

### **RVUN's Response**

3.45 RVUN submitted that depreciation has been computed considering additional capitalization claimed, considering rates as per Regulation 22 of the RERC Tariff Regulations, 2019, using straight line method and has also kept in consideration the spread of depreciation over the remaining years of useful life after completion of 12 years of unit. Therefore, RVUN requested the Commission to allow depreciation as claimed.

### **Interest on Term Loan**

#### **Stakeholders/Respondents Comments/Suggestions**

3.46 The Stakeholder submitted that Interest on term loan is to be allowed on normative basis. Further, the interest element in respect of additional capitalization claimed is to be allowed to the extent additional capitalization is approved by the Commission. Also, it is submitted that the additional capitalization claimed by the Petitioner includes IDC and therefore interest on such IDC is not admissible.

3.47 The Respondent submitted that the Petitioner to submit the source wise documentary evidence for interest rate at which loan is borrowed from the bank for FY 2021-22.

3.48 For RGTPP GT-1 35.5 MW, no Interest on loan is admissible, as the unit has already completed its 25 years of life on 11.01.2021.

### **RVUN's Response**

3.49 RVUN submitted that Interest on Term Loan has been computed considering additional capitalization claimed, i.e., as per Regulation 21 of the RERC Tariff Regulations, 2019 using rate of interest as per actual loan portfolio submitted in the Petition. Whereas the Finance Charge has been claimed on actual as per audited accounts. Therefore, RVUN requested the Commission to allow Interest on Term Loan and Finance Charges as claimed

### **Insurance Charge**

#### **Stakeholders/Respondents Comments/Suggestions**

3.50 The Stakeholder submitted the following:

**Table 6: Insurance Charges as claimed v/s insurance charges as per Annexure J (Insurance Policies Plant wise and Mega Policy) of the Petition**

<b>Station</b>	<b>Claimed Insurance Charges (Rs. Crore)</b>	<b>Insurance charges as per Annexure J (Insurance Policies Plant wise and Mega Policy) of the Petition (Rs. Crore)</b>
KTPS (Units 1-7)	7.03	6.92

Station	Claimed Insurance Charges (Rs. Crore)	Insurance charges as per Annexure J (Insurance Policies Plant wise and Mega Policy) of the Petition (Rs. Crore)
STPS (Units 1-6)	8.50	8.38
CTPP (Units 1-4)	5.63	5.58
KaTPP (Units 1&2)	6.73	6.70
CSCTPP (Units 5&6)	7.36	7.37
RGTPP (270.50 MW)	1.67	1.68

3.51 In this regard, the Stakeholder submitted that the Commission may allow the actual insurance charges as per the statement submitted with the instant Petition, i.e., Annexure J (Insurance Policies Plant wise and Mega Policy) but considering that these insurance charges are within ceiling of 0.2 % of average net fixed assets as per Regulation 25 of the RERC Tariff Regulations, 2019.

3.52 While allowing insurance charges for RGTPP (270.50 MW), insurance charges against GT - 1 35.5 MW may not be considered as the unit has already completed its 25 years of life on 11.01.2021.

#### **RVUN's Response**

3.53 RVUN submitted that Insurance Charges has been claimed as per Regulation 25 of the RERC Tariff Regulations, 2019. Further, the amount as submitted vide Annexure J (Insurance Policies Plant wise and Mega Policy) is for Mega Policy for main plant whereas the insurance of large machines such as locomotive, Bulldozer etc. are being done separately.

3.54 Whereas for RGTPP (270.50 MW), insurance charges against GT - 1 35.5 MW, RVUN submitted that there is no such restriction of useful life for insurance. Since, the power plants are having running machines which always face risk and therefore it is to be insured. Therefore, RVUN requested the Commission to allow the actual insurance charges as claimed.

#### **Amortization**

#### **Stakeholders/Respondents Comments/Suggestions**

3.55 The Respondent requested the Commission to not approve such claim since there is no such regulation for generation companies.

#### **RVUN's Response**

3.56 The Petitioner submitted that amortization has been claimed considering actual lease rent on lease hold land for all power stations in accordance to applicable provisions of IND-AS.

**Terminal Benefit**  
**Stakeholders/Respondents Comments/Suggestions**

3.57 The Stakeholder submitted the following:

**Table 7: Terminal Benefit approved v/s claimed v/s amount deposited against it by the Petitioner in designated fund**

Station	Approved for FY 2021-22 vide Order dated 15.12.2021 (Petition No. 1872/21) (Rs. Crore)	Claimed vide instant Petition (Rs. Crore)	Amount deposited against it by the Petitioner in designated fund (Rs. Crore)
KTPS (Units 1-7)	47.57	47.86	17.37
STPS (Units 1-6)	39.36	41.73	15.14
CTPP (Units 1-4)	21.19	26.98	9.79
KaTPP (Units 1&2)	17.93	21.15	7.68
CSCTPP (Units 5&6)	12.54	18.31	6.65
RGTPP (270.50 MW)	7.42	8.53	3.10
Mahi Hydel	6.30	7.05	2.56

3.58 As per above table, the Stakeholder submitted that the Petitioner has been depositing very less amount against terminal benefit in the designated fund. The Commission in its previous Orders has been allowing the actual amount deposited and as such here also only deposited amount is admissible.

**RVUN's Response**

3.59 RVUN submitted that terminal benefit has been claimed as per Regulation 47 of the RERC Tariff Regulations, 2019. RVUN has deposited Rs. 70.00 Crore in FY 2021-22 as additional contribution in pension fund. Therefore, RVUN requested the Commission to allow the same.

**Plant Availability**  
**Stakeholders/Respondents Comments/Suggestions**

3.60 The Stakeholder submitted the following:

**Table 8: Availability Approved v/s Claimed**

Station	Approved for FY 2021-22 vide Order dated 15.12.2021 (Petition No. 1872/21) (%)	Claimed vide instant Petition (%)
KTPS (Units 1-7)	83.00	84.48
STPS (Units 1-6)	83.00	74.34
CTPP (Units 1-4)	83.00	59.67
KaTPP (Units 1&2)	83.00	75.62

<b>Station</b>	<b>Approved for FY 2021-22 vide Order dated 15.12.2021 (Petition No. 1872/21) (%)</b>	<b>Claimed vide instant Petition (%)</b>
CSCTPP (Units 5&6)	83.00	51.96
RGTPP (270.50 MW)	70.00	60.42
Mahi Hydel	90.00	94.38

3.61 The Stakeholder submitted that except KTPS (Units 1-7), the Petitioner has not achieved target availability for full recovery of fixed charges in its power station for which the instant Petition has been filed. Hence, proportionate reduction in fixed Cost is required.

3.62 For Mahi Hydel, Capacity Index claimed by the Petitioner is 94.38% but the Petitioner has not provided necessary calculations and the same needs to be provided.

### **RVUN's Response**

3.63 For KTPS (Units 1-7), RVUN submitted that availability claimed is based on declared capacity by the Generating Company and verification of same by SLDC.

3.64 For STPS (Units 1-6), RVUN submitted that during FY 2020-21 units at STPS were under reserve shutdown far longer period due to that the technical problem arise during FY2021-22 and the target availability could not be achieved.

3.65 For CTPP (Units 1-4), RVUN submitted that the availability claimed is based on declared capacity by the Generating Company and verification of same by SLDC. The availability of CTPP (Units 1-4) is lower due to major accident of ESP damage of Unit 4 which is beyond its control.

3.66 For KaTPP (Units 1-2), RVUN submitted that the availability claimed is based on declared capacity by the Generating Company and verification of same by SLDC. Further, at KaTPP Unit 2 annual shutdown was far a long period due to which RVUN could not achieve target availability which is beyond its control.

3.67 For CSCTPP (Units 5&6), RVUN submitted that the availability claimed is based on declared capacity by the Generating Company and verification of same by SLDC. Further, RVUN submitted that target availability could not be achieved due to stabilization of these units as technology of these units is new for RVUN.

3.68 For RGTPP (270.50 MW), RVUN submitted that the availability claimed is based on declared capacity by the Generating Company and verification of same by SLDC. The availability of RGTPP is lower due to non-availability of the gas which is beyond

its control.

3.69 Therefore, RVUN requested the Commission to consider availability as submitted and allow full capacity charges.

**Auxiliary Consumption**  
**Stakeholders/Respondents Comments/Suggestions**

3.70 The Stakeholder submitted the following:

**Table 9: Auxiliary Consumption Approved v/s Claimed**

<b>Station</b>	<b>Approved for FY 2021-22 vide Order dated 15.12.2021 (Petition No. 1872/21) (%)</b>	<b>Claimed vide instant Petition (%)</b>
KTPS (Units 1-7)	9.65	11.53
STPS (Units 1-6)	9.80	10.32
CTPP (Units 1-4)	9.80	10.16
KaTPP (Units 1&2)	5.25	6.49
CSCTPP (Units 5&6)	5.25	6.48
RGTPP (270.50 MW)	2.80	4.08

3.71 As per above table auxiliary consumption claimed by the Petitioner is on a higher side than that of approved by the Commission vide Order dated 15.12.2021 (Petition No. 1872/21). In this regard, the Stakeholder submitted that the auxiliary consumption may be allowed by the Commission on normative basis.

**RVUN's Response**

3.72 RVUN submitted that auxiliary power consumption does not reduce in proportion to reduction in generation in compliance to instructions issued by SLDC. All the running auxiliary equipment's certain major auxiliaries viz. CW, ACW, DMCCW, Water System, FD Fan, Compressed Air System continue to run on rated capacities. While a few auxiliaries viz. Cool Mills, ID Fan run on reduced load though not in some proportion.

3.73 For RGTPP (270.50 MW), RVUN submitted that the auxiliary consumption is on higher side than the normative of 2.80% due to partial loading of the machines on account of non-availability of gas and frequent local grid disturbance causing frequent tripping of the machines. Therefore, RVUN requested the Commission to consider auxiliary power consumption as submitted.

**Station Heat Rate**  
**Stakeholders/Respondents Comments/Suggestions**

3.74 The Stakeholder submitted the following:

**Table 10: Station Heat Rate Approved v/s Claimed**

<b>Station</b>	<b>Approved for FY 2021-22 vide Order dated 15.12.2021 (Petition No. 1872/21) (kCal/kWh)</b>	<b>Claimed vide instant Petition (kCal/kWh)</b>
CTPP (Units 1-4)	2400.00	2522.62
KaTPP (Units 1&2)	2333.28	2496.57
CSCTPP (Units 5&6)	2133.60	2388.84
RGTPP (270.50 MW)	2038.00	2251.90

3.75 As per above table Station Heat Rate claimed by the Petitioner is on a higher side than that of approved by the Commission vide Order dated 15.12.2021 (Petition No. 1872/21). In this regard, the Stakeholder submitted that because of higher SHR than normative, additional coal consumption and additional cost has been incurred which may be disallowed by the Commission.

**RVUN's Response**

3.76 RVUN submitted that it is difficult to achieve target SHR as the norms are very stringent against it. For RGTPP (270.50 MW), SHR of plant is on higher side than normative due to partial loading of the machines an account of non availability of gas and frequent local grid disturbance causing frequent tripping of the machines. Therefore, RVUN requested the Commission to allow SHR as claimed.

**Gross Calorific Value**  
**Stakeholders/Respondents Comments/Suggestions**

3.77 The Petitioner to submit GCV of Coal for coal based power plants for which instant Petition has been filed from FY 2018-19 to FY 2021-22 bifurcated for coal supply of washed coal, Raw Coal, PKCL coal for each station

3.78 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6) the Stakeholder sought test/analysis report against GCV of Coal on "As received" and "As Fired" basis.

3.79 For CTPP (Units 1-4) the information to be provided separately in respect of coal received from CIL and PKCL. Also, coal received from PKCL is washed one, benefits being achieved on this account may also be provided by the Petitioner.

3.80 For CSCTPP (Units 5&6) GCV of Coal claimed by the Petitioner is 4187.25 kCal/kg

against approved one, i.e., 4250.47 kCal/kg. The GCV claimed is on a lower side and therefore this has increased the coal consumption and cost. In this regard, the Petitioner is required to provide proper justification for such lower GCV.

### **RVUN's Response**

- 3.81 RVUN submitted that the instant Petition is pertaining to true up of FY 2021-22 and previous years true ups has been finalized by the Commission in its various Orders with prudence check. Further, these Orders have attained finality. However, the desired information as sought by the Stakeholder has already been provided vide instant Petition.
- 3.82 The GCV of Coal is measured by third party CIMFR and sample of reports for CIMFR and "as fired" are submitted.
- 3.83 The washing of the coal is benefited by lowering the ash content and hence freight charges of the coal transported are saved.
- 3.84 For CSCTPP Units 5&6, the contention of the Stakeholder is wrong. The GCV is measured by third party CIMFR. Therefore, RVUN requested the Commission to consider the GCV as submitted.

### **Price of Coal**

#### **Stakeholders/Respondents Comments/Suggestions**

- 3.85 The Stakeholder sought the following:
- a) Supporting documents for Price of Coal paid by the Petitioner.
  - b) Landed coal price supplied at coal based power plants for which instant Petition has been filed from FY 2018-19 to FY 2021-22 bifurcated for coal supply of washed coal, Raw Coal, PKCL coal for each station.
  - c) Coal Price/MT being charged by CIL since FY 2018-19 and also freight charges /MT by Indian Railways since FY 2018-19 etc.
  - d) Efforts being made by the Petitioner to reduce the variable cost and bottlenecks for not able to do so.
- 3.86 For KaTPP (Units 1&2), the Stakeholder submitted that the Price of Coal claimed by the Petitioner is on a higher side. In this regard, the Petitioner to submit justification with supporting documents.
- 3.87 For CTPP, regarding Price of coal received from PKCL, the Petitioner is required to

clarify that the same has been as per the procedure laid down by the Government of Rajasthan and if so, in what manner be submitted in detail.

### **RVUN's Response**

3.88 RVUN submitted the following:

- a) Sample bills against Price of Coal.
- b) RVUN submitted that the instant Petition is pertaining to true up of FY 2021-22 and previous years true ups has been finalized by the Commission in its various Orders with prudence check. Further, these Orders have attained finality. However, the desired information as sought by the Stakeholder has already been provided vide instant Petition.
- c) RVUN submitted that variable cost depends on various factors, i.e., Coal Price and GCV. The Coal Cost was increased vide notification dated 27.11.2020 and Railway Freight was increased vide notification dated 25.03.2019.
- d) For CTPP, RVUN submitted that the coal being procured from Parsa East and Kante Basin is as per the Coal mining and delivery agreement (CMDA). The prices derived for coal being supplied under CMDA is approved by the BOD of RVUN in the meeting dated 12.10.2006 and bears no objection of the State Government through communication dated 23.10.2006. CMDA is also approved by the BOD, RVUN vide meeting dated 13.05.2008 and 04.07.2008 and the copy of same has also been appraised to the State Government. Therefore, the Cost of Coal is as per the Government approved mechanism.

### **Coal Statement**

#### **Stakeholders/Respondents Comments/Suggestions**

3.89 For KTPS (Units 1-7) and STPS (Units 1-6), the Stakeholder sought Statement of coal stock/Month wise Consumption details.

### **RVUN's Response**

3.90 RVUN submitted that the information as sought by the Stakeholder has already been submitted with the instant Petition.

### **Revenue**

#### **Stakeholders/Respondents Comments/Suggestions**

3.91 For KTPS (Units 1-7), the Petitioner vide instant Petition submitted Units Sent Out as 6108.53 MU and revenue from electricity as Rs. 2555.76 Crore. Whereas as per true up Petition of Discom Units Sent Out is 6273.53 MU and revenue from electricity is Rs.



2568.46 Crore

- 3.92 For STPS (Units 1-6), the Petitioner vide instant Petition submitted Units Sent Out as 3337.23 MU and revenue from electricity as Rs. 1929.63 Crore. Whereas as per true up Petition of Discom Units Sent Out is 2595.47 MU and revenue from electricity is Rs. 1929.24 Crore
- 3.93 In this regard, the Petitioner is required to submit detailed justification for such variance and reconcile the figures.

### **RVUN's Response**

- 3.94 RVUN submitted that the Stakeholder is representing the data of Discom Petitions, which are not pertaining to instant Petition and hence, Stakeholder may query the same in relevant petition. Therefore, RVUN requested the Commission to consider the revenue as submitted.

### **ARR and Tariff of RVUN's Generating Station for FY 2023-24**

#### **Fixed Charges**

#### **Stakeholders/Respondents Comments/Suggestions**

- 3.95 The Stakeholder submitted that Depreciation may be allowed by the Commission only in respect of Gross Fixed Assets admitted. The Petitioner has not calculated the depreciation asset wise. The way in which depreciation has been calculated by the Petitioner vide instant Petition may result depreciation in respect of those assets also which have already been depreciated to their limits.
- 3.96 Also, as per Regulation 22 (4) of the RERC Tariff Regulations, 2019 the Petitioner has not computed depreciation by doing bifurcation of assets having completed 12 years of life from their date of COD and for remaining period, cumulative depreciation up to 12 years period and remaining for further period. The Petitioner may, therefore, provide revised calculations with respect to it.
- 3.97 Further, the Stakeholder submitted that CTPP Unit 1 achieved COD on 11.06.2010 and has completed 12 years from the date of COD, i.e., on 10.06.2022. Therefore, Depreciation against it is to be computed considering Regulation 22 (4) of the RERC Tariff Regulations, 2019. The Petitioner is required to submit the same.
- 3.98 For Insurance Charges, the Stakeholder submitted that these are admissible as per Regulation 25 of the RERC Tariff Regulations, 2019, i.e., on actual expense incurred not on actual paid in the preceding year.
- 3.99 For Return on Equity, the Stakeholder submitted that the Petitioner has not submitted

any letter of Government of Rajasthan for obtaining the Return on Equity for FY 2023-24. Hence, it is not admissible.

- 3.100 For interest on term loan (IoTL), the Respondent submitted that the Petitioner to confirm that IoTL claimed by it does not include penalty, penal charges or any other levy paid to the lenders. Further, RVUN to submit the details of efforts made by it during the past for financing the loan amount to bring down the overall interest burden of RVUN and reduce the fixed charges payable by the Discoms.
- 3.101 For terminal benefit, the Stakeholder submitted that the Petitioner has not been depositing the amount against it as allowed in previous year tariff Order and thus unnecessary raising the tariff and therefore requested the Commission that it may be allowed considering average of last 3 years of the amount deposited.
- 3.102 For STPS (Units 1-6), against adjustment of excess depreciation, the Stakeholder submitted that the Petitioner is required to provide details as to how such excess depreciation has been arrived at and in which financial year such excess has been incurred be stated in detail.

#### **RVUN's Response**

- 3.103 RVUN submitted that depreciation has been computed considering additional capitalization claimed, considering rates as per Regulation 22 of the RERC Tariff Regulations, 2019, using straight line method and has also kept in consideration the spread of depreciation over the remaining years of useful life after completion of 12 years of unit. Therefore, RVUN requested the Commission to allow depreciation as claimed.
- 3.104 For insurance charges, RVUN submitted that the Stakeholder contention is denied, since ARR is for FY 2023-24 and insurance charges shall be paid during that year. The insurance charges for FY 2023-24 have been claimed considering actual expenses during FY 2021-22 by estimating to avoid difference during truing up. Therefore, RVUN requested the Commission to allow the insurance charges as claimed.
- 3.105 RVUN submitted that RoE has been claimed as per Regulation 20 of the RERC Tariff Regulations, 2019. It is submitted that the GoR has allowed RoE for FY 2022-23 vide letter dated 27.06.2022 and also has directed in various letters for upcoming projects to consider GoR equity in the form of RoE.
- 3.106 RVUN has requested the GoR for allowing RoE for FY 2023-24 onwards and the issue is under active consideration in Finance Department and details have already been submitted with the instant Petition. The Finance Department made certain query on

the issue in November 2022 and RVUN had replied the same. At present the file is under consideration of Budget section of Finance Department of GoR and may be presented soon for approval at higher authorities. RVUN is pursuing the same regularly at all levels. Further, the GoR approval shall be submitted once received. Keeping above in view, RVUN requested the Commission to allow RoE as claimed.

- 3.107 RVUN submitted that IoTL has been claimed considering actual loan portfolio of term loans excluding penal charges. Further RVUN submitted that in FY 2017-18, PFC and REC provided special rate of interest via providing rebate. Again in FY 2021-22, PFC and REC were approached for restructuring of loans via reduction in interest rates as they are the major lenders of RVUN and are charging higher rates of interest than market. However, PFC/REC did not consider the request of RVUN on plea of regular default track.
- 3.108 RVUN further submitted that they have explored the option to replace the higher rate loans of PFC and REC with Commercial Banks (Bank of Baroda). However, Bank of Baroda did not respond on the same and as per discussion the proposal was not considered due to regular default in debt servicing and loss incurred in FY 2020-21. Further, scope of obtaining new cheaper loans from commercial banks become difficult due to falling under "large borrower" category of RVUN and regular defaulting track in debt servicing payment of commercial banks due to huge outstanding towards Discoms.
- 3.109 RVUN submitted that the terminal benefits are claimed as per the actuarial report and allocation in the ratio of employee expenses of the power due change in allocation the amount has been changed. Further, RVUN has deposited Rs. 70.00 Crore in FY 2021-22 in the said fund and deposit documents have already been submitted with the instant Petition. Therefore, RVUN requested the Commission to allow terminal benefits as claimed.
- 3.110 For STPS (Units 1-6), RVUN submitted that the adjustment of excess depreciation is detailed in RERC Order dated 23.06.2022 (Petition No. 1980/22).

### **Variable Charges**

#### **Stakeholders/Respondents Comments/Suggestions**

- 3.111 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), CSCTPP (Units 5&6), the Stakeholder submitted that GCV of Indian coal as claimed by the Petitioner in FY 2023-24 is on lower side in comparison to what has been claimed in FY 2021-22. The Petitioner to submit detailed justification in this regard.
- 3.112 The Stakeholder sought actual GCV of Coal on "As Received" basis for October

2022 to December 2022 and January 2023 along with the analysis/test report.

3.113 For RGTPP (270.50 MW) against landed Price of fuel, the Stakeholder sought documentary evidence against it.

3.114 For KTPS (Units 1-7) the Petitioner submitted Cost of Generation per unit at Generating terminal as Rs. 3.09/kWh and for Energy charge at ex bus as Rs. 3.42/kWh. The Stakeholder sought justification for this difference.

### **RVUN's Response**

3.115 RVUN submitted that the variable charges have been derived considering normative parameters such as APC, SHR, SFOC and PLF and fuel data as weighted average for last six months, i.e., April 22 to September 22. Further, it is submitted that if any gain in variable shall be shared between generating company and Discoms and accordingly variable charges have been derived on the normative basis. Therefore, RVUN requested the Commission to allow variable charges considering normative parameters and fuel data as submitted.

3.116 RVUN submitted sample reports of GCV of Coal received.

3.117 The GCV of coal is measured by third party CIMFR and sample of reports for CIMFR and as fired are submitted.

3.118 The GCV received is as per the coal received from the coal companies and measured by third party CIMFR. Since, the GCV of the Coal depends on the availability of the coal in the nature which cannot be a fixed value. Therefore, the value of GCV is not in control of RVUN.

3.119 For RGTPP (270.50 MW), RVUN submitted samples copies of bills against fuel price.

3.120 RVUN further submitted that the cost of generation per unit at generation terminal are shown without including the effect of normative auxiliary allowed, in other words the variable cost is divided by gross generation. As per RERC Tariff Regulations, the variable charges are allowed with consideration of normative auxiliary allowed, in other words variable cost is divided by Units sent out.

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## SECTION 4

### Analysis of True-Up of RVUN stations for FY 2021-22

#### Norms of Operation

#### Availability

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

- 4.1 RVUN has submitted the actual Availability/ Capacity Index for its stations for FY 2021-22.
- 4.2 RVUN submitted that KTPS (Units 1-7) and Mahi Hydel have achieved availability factor higher than the normative, whereas STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6), RGTPS (270.50 MW) achieved availability factor lower than the normative availability factor.
- 4.3 RVUN requested the Commission to consider the availability for its stations for FY 2021-22, for recovery of fixed charges, as prayed in the petition.

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

- 4.4 The Commission has approved the Target Availability as per norms prescribed in the RERC Tariff Regulations, 2019. The Commission observes that RVUN has computed actual Availability for FY 2021-22 considering the Declared Capacity. The Commission finds that the computations of Availability as submitted by RVUN are also certified by SLDC. The Commission, therefore, is approving the same as shown in the table below:

**Table 11: Availability/Capacity Index approved by the Commission**

Particulars	FY 2021-22						
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPP (270.50 MW)	Mahi
Target Availability	83.00%	83.00%	83.00%	83.00%	85.00%	70.00%	90.00%
Actual as claimed	84.48%	74.67%	59.67%	75.62%	51.96%	60.42%	94.38%
Approved on true up	84.48%	74.67%	59.67%	75.62%	51.96%	60.42%	94.38%

- 4.5 As per Regulation 45 of the RERC Tariff Regulations, 2019, the full fixed charges are recoverable on achievement of target availability. The Commission has accordingly allowed the recovery of full fixed charges for the stations which have achieved the target availability and on pro-rata basis for the stations which have not achieved target Availability.

## **Plant Load Factor (PLF)**

### **RVUN's Submission**

4.6 RVUN has submitted the actual PLF for its stations for FY 2021-22.

### **Commission's Analysis**

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

4.8 The Commission, based on the actual net generation submitted and the normative auxiliary consumption, has recomputed the actual PLF as per the specified formula. The PLF as submitted by the Petitioner and as approved by the Commission for FY 2021-22 is as shown in the table below:

**Table 12: PLF approved by the Commission**

Particulars	FY 2021-22					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1&2)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPS (270.50 MW)
Actual as claimed	62.24%	28.16%	52.56%	67.08%	48.08%	58.01%
Approved on true up	62.24%	28.16%	52.56%	67.08%	48.08%	58.01%

## **Auxiliary Consumption**

### **RVUN's Submissions**

4.9 The actual auxiliary consumption has been submitted by RVUN for its stations for FY 2021-22.

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

4.11 RVUN further submitted that at KTPS, as the tube mills are used instead of bowl mills, the auxiliary consumption for FY 2021-22 is higher than the normative, because tube mills are of high rating than the bowl mills.

4.12 RVUN submitted that based on the hours of operation in combined cycle and open cycle mode, the normative auxiliary consumption of RGTPP 270.50 MW works out as 2.81% against the actual auxiliary consumption of 4.08% for FY 2021-22.

4.13 RVUN requested the Commission to allow actual auxiliary consumption for FY 2021-22.

### **Commission's Analysis**

4.14 It is observed that RVUN has prayed to allow actual auxiliary consumption for FY 2021-22. It is further observed that except Mahi Hydel, actual Auxiliary Consumption for all the Stations is higher than normative Auxiliary Consumption.

4.15 Hon'ble APTEL vide its judgment dated 18.09.2015 in Appeal Nos. 196 of 2014 and 326 of 2013 in Haryana Power Generation Corporation Ltd. Vs Haryana Electricity Regulatory Commission & Ors ruled as under:

*"iii) According to the appellant/petitioner it is the PTPS Unit 1-4 which has outlived their useful economic life and the performance for the past few years has been well below the norm prescribed by the Tariff Regulations. Further, PTPS Unit-5, as per the appellant, is also nearing the end of its useful economic life due to which the auxiliary consumption remains high. Further, the submission of the appellant is that the other Unit of DCR Thermal Power Station had frequent shutdowns resulting in higher auxiliary energy consumption. The appellant contended that the large steps have been taken to reduce the auxiliary energy consumption of the power plants during the controlled period. The State Commission, after considering all these contentions of the appellant, has correctly and justly, not found it a fit case where power to relax could be exercised by the State Commission and the Commission has legally decided the issue as per the norms prescribed in MYT Regulations 2012. Further power to relax has to be exercised in exceptional cases when the same is in the public interest. In the case in hand if the contention of the appellant is allowed and norms for auxiliary are diluted or relaxed that would cost additional burden on the end consumers of the Discoms which should not be permitted considering the relevant provisions in this regard given in the Electricity Act, 2003. Consequently, this Issue No. (c) is also decided against the appellant."*

4.16 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 It is also observed that RGTPS have been operated in open cycle and combined cycle mode. RVUN has submitted the number of hours of operation in both modes of operation. The Commission has worked out the auxiliary consumption for it considering the number of hours of operation in open and combined cycle mode.

4.18 The Commission has considered the normative auxiliary consumption for Mahi

considering the phase wise gross generation of Mahi PH - 1 and Mahi PH - 2 in accordance with the Regulation 46 of the RERC Tariff Regulations, 2019.

- 4.19 The auxiliary consumption approved by Commission for FY 2021-22 is as shown in the table below:

**Table 13: Auxiliary consumption approved by the Commission**

Particulars	FY 2021-22						
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1&2)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPS (270.5 MW)	Mahi
Actual as claimed	11.53%	10.32%	10.16%	6.49%	6.48%	4.08%	0.65%
Approved on true up	9.65%	9.80%	9.80%	5.25%	5.25%	2.80%	1.05%

**Station Heat Rate (SHR)**  
**RVUN's Submission**

- 4.20 The actual Station Heat Rate has been submitted by RVUN for its stations for FY 2021-22.
- 4.21 RVUN submitted that for RGTPS, due to shortage of gas, which is beyond their control, there has been increased SHR of the plant. Further, RVUN submitted that based on the hours of operation in open cycle and closed cycle mode, the normative SHR of RGTPS 270.50 MW works out as 2035.94 kCal/kWh for FY 2021-22 against the actual SHR of 2251.90 kCal/kWh for FY 2021-22.
- 4.22 RVUN requested the Commission to allow actual SHR achieved in the true-up for FY 2021-22.

**Commission's Analysis**

- 4.23 The actual SHR of KTPS and STPS for FY 2021-22 is lower than the normative SHR. Further, as regards the higher SHR for CTPP, KaTPP, CSCTPP, RGTPS the reasons submitted by RVUN are similar to the reasons submitted in the true up petitions for previous years, which the Commission has not considered as prudent for relaxing the norms of SHR. In line with the approach adopted in the true up for FY 2020-21, the Commission has considered the normative SHR as per the provisions of the RERC Tariff Regulations, 2019 for all the stations in true-up of FY 2021-22.
- 4.24 Also, it is observed that RGTPS have been operated in open cycle mode and combined cycle mode and RVUN has submitted the number of hours of operation in both modes of operation. The Commission has worked out the normative SHR for RGTPS stations considering the hours of operation in open cycle mode and



combined cycle mode. The Station Heat Rate approved by the Commission for FY 2021-22 is as shown in the table below:

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

Particulars	FY 2021-22					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPS (270.50 MW)
Actual as claimed	2481.22	2395.57	2522.62	2496.57	2388.84	2251.90
Approved on true up	2561.70	2476.28	2400.00	2333.28	2133.60	2035.94

**Secondary Fuel Oil Consumption (SFOC)**  
**RVUN's Submission**

4.25 RVUN has submitted the actual SFOC for its stations for FY 2021-22.

**Commission's Analysis**

4.26 The Commission has allowed SFOC for all Generating Stations for FY 2021-22 in accordance with the norms specified in the RERC Tariff Regulations, 2019. The SFOC approved by the Commission is as shown in the table below:

**Table 15: SFOC approved by the Commission (ml/kWh)**

Particulars	FY 2021-22				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)
Actual as claimed	0.62	3.25	0.37	0.82	0.68
Approved on true up	0.50	0.50	0.50	0.50	0.50

**Coal Transit Loss**

**Commission's Analysis**

4.27 RVUN in its reply to data gaps submitted the actual transit loss for FY 2021-22. For CTPP (Units 1-4), KaTPP (Units 1-2) and CSCTPP (Units 5&6), RVUN has not claimed any transit loss. The Commission therefore has not considered the same.

4.28 The Commission, for the purpose of truing up, has considered the normative transit loss of 0.80% for domestic coal for FY 2021-22 as specified in RERC Tariff Regulations, 2019. The transit loss approved by the Commission for FY 2021-22 is as shown in the table below:

**Table 16: Transit loss approved by the Commission**

Particulars	FY 2021-22	
	KTPS (Units 1-7)	STPS (Units 1-6)
Actual as claimed	0.15%	0.24%
Approved on true up	0.80%	0.80%

**Fuel Price and Calorific Value**  
**RVUN's Submission**

4.29 The actual fuel prices and GCV as submitted by RVUN for FY 2021-22 are as shown in the table below:

**Table 17: Actual fuel prices and GCV for FY 2021-22 as submitted by RVUN**

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV	Price	GCV	Price
	kcal/kg / kcal/SCM	Rs./MT / Rs./SCM	kcal/lt	Rs./kL
KTPS(Units 1-7)	3498.79	4211.70	9965.78	44968.63
STPS(Units 1-6)	3521.82	5241.89	9850.56	52620.57
CTPP (Units 1-4)	3937.97	4430.13	9978.62	49252.49
KaTPP (Units 1&2)	4070.95	4955.21	9439.23	52310.76
CSCTPP (Units 5&6)	4187.25	4557.63	9949.67	46763.63
RGTPS (270.50 MW)	6771.45	9.16	9300.00	45784.20

4.30 RVUN also submitted the month-wise details of the fuel prices and GCV for its stations for FY 2021-22.

**Commission's Analysis**

4.31 The Commission observes that RVUN has not used any imported coal for power generation in FY 2021-22.

4.32 The Commission has considered the fuel prices and GCV as submitted by RVUN and has recomputed the landed price of coal for KTPS, STPS considering the normative transit loss for FY 2021-22 for the computations of energy charges for FY 2021-22.

4.33 Further, It was observed that the Commission had allowed additional capital expenditure vide order dated 10.05.2012 for renovation of CHP system at KTPS. However, RVUN has claimed the demurrage charges on coal wagons. The Commission vide data gaps sought justification of claiming the demurrage charges on coal wagons, coal handling charges in the fuel cost. The Petitioner vide its data gaps reply submitted that demurrage charges are unavoidable expense and is fuel related expense therefore claimed in the fuel cost. The Commission does not find it prudent and therefore have disallowed demurrage charges from the claimed fuel cost for KTPS (Units 1-7) and STPS (Units 1-6).

**Table 18: Fuel Price (excluding Demurrage)**

Station	Primary Fuel (Coal/Gas)			Fuel Oil	
	GCV	Price submitted by petitioner	Price (excluding Demurrage)	GCV	Price
	kcal/kg / kcal/SCM	Rs./MT / Rs./SCM	Rs/MT	kcal/lt	Rs./kL
KTPS(Units 1-7)	3498.79	4211.70	4209.03	9965.78	44968.63
STPS(Units 1-6)	3521.82	5241.89	5237.47	9850.56	52620.57

- 4.34 With respect to the Price of Fuel for CTPP, KaTPP, the Commission had directed RVUN to submit specific approval from GoR in respect of price mechanism for determining the fuel price as per Coal Mining and Delivery Agreements (CMDA) executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL) vide its Order dated 23.06.2022 (Petition No. 1980/22 – ARR for FY 2022-23 and True up for FY 2020-21), Order dated 02.12.2022 (Petition No. 2028/22 – True up for CSCTPP from FY 2018-19 to FY 2020-21).
- 4.35 The Commission in this petition again asked RVUN to submit the same vide its data gaps. It is observed that the replies are same as submitted by RVUN during previous year Petitions through which it could not be ascertained as to whether the price mechanism for determining the fuel price as per Coal Mining and Delivery Agreements (CMDA) dated 16.07.2008, 03.10.2013 and 24.05.2016 executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL) are approved by Government of Rajasthan.
- 4.36 In view of above, the Petitioner is directed to get the specific approval from Government of Rajasthan in respect of the price mechanism for determining the fuel price as per Coal Mining and Delivery Agreements (CMDA) dated 16.07.2008, 03.10.2013 and 24.05.2016 executed between RVUN and Parsa Kente Collieries Ltd. (PKCL), Rajasthan collieries Limited (RCL).
- 4.37 With respect to the GCV of Coal, the Commission vide Order dated 23.06.2022 (Petition No. 1980/22 – ARR for FY 2022-23 and True up for FY 2020-21) directed the Petitioner to submit “the GCV of coal on as received basis certified by the CIMFR and shall also get certified the calculation of monthly weighted average data of GCV of coal as received basis by CIMFR. The Petitioner should claim the GCV accordingly in next petitions”.
- 4.38 RVUN vide data gaps reply submitted that they are in regular pursuance with CIMFR for complying the same where they have requested CIMFR to amend the

agreement for complying the Commission's direction. RVUN has submitted various correspondence with CIMFR on it vide data gaps reply where CIMFR has submitted that it is not possible for them to provide such data due to contract obligation. Further, RVUN had also requested Director CSIR-CIMFR for furnishing separate offer to provide GCV of Coal as received and as fired basis at unloading of RVUN TPS.

4.39 The Commission takes note of it and directs RVUN to submit the status of it with supporting documents in two months from the date of this Order.

4.40 Commission has allowed the Normative Transit loss while allowing the fuel price for KTPS(Units 1-7) and STPS(Units 1-6). Since no transit loss has been claimed for CTPP (Units 1-4), KaTPP (Units 1-2) and CSCTPP (Units 5&6) Commission has considered the actual fuel price submitted by the Petitioner. Fuel prices and GCV considered by the Commission for FY 2021-22 considered by the Commission are as shown in the table below:

**Table 19: Fuel prices and GCV considered by the Commission for FY 2021-22**

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV	Price	GCV	Price
	kcal/kg / kcal/SCM	Rs./MT / Rs./SCM	kcal/ltr	Rs./kL
KTPS(Units 1-7)	3498.79	4236.72	9965.78	44968.63
STPS(Units 1-6)	3521.82	5267.08	9850.56	52620.57
CTPP (Units 1-4)	3937.97	4430.13	9978.62	49252.49
KaTPP (Units 1&2)	4070.95	4955.21	9439.23	52310.76
CSCTPP (Units 5&6)	4187.25	4557.63	9949.67	46763.63
RGTPS (270.50 MW)	6771.45	9.16	9300.00	45784.20

### **Other Charges**

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

4.41 In addition to fuel cost, RVUN has claimed other charges under the heads of Prior Period Adjustments for STPS (Units 1-6).

4.42 The Commission vide data gaps asked RVUN to submit justification for claiming Rs. (-1.68 Crore) for Other Charges under variable charges, i.e., negative value against STPS (Units 1-6). Vide data gaps reply, RVUN submitted that Rs. (-1.68 Crore) pertains to adjustment towards SECL performance incentive of prior period which is adjusted in the audited accounts for FY 2021-22. Therefore, the Commission has considered the same while approving variable charges for FY 2021-22.

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

4.43 The other charges claimed by the Petitioner for FY 2021-22 and approved by the Commission are as shown in the table below:

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

Station	FY 2021-22	
	Claimed	Approved
STPS (Units 1-6)	-1.68	-1.68

**Annual Fixed Charges**

4.44 The Annual Fixed Charges comprise of the following elements:

- a) Operation and Maintenance (O&M) expenses;
- b) Depreciation;
- c) Interest and Finance Charges on Term Loans;
- d) Interest on Working Capital;
- e) Return on Equity;
- f) Insurance Charges;
- g) Less: Non-Tariff Income

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

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

4.46 RVUN has claimed the normative O&M expenses for FY 2021-22.

**Commission's Analysis**

4.47 The Commission in the Tariff Order for FY 2021-22 had approved the O&M expenses considering the normative O&M expenses specified in the RERC Tariff Regulations, 2019.

4.48 The Commission vide data gaps asked RVUN to submit the actual O&M expenses for FY 2021-22 along with its reconciliation with the audited accounts for all its stations and also the allocated actuarial expenses for FY 2021-22.

4.49 Against its reply, RVUN submitted the same as below:

**Table 21: O&M Expense submitted by RVUN**

Station	Actual O&M as per books of accounts as submitted by RVUN (A) (Rs. Crore)	Allocated Actuarial Expense (B) (Rs. Crore)	Actual O&M expenses after deducting Allocated Actuarial Expense (C=A-B) (Rs. Crore)
KTPS(Units 1-7)	286.18	36.25	249.93
STPS(Units 1-6)	219.18	31.6	187.58
CTPP(Units 1-4)	259.55	20.43	239.12
KaTPP (Units 1&2)	132.87	16.02	116.85

Station	Actual O&M as per books of accounts as submitted by RVUN (A) (Rs. Crore)	Allocated Actuarial Expense (B) (Rs. Crore)	Actual O&M expenses after deducting Allocated Actuarial Expense (C=A-B) (Rs. Crore)
CSCTPP (Units 5&6)	186.61	13.87	172.74
RGTPS(270.50 MW)	43.12	6.46	36.66
Mahi	27.10	5.34	21.76
<b>Total</b>	<b>1154.61</b>	<b>129.97</b>	<b>1024.64</b>

4.50 The Commission observed that the allocation of Actuarial Expense is not the actual expense but provisioning of expenses. Therefore, the Commission does not find it prudent to allow the provisioning of expenses in the actual O&M expenses.

4.51 The Petitioner for FY 2021-22 has claimed additional capitalization pertaining to vehicles, furniture and fixtures, Office Equipment's etc. The Commission in the Order under head of Additional Capitalization has ruled that the cost of assets pertaining to procurement of vehicles, furniture and fixtures, Office Equipment's, R&M expenses etc. are to be treated as revenue expenses and not capital expenses. Hence, the Commission has considered the cost of the same as part of actual O&M expenses for FY 2021-22. Therefore, the actual O&M expenses considered by the Commission for FY 2021-22 are as under:

**Table 22: Actual O&M expenses for FY 2021-22 considered by the Commission (Rs. Crore)**

Station	Actual O&M expenses after deducting Allocated Actuarial Expense	Cost of minor assets including assets pertaining to R&M	Total actual O&M expenses considered by the Commission
KTPS(Units 1-7)	249.93	0.00	249.93
STPS(Units 1-6)	187.58	0.00	187.58
CTPP(Units 1-4)	239.12	0.32	239.44
KaTPP (Units 1&2)	116.85	0.08	116.93
CSCTPP (Units 5&6)	172.74	0.00	172.74
RGTPS (270.50 MW)	36.66	20.86*	57.52
Mahi	21.76	0.00	21.76
<b>Total</b>	<b>1024.64</b>	<b>21.26</b>	<b>1045.90</b>

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

4.52 For true-up of FY 2021-22, O&M expenses are approved by the Commission on normative basis as per RERC Tariff Regulation, 2019. The approved O&M expenses for FY 2021-22 are as under:

**Table 23: O&M expenses approved by the Commission (Rs. Crore)**

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	268.37	268.37	268.37
STPS(Units 1-6)	324.64	324.64	324.64
CTPP(Units 1-4)	216.43	216.43	216.43
KaTPP (Units 1&2)	233.74	233.74	233.74
CSCTPP (Units 5&6)	257.12	257.12	257.12
RGTPS(270.50 MW)	47.72	47.72	47.72
Mahi	18.68	18.68	18.68
<b>Total</b>	<b>1366.70</b>	<b>1366.70</b>	<b>1366.70</b>

4.53 The Commission has approved the O&M expenses of Rs. 1366.70 Cr. on normative basis for FY 2021-22. Further, considering the reduced normative O&M expenses of Rs. 1145.99 Cr. for non achievement of target Availability and actual O&M expenses of Rs. 1045.90 Cr. considered by the Commission, there is a savings of Rs. 100.09 Crore.

#### **Additional Capitalization**

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

4.54 RVUN has claimed the additional capitalization of Rs. 165.71 Crore for true up for FY 2021-22 vide its petition.

4.55 RVUN claimed the additional capitalization of Rs. 32.13 Crore for KTPS (Units 1-6) for FY 2021-22. The details of the additional capitalization are as follows:

- a) Rs. 15.48 Crore towards Other Civil Works;
- b) Rs. 16.65 Crore towards Plants and Machinery.

4.56 RVUN in the data gap reply submitted that the aforesaid additional capitalization towards Other Civil Works & plants and machinery are against the approved schemes by the Commission vide its Order dated 10.05.2012 and 22.04.2013 for renovation and modernization of Railway Track and Renovation of CHP system Stage I&II.

4.57 RVUN claimed the additional capitalization of Rs. 0.32 Crore for CTPP Units 1-4 for FY 2021-22. The details of the additional capitalization are as follows:

- a) Rs. 0.31 Crore towards purchase of furniture and fixtures;
- b) Rs. 0.01 Crore towards purchase of office equipment's.

4.58 RVUN submitted that the aforesaid additional capitalization towards furniture's and fixtures and purchase of office equipment's has been claimed as per Regulation

17(5)(e) of RERC Tariff Regulation 2019, as it is inevitable for smooth functioning of plant and was not covered under original capital cost, so RVUN requested the Commission to approve the same

4.59 RVUN claimed the additional capitalization of Rs. 2.29 Crore for KaTPP (Units 1-2) for FY 2021-22. The details of the additional capitalization are as follows:

- a) Rs. 1.91 Crore towards Hydraulic Works;
- b) Rs. 0.31 Crore towards Plant and Machinery;
- c) Rs. 0.08 Crore towards purchase of office equipment's;

4.60 RVUN submitted that it has incurred the aforesaid additional capitalization towards Hydraulic Works & Plant and Machinery under original scope of work in accordance with Regulation 17 (2) (e) of the RERC Tariff Regulations, 2019.

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

4.62 RVUN claimed the additional capitalization of Rs. 110.11 Crore (including de-capitalization of Rs. 14.64 Crore) for CSCTPP (Units 5&6) for FY 2021-22. The details of the additional capitalization and de-capitalization as submitted by RVUN vide its data gaps reply are as follows:

- a) Rs. 0.29 Crore towards Land and Land Rights;
- b) Rs. (-14.64) and Rs. 1.34 Crore towards Building and Civil Works of Power Plants;
- c) Rs. 12.53 Crore towards Hydraulic Works;
- d) Rs. 107.90 Crore towards Plant and Machinery including sub-station;
- e) Rs. 2.69 Crore towards lines and cable networks.

4.63 RVUN submitted that it has incurred the aforesaid additional capitalization pertaining to the original scope of work within the date of the CSCTPP Units 5&6 under Regulation 17(1) of the RERC Tariff Regulations, 2019. Hence, RVUN requested the Commission to approve the same.

4.64 RVUN claimed the additional capitalization of Rs. 20.86 Crore for RGTPP (110.50 MW) towards plant and machinery as per Regulation 17 (5) (e) of the RERC Tariff Regulations, 2019 as it is inevitable for smooth functioning of plant. RVUN also claimed de-capitalization of Rs. (-0.01) Crore towards vehicles.



## Commission's Analysis

- 4.65 As per RERC Tariff Regulations, 2019, any additional capitalization has to be claimed in accordance with Regulation 17 of the RERC Tariff Regulations, 2019 giving a detailed justification for the same.
- 4.66 RVUN has also sought the capitalization of cost of assets pertaining to procurement of vehicles, office equipment and furniture and fixtures in FY 2021-22 which are minor in nature, as shown in the table below:

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

Station	Particulars	FY 2021-22
CTPP (Units 1&2)	Furniture & Fixtures	0.1564
	Office Equipment's	0.0051
CTPP (Units 3&4)	Furniture & Fixtures	0.1564
	Office Equipment's	0.0051
<b>Total CTPP (Units 1-4)</b>		<b>0.32</b>
KaTPP (Units 1-2)	Office Equipment's	0.07

- 4.67 The Commission finds that procurement of vehicles, office equipment, furniture and fixtures etc. cannot be considered as part of capital expenses due to the nature of such assets. Regarding the cost of minor assets claimed by the Petitioner for FY 2021-22, the Commission has adopted the same approach as was adopted during the true-up of FY 2020-21. Accordingly, the Commission has not approved the cost incurred towards the minor assets, as additional capitalization for FY 2021-22 rather approved as actual O&M expenses.
- 4.68 For additional capitalization claimed towards RGTPP 110.50 MW, the Commission observes that the expenditure is towards procurement of spares and maintenance work related. The Commission, therefore, considers the claimed additional capitalization of Rs. 20.86 Crore under Repairs & Maintenance expenses and accordingly, the cost against it has been considered under actual O&M expenditure in the above paragraphs instead of capital expenses claimed by the Petitioner. Further, the Commission has considered the de-capitalization of Rs. (-0.01) Crore against RGTPP (110.50 MW) as claimed by the Petitioner.
- 4.69 Regarding additional capitalization claimed towards KaTPP (Units 1-2) of Rs. 1.91 Crore against Hydraulic works the Petitioner submitted that the work pertains to original scope of work and for Rs. 0.31 Crore towards Plant & Machinery, the Petitioner submitted that one no. of excavator has been transferred from CSCTPP (Units 5&6) to KaTPP (Units 1&2). The Petitioner submitted the supporting documents against it which were found to be prudent. Therefore, the Commission approves the cost of Rs. 2.22 Crore as claimed by the Petitioner.

- 4.70 Regarding additional capitalization claimed towards KTPS (Units 1-7), the Commission observed that the Petitioner has claimed the same as per the Regulations and based on the in-principle approval made by the Commission vide Order dated 10.05.2012 (Petition No. 273/11) and Order dated 22.04.2013 (Petition No. 330/12). Therefore, the Commission approves the cost of Rs. 32.13 Crore as claimed by the Petitioner.
- 4.71 Regarding additional capitalization claimed towards CSCTPP (Units 5&6) of Rs. 110.11 Crore, the Commission observed that the Petitioner has claimed the same in accordance with the Regulation 17 (1) of the RERC Tariff Regulations, 2019. The Petitioner submitted Statutory Auditor Certificate justifying its claims. The Commission vide data gaps asked RVUN that whether the aforesaid expense incurred are in cash basis or it includes undischarged liabilities also. Against it, RVUN submitted that out of Rs. 110.11 Crore, Rs. 50.59 Crore are incurred on cash basis and Rs. 59.52 is against undischarged liability. The Commission observed that these expenditures incurred are within the cut-off date of the Station, i.e., 30.04.2022. However, for the purpose of this Order, the Commission approves Rs. 50.59 Crore, i.e., expenditure incurred on cash basis against the Petitioner's claim of Rs. 110.11 Crore.
- 4.72 In light of the above, the additional capitalization approved by the Commission for FY 2021-22 is as shown in the table below:

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

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	0.00	32.13	32.13
STPS(Units 1-6)	0.00	0.00	0.00
CTPP(Units 1&2)	0.00	0.16	0.00
CTPP(Units 3&4)	0.00	0.16	0.00
KaTPP (Units 1&2)	0.00	2.29	2.22
CSCTPP (Units 5&6)	0.00	110.11	50.59
RGTPS (110.5 MW)	0.00	20.85	-0.01
RGTPS (160 MW)	0.00	0.00	0.00
Mahi	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>165.71</b>	<b>84.93</b>

**Gross Fixed Asset (GFA)**  
**Commission's Analysis**

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

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

Particulars	KTPS Units (1-6)	STPS Units (1-5)	RGTPS (110.50 MW)	Mahi
Opening GFA base for FY 2021-22	1291.90	4234.63	311.03	259.02
Additional Capitalization approved in FY 2021-22	32.13	0.00	(0.01)	0.00
Closing GFA base for FY 2021-22	1324.03	4234.63	311.02	259.02

4.74 The opening GFA for FY 2021-22 considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP (Units 1&2), CTPP (Units 3-4), KaTPP (Units 1&2), CSCTPP (Units 5&6), RGTPP (160 MW) are as shown in the table below:

**Table 27: Opening GFA for FY 2021-22 (Rs. Crore)**

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-2)	CTPP (Units 3-4)	KaTPP (Units 1-2)	CSCTPP (Units 5&6)	RGTPP (160 MW)
Land & Land Rights	0.00	0.00	12.73	0.00	18.56	56.07	0.00
Building & Civil Works of Power Plants	126.19	209.48	257.85	315.51	1194.54	1706.13	64.04
Hydraulic Works	10.98	15.73	20.84	135.41	1088.40	766.00	31.24
Other Civil Works	4.70	7.10	88.55	83.58	266.61	0.00	0.10
Plant & Machinery	705.38	768.70	2005.79	2226.50	5450.37	5948.45	711.13
Lines & Cable Network	0.00	0.45	28.97	38.36	6.42	91.58	0.00
Vehicles	0.00	0.00	0.12	0.00	0.18	0.00	0.00
Furniture & Fixtures	0.04	0.10	0.72	1.41	2.10	1.28	0.00
Office Equipment	-3.19	4.63	6.84	0.02	0.32	0.12	0.00
Capital Spares	7.76	20.60	37.66	52.11	187.79	0.00	0.00
<b>Total</b>	<b>851.86</b>	<b>1026.79</b>	<b>2460.06</b>	<b>2852.90</b>	<b>8215.30</b>	<b>8569.63</b>	<b>806.52</b>

4.75 Since, the Commission has not considered any additional capitalization for FY 2021-22, the closing GFA for FY 2021-22 will remain same as opening GFA for FY 2021-22 for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-2), CTPP (Units 3-4), and RGTPP (160 MW), i.e., as per the aforesaid table.

4.76 Whereas since the Commission has considered the additional capitalization of Rs. 2.22 Crore and Rs. 50.69 Crore for KaTPP (Units 1&2) and CSCTPP (Units 5&6) respectively as discussed in the aforesaid paragraphs, the closing GFA for it is as shown in the table below:

**Table 28: Closing GFA for FY 2021-22 (Rs. Crore)**

Particulars	KaTPP (Units 1&2)	CSCTPP (Units 5&6)
Land & Land Rights	18.56	56.22
Building & Civil Works of Power Plants	1194.54	1692.83
Hydraulic Works	1090.31	772.49
Other Civil Works	266.61	0.00

Particulars	KaTPP (Units 1&2)	CSCTPP (Units 5&6)
Plant & Machinery	5450.67	6004.31
Lines & Cable Net work	6.42	92.97
Vehicles	0.18	0.00
Furniture & Fixtures	2.11	1.28
Office Equipment	0.32	0.12
Capital Spares	187.79	0.00
<b>Total</b>	<b>8217.52</b>	<b>8620.22</b>

### **Depreciation**

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

- 4.77 RVUN has claimed the depreciation for FY 2021-22 based on actual/audited accounts.
- 4.78 RVUN submitted that the variation in depreciation for KTPS, CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6), RGTPP 270.50 MW in FY 2021-22 is due to additional capitalization claimed for FY 2021-22.

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

- 4.79 The Commission in this Order has approved the depreciation of KTPS (Unit 1- 6), STPS (Unit 1-5), RGTPS 110.50 MW and Mahi Hydel Power Station for FY 2021-22 by adopting the provisions of the RERC Tariff Regulations, 2019.
- 4.80 For KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6) and RGTPS (160 MW), the Commission has approved the depreciation for FY 2021-22 considering the closing GFA approved in true up for FY 2020-21 as the opening GFA for FY 2021-22.
- 4.81 The Commission for computing depreciation of FY 2021-22 has considered the additional capitalization and de-capitalization as discussed in aforesaid paragraphs. Accordingly, the depreciation approved for FY 2021-22 is as shown in the table below:

**Table 29: Depreciation approved by the Commission (Rs. Crore)**

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS (Units 1-7)	67.87	68.80	68.80
STPS (Units 1-6)	164.22	164.22	164.22
CTPP (Units 1-4)	265.49	265.50	265.49
KaTPP (Units 1&2)	404.50	404.54	404.53
CSCTPP (Units 5&6)	416.35	419.22	417.89
RGTPS (270.50 MW)	41.34	41.89	41.34
Mahi	4.42	4.42	4.42
<b>Total</b>	<b>1364.19</b>	<b>1368.58</b>	<b>1366.69</b>

## **Interest and Finance Charges on Term Loans**

### **RVUN's Submission**

- 4.82 RVUN has claimed the interest and finance charges for FY 2021-22 based on actual/audited accounts.
- 4.83 RVUN submitted that the variation in interest and finance charges is due to variation in interest rate, additional capitalization during FY 2021-22 and actual finance charges.
- 4.84 With respect to carrying cost recovery of allowed expenditure on reconstruction of Road for CTPP (Units 3-4), RVUN submitted that the Commission vide Order dated 03.07.2019 in Petition No. 1478/19 has allowed carrying cost while truing up. Accordingly, RVUN has computed the same as shown in the table below:

**Table 30: Carrying cost of allowed expenditure on reconstruction of road claimed by Petitioner (Rs. Crore)**

<b>Parameters</b>	<b>FY 2021-22</b>
Opening balance	24.22
Recovered	7.96
Closing Balance	16.26
Average Balance	20.24
Rate of interest as on term loan	11.16%
<b>Interest Amount</b>	<b>2.26</b>

### **Commission's Analysis**

- 4.85 It may be noted that the interest expenses would change from the approved/claimed figures only due to change in loan balances and due to interest rate variation. The Commission has computed the interest on term loans considering the closing loan balance for the respective stations approved in the true up for FY 2020-21 as the opening balance for FY 2021-22 and rate of interest in accordance with the RERC Tariff Regulations, 2019. The Commission has considered approved additional capitalization and de-capitalization as discussed in aforesaid paragraphs in debt component. The Commission has considered the normative repayment as equivalent to the approved depreciation.
- 4.86 With respect to the carrying cost on allowed expenditure for reconstruction of road, claimed against CTPP (Units 3-4), the Commission vide Order dated 08.03.2019 and review Order dated 03.07.2019 against Petition No. 1334/19 and 1478/19 respectively allowed the recovery of Rs. 40.80 Crore as a separate reimbursement over the

period of 5 years in equal installments and has ruled as under:

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

4.87 Accordingly, the Commission allows the carrying cost for FY 2021-22 on recovery of allowed expenditure for reconstruction of road as shown in the table below:

**Table 31: Carrying cost of allowed expenditure on reconstruction of road approved by the Commission (Rs. Crore)**

Parameters	FY 2021-22
Opening balance	23.95
Addition	0.00
Amount allowed for Recovery	8.16
Closing Balance	15.79
Average Balance	19.87
Rate of interest as on term loan	11.16%
Interest Amount	<b>2.22</b>

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

4.89 The Commission vide data gaps asked RVUN to submit the basis of its claim against Finance charges for FY 2021-22. RVUN submitted that the same is claimed on actual basis excluding the interest on lease rent. The Commission has considered the same.

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

4.91 The loan balance and interest considered by the Commission for FY 2021-22 is as shown in the table below:

**Table 32: Interest and finance charges on term loans approved by the Commission for FY 2021-22 (Rs. Crore)**

Particulars	KTPS(Units 1-6)	KTPS Unit 7	Total KTPS (Units 1-7)	STPS(Units 1-5)	STPS Unit 6	Total STPS (Units 1-6)
Opening balance	0.00	193.90	193.90	0.00	258.44	258.44
Addition	25.70	0.00	25.70	0.00	0.00	0.00
Repayment	25.70	42.41	68.11	0.00	50.06	50.06
Closing	0.00	151.50	151.50	0.00	208.37	208.37

Particulars	KTPS(Units 1-6)	KTPS Unit 7	Total KTPS (Units 1-7)	STPS(Units 1-5)	STPS Unit 6	Total STPS (Units 1-6)
balance						
Interest rate			11.28%			11.99%
<b>Interest</b>			<b>19.48</b>			<b>27.98</b>
Finance charges			0.42			0.41
<b>Interest and finance charges</b>			<b>19.90</b>			<b>28.39</b>

Particulars	CTPP (Units 1&2)	CTPP (Units 3&4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPS (110.50 MW)	RGTPS (160 MW)	Mahi
Opening balance	727.61	1321.02	4012.33	6116.75	0.00	351.51	0.00
Addition	0.00	0.00	1.78	40.47	-0.01	0.00	0.00
Repayment	122.58	142.91	404.53	417.89	-0.01	41.34	0.00
Closing balance	605.03	1178.11	3609.58	5739.33	0.00	310.17	0.00
Interest rate	11.16%	11.16%	10.59%	11.22%	11.08%	10.99%	11.08%
<b>Interest</b>	<b>74.34</b>	<b>139.42</b>	<b>403.55</b>	<b>664.93</b>	<b>0.00</b>	<b>36.37</b>	<b>0.00</b>
Finance charges	0.56	0.56	12.51	1.66	0.56	0.00	0.00
<b>Interest and finance charges</b>	<b>74.90</b>	<b>139.98</b>	<b>416.06</b>	<b>666.59</b>	<b>0.56</b>	<b>36.37</b>	<b>0.00</b>

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

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

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	19.58	19.90	19.90
STPS(Units 1-6)	28.29	28.39	28.39
CTPP(Units 1-4)	215.54	217.15	214.88
KaTPP (Units 1&2)	413.43	416.06	416.06
CSCTPP (Units 5&6)	635.40	669.06	666.59
RGTPS (270.5 MW)	37.15	37.81	36.93
Mahi	0.00	0.00	0.00
<b>Total</b>	<b>1349.39</b>	<b>1388.38</b>	<b>1382.76</b>

### **Interest on Working Capital** **RVUN's Submission**

4.93 The details of IoWC approved in the tariff Order for FY 2021-22 and petitioned for true up based on actual/audited accounts are as shown in the table below:

**Table 34: Interest on working capital claimed by RVUN (Rs. Crore)**

Station	FY 2021-22	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	80.34	84.96
STPS(Units 1-6)	114.69	119.10
CTPP(Units 1-4)	65.52	66.47
KaTPP (Units 1&2)	85.71	84.89
CSCTPP (Units 5&6)	80.56	83.58
RGTPS (270.50 MW)	10.66	11.57
Mahi	0.82	0.83
<b>Total</b>	<b>438.30</b>	<b>451.40</b>

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

4.95 Further, as per Regulation 27(3) of the RERC Tariff Regulations, 2019, RVUN has also submitted for sharing of 50% gain/loss on interest on working capital.

### Commission's Analysis

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

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

**Table 35: Computations of Bank rate as considered by the Commission**

Applicable for the Year	From Date	To Date	No. of Days	SBI Base Rate	300 Basis Point	Approved Interest Rate
FY 2021-22	1/4/2020	4/9/2020	9	7.75%	3.00%	10.14%
	10/4/2020	5/9/2020	30	7.40%		
	10/5/2020	6/9/2020	31	7.25%		
	10/6/2020	7/9/2020	30	7.00%		
	7/10/2020	8/9/2020	31	7.00%		
	8/10/2020	9/9/2020	31	7.00%		
	9/10/2020	9/30/2020	21	7.00%		

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

4.98 Accordingly, the Commission has approved the normative Interest on Working Capital as follows:

**Table 36: Approved IoWC for FY 2021-22 (Rs. Crore)**

Station	Approved Normative IoWC
KTPS(Units 1-7)	84.99
STPS(Units 1-6)	119.25
CTPP(Units 1-4)	66.22
KaTPP (Units 1&2)	84.72
CSCTPP (Units 5&6)	84.09



Station	Approved Normative loWC
RGTPS(270.50 MW)	11.25
Mahi	0.78
<b>Total</b>	<b>451.30</b>

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

4.100 As per Regulation 27(3) of the RERC Tariff Regulations, 2019 sharing of gains and losses has to be carried out with regards to variation in normative rate of interest and actual rate of interest. The normative rate of interest applicable is 10.14%.

4.101 RVUN has submitted the actual weighted average rate of interest as 11.26% on working capital loans. The sharing of loWC approved by the Commission for FY 2021-22 considering actual weighted average rate of interest as 11.26% on working capital loans is as shown in the table below:

**Table 37: Sharing of loWC for FY 2021-22 (Rs. Crore)**

Station	loWC at normative rate of loWC	loWC at actual rate of loWC	(Gain)/Loss	Sharing of (Gain)/Loss
	<b>A</b>	<b>B</b>	<b>C=B-A</b>	<b>D=50%*C</b>
KTPS(Units 1-7)	84.99	94.36	9.36	4.68
STPS(Units 1-6)	119.25	132.39	13.14	6.57
CTPP(Units 1-4)	66.22	73.51	7.29	3.65
KaTPP (Units 1&2)	84.72	94.05	9.33	4.67
CSCTPP (Units 5&6)	84.09	93.35	9.26	4.63
RGTPS(270.50 MW)	11.25	12.49	1.24	0.62
Mahi	0.78	0.86	0.09	0.04
<b>Total</b>	<b>451.30</b>	<b>501.01</b>	<b>49.72</b>	<b>24.86</b>

### **Insurance on Fixed Assets**

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

4.102 RVUN submitted the actual insurance charges on fixed assets along with supporting documents for FY 2021-22.

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

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

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

(a) Computations in soft (excel with formulas) and hard copy stating that Actual

insurance expenses incurred by the Generating Company for each of its stations is less than or equal to a ceiling of 0.2% of average Net Fixed Assets for the year;

(b) Station wise reconciliation statement of it with the audited accounts of FY 2021-22;

4.105 RVUN in its replies to the data gaps submitted the same. It was observed that actual insurance expense incurred by RVUN are within the ceiling limit of 0.02% of the average net fixed assets incurred by the Generating Company for the year. The Commission therefore approves insurance charges as claimed by RVUN for FY 2021-22 as shown in the table below:

**Table 38: Approved insurance on fixed assets by the Commission (Rs. Crore)**

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	7.40	7.03	7.03
STPS(Units 1-6)	8.98	8.50	8.50
CTPP(Units 1-4)	5.98	5.63	5.63
KaTPP (Units 1&2)	6.43	6.73	6.73
CSC TPP (Units 5&6)	7.79	7.36	7.36
RGTPP (270.50 MW)	1.66	1.67	1.67
Mahi	0.00	0.00	0.00
<b>Total</b>	<b>38.24</b>	<b>36.91</b>	<b>36.91</b>

### **Return on Equity (RoE)**

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

4.106 The Commission has considered the closing equity balance approved for FY 2020-21 on truing up, as the opening equity balance for FY 2021-22. Further, the Commission has considered equity addition of 20.00 % of the approved additional capitalization and de-capitalization for FY 2021-22 as discussed on the aforesaid paragraphs.

4.107 The Commission has not allowed the RoE for FY 2021-22, in accordance with the letter dated 16.11.2021, issued by Finance Department, GOR on Return on Equity for RVUNL which states that that RoE allowed to RVUNL for FY 2021-22 vide U.O. Note No. F. 5(11) FWM/2014/RVUN/Dt. 10.09.2021 is withdrawn, i.e., RoE for FY 2021-22 is not allowed by GoR to RVUNL.

4.108 The equity base approved by the Commission for FY 2021-22 is as shown in the table below:

**Table 39: Equity base approved by the Commission for FY 2021-22 (Rs. Crore)**

Particulars	KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1&2)	CTPP(Units 3&4)	KaTPP (Units 1&2)
Opening Equity	510.92	1176.19	496.48	570.58	1643.06
Addition	6.43	0.00	0.00	0.00	0.44
Closing Equity	517.35	1176.19	496.48	570.58	1643.50

Particulars	CSCTPP (Units 5&6)	RGTPS(110.50 MW)	RGTPS (160 MW)	Mahi
Opening Equity	1493.09	120.11	161.96	170.38
Addition	10.12	0.00	0.00	0.00
Closing Equity	1503.21	120.11	161.96	170.38

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

4.109 RVUN has claimed the plant-wise non-tariff income for FY 2021-22 based on actual/audited accounts.

**Commission's Analysis**

4.110 The Commission has considered the non-tariff income as per the petition, based on actual/audited accounts in true up for FY 2021-22 as under:

**Table 40: Non-tariff income approved by the Commission (Rs. Crore)**

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	13.88	1.63	1.63
STPS(Units 1-6)	3.13	4.90	4.90
CTPP(Units 1-4)	8.74	7.15	7.15
KaTPP (Units 1&2)	1.33	2.07	2.07
CSCTPP (Units 5&6)	0.32	1.03	1.03
RGTPP (270.50 MW)	3.75	0.15	0.15
Mahi	0.13	0.06	0.06
<b>Total</b>	<b>31.28</b>	<b>16.98</b>	<b>16.98</b>

**Terminal Benefit****RVUN's Submission**

4.111 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.

4.112 RVUN in its petition has claimed terminal benefits for FY 2021-22 based on actuarial

valuation for FY 2021-22.

### Commission's Analysis

4.113 It is observed that Petitioner is claiming the terminal benefits, which is part of normal O&M. The Petitioner submitted supporting documents demonstrating that Rs. 70.00 Crore of amount over and above the routine terminal liabilities has been deposited in the designated fund. The terminal liabilities, which are routine, has to be deposited through normative O&M and extra amount deposited based on actuarial valuation shall be reimbursed as extra amount. Since, the Petitioner has not deposited complete amount as per actuarial valuation report of FY 2021-22, the Commission, therefore, has considered the proportionate amount of Rs. 70.00 Crore against each station for which the instant true-up Petition has been filed and has been deposited in the designated fund as submitted by the Petitioner.

**Table 41: Terminal Benefit approved by the Commission (Rs. Crore)**

Station	FY 2021-22		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	47.57	47.86	17.37
STPS(Units 1-6)	39.36	41.73	15.14
CTPP(Units 1-4)	21.19	26.98	9.79
KaTPP (Units 1&2)	17.93	21.15	7.68
CSCTPP (Units 5&6)	12.54	18.31	6.65
RGTPP (270.50 MW)	7.42	8.53	3.10
Mahi	6.30	7.05	2.56
<b>Total</b>	<b>152.31</b>	<b>171.61</b>	<b>62.29</b>

### Lease Rent

#### RVUN's Submission

4.114 RVUN has claimed the plant-wise Lease rent for FY 2021-22 based on actual/audited accounts.

### Commission's Analysis

4.115 The Commission observes that the Petitioner had claimed amortization against the lease hold rent of assets in accordance to applicable provisions of IND-AS. The Commission thereafter asked the Petitioner to submit the actual lease rent paid for plant assets as per RERC Tariff Regulations. The Petitioner accordingly submitted the actual lease paid for plant assets with supporting documents.

4.116 The Commission observed that the amount against Lease rent has been claimed on

the government land provided on lease. Accordingly, as per provisions of RERC Tariff Regulations, 2019, the lease rent considered by the Commission for FY 2021-22 is as shown in the table below:

**Table 42: Lease Rent Approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22						
	KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPP (270.50 MW)	Mahi
Claimed	0.17	0.03	0.12	0.22	1.53	0.01	0.01
Approved on True-up	0.17	0.03	0.12	0.22	1.53	0.01	0.01

**Adjustment of excess depreciation**  
**Commission's Analysis**

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

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

.....

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

4.118 It is observed that in case of RGTPS the depreciation is nil, however the Advance against Depreciation (AAD) is still pending to be recovered, therefore the Commission deems it appropriate to deduct the AAD pending for RGTPS (100.5 MW) from the approved fixed cost for FY 2021-22. Accordingly, the adjustment of advance against depreciation reworked for FY 2021-22 is as shown in the table below:

**Table 43: Adjustment of Advance against Depreciation (Rs. Crore)**

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)	RGTPS (110.5 MW)
AAD allowed till FY 2008-09 and after adjustment in FY 2009-10, FY 2013-14, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21	145.64	315.96	10.01
Outstanding transitional loan	0.00	0.00	0.00
Depreciation for the year	26.39	114.15	0.00
Repayment of LT loan	25.70	0.00	-0.01
Balance Depreciation available for repayment of transitional loan	0.69	114.15	0.01
Repayment of transitional Loan	0.00	0.00	0.00
<b>Excess depreciation to be deducted from AFC of FY 2021-22</b>	<b>0.69</b>	<b>114.15</b>	<b>10.01</b>
Balance AAD to be adjusted in subsequent years	144.95	201.81	0.00

**Annual Fixed Charges**

4.119 The approved Annual Fixed Charges for FY 2021-22 are as shown in the table below:-

**Table 44: Approved AFC for FY 2021-22 (Rs. Crore)**

Station	KTPS(Units 1-7)			STPS(Units 1-6)			CTPP(Units 1-4)		
	Approved in the Tariff Order	Claimed for true up	Approved on true up	Approved in the Tariff Order	Claimed for true up	Approved on true up	Approved in the Tariff Order	Claimed for true up	Approved on true up
O&M expenses	268.37	268.37	268.37	324.64	324.64	324.64	216.43	216.43	216.43
Depreciation	67.87	68.80	68.80	164.22	164.22	164.22	265.49	265.50	265.49
Interest on term loans & finance charges	19.58	19.90	19.90	28.29	28.39	28.39	215.54	217.15	214.88
Interest on working capital	80.34	84.96	84.99	114.69	119.10	119.25	65.52	66.47	66.22
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Amortization	0.00	0.17	0.17	0.00	0.03	0.03	0.00	0.12	0.12
Insurance on fixed assets	7.40	7.03	7.03	8.98	8.50	8.50	5.98	5.63	5.63
Terminal Benefit	47.57	47.86	17.37	39.36	41.73	15.14	21.19	26.98	9.79
Minus: Non-tariff income	13.88	1.63	1.63	3.13	4.90	4.90	8.74	7.15	7.15
Minus: Adjustment of excess depreciation	25.47	0.69	0.69	114.15	114.15	114.15	0.00	0.00	0.00
<b>Annual Fixed Charges</b>	<b>451.78</b>	<b>494.78</b>	<b>464.32</b>	<b>562.90</b>	<b>567.55</b>	<b>541.12</b>	<b>781.41</b>	<b>791.14</b>	<b>771.42</b>

Station	KaTPP (Units 1&2)			CSCTPP (Units 5&6)			RGTPS(270.50 MW)		
	Approved in the Tariff Order	Claimed for true up	Approved on true up	Approved in the Tariff Order	Claimed for true up	Approved on true up	Approved in the Tariff Order	Claimed for true up	Approved on true up
O&M expenses	233.74	233.74	233.74	257.12	257.12	257.12	47.72	47.72	47.72
Depreciation	404.50	404.54	404.53	416.35	419.22	417.89	41.34	41.89	41.34
Interest on term loans & finance charges	413.43	416.06	416.06	635.40	669.06	666.59	37.15	37.81	36.93
Interest on working capital	85.71	84.89	84.72	80.56	83.58	84.09	10.66	11.57	11.25
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Amortization	0.00	0.22	0.22	0.00	1.53	1.53	0.00	0.01	0.01
Insurance on fixed assets	6.43	6.73	6.73	7.79	7.36	7.36	1.66	1.67	1.67
Terminal Benefit	17.93	21.15	7.68	12.54	18.31	6.65	7.42	8.53	3.10
Minus: Non-tariff income	1.33	2.07	2.07	0.32	1.03	1.03	3.75	0.15	0.15
Minus: Adjustment of excess depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.01
<b>Annual Fixed Charges</b>	<b>1160.41</b>	<b>1165.25</b>	<b>1151.60</b>	<b>1409.44</b>	<b>1455.16</b>	<b>1440.21</b>	<b>142.20</b>	<b>149.06</b>	<b>131.86</b>

Station	Mahi			Total RVUN		
	Approved in the Tariff Order	Claimed for true up	Approved on true up	Approved in the Tariff Order	Claimed for true up	Approved on true up
O&M expenses	18.68	18.68	18.68	1366.70	1366.70	1366.70
Depreciation	4.42	4.42	4.42	1364.19	1368.58	1366.69
Interest on term loans & finance charges	0.00	0.00	0.00	1349.39	1388.38	1382.76
Interest on working capital	0.82	0.83	0.78	438.30	451.40	451.30
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00
Amortization	0.00	0.01	0.01	0.00	2.09	2.09
Insurance on fixed assets	0.00	0.00	0.00	38.24	36.91	36.91
Terminal Benefit	6.30	7.05	2.56	152.31	171.61	62.29
Minus: Non-tariff income	0.13	0.06	0.06	31.28	16.98	16.98
Minus: Adjustment of excess depreciation	0.00	0.00	0.00	139.62	114.84	124.85
<b>Annual Fixed Charges</b>	<b>30.09</b>	<b>30.93</b>	<b>26.39</b>	<b>4538.23</b>	<b>4653.86</b>	<b>4526.90</b>

4.120 The actual availability of some of the stations of RVUN has been lower than the normative availability approved by the Commission in this Order. The full recovery of

fixed charges is allowed if the actual availability is equal to or more than the target availability. If the actual availability is lower than the target availability, the approved normative AFC is reduced proportionately in trueing up of FY 2021-22.

4.121 The Commission is of the view that reduction in AFC needs to be worked out without the adjustment of excess depreciation so that the entire excess depreciation is adjusted from the entitlement of RVUN. Accordingly, the Commission has computed the reduction of AFC on pro-rata basis by considering the AFC without adjustment of excess depreciation.

**Table 45: AFC reduced for non-achievement of target Availability (Rs. Crore)**

Station	AFC after true up without adjustment of excess depreciation	Actual Availability considered by the Commission	Target Availability for full recovery of fixed charges	Reduced AFC without adjustment of excess depreciation	AFC reduced
KTPS(Units 1-7)	465.01	84.48%	83.00%	465.01	0.00
STPS(Units 1-6)	655.27	74.67%	83.00%	589.53	65.74
CTPP(Units 1-4)	771.42	59.67%	83.00%	554.55	216.87
KaTPP (Units 1&2)	1151.60	75.62%	83.00%	1049.14	102.46
CSCTPP (Units 5&6)	1440.21	51.96%	85.00%	880.34	559.86
RGTPS(270.5 MW)	141.87	60.42%	70.00%	122.46	19.41
Mahi	26.39	94.38%	90.00%	26.39	0.00
<b>Total</b>	<b>4651.75</b>			<b>3687.41</b>	<b>964.35</b>

4.122 Further, it is observed that considering the reduced normative O&M expenses of Rs. 1145.99 Cr. for non achievement of target Availability and actual O&M expenses of Rs. 1045.90 Cr. considered by the Commission, there is a savings of Rs. 100.09 Crore. The Commission, therefore, directs RVUN to deposit this amount of Rs. 100.09 Crore to the Pension Fund. The Commission also directs RVUN to submit the documentary proof regarding depositing the above amount along with the next tariff petition.

### **Energy Charges**

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

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

*"51. Energy Charges*

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

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

*....."*

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



on the scheduled generation.

4.125 The Commission has computed the energy charges for FY 2021-22 considering the approved performance parameters and actual fuel prices and calorific value.

4.126 The energy charges computed by the Commission for FY 2021-22 are as shown in the table below:

**Table 46: Energy Charges approved for FY 2021-22**

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	6904.54		3721.27		4622.71	
Auxiliary Consumption	%	11.53%	9.65%	10.32%	9.80%	10.16%	9.80%
Net Generation	MU	6108.53	6280.11	3337.23	3461.40	4153.15	4430.55
Landed Price of Coal	Rs./kg	4.21	4.24	5.24	5.27	4.43	4.43
Gross Station Heat Rate	kcal/kWh	2481.22	2561.70	2395.57	2476.28	2522.62	2400.00
Price of Secondary fuel oil	Rs./ml	0.04	0.04	0.05	0.05	0.05	0.05
Secondary fuel oil Consumption	ml/kWh	0.62	0.50	3.25	0.50	0.37	0.50
Gross Calorific Value of Secondary fuel oil	kcal/ml	9.97	9.97	9.85	9.85	9.98	9.98
Heat Contribution from Secondary fuel oil	kcal/kWh	6.17	4.98	31.97	4.93	3.72	4.99
Heat Contribution from Coal	kcal/kWh	2475.05	2556.72	2363.60	2471.35	2518.90	2395.01
Gross Calorific Value of Coal	kcal/kg	3498.79	3498.79	3521.82	3521.82	3937.97	3937.97
Specific coal consumption	kg/kWh	0.71	0.73	0.67	0.70	0.64	0.61
Rate of Energy Charge	Rs./kWh	3.40	3.45	4.11	4.13	3.17	3.01
Other Charges	Rs. Crore	0.00	0.00	-1.68	-1.68	0.00	0.00
<b>Total Energy Charges</b>	<b>Rs. Crore</b>	<b>2076.33</b>	<b>2167.58</b>	<b>1371.00</b>	<b>1426.76</b>	<b>1318.43</b>	<b>1335.53</b>
	<b>Rs./kWh</b>	<b>3.399</b>	<b>3.452</b>	<b>4.108</b>	<b>4.122</b>	<b>3.175</b>	<b>3.014</b>

Particulars	Units	KaTPP (Units 1&2)		CSCTPP (Units 5&6)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	7144.53		5633.23		1392.85	
Auxiliary Consumption	%	6.49%	5.25%	6.48%	5.25%	4.08%	2.80%
Net Generation	MU	6681.16	6805.63	5268.15	5551.56	1336.04	1390.12
Landed Price of Coal/Gas	Rs./kg & Rs./SCM	4.9552	4.96	4.5576	4.56	9.16	9.16
Gross Station Heat Rate	kcal/kWh	2496.57	2333.28	2388.84	2133.60	2251.90	2035.94
Price of Secondary fuel oil	Rs./ml	0.0523	0.05	0.0468	0.05	0.05	0.05

Particulars	Units	KaTPP (Units 1&2)		CSCTPP (Units 5&6)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Secondary fuel oil Consumption	ml/kWh	0.8209	0.50	0.6848	0.50	0.00	0.00
Gross Calorific Value of Secondary fuel oil	kcal/ml	9.4392	9.44	9.9497	9.95	9.30	9.30
Heat Contribution from Secondary fuel oil	kcal/kWh	7.7489	4.72	6.81	4.97	0.04	0.03
Heat Contribution from Coal/Gas	kcal/kWh	2488.82	2328.56	2382.02	2128.63	2251.86	2035.91
Gross Calorific Value of Coal/Gas	kCal/kg & kCal/SCM	4070.96	4070.95	4187.26	4187.25	6771.45	6771.45
Specific coal/Gas consumption	kg/kWh & SCM/kWh	0.6114	0.57	0.57	0.51	0.33	0.30
Rate of Energy Charge	Rs./kWh	3.29	3.02	2.81	2.47	3.17	2.83
Other Charges	Rs. Crore	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Energy Charges</b>	<b>Rs. Crore</b>	<b>2195.06</b>	<b>2054.62</b>	<b>1478.58</b>	<b>1371.22</b>	<b>424.12</b>	<b>393.74</b>
	<b>Rs./kWh</b>	<b>3.285</b>	<b>3.02</b>	<b>2.807</b>	<b>2.470</b>	<b>3.174</b>	<b>2.832</b>

Particulars	Units	Total	
		Claimed	Approved
Total Energy Charges	Rs. Crore	8863.52	8749.45
	Rs./kWh	3.297	3.134

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

*“56. Sharing of gains and losses on account of controllable factors*

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

...

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

4.129 Therefore, from the Regulation 56(1) of the RERC Tariff Regulations, 2019, it is clear that any gains on account of controllable factor have to be shared between Generating Company and Distribution Licensee in the ratio of 60:40. Also, from the Regulation 56(2) of the RERC Tariff Regulations, 2019, it is clear that any loss on

account of controllable factor has to be borne by the generator and no sharing of the same will be done. Accordingly, the computation of it is as shown in the table below:

**Table 47: Sharing of Gains/Loss for FY 2021-22 as per Regulation 56 (Rs. Crore)**

Particulars	KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	KaTPP (Units 1&2)	CSC TPP (Units 5&6)	RGTPS (270.5 MW)	Total
Actual energy billed (A)	6108.53	3337.23	4153.15	6681.16	5268.15	1336.04	<b>26884.24</b>
ECRN (B)	3.45	4.13	3.01	3.02	2.47	2.83	
ECRA (C)	3.40	4.11	3.17	3.29	2.81	3.17	
Gain/ (loss) {D=(B-C)*A}	32.03	4.51	-66.52	-178.02	-177.37	-45.71	<b>-431.07</b>
<b>Sharing of gain {E=40%*D}</b>	<b>12.81</b>	<b>1.81</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>14.62</b>

### **Incentive**

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

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

"52. Incentive

(1) For Thermal Power Generating Stations

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

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

4.131 The Commission has not allowed incentive for RVUN stations as the Petitioner has not been able to surpass target PLF for FY 2021-22.

### **Revenue Side True up**

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

4.132 RVUN has claimed the revenue for true up of FY 2021-22 as shown in the table below:

**Table 48: Actual Revenue as per Annual Accounts as submitted by the Petitioner(Rs. Crore)**

Station	Total
KTPS(Units 1-7)	2555.76
STPS(Units 1-6)	1929.63
CTPP(Units 1-4)	1898.64
KaTPP (Units 1&2)	3107.50
CSC TPP (Units 5&6)	2239.09
RGTPP (270.50 MW)	518.34
Mahi	30.08
<b>Total</b>	<b>12279.04</b>

## 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 true up of FY 2021-22.
- 4.134 Vide the data gaps, the Commission sought reconciliation statement of the actual revenue, as per the audited accounts for FY 2021-22. RVUN submitted the same and were found to be prudent.
- 4.135 Accordingly, the revenue from sale of power considered by the Commission for true up purposes is shown in the table below:

**Table 49: Annual Revenue as per annual accounts for FY 2021-22 (Rs. Crore)**

Station	Fixed Charges	Energy Charges	FPA	Total
KTPS(Units 1-7)	451.79	2030.99	72.98	<b>2555.76</b>
STPS(Units 1-6)	504.16	1350.04	75.43	<b>1929.63</b>
CTPP(Units 1-4)	561.76	1313.66	23.22	<b>1898.64</b>
KaTPP (Units 1&2)	1057.23	1980.44	69.83	<b>3107.50</b>
CSC TPP (Units 5&6)	871.84	1337.93	29.32	<b>2239.09</b>
RGTPP (270.50 MW)	122.73	356.84	38.77	<b>518.34</b>
Mahi	24.48	5.60	0.00	<b>30.08</b>
<b>Total</b>	<b>3593.99</b>	<b>8375.50</b>	<b>309.56</b>	<b>12279.04</b>

## Summary of True Up

### RVUN's submission

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

**Table 50: Summary of true up for FY 2021-22 claimed by RVUN (Rs. Crore)**

Particulars	As per Tariff Order	Claimed for true up
<b><u>Cost side True Up</u></b>		
Total Fixed Cost	4538.23	4653.86
Variable cost	13490.92	8863.52
Total Expenses	18029.15	13517.38
<b>Extra Cost incurred By RVUNL (A)</b>		<b>-4511.77</b>
<b><u>Revenue Side True up</u></b>		
Revenue From electricity (fixed And Energy charges)	18029.15	12279.04
Total Revenue	<b>18029.15</b>	<b>12279.04</b>
<b>Extra Amount billed to Discom by RVUNL (B)</b>		<b>-5750.11</b>
<b>Total Amount Sought from Discom C = (A-B)</b>		<b>1238.34</b>

- 4.137 RVUN has claimed the net revenue gap of Rs. 1238.34 Cr. on true-up for FY 2021-22.

## Commission's Analysis

4.138 Based on component wise cost and revenue approved as discussed above, the summary of True Up for FY 2021-22 as approved by the Commission is as shown below:

**Table 51: Summary of true up approved by the Commission for FY 2021-22 (Rs. Crore)**

Particulars	Approved
<b>Cost side True Up</b>	
Fixed Cost	4526.90
Variable cost	8749.45
Sharing of (gain)/loss	10.24
Add: PLF based Incentive	0.00
Add: Carrying Cost of allowed expenditure on reconstruction of road against CTPP Units 3-4	2.22
Less: Reduction in AFC due to non-achievement of Target Availability	964.35
<b>TOTAL (A)</b>	<b>12324.46</b>
<b>Revenue Side True up</b>	
Revenue From sale of electricity	12279.04
Add: PLF based Incentive	0.00
<b>TOTAL (B)</b>	<b>12279.04</b>
<b>Revenue Gap (C=A-B)</b>	<b>45.41</b>

4.139 Accordingly, the Commission has approved the net revenue gap of Rs. 45.41 Crore as against the revenue gap of Rs. 1238.34 Crore claimed by RVUN for FY 2021-22. The Commission allows RVUN to recover the net approved revenue gap of Rs. 45.41 Crore for the period FY 2021-22 from the Discoms in next billing cycle from the date of this Order, in the ratio of total energy purchased by them in FY 2021-22.

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

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

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

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

*....."*

4.141 It is observed that time and again Commission has issued directions in this regard for last so many years but RVUN has not adhered to it, Commission has taken a serious note of it. RVUN is directed to submit the Allocation Statement station wise in accordance with the RERC Tariff Regulations, 2019 duly certified by its Statutory Auditor, along with the audited accounts, in its true up petition for the subsequent years.

.....

## **SECTION 5**

### **Determination of ARR and Tariff for FY 2023-24**

5.1 RVUN in the instant petition has sought approval of ARR and Tariff for FY 2023-24 for the following Generating Stations:

- a) Kota Thermal Power Station (KTPS) (Units 1-7);
- b) Suratgarh Thermal Power Station (STPS) (Units 1-6);
- c) Chhabra Thermal Power Station (CTPP)(Units 1-4);
- d) Kalisindh Thermal Power Station (KaTPP) (Units 1-2);
- e) Chhabra Super Critical Thermal Power Station (CSCTPP) (Units 5&6);
- f) Ramgarh Gas Thermal Power Station (RGTPS) (270.50 MW);
- g) Mahi Hydel Power Project (Mahi)

5.2 The Tariff determination for FY 2023-24 has been done in accordance with the RERC Tariff Regulations, 2019. The Annual Fixed Charges comprises of the following elements:

- a) Operation and Maintenance (O&M) Expenses;
- b) Depreciation;
- c) Interest on Term Loans;
- d) Interest on Transitional Loans;
- e) Return on Equity;
- f) Interest on Working Capital;
- g) Insurance Charges;
- h) Less: Non-tariff Income.

5.3 Each of the Annual Fixed Charges elements has been dealt with in the following paragraphs.

#### **Operation and Maintenance Expenses**

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

5.4 RVUN submitted that the Operation & Maintenance Expenses for FY 2023-24 have been computed on the basis of norms prescribed under Regulation 47 of RERC Tariff Regulations, 2019 and accordingly has claimed the normative O&M expenses for FY 2023-24

## Commission's Analysis

- 5.5 The Commission has verified RVUN's computations of normative O&M expenses and found it to be in order, i.e., as per the provisions of RERC Tariff Regulations, 2019 and accordingly, the same has been approved.
- 5.6 The O&M expenses as approved by the Commission for FY 2023-24 are as shown in the table below:

**Table 52: O&M expenses approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	287.54	287.54
STPS(Units 1-6)	347.83	347.83
CTPP(Units 1-4)	231.89	231.89
KaTPP (Units 1&2)	250.44	250.44
CSC TPP (Units 5&6)	275.48	275.48
RGTPS (270.50 MW)	51.12	51.12
Mahi	20.01	20.01
<b>Total</b>	<b>1464.32</b>	<b>1464.32</b>

## Depreciation

### RVUN's Submission

- 5.7 The details of depreciation as claimed in the Petition for FY 2023-24 are as shown in the table below:

**Table 53: Depreciation claimed by RVUN (Rs. Crore)**

Station	FY 2023-24
	Claimed
KTPS (Units 1-7)	46.26
STPS (Units 1-6)	138.19
CTPP (Units 1-4)	265.51
KaTPP (Units 1&2)	404.59
CSC TPP (Units 5&6)	422.02
RGTPS (270.50 MW)	42.44
Mahi	4.42
<b>Total</b>	<b>1323.42</b>

## Commission's Analysis

- 5.8 The Commission has approved the depreciation for FY 2023-24 in accordance with Regulation 22 of RERC Tariff Regulations, 2019.



5.9 The Commission has considered the closing GFA approved for FY 2021-22 as the opening GFA for FY 2022-23. RVUN has not claimed any additional capitalization for FY 2022-23. Accordingly, the Commission has not considered any additional capitalization for FY 2022-23. The closing GFA for FY 2022-23 has been considered as the opening GFA for FY 2023-24. RVUN has not claimed any additional capitalization for FY 2023-24. Accordingly, the Commission has not considered any additional capitalization for FY 2023-24.

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

**Table 54: GFA base for KTPS (Units 1-6), STPS (Units 1-5), RGTPS (110.50 MW) and Mahi (Rs. Crore)**

Particulars	KTPS Units (1-6)	STPS Units (1-5)	RGTPS (110.50 MW)	Mahi
Original Cost	1185.17	4223.32	311.08	259.02
Additional Capitalization approved till FY 2023-24	138.86	11.31	(0.06)	0.00
<b>Total</b>	<b>1324.03</b>	<b>4234.63</b>	<b>311.02</b>	<b>259.02</b>

5.11 The details of GFA base considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6) and RGTPP (160 MW) for computing the depreciation for FY 2023-24 are as under:

**Table 55: GFA base for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4), KaTPP (Units 1&2), CSCTPP (Units 5&6) and RGTPP (160 MW)**

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPP (160MW)
Land & Land Rights	0.00	0.00	12.73	18.56	56.22	0.00
Building & Civil Works of Power Plants	126.19	209.48	573.36	1194.54	1692.83	64.04
Hydraulic Works	10.98	15.73	156.25	1090.31	772.49	31.24
Other Civil Works	4.70	7.10	172.13	266.61	0.00	0.10
Plant & Machinery	705.38	768.70	4232.28	5450.67	6004.31	711.13
Lines & Cable Net work	0.00	0.45	67.32	6.42	92.97	0.00
Vehicles	0.00	0.00	0.12	0.18	0.00	0.00
Furniture & Fixtures	0.04	0.10	2.13	2.11	1.28	0.00
Office Equipment	-3.19	4.63	6.86	0.32	0.12	0.00
Capital Spares	7.76	20.60	89.77	187.79	0.00	0.00
<b>Total</b>	<b>851.86</b>	<b>1026.79</b>	<b>5312.96</b>	<b>8217.52</b>	<b>8620.22</b>	<b>806.52</b>

5.12 Accordingly, as per provisions of RERC Tariff Regulations, 2019, the depreciation approved by the Commission for FY 2023-24, is as shown in the table below:

**Table 56: Depreciation approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	46.26	46.28
STPS(Units 1-6)	138.19	97.06
CTPP(Units 1-4)	265.51	265.49
KaTPP (Units 1&2)	404.59	404.59
CSCTPP (Units 5&6)	422.02	419.35
RGTPS (270.50 MW)	42.44	41.34
Mahi	4.42	0.00
<b>Total</b>	<b>1323.42</b>	<b>1274.11</b>

### **Interest and Finance Charges on Term Loan**

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

- 5.13 RVUN submitted that loan-wise interest expenses & finance charges, which includes term loans have been worked-out and taken as part of fixed cost. The loan repayment amount for term loans has been taken equal to the depreciation. Further, interest on term loan for FY 2023-24 has been claimed in accordance with Regulation 21 of the RERC Tariff Regulations, 2019.

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

- 5.14 The Commission has considered the closing term loan balance approved in true up for FY 2021-22 as the opening loan balance for FY 2022-23. Thereafter, the Commission has worked out the closing loan balances for FY 2022-23 considering the normative repayment for FY 2022-23 as the allowable depreciation for the year. The Commission has considered the closing loan balance for FY 2022-23 as the opening loan balance for FY 2023-24. The allowable depreciation for the year has been considered as the normative repayment for the year.
- 5.15 As per Regulation 21(5) of the RERC Tariff Regulations, 2019, the rate of interest to be considered is weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year.
- 5.16 The Commission has considered the interest rate after deducting the penal interest amount of FY 2021-22 on long term loans considering the information submitted by RVUN.

**Table 57: Loan balances approved for FY 2023-24 (Rs. Crore)**

Particulars	KTPS(Units 1-6)	KTPS Unit 7	Total KTPS (Units 1-7)	STPS(Units 1-5)	STPS Unit 6	Total STPS (Units 1-6)	CTPP(Units 1-4)
Op. balance	0.00	132.31	<b>132.31</b>	0.00	184.33	<b>184.33</b>	1517.65
Addition	0.00	0.00	<b>0.00</b>	0.00	0.00	<b>0.00</b>	0.00
Repayment	0.00	19.19	<b>19.19</b>	0.00	24.04	<b>24.04</b>	265.49
Closing balance	0.00	113.13	<b>113.13</b>	0.00	160.29	<b>160.29</b>	1252.16
Interest rate		11.28%			11.99%		11.16%
<b>Interest</b>	<b>0.00</b>	<b>13.85</b>	<b>13.85</b>	<b>0.00</b>	<b>20.66</b>	<b>20.66</b>	<b>154.52</b>
Finance charges			<b>0.42</b>			<b>0.41</b>	1.12
<b>Interest and finance charges</b>	<b>0.00</b>	<b>13.85</b>	<b>14.27</b>	<b>0.00</b>	<b>20.66</b>	<b>21.07</b>	<b>155.64</b>

Particulars	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPS (270.50 MW)	Mahi
Op. balance	3205.05	5321.44	268.84	0.00
Addition	0.00	0.00	0.00	0.00
Repayment	404.59	419.35	41.34	0.00
Closing balance	2800.45	4902.08	227.50	0.00
Interest rate	10.59%	11.22%	10.99%	11.08%
<b>Interest</b>	<b>317.97</b>	<b>573.37</b>	<b>27.28</b>	<b>0.00</b>
Finance charges	12.51	1.66	0.56	0.00
<b>Interest and finance charges</b>	<b>330.48</b>	<b>575.03</b>	<b>27.84</b>	<b>0.00</b>

**Table 58: Interest and finance charges on term loans approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	9.68	14.27
STPS(Units 1-6)	21.07	21.07
CTPP(Units 1-4)	157.05*	155.64
KaTPP (Units 1&2)	330.48	330.48
CSCTPP (Units 5&6)	579.48	575.03
RGTPS (270.50 MW)	29.49	27.84
Mahi	0.00	0.00
<b>Total</b>	<b>1127.25</b>	<b>1124.32</b>

\*Claimed value of Rs. 157.05 Crore includes cost towards carrying cost also, i.e., Rs. 1.38 Crore

5.17 The Commission for the purpose of this Order has considered the Finance Charges for FY 2023-24 as claimed by the Petitioner, i.e., as per the actual for FY 2021-22 submitted vide its data gaps reply. Any variation shall be adjusted during the truing up exercise for FY 2023-24.

## Interest on Working Capital (IoWC)

### RVUN's Submission

- 5.18 RVUN submitted that the requirement for working capital loan for FY 2023-24 has been computed on the basis of Regulation 27 of RERC Tariff Regulations, 2019 and the rate of interest on Working Capital Loan has been taken equal to 300 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year.

### Commission's Analysis

- 5.19 Regulation 27(2) of the RERC Tariff Regulations, 2019 specifies that the rate of interest on working capital to be computed shall be on normative basis and shall be 300 basis points higher from SBI base rate prevalent during first six months of the year previous to the relevant year. The computation of the bank rate is as shown in the table below:

**Table 59: Computations of Bank rate as considered by the Commission for FY 2023-24**

Applicable for the Year	From Date	To Date	No. of Days	SBI Base Rate	300 Basis Point	Approved Interest Rate
FY 2023-24	01-04-2022	14-04-2022	14.00	7.00%	3.00%	10.38%
	15-04-2022	14-05-2022	30.00	7.10%		
	15-05-2022	14-06-2022	31.00	7.20%		
	15-06-2022	14-07-2022	30.00	7.40%		
	15-07-2022	14-08-2022	31.00	7.50%		
	15-08-2022	14-09-2022	31.00	7.70%		
	15-09-2022	30-09-2022	16.00	7.70%		

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

- 5.20 Further, the Commission has worked out the working capital requirement in accordance with Regulation 27 of the RERC Tariff Regulations, 2019. The interest on working capital as approved by the Commission for FY 2023-24 has been provided in the table below:

**Table 60: IoWC approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS (Units 1-7)	94.86	93.92
STPS (Units 1-6)	140.11	137.79
CTPP (Units 1-4)	82.72	80.60
KaTPP (Units 1-2)	100.74	97.50
CSCTPP (Units 5&6)	115.79	112.71
RGTPP (270.50 MW)	17.27	16.67
Mahi	1.24	0.85
<b>Total</b>	<b>552.73</b>	<b>540.04</b>

## **Return on Equity (RoE)**

### **RVUN's Submission**

- 5.21 RVUN submitted that the equity shall be reduced after useful life of the plant from balance of depreciation in accordance with Regulation 19 of the RERC Tariff Regulations, 2019.
- 5.22 RVUN submitted that KTPS (Units 1-5) has completed their useful life. The Commission has approved additional capitalization for these units. Further, considering the additional capitalization for KTPS (Units 1-5), the depreciation is over and above term loan for KTPS (Units 1-3). Accordingly, equity has been reduced for computation of RoE. RVUN requested the Commission to consider net equity of Rs. 495.39 Crore for KTPS for computation of RoE.
- 5.23 RVUN further submitted that GoR has allowed RoE for FY 2022-23 vide letter dated 27.06.2022. RVUN requested GoR for allowing RoE from FY 2023-24 onwards and the issue is under active consideration in Finance Department. Considering the same, RoE has been claimed as per Regulation 20 of RERC Tariff Regulations, 2019.

### **Commission's Analysis**

- 5.24 The Commission has considered the closing equity balance approved for FY 2021-22 as the opening balance for FY 2022-23. RVUN has not claimed any additional capitalization for FY 2022-23 and accordingly no equity addition has been claimed in FY 2022-23. The closing equity balance for FY 2022-23 has been considered as the opening balance for FY 2023-24.
- 5.25 Regulation 19 of the RERC Tariff Regulations, 2019 specifies that:
- "In case of Generating Station or a transmission system or distribution system, which has completed its useful life as on or after 1.04.2019, the accumulated depreciation as on the completion of the useful life less cumulative repayment of loan shall be utilized for reduction of the equity and depreciation admissible after the completion of useful life and the balance depreciation, if any, shall be first adjusted against the repayment of balance outstanding loan and thereafter shall be utilized for reduction of equity."*
- 5.26 RVUN submitted that KTPS (Units 1-5) have completed their useful life and accordingly, claimed the reduced RoE for KTPS. Accordingly, the Commission has worked out the amount of equity to be reduced from the opening equity base of KTPS (Units 1-6) for FY 2023-24 as shown in table below:

**Table 61: Equity reduction for KTPS in accordance with Regulation 19**

Particulars	Units	Legend	KTPS						
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6	HO	Total for old units
Installed capacity	MW	A	220	210	210	210	195		<b>1045</b>
COD	Date	B	1-Apr-84	11-Mar-89	6-Mar-90	18-Jul-95	1-Aug-04		
Trigger date	Date	C	1-Apr-19	1-Apr-19	1-Apr-19	1-Apr-19	1-Apr-19		
No. of years in operation	No.	D	35	30	29	24	15		
Original capital cost	Rs. Crore	E	93.29	168.62	137.96	131.39	564.06	89.84	<b>1185.17</b>
Additional capitalization allowed till FY 2022-23	Rs. Crore	F	29.23	27.91	27.91	27.91	25.91	0.00	<b>138.87</b>
Equity portion of original capital cost	Rs. Crore	G	20.46	36.98	30.25	28.81	190.00	0.00	<b>306.50</b>
Equity portion of additional capitalization	Rs. Crore	H	5.92	5.65	5.65	5.65	5.25	0.00	<b>28.12</b>
Debt portion of original capital cost	Rs. Crore	I=E-G	72.83	131.64	107.71	102.58	374.06	89.84	<b>878.67</b>
Debt portion of additional capitalization	Rs. Crore	J=F-H	23.32	22.26	22.26	22.26	20.67	0.00	<b>110.75</b>
<b>Total Debt</b>	<b>Rs. Crore</b>	<b>K=I+J</b>	<b>96.14</b>	<b>153.90</b>	<b>129.97</b>	<b>124.84</b>	<b>394.73</b>	<b>89.84</b>	<b>989.42</b>
Outstanding Debt as on 01.04.2023	Rs. Crore	L	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
Outstanding Transitional loan as on 01.04.2023	Rs. Crore	M	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
<b>Cumulative repayment as on 01.04.2023</b>	<b>Rs. Crore</b>	<b>N=K-L-M</b>	<b>96.14</b>	<b>153.90</b>	<b>129.97</b>	<b>124.84</b>	<b>394.73</b>	<b>89.84</b>	<b>989.42</b>
Total depreciation on original capital cost allowable till FY 2022-23	Rs. Crore	O	83.96	151.76	124.17	118.26	384.47	80.85	<b>943.47</b>
AAD allowed till FY 2008-09 and adjusted thereafter till FY 2022-23	Rs. Crore	P	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
Total depreciation on additional capitalisation	Rs. Crore	Q	7.78	7.43	7.43	7.43	6.90	0.00	<b>36.97</b>

Particulars	Units	Legend	KTPS						
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6	HO	Total for old units
allowable till FY 2022-23									
<b>Total depreciation</b>	<b>Rs. Crore</b>	<b>R=O+P+Q</b>	<b>91.74</b>	<b>159.19</b>	<b>131.60</b>	<b>125.69</b>	<b>391.37</b>	<b>80.85</b>	<b>980.44</b>
Accumulated depreciation less cumulative repayment	Rs. Crore	S=R-N	-4.40	5.29	1.63	0.85	-3.36	-8.98	-8.97
<b>Accumulated depreciation less cumulative repayment for Regulation 19</b>	<b>Rs. Crore</b>	<b>T</b>	<b>-4.40</b>	<b>5.29</b>	<b>1.63</b>	<b>0.85</b>	<b>-3.36</b>	<b>-8.98</b>	<b>-8.97</b>
HO allocation	Rs. Crore	U	-2.33	-2.22	-2.22	-2.22			-8.98
<b>Accumulated depreciation less cumulative repayment for Regulation 19 with HO allocation</b>	<b>Rs. Crore</b>	<b>V</b>	<b>-6.73</b>	<b>3.07</b>	<b>-0.59</b>	<b>-1.37</b>	<b>-3.36</b>		
<b>Depreciation admissible for FY 2023-24</b>	<b>Rs. Crore</b>	<b>W</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>			<b>0.00</b>
<b>Equity reduction for FY 2023-24</b>	<b>Rs. Crore</b>	<b>X=V+W</b>	<b>0.00</b>	<b>3.07</b>	<b>0.00</b>	<b>0.00</b>			<b>3.07</b>

5.27 RVUN has not claimed any additional capitalization for FY 2023-24 and accordingly, no equity addition has been claimed in FY 2023-24. Accordingly, the Commission has not considered any equity addition in FY 2023-24. The equity base considered by the Commission for computing RoE for FY 2023-24 is as shown in the table below:

**Table 62: Equity base considered by the Commission (Rs. Crore)**

Station	FY 2023-24
KTPS (Units 1-7)	514.28
STPS (Units 1-6)	1176.19
CTPP (Units 1-4)	1067.06
KaTPP (Units 1-2)	1643.50
CSCTPP (Units 5&6)	1503.21
RGTPS (270.50 MW)	282.07
Mahi	170.38
<b>Total</b>	<b>6356.69</b>

5.28 The Commission has considered the submissions of RVUN for allowing RoE from FY 2023-24, however, the Petitioner has not submitted any specific document from the GoR stating that the RoE for RVUN from FY 2023-24 may be allowed. Therefore, the Commission for the purpose of this Order has not considered the same. However, the Commission grants liberty to the Petitioner to come up with the aforesaid document from GoR for its claim on ROE during the true-up Petition for FY 2023-24. The RoE allowed by the Commission for FY 2023-24 is as shown in the table below:

**Table 63: RoE approved for FY 2023-24 (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	75.60	0.00
STPS(Units 1-6)	176.43	0.00
CTPP(Units 1-4)	160.07	0.00
KaTPP (Units 1&2)	246.53	0.00
CSCTPP (Units 5&6)	227.27	0.00
RGTPS (270.5 MW)	42.94	0.00
Mahi	25.56	0.00
<b>Total</b>	<b>954.39</b>	<b>0.00</b>

**Insurance on fixed assets**

**RVUN's Submission**

5.29 RVUN in its Petition has claimed insurance charges for FY 2023-24 based on the estimates of actual insurance charges paid in FY 2021-22 with an increment of 5% YoY (Year on Year).

**Commission's Analysis**

5.30 The Commission has approved the insurance charges in this Order as claimed by RVUN. Any variation shall be adjusted during the truing up exercise for FY 2023-24. The insurance charges as approved by the Commission are as follows:

**Table 64: Insurance on fixed assets approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	7.75	7.75
STPS(Units 1-6)	9.37	9.37
CTPP(Units 1-4)	6.21	6.21
KaTPP (Units 1&2)	7.42	7.42
CSCTPP (Units 5&6)	8.12	8.12



Station	FY 2023-24	
	Claimed	Approved
RGTPP (270.50 MW)	1.84	1.84
Mahi	0.00	0.00
<b>Total</b>	<b>40.70</b>	<b>40.70</b>

### **Lease Rent**

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

5.31 RVUN submitted that the amount against Lease rent has been claimed on the government land provided on lease. Accordingly, RVUN has claimed the lease rent for FY 2023-24.

### **Commission's Analysis**

5.32 The Commission has considered the Lease rent as claimed by RVUN for the purpose of this Order. The Commission shall carry out the prudence check of the actual amount against lease rent at the time of truing up exercise for FY 2023-24. The lease rent approved by the Commission for FY 2023-24 is as shown in the table below:

**Table 65: Lease Rent approved by the Commission (Rs. Crore)**

Particulars	FY 2023-24						
	KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	KaTPP (Units 1&2)	CSCTPP (Units 5&6)	RGTPP (270.50 MW)	Mahi
Claimed	0.17	0.03	0.12	0.22	1.53	0.01	0.01
Approved	0.17	0.03	0.12	0.22	1.53	0.01	0.01

### **Non-Tariff Income**

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

5.33 RVUN submitted that Non-tariff income is from (a) Sale of scrap (b) Interest on FD/ Staff Loans (c) Miscellaneous receipts (rebates etc.). As per Regulation 36 of RERC Tariff Regulations, 2019, the non-tariff income has been deducted from the fixed charges computed and only the net fixed charges are to be recovered from the three distribution companies.

### **Commission's Analysis**

5.34 The Commission has approved the Non-Tariff Income for FY 2023-24 as claimed by the Petitioner. Any variation shall be adjusted during the truing up exercise for FY 2023-24. The Non-Tariff Income as approved by the Commission is as shown in the table below:

**Table 66: Non-tariff income approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	1.80	1.80
STPS(Units 1-6)	5.40	5.40
CTPP(Units 1-4)	7.88	7.88
KaTPP (Units 1&2)	2.29	2.29
CSCTPP (Units 5&6)	1.13	1.13
RGTPP (270.50 MW)	0.16	0.16
Mahi	0.06	0.06
<b>Total</b>	<b>18.72</b>	<b>18.72</b>

**Terminal Benefit****RVUN's Submission**

- 5.35 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.”*

- 5.36 RVUN in its petition has claimed terminal benefits for FY 2023-24 based on actuarial valuation for FY 2021-22.

**Commission's Analysis**

- 5.37 The Commission has provisionally approved the terminal benefits in this Order as claimed by RVUN. Any variation shall be adjusted during the truing up exercise for FY 2023-24. The terminal benefits as approved by the Commission are as follows:

**Table 67: Terminal Benefit approved by the Commission (Rs. Crore)**

Station	FY 2023-24	
	Claimed	Approved
KTPS(Units 1-7)	47.86	47.86
STPS(Units 1-6)	41.73	41.73
CTPP(Units 1-4)	26.98	26.98
KaTPP (Units 1&2)	21.15	21.15
CSCTPP (Units 5&6)	18.31	18.31
RGTPP (270.50 MW)	8.53	8.53
Mahi	7.05	7.05
<b>Total</b>	<b>171.61</b>	<b>171.61</b>

## Adjustment of Excess Depreciation

### **Commission's Analysis**

5.38 In line with the approach adopted by the Commission in the previous Tariff Orders, the Commission has carried out the adjustment of excess depreciation in FY 2023-24 as shown in the table below:

**Table 68: Adjustment of Advance against Depreciation (Rs. Crore)**

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)
AAD allowed till FY 2008-09 and after adjustment in FY 2009-10, FY 2013-14, FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21, FY 2021-22 & FY 2022-23	117.86	87.65
Outstanding transitional loan	0.00	0.00
Depreciation for the year	27.09	73.02
Repayment of LT loan	0.00	0.00
Balance Depreciation available for repayment of transitional loan	27.09	73.02
Repayment of transitional Loan	0.00	0.00
<b>Excess depreciation to be deducted from AFC of FY 2023-24</b>	<b>27.09</b>	<b>73.02</b>
Balance AAD to be adjusted in subsequent years	90.77	14.64

### Annual Fixed Charges for FY 2023-24

5.39 Based on the above analysis, the approved Station wise AFC for FY 2023-24 is as shown in the table below:

**Table 69: AFC for FY 2023-24 (Rs. Crore)**

Station	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expenses	287.54	287.54	347.83	347.83	231.89	231.89
Depreciation	46.26	46.28	138.19	97.06	265.51	265.49
Interest on term loans & finance charges	9.68	14.27	21.07	21.07	157.05	155.64
Interest on working capital	94.86	93.92	140.11	137.79	82.72	80.60
Return on Equity	75.60	0.00	176.43	0.00	160.07	0.00
Insurance on fixed assets	7.75	7.75	9.37	9.37	6.21	6.21
Towards Terminal Benefits	47.86	47.86	41.73	41.73	26.98	26.98
Lease Rent	0.17	0.17	0.03	0.03	0.12	0.12
Minus: Non-tariff income	1.80	1.80	5.40	5.40	7.88	7.88
Minus: Adjustment of excess depreciation	27.09	27.09	114.15	73.02	0.00	0.00

Station	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
<b>Annual Fixed Charges</b>	<b>540.84</b>	<b>468.90</b>	<b>755.20</b>	<b>576.45</b>	<b>922.67</b>	<b>759.05</b>
Net Generation (MU)	8168.09	8168.09	9864.34	9864.34	6576.23	6576.23
<b>Per unit fixed cost (Rs./kWh) (indicative only)</b>	<b>0.66</b>	<b>0.57</b>	<b>0.77</b>	<b>0.58</b>	<b>1.40</b>	<b>1.15</b>

Station	KaTTP (Units 1&2)		CSCTPP (Units 5&6)		RGTPS (270.50 MW)		Mahi	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expenses	250.44	250.44	275.48	275.48	51.12	51.12	20.01	20.01
Depreciation	404.59	404.59	422.02	419.35	42.44	41.34	4.42	0.00
Interest on term loans & finance charges	330.48	330.48	579.48	575.03	29.49	27.84	0.00	0.00
Interest on working capital	100.74	97.50	115.79	112.71	17.27	16.67	1.24	0.85
Return on Equity	246.53	0.00	227.27	0.00	42.94	0.00	25.56	0.00
Insurance on fixed assets	7.42	7.42	8.12	8.12	1.84	1.84	0.00	0.00
Towards Terminal Benefits	21.15	21.15	18.31	18.31	8.53	8.53	7.05	7.05
Lease Rent	0.22	0.22	1.53	1.53	0.01	0.01	0.01	0.01
Minus: Non-tariff income	2.29	2.29	1.13	1.13	0.16	0.16	0.06	0.06
Minus: Adjustment of excess depreciation	0	0	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual Fixed Charges</b>	<b>1359.27</b>	<b>1109.51</b>	<b>1646.86</b>	<b>1409.40</b>	<b>193.48</b>	<b>147.20</b>	<b>58.22</b>	<b>27.85</b>
Net Generation (MU)	8289.55	8289.55	9338.23	9338.23	1616.68	1616.68	158.40	158.40
<b>Per unit fixed cost (Rs./kWh) (indicative only)</b>	<b>1.64</b>	<b>1.34</b>	<b>1.76</b>	<b>1.51</b>	<b>1.20</b>	<b>0.91</b>	<b>3.68</b>	<b>1.76</b>

\*Claimed figures revised considering the latest 3 months fuel price and GCV for domestic coal and 6% blending of imported coal price and GCV

## **Determination of Energy Charges for FY 2023-24**

### **RVUN's Submissions**

- 5.40 RVUN submitted that SHR has been considered in accordance with Regulation 45(3)(a) of the RERC Tariff Regulations, 2019 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTTP (Units 1-2) and CSCTPP (Units 5&6).
- 5.41 RVUN claimed SHR for RGTPS (270.5 MW) as 2038.00 kcal/kWh considering 90% closed cycle operation and 10% open cycle operation.

- 5.42 RVUN submitted that availability and PLF has been considered in accordance with Regulations 45(1) (a) & Regulation 45(2) (a) of the RERC Tariff Regulations, 2019.
- 5.43 RVUN submitted that the auxiliary power consumption has been considered in accordance with Regulation 45(6) (d) of the RERC Tariff Regulations, 2019. RVUN further submitted that the KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) are having tube type coal mills so the norm has been increased by 0.8% in accordance with the Regulation 45(6)(d) of the RERC Tariff Regulations, 2019.
- 5.44 RVUN submitted that Gross Calorific Value and the average rate of coal and oil supply for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), KaTPP (Units 1-2) and CSCTPP (Units 5&6) have been calculated on the basis of receipts during first and second quarter of FY 2022-23.
- 5.45 RVUN submitted that Gross Calorific Value and the average rate of gas have been calculated on the basis of receipts during first and second quarter of FY 2022-23 for RGTPS (270.50 MW).

### **Commission's Analysis**

- 5.46 The Commission has approved the Energy Charges for the FY 2023-24 on the basis of following:
- a) While allowing the variable cost of the generating stations, the Commission has considered normative Station Heat Rate and Plant Load Factor.
  - b) Auxiliary Consumption has been considered on normative basis. For KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) the auxiliary consumption has been considered as per Regulation 45 (6) (d) of the RERC Tariff Regulations, 2019.
  - c) For RGTPS (270.50 MW), the Commission has considered the proportion of operation in closed cycle and open cycle for FY 2023-24 as proposed by RVUN and has accordingly considered the Station Heat Rate and Auxiliary Consumption same as that proposed by RVUN.
  - d) As regards GCV and price of fuels, the Commission has considered the actual prices and GCV of primary (Domestic Coal) and secondary fuel as submitted by RVUN for July to September 2022.
  - e) MoP, Gol letter dated 09.01.2023 directed the Central, State and Independent Power Producers (IPP's) to take necessary action and plan to import coal through a transparent competitive procurement for blending at the rate of 6% by weight so as to have coal stocks at their power plants for smooth operations

till September 2023.

- f) RVUN also submitted the price and GCV (ARB) of imported coal based on the indices of 06.01.2023 for KTPS, STPS and CTPP. Considering the same, i.e. Coal mix of 94%:6% for domestic coal and imported coal, the Commission has computed the weighted average price and GCV of primary and secondary fuel from April 2023 to Sept 2023 and thereafter from October 2023 onwards based on the price and GCV (ARB) submitted by RVUN.
- g) The Petitioner did not submit the price of imported coal for KaTPP (Units 1&2) and CSCTPP (Units 5&6). The Commission for the purpose of this Order has considered the average of the price of imported coal for KTPS, STPS and CTPP. Further, RVUN is directed to submit the actual price, GCV and quantum of imported coal for each station separately at the time of true up alongwith vouchers and other supporting documents for procurement of imported coal.
- h) It is observed that RVUN has used lignite also for in the coal based plants during the year 2022-23, the Commission will examine this issue at the time of true up for FY 2022-23. The Petitioner is directed to submit all the relevant documents in this respect along with next true up petition.
- i) Any variation in price and GCV of primary and secondary fuel will be analyzed during true-up of FY 2023-24.
- j) Secondary fuel oil consumption has been allowed as per Regulation 45(4) of RERC Tariff Regulations, 2019.

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

5.48 Plant wise energy charges determined by Commission for FY 2023-24 are as under:

**Table 70: Energy Charges approved for FY 2023-24**

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	9040.49	9040.49	10936.08	10936.08	7290.72	7290.72
Auxiliary Consumption	%	9.65%	9.65%	9.80%	9.80%	9.80%	9.80%
Net Generation	MU	8168.09	8168.09	9864.34	9864.34	6576.23	6576.23
Landed Price of Coal	Rs./kg	4.29	4.29	5.62	5.62	5.40	5.40
Gross Station Heat Rate	kcal/kWh	2561.70	2561.70	2476.28	2476.28	2400.00	2400.00
Price of Secondary fuel oil	Rs./ml	0.07	0.07	0.08	0.08	0.07	0.07
Secondary fuel oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Gross Calorific Value of Secondary fuel oil	kcal/ml	10.04	10.04	9.90	9.90	9.93	9.93
Heat Contribution from Secondary fuel oil	kcal/kWh	5.02	5.02	4.95	4.95	4.96	4.96
Heat Contribution from Coal	kcal/kWh	2556.68	2556.68	2471.33	2471.33	2395.04	2395.04
Gross Calorific Value of Coal	kcal/kg	3284.80	3284.80	3314.21	3314.21	3871.30	3871.30
Specific coal consumption	kg/kWh	0.78	0.78	0.75	0.75	0.62	0.62
Rate of Energy Charge	Rs./kWh	3.74	3.74	4.68	4.68	3.74	3.74
Other Charges	Rs. Crore						
<b>Total Energy Charges</b>	<b>Rs. Crore</b>	<b>3053.39</b>	<b>3053.39</b>	<b>4620.22</b>	<b>4620.22</b>	<b>2459.44</b>	<b>2459.44</b>
	<b>Rs./kWh</b>	<b>3.738</b>	<b>3.738</b>	<b>4.684</b>	<b>4.684</b>	<b>3.740</b>	<b>3.740</b>

Particulars	Units	KatPP (Units 1&2)		CSCTPP (Units 5&6)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	8748.86	8748.86	9855.65	9855.65	1663.25	1663.25
Auxiliary Consumption	%	5.25%	5.25%	5.25%	5.25%	2.80%	2.80%
Net Generation	MU	8289.55	8289.55	9338.23	9338.23	1616.68	1616.68
Landed Price of Coal	Rs./kg	5.41	5.41	6.15	6.15	15.32	15.32
Gross Station Heat Rate	kcal/kWh	2333.28	2333.28	2133.60	2133.60	2038.00	2038.00
Price of Secondary fuel oil	Rs./ml	0.06	0.06	0.06	0.06	0.00	0.00
Secondary fuel oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.20	0.20
Gross Calorific Value of Secondary fuel oil	kcal/ml	9.02	9.02	9.93	9.93	0.00	0.00
Heat Contribution from Secondary fuel oil	kcal/kWh	4.51	4.51	4.97	4.97	0.00	0.00

Particulars	Units	KaTPP (Units 1&2)		CSCTPP (Units 5&6)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Heat Contribution from Coal	kcal/kWh	2328.77	2328.77	2128.63	2128.63	2038.00	2038.00
Gross Calorific Value of Coal	kcal/kg	3820.10	3820.10	3922.96	3922.96	7057.61	7057.61
Specific coal consumption	kg/kWh	0.61	0.61	0.54	0.54	0.29	0.29
Rate of Energy Charge	Rs./kWh	3.52	3.52	3.56	3.56	4.55	4.55
Other Charges	Rs. Crore						
<b>Total Energy Charges</b>	<b>Rs. Crore</b>	<b>2914.06</b>	<b>2914.06</b>	<b>3320.83</b>	<b>3320.83</b>	<b>735.67</b>	<b>735.67</b>
	<b>Rs./kWh</b>	<b>3.515</b>	<b>3.515</b>	<b>3.556</b>	<b>3.556</b>	<b>4.550</b>	<b>4.550</b>

\*Claimed figures revised considering the latest 3 months fuel price and GCV for domestic coal and 6% blending of imported coal price and GCV

### Tariff for Mahi Hydel Generating Station

- 5.49 In accordance with RERC Tariff Regulations, 2019, the Commission approves the two-part tariff for sale of electricity from Mahi Hydel generating station comprising annual capacity charges and primary energy charge.
- 5.50 Regulation 51(6) of RERC Tariff Regulations, 2019 states that rate of Primary Energy for hydro power stations shall be 50% of cost of generation or incentive rate applicable for thermal power stations, whichever is less. Accordingly, the primary energy rate approved by the Commission is 30 Paise/kWh.
- 5.51 The tariff for Mahi approved by the Commission for FY 2023-24 is as shown in the table below:

**Table 71: Approved tariff for Mahi Hydel Power Project for FY 2023-24**

Annual Fixed Charges (Rs. in Crore)	Net Energy (MU)	Energy Rate (Paise/kWh)	Energy Charges (Rs. in Crore)	Capacity Charges (Rs. in Crore)
27.85	158.40	0.30	4.75	23.10

- 5.52 Incentive for Thermal and Mahi Hydel Station shall be claimed by RVUN as per Regulation 52(1) and 52(2) respectively of RERC Tariff Regulations, 2019.
- 5.53 Recovery of Capacity Charges shall be in accordance with Regulation 50 of RERC Tariff Regulations, 2019.
- 5.54 The Summary of tariff as approved by the Commission for FY 2023-24 is as shown in the table below:



**Table 72: Approved tariff for FY 2023-24**

Station	Units	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Fixed charges	Rs. Crore	540.84	468.90	755.20	576.45	922.67	759.05
Rate of fixed charges	Rs./kWh	0.66	0.57	0.77	0.58	1.40	1.15
Energy charges	Rs. Crore	3053.39	3053.39	4620.22	4620.22	2459.44	2459.44
Rate of energy charges	Rs./kWh	3.74	3.74	4.68	4.68	3.74	3.74
<b>Total tariff</b>	<b>Rs./kWh</b>	<b>4.40</b>	<b>4.31</b>	<b>5.45</b>	<b>5.27</b>	<b>5.14</b>	<b>4.89</b>

Station	Units	KaTPP (Units 1-2)		CSCTPP (Units 5&6)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Fixed charges	Rs. Crore	1359.27	1109.51	1646.86	1409.40	193.48	147.20
Rate of fixed charges	Rs./kWh	1.64	1.34	1.76	1.51	1.20	0.91
Energy charges	Rs. Crore	2914.06	2914.06	3320.83	3320.83	735.67	735.67
Rate of energy charges	Rs./kWh	3.52	3.52	3.56	3.56	4.55	4.55
<b>Total tariff</b>	<b>Rs./kWh</b>	<b>5.16</b>	<b>4.85</b>	<b>5.32</b>	<b>5.07</b>	<b>5.75</b>	<b>5.46</b>

5.55 The Tariff determined vide this Order shall be effective from 01.04.2023 to 31.03.2024, thereafter it shall remain applicable provisionally till next order of the Commission.

5.56 Copy of this Order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.

(Dr. Rajesh Sharma)  
Member

(Sh. Hemant Kumar Jain)  
Member

(Dr. B. N. Sharma)  
Chairman