2018 against Petition No. 1316/18 approved insurance charge of Rs. 2.66 Crore for STPS Units 1-6, i..e., as claimed by the Petitioner during the proceedings of Petition No. 1316/18.
- 4.108 The total insurance charges for FY 2016-17 is Rs. 20.27 Crore. Considering insurance charges of Rs. 2.66 Crore for STPS Units 1-6, the Commission has deducted equivalent amount from the claimed figure of insurance charges for KaTPP Units 1-2. Accordingly, the actual insurance charges on fixed assets for FY 2014-15 to FY 2019-20 approved by the Commission is as shown in the table below:

Table 42: Approved insurance on fixed assets (Rs. Crore)

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 | FY 2017-18<br>Unit 1&2 | FY 2018-19<br>Unit 1&2 | FY 2019-20<br>Unit 1&2 |
|-----------------------------|------------------------------------|----------------------|------------------------------------|------------------------|------------------------|------------------------|------------------------|
| Approved in<br>Tariff Order | 0.06                               | 0.11                 | 0.08                               | 5.83                   | 8.98                   | 9.43                   | 9.90                   |
| Claimed for True-up         | 0.06                               | 0.11                 | 0.08                               | 5.83                   | 8.98                   | 8.38                   | 5.83                   |
| Approved on True-up         | 0.06                               | 0.11                 | 0.08                               | 5.76                   | 8.98                   | 8.38                   | 5.83                   |

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# Return on Equity (RoE)

#### **RVUN's Submission**

4.109 RoE has been computed as per the norms specified in Regulation 20 of the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019. The details of RoE approved in the Tariff order dated 12.05.2020 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 43: RoE claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--------------------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Approved in Tariff Order | 0.00                               | 45.64                   | 23.72                              | 254.04                     | 254.69                     | 254.69                     | 246.47                     |
| Claimed for True-up      | 0.00                               | 45.64                   | 23.72                              | 254.04                     | 255.18                     | 255.77                     | 247.61                     |

### Commission's Analysis

- 4.110 The Commission, in view of RVUN not claiming any return on Equity for FY 2014-15, has not provided for the same while carrying out true up for FY 2014-15. Subsequently, the GoR in its letter dated 18.03.2015 has allowed rate of RoE as 5.00% in FY 2015-16, 10.00% in FY 2016-17 and 15.50% in FY 2017-18 onwards. However, in its revised letter dated 21.03.2016, the rate of RoE for FY 2016-17 was revised to 15.50%. Therefore, the Commission has approved RoE for FY 2015-16 and for FY 2017-18 as per the GoR Order dated 18.03.2015 and for FY 2016-17 as per the latest order of GoR dated 21.03.2016 and in accordance with Regulation 20 of the RERC Tariff Regulations, 2014 and RERC Tariff Regulations, 2019.
- 4.111 Vide reply dated 20.09.2021, RVUN submitted copy of 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 truing up by RERC be withdrawn.....".
- 4.112 Accordingly, the Commission, has not approved RoE while carrying out true up of FY 2019-20 as the Energy Department, GOR have decided to withdraw

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- RoE charge for FY 2019-20.
- 4.113 The equity portion of the approved capital cost has been considered as the outstanding equity balance. The equity portion of the approved additional capitalization has been considered as the equity addition during the year.
- 4.114 RoE approved by the Commission for FY 2014-15 to FY 2019-20 is as shown in the table below:

Table 44: RoE approved by the Commission (Rs. Crore)

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-20<br>Unit 1&2 |
|-----------------------------|------------------------------------|-----------------------|--|----------------------------|----------------------------|----------------------------|------------------------|
| Approved in<br>Tariff Order | 0.00                               | 45.64                 | 23.72                                  | 254.04                     | 254.69                     | 254.69                     | 246.47                 |
| Claimed for<br>True-up      | 0.00                               | 45.64                 | 23.72                                  | 254.04                     | 255.18                     | 255.77                     | 247.61                 |
| Approved on True-up         | 0.00                               | 45.64                 | 23.72                                  | 254.04                     | 254.69                     | 254.69                     | 0.00                   |

### **Terminal Benefit**

#### **RVUN's Submission**

- 4.115 RVUN submitted that the terminal benefits have been separately allowed over and above the normative O&M expenses as per Regulation 47(7) of the RERC Tariff Regulations, 2019 which is read as below:
  - " ....Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed through tariff separately."
- 4.116 The actual terminal benefits for FY 2019-20 is Rs. 19.25 Crore as per the actuarial report of FY 2019-20. RVUN submitted the actuarial report for FY 2019-20. Therefore, RVUN requested the Commission to allow the terminal benefits as submitted. The details of terminal benefits approved in the Tariff order dated 12.05.2020 and petitioned for true up are as shown in the table below:

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Table 45: Terminal Benefits claimed by the Petitioner (Rs. Crore)

| Particulars                 | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY<br>2016-17<br>Unit 1&2 | FY<br>2017-18<br>Unit 1&2 |      | FY<br>2019-20<br>Unit 1&2 |
|-----------------------------|------------------------------------|----------------------|------------------------------------|---------------------------|---------------------------|------|---------------------------|
| Approved in Tariff<br>Order | 0.00                               | 0.00                 | 0.00                               | 0.00                      | 0.00                      | 0.00 | 30.10                     |
| Claimed for True-up         | 0.00                               | 0.00                 | 0.00                               | 0.00                      | 0.00                      | 0.00 | 19.25                     |

# **Commission's Analysis**

- 4.117 The Commission vide its data gaps asked RVUN to submit the reconciliation statement of the actual terminal benefits deposited as per the audited accounts for FY 2019-20. RVUN in its replies to the data gaps submitted the same and replied that the reason for claiming Rs. 19.25 Crore against Rs. 30.10 Crore approved in the Order dated 12.05.2020 for FY 2019-20 is due to different procedure followed in computation of terminal benefits in the audited accounts of FY 2019-20. In the determination of ARR of FY 2019-20 plant wise allocations of terminal benefits was made on the basis of capacity of plant.
- 4.118 However, in the truing up of FY 2019-20, allocation of terminal benefits has been made by the Statutory Auditor on the basis of employee cost of respective power stations and the same has been claimed in the truing up of FY 2019-20. 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 actual valuation, The Commission, therefore, does not allow the same for FY 2019-20.

### **Lease Rent**

#### **RVUN's Submission**

4.119 The details of lease rent approved in the Tariff Order dated 12.05.2020 and petitioned for true up are as shown in the table below:

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Table 46: Lease Rent claimed by the Petitioner (Rs. Crore)

| Particulars              | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-<br>17 Unit<br>1&2 | FY<br>2017-<br>18 Unit<br>1&2 | FY<br>2018-<br>19 Unit<br>1&2 | FY<br>2019-<br>20 Unit<br>1&2 |
|--------------------------|--|-----------------------------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Approved in Tariff Order | 0.00                                   | 0.00                        | 0.00                                   | 0.00                          | 0.00                          | 0.00                          | 0.00                          |
| Claimed for True-up      | 0.08                                   | 0.41                        | 0.28                                   | 0.32                          | 0.31                          | 0.32                          | 0.69                          |

#### **Commission's Analysis**

- 4.120 The Commission vide its data gaps asked RVUN to submit the basis of its claim against Lease Rent from FY 2014-15 to FY 2019-20, along with its station wise reconciliation statement as per the audited accounts. RVUN in its replies to the data gaps submitted that in the Petition RVUN has claimed only amortization of lease hold land for FY 2014-15 to FY 2019-20 on the basis of audited accounts of respective year. The Petitioner submitted the revised statement including lease rental and amortization of lease hold land for FY 2014-15 to FY 2019-20 on the basis of audited accounts. Further, the Petitioner submitted that the lease charges have been considered as per the lease agreement and actual out go as per Regulation 23 of the RERC Tariff Regulations, 2014. The Petitioner also submitted the station wise reconciliation statement of lease rent.
- 4.121 The Commission finds that the Petitioner themselves have submitted in response to Stakeholder comment that the lease rent is a part of Finance Charges. As the Commission has dealt with the same under Finance Charges, therefore, the Commission does not find it prudent to allow the lease rent separately, Accordingly, only amortization on lease hold land is allowed as shown in the table below:

Table 47: Lease Rent approved by the Commission (Rs. Crore)

| Particulars              | FY 2014-<br>15 Unit 1<br>(329<br>Days) | FY<br>2015-<br>16 Unit<br>1 | FY 2015-<br>16 Unit 2<br>(251<br>Days) | FY<br>2016-17<br>Unit<br>1&2 | FY<br>2017-18<br>Unit<br>1&2 | FY<br>2018-19<br>Unit<br>1&2 | FY<br>2019-20<br>Unit<br>1&2 |
|--------------------------|--|-----------------------------|--|------------------------------|------------------------------|------------------------------|------------------------------|
| Approved in Tariff Order | 0.00                                   | 0.00                        | 0.00                                   | 0.00                         | 0.00                         | 0.00                         | 0.00                         |
| Claimed for True-up      | 0.08                                   | 0.41                        | 0.28                                   | 0.32                         | 0.31                         | 0.32                         | 0.69                         |
| Approved on True-up      | 0.08                                   | 0.05                        | 0.04                                   | 0.09                         | 0.09                         | 0.10                         | 0.00                         |

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# **Non-Tariff Income**

# **RVUN's Submission**

4.122 The details of non-tariff income approved in the Tariff Order dated 12.05.2020 and petitioned for true up based on actual/audited accounts is as shown in the table below:

Table 48: Non-tariff income claimed by RVUN (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--------------------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Approved in Tariff Order | 0.50                               | 0.36                    | 0.24                               | 1.10                       | 1.30                       | 1.37                       | 1.43                       |
| Claimed for True-up      | 2.79                               | 2.85                    | 1.96                               | 1.18                       | 10.78                      | 9.90                       | 1.21                       |

### **Commission's Analysis**

4.123 The Commission vide its data gaps asked RVUN to submit the reconciliation statement of the actual non-tariff income as per the audited accounts. RVUN in its replies to the data gaps submitted the same. The Commission finds it to be prudent and accordingly, approves the actual non-tariff income for FY 2014-15 to FY 2019-20 as shown in the table below:

Table 49: Non-tariff income approved by the Commission (Rs. Crore)

| Particulars              | FY 2014-15<br>Unit 1 (329<br>Days) | FY<br>2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--------------------------|------------------------------------|-------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Approved in Tariff Order | 0.50                               | 0.36                    | 0.24                               | 1.10                       | 1.30                       | 1.37                       | 1.43                       |
| Claimed for True-up      | 2.79                               | 2.85                    | 1.96                               | 1.18                       | 10.78                      | 9.90                       | 1.21                       |
| Approved on True-up      | 2.79                               | 2.85                    | 1.96                               | 1.18                       | 10.78                      | 9.90                       | 1.21                       |

# Annual Fixed Charges Commission's Analysis

4.124 The summary of year-wise AFC approved by the Commission upon truing up is as given in Table below:

Table 50: Approved AFC by the Commission (Rs. Crore)

|                                  | FY 2014-15 Unit 1 (329 Days)   |                            |                   | FY                             | 2015-16 Un                 | it 1              | FY 2015-16 Unit 2 (251 Days)   |                            |                   |  |
|----------------------------------|--------------------------------|----------------------------|-------------------|--------------------------------|----------------------------|-------------------|--------------------------------|----------------------------|-------------------|--|
| Particulars                      | Approved<br>in Tariff<br>Order | Claimed<br>for True-<br>up | Approved on True- | Approved<br>in Tariff<br>Order | Claimed<br>for True-<br>up | Approved on True- | Approved<br>in Tariff<br>Order | Claimed<br>for True-<br>up | Approved on True- |  |
| Operation & Maintenance expenses | 78.31                          | 78.31                      | 78.31             | 91.96                          | 91.96                      | 91.96             | 63.07                          | 63.07                      | 63.07             |  |

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| Interest on<br>loan and<br>finance<br>charges | 403.77 | 403.68 | 403.68 | 406.36 | 407.63 | 407.63 | 225.85 | 226.72 | 226.72 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Depreciation                                  | 197.04 | 197.04 | 197.04 | 224.85 | 224.85 | 224.85 | 116.57 | 116.57 | 116.57 |
| Interest on working capital                   | 38.37  | 39.43  | 39.63  | 46.31  | 46.34  | 46.24  | 29.02  | 29.25  | 29.24  |
| Return on<br>Equity                           | 0.00   | 0.00   | 0.00   | 45.64  | 45.64  | 45.64  | 23.72  | 23.72  | 23.72  |
| Insurance                                     | 0.06   | 0.06   | 0.06   | 0.11   | 0.11   | 0.11   | 0.08   | 0.08   | 0.08   |
| ARR & Tariff<br>Petition fees                 | 0.30   | 0.30   | 0.30   | 0.30   | 0.30   | 0.30   | 0.30   | 0.30   | 0.30   |
| Terminal<br>Benefit                           | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Lease Rent                                    | 0.00   | 0.08   | 0.08   | 0.00   | 0.41   | 0.05   | 0.00   | 0.28   | 0.04   |
| Less: Non-<br>Tariff Income                   | 0.50   | 2.79   | 2.79   | 0.36   | 2.85   | 2.85   | 0.24   | 1.96   | 1.96   |
| Annual Fixed Charaes                          | 717.35 | 716.10 | 716.30 | 815.18 | 814.39 | 813.93 | 458.36 | 458.02 | 457.76 |

|                                      | FY 20                           | 016-17 Unil                | 1&2                        | FY 20                           | 017-18 Unii                | 1&2                        |
|--------------------------------------|---------------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|
| Particulars                          | Approve<br>d in Tariff<br>Order | Claime<br>d for<br>True-up | Approve<br>d on<br>True-up | Approve<br>d in Tariff<br>Order | Claime<br>d for<br>True-up | Approve<br>d on<br>True-up |
| Operation & Maintenance expenses     | 194.68                          | 194.68                     | 194.68                     | 206.07                          | 206.07                     | 206.07                     |
| Interest on loan and finance charges | 701.98                          | 736.13                     | 736.13                     | 618.65                          | 577.99                     | 576.67                     |
| Depreciation                         | 403.47                          | 403.47                     | 403.47                     | 404.49                          | 405.33                     | 404.50                     |
| Interest on working capital          | 96.74                           | 97.17                      | 97.23                      | 93.89                           | 93.22                      | 93.05                      |
| Return on Equity                     | 254.04                          | 254.04                     | 254.04                     | 254.69                          | 255.18                     | 254.69                     |
| Insurance                            | 5.83                            | 5.83                       | 5.76                       | 8.98                            | 8.98                       | 8.98                       |
| ARR & Tariff Petition fees           | 0.60                            | 0.60                       | 0.60                       | 0.60                            | 0.60                       | 0.60                       |
| Terminal Benefit                     | 0.00                            | 0.00                       | 0.00                       | 0.00                            | 0.00                       | 0.00                       |
| Lease Rent                           | 0.00                            | 0.32                       | 0.09                       | 0.00                            | 0.31                       | 0.09                       |
| Less: Non-Tariff Income              | 1.10                            | 1.18                       | 1.18                       | 1.30                            | 10.78                      | 10.78                      |
| Annual Fixed Charges                 | 1656.24                         | 1691.07                    | 1690.83                    | 1586.08                         | 1536.91                    | 1533.87                    |

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|                                      | FY 20                           | 018-19 Unil                | 1&2                        | FY 20                           | 019-20 Unil                | 1&2                        |
|--------------------------------------|---------------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|
| Particulars                          | Approve<br>d in Tariff<br>Order | Claime<br>d for<br>True-up | Approve<br>d on<br>True-up | Approve<br>d in Tariff<br>Order | Claime<br>d for<br>True-up | Approve<br>d on<br>True-up |
| Operation & Maintenance expenses     | 218.13                          | 218.13                     | 218.13                     | 218.13                          | 218.16                     | 218.13                     |
| Interest on loan and finance charges | 533.09                          | 535.11                     | 532.38                     | 480.95                          | 507.67                     | 504.81                     |
| Depreciation                         | 404.49                          | 406.31                     | 404.50                     | 404.49                          | 406.46                     | 404.50                     |
| Interest on working capital          | 94.65                           | 94.54                      | 94.46                      | 92.21                           | 104.06                     | 100.16                     |
| Return on Equity                     | 254.69                          | 255.77                     | 254.69                     | 246.47                          | 247.61                     | 0.00                       |
| Insurance                            | 9.43                            | 8.38                       | 8.38                       | 9.90                            | 5.83                       | 5.83                       |
| ARR & Tariff Petition fees           | 0.60                            | 0.60                       | 0.60                       | 0.00                            | 0.00                       | 0.00                       |
| Terminal Benefit                     | 0.00                            | 0.00                       | 0.00                       | 30.10                           | 19.25                      | 0.00                       |
| Lease Rent                           | 0.00                            | 0.32                       | 0.10                       | 0.00                            | 0.69                       | 0.00                       |
| Less: Non-Tariff Income              | 1.37                            | 9.90                       | 9.90                       | 1.43                            | 1.21                       | 1.21                       |
| Annual Fixed Charges                 | 1513.71                         | 1509.25                    | 1503.32                    | 1480.82                         | 1508.51                    | 1232.22                    |

4.125 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. The actual availability for FY 2014-15 to FY 2016-17 and FY 2018-19, FY 2019-20 for KaTPP Units 1 & 2 is lower than the normative availability approved by the Commission in this Order. For such years, the Commission has reduced the recovery of Annual Fixed Charge on pro-rata basis. The approved Annual Fixed Charges and Annual Fixed charges reduced by the Commission are as shown in table below:

Table 51: AFC reduced for non-achievement of target Availability (Rs Crore)

| Particulars  | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 | FY 2017-18<br>Unit 1&2 | FY 2018-19<br>Unit 1&2 | FY 2019-20<br>Unit 1&2 |
|--|------------------------------------|-----------------------|------------------------------------|------------------------|------------------------|------------------------|------------------------|
| AFC after true up  | 716.30                             | 813.93                | 457.76                             | 1690.83                | 1533.87                | 1503.32                | 1232.22                |
| Actual<br>Availability<br>considered<br>by the<br>Commission | 23.56%                             | 71.41%                | 69.58%                             | 65.51%                 | 83.52%                 | 59.75%                 | 64.91%                 |
| Target Availability for full recovery of fixed charges       | 83.00%                             | 83.00%                | 83.00%                             | 83.00%                 | 83.00%                 | 83.00%                 | 83.00%                 |
| Reduced<br>AFC   | 203.34                             | 700.26                | 383.76                             | 1334.54                | 1533.87                | 1082.25                | 963.68                 |

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| Particulars | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 | FY 2017-18<br>Unit 1&2 | FY 2018-19<br>Unit 1&2 | FY 2019-20<br>Unit 1&2 |
|-------------|------------------------------------|-----------------------|------------------------------------|------------------------|------------------------|------------------------|------------------------|
| AFC reduced | 512.97                             | 113.67                | 74.00                              | 356.29                 | 0.00                   | 421.06                 | 268.54                 |

# Energy Charges Commission's Analysis

4.126 The Commission has computed the energy charges for FY 2014-15 to FY 2019-20 considering the approved performance parameters and actual fuel prices and calorific value. The energy charges computed by the Commission for FY 2014-15 to FY 2019-20 are as shown in the table below:

Table 52: Energy Charges approved by the Commission

| Particulars   | Units    |         | 5 Unit 1 (329<br>ays) | FY 2015 | -16 Unit 1 |         | 6 Unit 2 (251<br>ays) |
|---|----------|---------|-----------------------|---------|------------|---------|-----------------------|
|   |          | Claimed | Approved              | Claimed | Approved   | Claimed | Approved              |
| Gross<br>Generation                                   | MU       | 1147.39 |                       | 3570.70 |            | 2350.50 |                       |
| Auxiliary<br>Consumption                              | %        | 7.82%   | 5.25%                 | 6.95%   | 5.25%      | 6.98%   | 5.25%                 |
| Net<br>Generation                                     | MU       | 1057.63 | 1057.63               | 3322.40 | 3322.40    | 2186.36 | 2186.36               |
| Landed Price of Coal                                  | Rs./kg   | 4.22    | 4.22                  | 4.09    | 4.09       | 4.09    | 4.09                  |
| Gross Station<br>Heat Rate                            | kcal/kWh | 2742.18 | 2322.17               | 2594.37 | 2322.17    | 2612.73 | 2322.17               |
| Price of<br>Secondary<br>fuel oil                     | Rs./ml   | 0.05    | 0.05                  | 0.04    | 0.04       | 0.04    | 0.04                  |
| Secondary<br>fuel oil<br>Consumption                  | ml/kWh   | 11.16   | 0.50                  | 2.42    | 0.50       | 1.97    | 0.50                  |
| Gross Calorific Value of Secondary fuel oil           | kcal/ml  | 9.88    | 9.88                  | 9.88    | 9.88       | 9.88    | 9.88                  |
| Heat<br>Contribution<br>from<br>Secondary<br>fuel oil | kcal/kWh | 110.25  | 4.94                  | 23.89   | 4.94       | 19.44   | 4.94                  |
| Heat<br>Contribution<br>from Coal                     | kcal/kWh | 2631.93 | 2317.23               | 2570.48 | 2317.23    | 2593.30 | 2317.23               |
| Gross<br>Calorific<br>Value of<br>Coal                | kcal/kg  | 4497.81 | 4497.81               | 4316.07 | 4316.07    | 4316.07 | 4316.07               |

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| Particulars                 | Units     |         | 5 Unit 1 (329<br>ays) | FY 2015-16 Unit 1 |          | FY 2015-16 Unit 2 (251<br>Days) |          |
|-----------------------------|-----------|---------|-----------------------|-------------------|----------|---------------------------------|----------|
|                             |           | Claimed | Approved              | Claimed           | Approved | Claimed                         | Approved |
| Specific coal consumption   | kg/kWh    | 0.59    | 0.52                  | 0.60              | 0.54     | 0.60                            | 0.54     |
| Rate of<br>Energy<br>Charge | Rs./kWh   | 3.31    | 2.32                  | 2.71              | 2.34     | 2.72                            | 2.34     |
| Other<br>Charges            | Rs. Crore | 16.47   | 16.47                 | 1.39              | 1.39     | 0.91                            | 0.91     |
| Total Energy                | Rs. Crore | 366.22  | 262.06                | 903.26            | 778.09   | 595.36                          | 512.15   |
| Charges                     | Rs./kWh   | 3.46    | 2.48                  | 2.72              | 2.34     | 2.72                            | 2.34     |

| Particulars                                 | Units    | FY 2016-1 | 17 Unit 1&2 | FY 2017-18 Unit 1&2 |          | 3 Unit 1&2 FY 2018-19 Unit 1 |          | 2 FY 2019-20 Unit |          |
|---|----------|-----------|-------------|---------------------|----------|------------------------------|----------|-------------------|----------|
|   |          | Claimed   | Approved    | Claimed             | Approved | Claimed                      | Approved | Claimed           | Approved |
| Gross<br>Generation                         | MU       | 5944.12   |             | 6691.18             |          | 5550.40                      |          | 5708.09           |          |
| Auxiliary<br>Consumption                    | %        | 6.94%     | 5.25%       | 6.47%               | 5.25%    | 6.21%                        | 5.25%    | 6.41%             | 5.25%    |
| Net<br>Generation                           | MU       | 5531.33   | 5531.33     | 6258.49             | 6271.25  | 5205.48                      | 5245.48  | 5342.38           | 5398.82  |
| Landed Price of Coal                        | Rs./kg   | 4.39      | 4.39        | 4.44                | 4.44     | 4.81                         | 4.81     | 5.45              | 5.45     |
| Gross Station<br>Heat Rate                  | kcal/kWh | 2417.32   | 2322.17     | 2388.67             | 2322.17  | 2435.28                      | 2322.17  | 2397.63           | 2333.28  |
| Price of<br>Secondary<br>fuel oil           | Rs./ml   | 0.03      | 0.03        | 0.04                | 0.04     | 0.04                         | 0.04     | 0.05              | 0.05     |
| Secondary<br>fuel oil<br>Consumption        | ml/kWh   | 1.11      | 0.50        | 0.83                | 0.50     | 0.77                         | 0.50     | 0.81              | 0.50     |
| Gross Calorific Value of Secondary fuel oil | kcal/ml  | 9.60      | 9.60        | 9.78                | 9.78     | 9.73                         | 9.73     | 9.70              | 9.70     |
| Heat Contribution from Secondary fuel oil   | kcal/kWh | 10.69     | 4.80        | 8.13                | 4.89     | 7.49                         | 4.86     | 7.89              | 4.85     |
| Heat<br>Contribution<br>from Coal           | kcal/kWh | 2406.62   | 2317.37     | 2380.54             | 2317.28  | 2427.79                      | 2317.30  | 2389.74           | 2328.43  |
| Gross<br>Calorific<br>Value of<br>Coal      | kcal/kg  | 4251.62   | 4251.62     | 4204.08             | 4204.08  | 4322.43                      | 4322.43  | 4158.93           | 4158.93  |

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| Particulars                 | Units     | FY 2016- | 17 Unit 1&2 | FY 2017-18 Unit 1&2 |          | FY 2018-19 Unit 1&2 |          | FY 2019-20 Unit 1&2 |          |
|-----------------------------|-----------|----------|-------------|---------------------|----------|---------------------|----------|---------------------|----------|
|                             |           | Claimed  | Approved    | Claimed             | Approved | Claimed             | Approved | Claimed             | Approved |
| Specific coal consumption   | kg/kWh    | 0.57     | 0.55        | 0.57                | 0.55     | 0.56                | 0.54     | 0.57                | 0.56     |
| Rate of<br>Energy<br>Charge | Rs./kWh   | 2.71     | 2.54        | 2.72                | 2.60     | 2.91                | 2.74     | 3.39                | 3.25     |
| Other<br>Charges            | Rs. Crore | 2.71     | 2.71        | 0.02                | 0.02     | 4.00                | 4.00     | 0.00                | 0.00     |
| Total Energy                | Rs. Crore | 1501.55  | 1408.97     | 1702.49             | 1631.85  | 1521.14             | 1442.65  | 1813.03             | 1754.73  |
| Charges                     | Rs./kWh   | 2.71     | 2.55        | 2.72                | 2.60     | 2.92                | 2.75     | 3.39                | 3.25     |

- 4.127 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.
- 4.128 Further, Regulation 57(2) of RERC Tariff Regulations, 2014 states as follows:
  - "57. Sharing of gains and losses on account of controllable factors
  - (1) ...
  - (2) The Financial losses by a generating company on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption shall be borne by the Generating Company".

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

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

(1)....

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

4.129 Therefore, from the Regulation 57(2) of the RERC Tariff Regulations 2014, and Regulation 56(2) of the RERC Tariff Regulations, 2019 it is clear that any loss on account of controllable factor has to be borne by the generator and no sharing of the same will be done. Therefore, the Commission in this order has

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not done the sharing of energy charges for FY 2014-15 to FY 2019-20.

4.130 Regulation 52 of the RERC Tariff Regulations, 2014 and 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."
- 4.131 The Commission has not allowed any incentive for KaTPP Units 1 & 2 as the Petitioner has not been able to achieve target PLF for FY 2014-15 to FY 2019-20.

# Revenue Side True Up RVUN's Submission

4.132 RVUN has submitted the revenue for true up for FY 2014-15 to FY 2019-20 for Units 1&2 as shown in the table below:

Table 53: Actual Revenue as per Annual Accounts as submitted by the Petitioner(Rs. Crore)

| Particulars                  | Revenue |
|------------------------------|---------|
| FY 2014-15 Unit 1 (329 Days) | 450.57  |
| FY 2015-16 Unit 1            | 1506.80 |
| FY 2015-16 Unit 2 (251 Days) | 855.08  |
| FY 2016-17 Unit 1&2          | 2754.27 |
| FY 2017-18 Unit 1&2          | 3246.73 |
| FY 2018-19 Unit 1&2          | 2506.99 |
| FY 2019-20 Unit 1&2          | 2903.05 |

#### Commission's Analysis

4.133 The Commission has considered the revenue earned from fixed charges, energy charges and Fuel Price Adjustment for carrying out the truing up for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2.

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- 4.134 Vide the data gaps, the Commission sought reconciliation statement of the actual revenue, as per the audited accounts for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2. RVUN submitted the same and were found to be prudent.
- 4.135 Accordingly, the revenue from sale of power considered by the Commission for truing up purposes is shown in the table below:

Table 54: Revenue from sale of power considered by the Commission (Rs. Crore)

| Particulars    | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-<br>16 Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-<br>17 Unit<br>1&2 | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|----------------|------------------------------------|-----------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Fixed Charges  | 205.97                             | 730.33                | 336.24                             | 1352.82                    | 1617.08                    | 1070.25                    | 1158.07                    |
| Energy Charges | 240.19                             | 813.99                | 496.74                             | 1341.73                    | 1601.72                    | 1421.00                    | 1490.08                    |
| FPA            | 4.41                               | -37.51                | 22.10                              | 59.73                      | 27.92                      | 15.74                      | 254.90                     |
| PLF Incentive  | 0.00                               | 0.00                  | 0.00                               | 0.00                       | 0.00                       | 0.00                       | 0.00                       |
| Total          | 450.57                             | 1506.80               | 855.08                             | 2754.27                    | 3246.73                    | 2506.99                    | 2903.05                    |

# Summary of True Up RVUN's submission

4.136 The summary of true up for FY 2014-15 to FY 2019-20 for KaTPP Units 1 & 2 claimed by RVUN is shown in the table below:

Table 55: Summary of true up claimed by RVUN (Rs. Crore)

| Particulars   |                           | 1-15 Unit 1<br>Days) FY 201 |                           | -16 Unit 1          | FY 2015-16 Unit 2<br>(251 Days) |                  |
|---|---------------------------|-----------------------------|---------------------------|---------------------|---------------------------------|------------------|
| rancolais   | As per<br>Tariff<br>Order | Claimed<br>for true         | As per<br>Tariff<br>Order | Claimed<br>for true | As per<br>Tariff<br>Order       | Claimed for true |
| Cost side True Up   | _ Order                   | up                          | _ Order                   | up                  | _ Order                         | <u>up</u>        |
| Total Fixed Cost  | 717.35                    | 716.10                      | 815.18                    | 814.39              | 458.36                          | 458.02           |
| Variable cost   | 833.05                    | 366.22                      | 968.45                    | 903.26              | 664.15                          | 595.36           |
| Add: PLF based Incentive  | 0.00                      | 0.00                        | 0.00                      | 0.00                | 0.00                            | 0.00             |
| Add: Carrying Cost of allowed expenditure on reconstruction of road | 0.00                      | 0.19                        | 0.00                      | 0.00                | 0.00                            | 0.00             |
| Total Expenses  | 1550.40                   | 1082.51                     | 1783.62                   | 1717.66             | 1122.51                         | 1053.38          |
| Extra Cost incurred By RVUN (A)                                     |                           | -467.89                     |                           | -65.96              |                                 | -69.12           |
| <u>Revenue Side True up</u>   | _                         | _                           | _                         | _                   | _                               | _                |
| Revenue From electricity (Fixed And Energy charges)                 | 1550.40                   | 450.57                      | 1783.62                   | 1506.80             | 1122.51                         | 855.08           |
| Add: PLF based Incentive  |                           | 0.00                        |                           | 0.00                |                                 | 0.00             |
| Total Revenue   | 1550.40                   | 450.57                      | 1783.62                   | 1506.80             | 1122.51                         | 855.08           |
| Extra Amount billed to Discom by RVUN (B)                           |                           | -1099.83                    |                           | -276.82             |                                 | -267.43          |
| Total Amount Sought from Discom C=(A-B)                             |                           | 631.94                      |                           | 210.85              |                                 | 198.31           |

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| Danik and ana   | FY 2016-1                 | 17 Unit 1&2               | FY 2017-18 Unit 1&2       |                           |  |
|---|---------------------------|---------------------------|---------------------------|---------------------------|--|
| Particulars   | As per<br>Tariff<br>Order | Claimed<br>for true<br>up | As per<br>Tariff<br>Order | Claimed<br>for true<br>up |  |
| Cost side True Up   |                           |                           | _                         | _                         |  |
| Total Fixed Cost  | 1656.24                   | 1691.07                   | 1586.08                   | 1536.91                   |  |
| Variable cost   | 2103.88                   | 1501.55                   | 2153.29                   | 1702.49                   |  |
| Add: PLF based Incentive  | 0.00                      | 0.00                      | 0.00                      | 0.00                      |  |
| Add: Carrying Cost of allowed expenditure on reconstruction of road | 0.00                      | 0.00                      | 0.00                      | 0.00                      |  |
| Total Expenses  | 3760.12                   | 3192.62                   | 3739.37                   | 3239.40                   |  |
| Extra Cost incurred By RVUN (A)                                     |                           | -567.50                   |                           | -499.97                   |  |
| Revenue Side True up  | _                         | _                         | _                         | _                         |  |
| Revenue From electricity (Fixed And Energy charges)                 | 3760.12                   | 2754.27                   | 3739.37                   | 3246.73                   |  |
| Add: PLF based Incentive  |                           | 0.00                      |                           | 0.00                      |  |
| Total Revenue   | 3760.12                   | 2754.27                   | 3739.37                   | 3246.73                   |  |
| Extra Amount billed to Discom by RVUN (B)                           |                           | -1005.85                  |                           | -492.64                   |  |
| Total Amount Sought from Discom C=(A-B)                             |                           | 438.34                    |                           | -7.33                     |  |

| Particulars   | FY 2018-                  | 19 Unit 1&2            | FY 2019-20 Unit 1&2       |                        |  |
|---|---------------------------|------------------------|---------------------------|------------------------|--|
| raniculais  | As per<br>Tariff<br>Order | Claimed<br>for true up | As per<br>Tariff<br>Order | Claimed<br>for true up |  |
| <u>Cost side True Up</u>  | _                         | _                      |                           |                        |  |
| Total Fixed Cost  | 1513.71                   | 1509.25                | 1480.82                   | 1508.51                |  |
| Variable cost   | 2270.24                   | 1521.14                | 2287.27                   | 1813.03                |  |
| Add: PLF based Incentive  | 0.00                      | 0.00                   | 0.00                      | 0                      |  |
| Add: Carrying Cost of allowed expenditure on reconstruction of road | 0.00                      | 0.00                   | 0.00                      | 0.00                   |  |
| Total Expenses  | 3783.96                   | 3030.39                | 3768.09                   | 3321.55                |  |
| Extra Cost incurred By RVUN (A)                                     |                           | -753.57                |                           | -446.54                |  |
| Revenue Side True up  | _                         | _                      |                           |                        |  |
| Revenue From electricity (Fixed And Energy charges)                 | 3783.96                   | 2506.99                | 3768.09                   | 2903.05                |  |
| Add: PLF based Incentive  |                           | 0.00                   |                           | 0.00                   |  |
| Total Revenue   | 3783.96                   | 2506.99                | 3768.09                   | 2903.05                |  |
| Extra Amount billed to Discom by RVUN (B)                           |                           | -1276.97               |                           | -865.04                |  |
| Total Amount Sought from Discom C=(A-B)                             |                           | 523.40                 |                           | 418.50                 |  |

4.137 RVUN has claimed the net revenue gap/surplus for true-up of FY 2014-15 to FY 2019-20 as shown in the table below:

Table 56: Revenue Gap/(Surplus) claimed by the Petitioner (Rs. Crore)

| Particulars                  | Revenue Gap/(Surplus) |
|------------------------------|-----------------------|
|                              | Claimed               |
| FY 2014-15 Unit 1 (329 Days) | 631.94                |
| FY 2015-16 Unit 1            | 210.85                |
| FY 2015-16 Unit 2 (251 Days) | 198.31                |

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| Particulars         | Revenue Gap/(Surplus) |
|---------------------|-----------------------|
|                     | Claimed               |
| FY 2016-17 Unit 1&2 | 438.34                |
| FY 2017-18 Unit 1&2 | -7.33                 |
| FY 2018-19 Unit 1&2 | 523.40                |
| FY 2019-20 Unit 1&2 | 418.50                |
| Total               | 2414.01               |

# Commission's Analysis

4.138 Based on component wise cost and revenue approved as discussed above, the summary of True Up for FY 2014-15 to FY 2019-20 as approved by the Commission is as shown in the table below:

Table 57: Summary of True up approved by the Commission for FY 2014-15 to FY 2019-20 (Rs. Crore)

| Particulars  | FY 2014-15<br>Unit 1 (329<br>Days) | FY 2015-16<br>Unit 1 | FY 2015-16<br>Unit 2 (251<br>Days) | FY 2016-17<br>Unit 1&2 |
|--|------------------------------------|----------------------|------------------------------------|------------------------|
| <u>Cost side True Up</u>   |                                    |                      |                                    |                        |
| Fixed Cost before subtracting Non-Tariff Income                      | 719.09                             | 816.78               | 459.72                             | 1692.01                |
| Variable cost  | 262.06                             | 778.09               | 512.15                             | 1408.97                |
| Sharing of (gain)/loss in rate of IoWC                               | 0.27                               | 0.30                 | 0.19                               | -0.57                  |
| Add: PLF Based Incentive   | 0.00                               | 0.00                 | 0.00                               | 0.00                   |
| Add: Carrying Cost of allowed expenditure on reconstruction of road  | 0.00                               | 0.00                 | 0.00                               | 0.00                   |
| Less: Reduction in AFC due to non-achievement of Target Availability | 512.97                             | 113.67               | 74.00                              | 356.29                 |
| TOTAL (A)  | 468.45                             | 1481.49              | 898.06                             | 2744.12                |
| Revenue Side True up   |                                    |                      |                                    |                        |
| Revenue From Fixed Charges   | 205.97                             | 730.33               | 336.24                             | 1352.82                |
| Revenue from Variable Charges  | 240.19                             | 813.99               | 496.74                             | 1341.73                |
| Fuel Price Adjustment  | 4.41                               | -37.51               | 22.10                              | 59.73                  |
| Add: PLF Based Incentive   | 0.00                               | 0.00                 | 0.00                               | 0.00                   |
| Non-tariff income  | 2.79                               | 2.85                 | 1.96                               | 1.18                   |
| TOTAL (B)  | 453.36                             | 1509.66              | 857.04                             | 2755.45                |
| Revenue Gap/(surplus) (C=A-B)  | 15.09                              | (28.16)              | 41.02                              | (11.33)                |

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| Particulars  | FY 2017-<br>18 Unit<br>1&2 | FY 2018-<br>19 Unit<br>1&2 | FY 2019-<br>20 Unit<br>1&2 |
|--|----------------------------|----------------------------|----------------------------|
| Cost side True Up  |                            |                            |                            |
| Fixed Cost before subtracting Non-Tariff Income                      | 1544.65                    | 1513.22                    | 1233.43                    |
| Variable cost  | 1631.85                    | 1442.65                    | 1754.73                    |
| Sharing of (gain)/loss in rate of IoWC                               | 1.34                       | -3.88                      | 0.27                       |
| Add: PLF Based Incentive   | 0.00                       | 0.00                       | 0.00                       |
| Add: Carrying Cost of allowed expenditure on reconstruction of road  | 0.00                       | 0.00                       | 0.00                       |
| Less: Reduction in AFC due to non-achievement of Target Availability | 0.00                       | 421.06                     | 268.54                     |
| TOTAL (A)  | 3177.84                    | 2530.92                    | 2719.89                    |
| Revenue Side True up   |                            |                            |                            |
| Revenue From Fixed Charges   | 1617.08                    | 1070.25                    | 1158.07                    |
| Revenue from Variable Charges  | 1601.72                    | 1421.00                    | 1490.08                    |
| Fuel Price Adjustment  | 27.92                      | 15.74                      | 254.90                     |
| Add: PLF Based Incentive   | 0.00                       | 0.00                       | 0.00                       |
| Non-tariff income  | 10.78                      | 9.90                       | 1.21                       |
| TOTAL (B)  | 3257.50                    | 2516.89                    | 2904.26                    |
| Revenue Gap/(surplus) (C=A-B)  | (79.66)                    | 14.03                      | (184.37)                   |

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

Table 58: Revenue gap/surplus claimed by RVUN and approved by the Commission (Rs. Crore)

| Particulars                  | Revenue C | Sap/(Surplus) |
|------------------------------|-----------|---------------|
| runcolais                    | Claimed   | Approved      |
| FY 2014-15 Unit 1 (329 Days) | 631.94    | 15.09         |
| FY 2015-16 Unit 1            | 210.85    | (28.16)       |
| FY 2015-16 Unit 2 (251 Days) | 198.31    | 41.02         |
| FY 2016-17 Unit 1&2          | 438.34    | (11.33)       |
| FY 2017-18 Unit 1&2          | -7.33     | (79.66)       |
| FY 2018-19 Unit 1&2          | 523.40    | 14.03         |
| FY 2019-20 Unit 1&2          | 418.50    | (184.37)      |
| Total Revenue Gap/(Surplus)  | 2414.01   | (233.39)      |

4.140 The Commission directs RVUN to refund the net approved revenue surplus of Rs. 233.39 Crore for the period FY 2014-15 to FY 2019-20 to the Discoms in next billing cycle from the date of this Order, in the ratio of total energy purchased by them from FY 2014-15 to FY 2019-20.

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4.141 As per Regulation 2(a)(3) of the RERC Tariff Regulations, 2014, 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, 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;"

Further, 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;

|   |   |   |   |   |   |   |   |    |   | , | , |
|---|---|---|---|---|---|---|---|----|---|---|---|
| • | • | ٠ | ٠ | ٠ | • | • | ٠ | •• | ٠ |   |   |

4.142 In this regard, RVUN is directed to submit the Allocation Statement station wise in accordance with the RERC Tariff Regulations, 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 KaTPP Units 1&2 for FY 2021-22

# Gross Fixed Asset (GFA) during FY 2019-20, FY 2020-21 and FY 2021-22 RVUN's Submission

.5

5.1 RVUN filed the instant petition for approval of tariff for KaTPP Units 1 & 2 for FY 2021-22, considering the capital cost of Rs. 8253.53 Crore, which includes additional capitalization after cut-off date of Rs. 32.07 Crore in FY 2017-18 and Rs. 5.72 Crore in FY 2018-19. Accordingly, the opening GFA for FY 2019-20 considered by the Petitioner is Rs. 8253.53 Crore. Further, in FY 2019-20, RVUN as per Regulation 17(5)(e) of the RERC Tariff Regulations, 2019, has claimed an additional capitalization for FY 2019-20 as below:

Table 59: Additional Capitalization claimed by RVUN for FY 2019-20 (Rs. Crore)

| Table 57: Additional Supridition Claimed by RV 514 for 11 2517 25 (RS. Clote) |        |  |  |  |  |
|---|--------|--|--|--|--|
| Particulars   | Amount | Remarks  |  |  |  |
| Vehicle   | 0.07   | Expenditure which requires any additional works/services,                        |  |  |  |
| Furniture and Fixture 0.03  |        | which have become necessary for efficient and successful                         |  |  |  |
| Office Equipment  | 0.05   | operation of a generating station but not included in the original capital cost. |  |  |  |
| Total   | 0.15   |  |  |  |  |

5.2 Accordingly, the asset class wise GFA details submitted by the Petitioner for FY 2019-20 is as shown in the table below:

Table 60: Asset class wise details submitted by RVUN (Rs. Crore)

| Particulars                           | FY 2019-20  |          |           |             |
|---------------------------------------|-------------|----------|-----------|-------------|
| Tarreorars                            | Opening GFA | Addition | Deduction | Closing GFA |
| Land & land rights                    | 18.59       | 0.00     | 0.00      | 18.59       |
| Building & Civil works of Power plant | 1195.99     | 0.00     | 0.00      | 1195.99     |
| Hydraulic works                       | 1105.76     | 0.00     | 0.00      | 1105.76     |
| Other Civil works                     | 266.95      | 0.00     | 0.00      | 266.95      |
| Plant & machinery                     | 5457.05     | 0.00     | 0.00      | 5457.05     |
| Lines and Cable Networks              | 6.42        | 0.00     | 0.00      | 6.42        |
| Vehicles                              | 0.18        | 0.07     | 0.00      | 0.24        |
| Furniture & fixtures                  | 2.13        | 0.03     | 0.00      | 2.16        |
| Office Equipment's                    | 0.38        | 0.05     | 0.00      | 0.43        |
| Capital spares                        | 200.07      | 0.00     | 0.00      | 200.07      |
| Total                                 | 8253.53     | 0.15     | 0.00      | 8253.68     |

5.3 Further, for FY 2020-21 & FY 2021-22, RVUN has not claimed any additional

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capitalization. The details of GFA claimed by RVUN for FY 2021-22 is as shown in the table below:

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

| Particulars                        | FY 2021-22 |  |
|------------------------------------|------------|--|
| raniculais                         | Amount     |  |
| Opening GFA as on 1st April, 2021  | 8253.68    |  |
| Add: Additions During FY 2021-22   | 0.00       |  |
| Less: Deductions during FY 2021-22 | 0.00       |  |
| Closing GFA for FY 2021-22         | 8253.68    |  |

#### **Commission's Analysis**

- 5.4 The Commission observed that the Petitioner filed the instant petition for determination of tariff for FY 2021-22 considering the closing asset class wise GFA of FY 2016-17, i.e., Rs. 8215.73 Crore as approved by the Commission vide Petition No. 1515/19 (Determination of Final Capital Cost and tariff for KaTPP Units 1 & 2 from COD of Unit 1, i.e., 07.05.2014 to FY 2019-20), i.e., Order dated 12.05.2020.
- 5.5 Regarding additional capitalization claimed for FY 2017-18, FY 2018-19 and FY 2019-20, the Commission observes that in accordance with the Regulation 2(17) of the RERC Tariff Regulations, 2014, the cut-off date of these station have already been over. Further, Regulation 17(2) of the RERC Tariff Regulations, 2014 does not provide for allowing the deferred works as claimed by RVUN. The Commission has given the detailed reasoning for its disallowance on it in the true-up chapter of this Order.
- 5.6 The Commission has therefore not considered any GFA addition for FY 2020-21 and FY 2021-22. Accordingly, the GFA approved by the Commission for FY 2021-22 is as shown in the table below:

Table 62: GFA approved by the Commission (Rs. Crore)

| Particulars                        | FY 2021-22 |  |
|------------------------------------|------------|--|
| raniculais                         | Amount     |  |
| Opening GFA as on 1st April, 2021  | 8215.73    |  |
| Add: Additions During FY 2021-22   | 0.00       |  |
| Less: Deductions during FY 2021-22 | 0.00       |  |
| Closing GFA for FY 2021-22         | 8215.73    |  |

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- 5.7 The tariff determination for FY 2021-22 has been done in accordance with the RERC Tariff Regulations, 2019.
- 5.8 The Annual Fixed Charges comprise of the following elements:
  - i. Operation and Maintenance (O&M) Expenses
  - ii. Depreciation
  - iii. Interest on Long-Term Loans and Finance Charges
  - iv. Return on Equity
  - v. Interest on Working Capital
  - vi. Insurance Charges
  - vii. Terminal Benefit
  - viii. Less: Non-tariff Income
- 5.9 Each of the annual fixed charges elements has been dealt with in the following paragraphs.

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

- 5.10 RVUN submitted that the Operation & Maintenance Expenses have been computed on the basis of norms prescribed under Regulation 47 of the RERC Tariff Regulations, 2019.
- 5.11 The details of the O&M expenses as claimed in petition for FY 2021-22 are as shown in the table below:

Table 63: O&M expenses claimed by RVUN (Rs. Crore)

| Particulars  | FY 2021-22          |  |  |
|--------------|---------------------|--|--|
| rancolars    | Claimed (Units 1&2) |  |  |
| O&M Expenses | 233.74              |  |  |

#### **Commission's Analysis**

- 5.12 The Commission has verified RVUN's computations of normative O&M expenses and found it to be in order as per provisions of the RERC Tariff Regulations, 2019.
- 5.13 The O&M expenses approved by the Commission for FY 2021-22 are as shown in the table below:

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Table 64: O&M expenses approved by the Commission (Rs. Crore)

| Particulars  | FY 2021-22          |                      |  |
|--------------|---------------------|----------------------|--|
| rancolars    | Claimed (Units 1&2) | Approved (Units 1&2) |  |
| O&M Expenses | 233.74              | 233.74               |  |

# <u>Depreciation</u> RVUN's Submission

5.14 RVUN submitted that for computation of depreciation it has considered the capital cost as Rs. 8253.53 Crore as the opening GFA for FY 2017-18 as approved by the Commission vide Petition No. 1515/19, i.e., Order dated 12.05.2020. Further, in FY 2017-18, FY 2018-19 and FY 2019-20, RVUN has booked an additional capitalization of Rs. 32.07 Crore, Rs. 5.72 Crore and Rs. 0.15 Crore respectively. Therefore, while computing the depreciation, these additional capitalizations has also been considered. Accordingly, the depreciation claimed for FY 2021-22 is as shown in the table below:

Table 65: Depreciation claimed by RVUN (Rs. Crore)

| Particulars  | FY 2021-22          |  |  |
|--------------|---------------------|--|--|
| Tarricolars  | Claimed (Units 1&2) |  |  |
| Depreciation | 406.46              |  |  |

#### Commission's Analysis

5.15 Depreciation has been computed considering the approved asset class wise GFA for FY 2021-22 and considering the rates of depreciation as specified in the RERC Tariff Regulations, 2019. The depreciation approved by the Commission for FY 2021-22 is as shown in the table below:

Table 66: Depreciation approved by the Commission (Rs. Crore)

| Particulars  | FY 2021-22          |                      |  |
|--------------|---------------------|----------------------|--|
| Tarricolars  | Claimed (Units 1&2) | Approved (Units 1&2) |  |
| Depreciation | 406.46              | 404.50               |  |

# <u>Interest on Long-Term Loans and Finance Charges</u> RVUN's Submission

5.16 RVUN submitted that loan wise interest expenses & finance charges have been worked out and taken as part of fixed cost. The depreciation for the year has been considered as normative repayment for the year. The interest charges on long term loans as submitted by RVUN for FY 2021-22 are as

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shown in the table below:

Table 67: Interest on long term loan and Finance Charges claimed by RVUN (Rs. Crore)

| Particulars                        | FY 2021-22<br>Claimed (Units 1&2) |  |
|------------------------------------|-----------------------------------|--|
| Interest on Loan & Finance Charges | 415.91                            |  |

#### Commission's Analysis

5.17 As the Commission has not considered any GFA addition for FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21, the closing term loan balance approved for FY 2020-21 vide Petition No. 1591/19 (ARR and Tariff Determination for FY 2020-21) has been considered as the opening loan balance for FY 2021-22. The allowable depreciation for the year has been considered as the normative repayment. Therefore, the Loan balance considered by the Commission for FY 2021-22 is as shown in the table below:

Table 68: Loan balance approved by the Commission (Rs. Crore)

| Particulars  | FY 2021-22           |  |  |
|--------------|----------------------|--|--|
| ranicolars   | Approved (Units 1&2) |  |  |
| Opening loan | 4012.69              |  |  |
| Addition     | 0.00                 |  |  |
| Repayment    | 404.50               |  |  |
| Closing loan | 3608.19              |  |  |

5.18 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 actual loan portfolio at the beginning of year. The Commission considering the same taken the interest rates which equals to Rs. 10.85% as submitted by RVUN vide its reply dated 09.09.2021. RVUN has not claimed any finance charges for FY 2021-22. Accordingly, the Commission has not considered any finance charges for FY 2021-22. The interest on long-term loans approved by the Commission for FY 2021-22 is as shown in the table below:

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Table 69: Interest on long-term loans and finance charges approved by the Commission (Rs. Crore)

| Particulars                        | FY 2021-22          |                      |  |
|------------------------------------|---------------------|----------------------|--|
| raniculais                         | Claimed (Units 1&2) | Approved (Units 1&2) |  |
| Interest on Loan & Finance Charges | 415.91              | 413.43               |  |

<sup>\*</sup>Claimed figure has been changed because of change in interest rate claimed by the Petitioner vide its reply dated 09.09.2021

# Return on Equity (RoE) RVUN's Submission

5.19 Return on Equity has been claimed at the rate of 15.00% for FY 2021-22 as per the norms specified in Regulation 20 of the RERC Tariff Regulations, 2019. The RoE claimed by RVUN for FY 2021-22 is as shown in the table below:

Table 70: Return on Equity Claimed by RVUN (Rs. Crore)

| Particulars      | FY 2021-22          |  |
|------------------|---------------------|--|
| Tarriculais      | Claimed (Units 1&2) |  |
| Return on Equity | 247.61              |  |

#### **Commission's Analysis**

5.20 As the Commission has not considered any GFA addition for FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21, the closing equity balance approved for FY 2020-21 vide Petition No. 1591/19 (ARR and Tariff Determination for FY 2020-21) has been considered as the opening equity balance for FY 2021-22. Therefore, the equity base considered by the Commission for FY 2021-22 is as shown in the table below:

Table 71: Equity base approved by the Commission (Rs. Crore)

| Particulars    | FY 2021-22           |
|----------------|----------------------|
| ranicolars     | Approved (Units 1&2) |
| Opening Equity | 1643.15              |
| Addition       | 0.00                 |
| Closing Equity | 1643.15              |

5.21 RVUN in view of Government of Rajasthan (GoR), Energy Department letter dated 12.04.2021 vide its submission dated 09.09.2021 requested the Commission to not allow RoE for FY 2021-22. However, subsequently, RVUN vide its reply dated 20.09.2021 submitted Government of Rajasthan, Energy Department letter dated 17.09.2021 conveying approval of GOR for claiming

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of RoE by RVUN for its plants from FY 2021-22 onwards.

5.22 Hence, in view of the above, the Commission has considered Return on Equity considering 15% Rate of RoE, which is as shown in the table below:

Table 72: Return on Equity approved by the Commission (Rs. Crore)

| Particulars      | FY 2021-22   |        |        |  |
|------------------|--|--------|--------|--|
| lancolais        | Claimed (Units 1&2) Revised Claim (Units 1&2) Approved (Units 1&2) |        |        |  |
| Return on Equity | 247.61   | 247.61 | 246.47 |  |

# Interest on Working Capital (IoWC) RVUN's Submission

5.23 The interest on working capital loan for FY 2021-22 has been computed as per the norms specified in Regulation 27 of the RERC Tariff Regulations, 2019. The rate of interest has been considered as 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. Accordingly, IoWC claimed by RVUN for FY 2021-22 is as shown in the table below:

Table 73: IoWC claimed by RVUN (Rs. Crore)

| Particulars                 | FY 2021-22        |  |
|-----------------------------|-------------------|--|
| Tarricolars                 | Claim (Units 1&2) |  |
| Interest on Working Capital | 85.40             |  |

#### **Commission's Analysis**

5.24 In accordance with the Regulation 27(2) of the RERC Tariff Regulations, 2019, the rate of interest on working capital is to be computed on normative basis and shall be 300 basis points higher than SBI Base Rate prevalent during first six months of the year previous to the relevant year. Accordingly, for working out interest on working capital for FY 2021-22, weighted rate of interest has been considered as per admissible rates during the previous year. The same works out to 10.14% p.a., which has been used for calculating interest on working capital for FY 2021-22. The computation of the bank rate is as shown in the table below:

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Table 74: Computations of IoWC as considered by the Commission

| Applicable for the Year | From Date  | To Date    | No. of<br>Days | SBI Base<br>Rate | 300 Basis<br>Point | Approved<br>Interest Rate |
|-------------------------|------------|------------|----------------|------------------|--------------------|---------------------------|
|                         | 01-04-2020 | 09-04-2020 | 9.00           | 7.75%            |                    |                           |
|                         | 10-04-2020 | 09-05-2020 | 30.00          | 7.40%            |                    |                           |
| FV 0001 00              | 10-05-2020 | 09-06-2020 | 31.00          | 7.25%            | 2.0007             | 10.1.407                  |
| FY 2021-22              | 10-06-2020 | 09-07-2020 | 30.00          | 7.00%            | 3.00%              | 10.14%                    |
|                         | 10-07-2020 | 09-08-2020 | 31.00          | 7.00%            |                    |                           |
|                         | 10-08-2020 | 09-09-2020 | 31.00          | 7.00%            |                    |                           |
|                         | 10-09-2020 | 30-09-2020 | 21.00          | 7.00%            |                    |                           |

5.25 Further, the Commission has worked out the working capital requirement in accordance with the Regulation 27 of the RERC Tariff Regulations, 2019. The Interest on Working Capital as approved by the Commission for FY 2021-22 is as shown in the table below:

Table 75: loWC approved for FY 2021-22 (Rs. Crore)

| Particulars                 | FY 2021-22 Claimed (Units 1&2) Approved (Units 1&2) |       |  |
|-----------------------------|---|-------|--|
| ranicolars                  |   |       |  |
| Interest on Working Capital | 85.40   | 85.71 |  |

# Insurance Charges RVUN's Submission

5.26 RVUN in its petition has claimed insurance charges for FY 2021-22 based on the actual insurance charges paid in the FY 2019-20 with an increment of 5% YoY (Year on Year). The details are as shown in the table below:

Table 76: Insurance Charges claimed by RVUN (Rs. Crore)

| Particulars       | FY 2021-22          |  |
|-------------------|---------------------|--|
| ramediais         | Claimed (Units 1&2) |  |
| Insurance Charges | 6.43                |  |

#### **Commission's Analysis**

5.27 The Commission has considered the insurance expenses as claimed by RVUN. Any variation shall be adjusted during the truing up exercise for FY 2021-22. The insurance charges approved by the Commission for FY 2021-22 is as shown in the table below:

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Table 77: Insurance Charges approved by the Commission (Rs. Crore)

| Particulars       | FY 2021-22                            |      |  |
|-------------------|---------------------------------------|------|--|
| Tamediais         | Claimed (Units 1&2) Approved (Units 1 |      |  |
| Insurance Charges | 6.43                                  | 6.43 |  |

# Terminal benefit RVUN's Submission

5.28 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."

5.29 RVUN in its petition has claimed terminal benefits for FY 2021-22 based on actuarial valuation for FY 2019-20. The details are as shown in the table below:

Table 78: Terminal Benefits claimed by RVUN (Rs. Crore)

|                  | FY 2021-22  |  |
|------------------|-------------|--|
| Particulars      | Claimed     |  |
|                  | (Units 1&2) |  |
| Terminal Benefit | 17.93       |  |

#### **Commission's Analysis**

5.30 The Commission provisionally approves the terminal benefits in this order as claimed by RVUN. It is however, clarified that the same shall only be allowed at the time of truing up in case such amounts are deposited into the designated fund. Further, any variation shall be adjusted during the truing up exercise for FY 2021-22. The terminal benefits approved by the Commission is as shown in the table below:

Table 79: Terminal Benefits approved for FY 2021-22 (Rs. Crore)

| Particulars      | FY 2021-22 Claimed (Units 1&2) Approved (Units 1&2) |       |  |
|------------------|---|-------|--|
| Tarriculais      |   |       |  |
| Terminal Benefit | 17.93   | 17.93 |  |

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# Non-Tariff Income RVUN's Submission

5.31 RVUN submitted that the main heads of Non-Tariff income are Sale of Scrap, interest on FD/Staff loans, miscellaneous receipts (rebates), etc. The Non-tariff income as proposed by RVUN for FY 2021-22 is as shown in the table below:

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

| Particulars       | FY 2021-22          |  |
|-------------------|---------------------|--|
| Tarriculais       | Claimed (Units 1&2) |  |
| Non-tariff Income | 1.33                |  |

### **Commission's Analysis**

5.32 The Commission has considered the non-tariff income as claimed by RVUN for the purpose of this order. The Commission shall carry out the prudence check of the actual non-tariff income at the time of truing up exercise for FY 2021-22. The non-tariff income approved by the Commission for FY 2021-22 is as shown in the table below:

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

| Particulars       | FY 2021-22                               |      |  |  |
|-------------------|--|------|--|--|
| Tarriculais       | Claimed (Units 1&2) Approved (Units 1&2) |      |  |  |
| Non-tariff Income | 1.33                                     | 1.33 |  |  |

### **Annual Fixed Charges**

5.33 Based on the above analysis, the Annual Fixed Charges approved by the Commission for FY 2021-22 is as shown in the table below:

Table 82: AFC approved by the Commission for FY 2021-22 (Rs. Crore)

| Particulars                          | FY 2021-2 | Y 2021-22 Units 1-2 |  |
|--------------------------------------|-----------|---------------------|--|
| raniculais                           | Claimed   | Approved            |  |
| Operation & Maintenance expenses     | 233.74    | 233.74              |  |
| Interest on loan and finance charges | 415.91    | 413.43              |  |
| Depreciation                         | 406.46    | 404.50              |  |
| Interest on working capital          | 85.40     | 85.71               |  |
| Return on Equity                     | 247.61    | 246.47              |  |
| Insurance                            | 6.43      | 6.43                |  |
| Terminal Benefit                     | 17.93     | 17.93               |  |
| Less: Non-Tariff Income              | 1.33      | 1.33                |  |
| Annual Fixed Charges                 | 1412.14   | 1406.88             |  |

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### Energy Charges RVIIN's Submission

- 5.34 SHR has been considered as 2333.28 kcal/kWh for FY 2021-22 in accordance with Regulation 45(3)(b) of the RERC Tariff Regulations, 2019.
- 5.35 The PLF has been considered as 83% for Units 1 & 2 and the auxiliary consumption is considered as 5.25% for FY 2021-22, i.e., in accordance with the RERC Tariff Regulations, 2019.
- 5.36 The GCV and price of fuel for FY 2021-22 has been taken on the basis of actuals of first and Second Quarter of FY 2020-21.

#### **Commission's Analysis**

- 5.37 The Commission has considered the PLF of 83% for Units 1 & 2 in accordance with the provisions of RERC Tariff Regulations, 2019.
- 5.38 The Commission has considered the Station Heat Rate as 2333.28 kCal/kWh for FY 2021-22 as approved in its order dated 12.05.2020 against Petition No. 1515/19 and in Order dated 11.08.2020 against Petition No. 1591/19, which is in accordance to the RERC Tariff Regulations, 2019.
- 5.39 The normative auxiliary consumption considered by RVUN is in line with the provisions of the Tariff Regulations. The Commission has considered the normative auxiliary consumption as claimed by RVUN for the purpose of this order.
- 5.40 The Commission has considered the secondary fuel oil consumption of 0.50 ml/kWh in accordance with the RERC Tariff Regulations, 2019.
- 5.41 As regards GCV and Prices of fuels, the Commission has considered the actual prices and GCV of primary fuel and secondary fuel for the months of December, 2020 to February, 2021 as submitted by RVUN vide its reply to the data gaps.
- 5.42 Since, RVUN has JV Agreement with Adani Enterprises Ltd. regarding Parsa East Kante Basan Coal mines through the procedure laid down by Govt. of Rajasthan and rates mentioned in these agreements have also been

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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 for KaTPP Units 1 & 2 must be as determined by Govt. approved mechanism.

5.43 The Energy Charges approved by the Commission for FY 2021-22 is as shown in the table below:

Table 83: Energy Charges approved by the Commission

| Table 65. Energy Charges approved by the Commission |           |            |          |  |  |
|---|-----------|------------|----------|--|--|
| Particulars   | Units     | FY 2021-22 |          |  |  |
|   |           | Claimed    | Approved |  |  |
| Gross Generation                                    | MU        | 8724.96    | 8724.96  |  |  |
| Auxiliary Consumption                               | %         | 5.25%      | 5.25%    |  |  |
| Net Generation                                      | MU        | 8266.90    | 8266.90  |  |  |
| Landed Price of Coal                                | Rs./kg    | 4.82       | 4.82     |  |  |
| Gross Station Heat Rate                             | kcal/kWh  | 2333.28    | 2333.28  |  |  |
| Price of Secondary fuel oil                         | Rs./ml    | 0.04       | 0.04     |  |  |
| Secondary fuel oil Consumption                      | ml/kWh    | 0.50       | 0.50     |  |  |
| Gross Calorific Value of Secondary fuel oil         | kcal/ml   | 9.51       | 9.51     |  |  |
| Heat Contribution from Secondary fuel oil           | kcal/kWh  | 4.76       | 4.76     |  |  |
| Heat Contribution from Coal                         | kcal/kWh  | 2328.52    | 2328.52  |  |  |
| Gross Calorific Value of Coal                       | kcal/kg   | 4101.72    | 4101.72  |  |  |
| Specific coal consumption                           | kg/kWh    | 0.57       | 0.57     |  |  |
| Rate of Energy Charge                               | Rs./kWh   | 2.91       | 2.91     |  |  |
| Other Charges                                       | Rs. Crore | 0.00       | 0.00     |  |  |
| Total Energy Charges                                | Rs. Crore | 2408.08    | 2408.08  |  |  |
| Total Energy Charges                                | Rs./kWh   | 2.91       | 2.91     |  |  |

<sup>\*</sup>Claimed figure revised considering the latest 3 months fuel prices and GCV (Dec 2020 to Feb 2021)

5.44 Regulation 51(2) of 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 both '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.

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5.45 The Commission accordingly approves the tariff for FY 2021-22 for KaTPP Units 1 & 2 as shown in the table below:

Table 84: Final Tariff approved by the Commission (Rs. Crore)

| Particulars                  | FY 2021-22 |          |  |
|------------------------------|------------|----------|--|
| raniculais                   | Claimed    | Approved |  |
| AFC (Rs. Crore)              | 1412.14    | 1406.88  |  |
| AFC per Unit (Rs./kWh)       | 1.71       | 1.70     |  |
| Energy Charges (Rs. Crore)   | 2408.08    | 2408.08  |  |
| Energy Charge Rate (Rs./kWh) | 2.91       | 2.91     |  |
| Total Tariff (Rs./kWh)       | 4.62       | 4.61     |  |

- 5.46 The final tariff approved by the Commission for FY 2021-22 shall be effective from 01.04.2021 and shall remain in force till the next order of the Commission.
- 5.47 Copy of this order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.

(Prithvi Raj) (S.C. Dinkar) (Dr. B. N. Sharma)

Member Member Chairman

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