

Rajasthan Electricity Regulatory Commission

Petition No. RERC-1872/2021

In the matter of Truing up of ARR FY 2019-20 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), DCCPP, RGTPS (270.50 MW), Mahi Hydel and approval of Aggregate Revenue Requirement (ARR) & Tariff for FY 2021-22 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), SSCTPP (Units 7&8), DCCPP, RGTPS (270.50 MW) and Mahi Hydel Power Stations of Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

Coram:

Dr. B.N. Sharma,	Chairman
Sh. S.C. Dinkar,	Member
Sh. Prithvi Raj,	Member

Petitioner : Rajasthan Rajya Vidyut Utpadan Nigam Ltd.

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

Dates of hearing : 20.10.2021

Present : 1. Sh. Ankit Sharma, Authorised rep. for Petitioner
2. Sh. Sandeep Pathak, Advocate for Respondents
3. Sh. G.L. Sharma, Stakeholder

Date of Order: 15.12.2021

ORDER

1.1 Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (in short 'RVUN'), a Generating Company under the provisions of the Electricity Act 2003, has filed a petition for Truing-Up of ARR for FY 2019-20 and approval of Aggregate Revenue

Requirement (ARR) and determination of Tariff for sale of electricity from its existing power stations to Distribution Companies for FY 2021-22. The Petition also seeks provisional approval of Aggregate Revenue Requirement (ARR) and determination of Tariff for sale of electricity from Suratgarh Super Critical Thermal Power Plant (Units 7&8) of RVUN to Distribution Companies for FY 2021-22.

1.2 In exercise of the powers conferred under Sections 62, 64 and other provisions of Electricity Act 2003, read with RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 and other enabling Regulations, the Commission, after carefully considering each of the submissions of the Petitioner and suggestions/objections submitted by the Stakeholder, has passed the following Order.

1.3 This Order has been structured in following sections as given under:

- (1) Section 1: General
- (2) Section 2: Summary of True-Up and Tariff determination process.
- (3) Section 3: Summary of objections/comments/suggestions received from Stakeholders and RVUN's response thereon.
- (4) Section 4: Analysis of True-Up of RVUN stations for FY 2019-20
- (5) Section 5: Determination of ARR and Tariff for RVUN Generating Stations for FY 2021-22.
- (6) Section 6: Determination of Provisional Tariff for SSCTPP Units 7&8 for FY 2021-22.

SECTION 2

Summary of filing of True-Up and Tariff determination process.

2.1 In accordance with Regulation 8 of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, hereinafter referred to as RERC Tariff Regulations, 2019, RVUN filed a petition on 01.01.2021 for trueing up of ARR for FY 2019-20 in respect of the following power stations:

Table 1: RVUN's Generating Stations under True up for FY 2019-20

SR. No.	Particulars	Capacity (MW)
1	Kota Thermal Power Station (KTPS) (Units 1-7)	1240
2	Suratgarh Thermal Power Station (STPS) (Units 1-6)	1500
3	Chhabra Thermal Power Station (CTPP) (Units 1-4)	1000
4	Ramgarh Gas Thermal Power Station (RGTPS) (270.5 MW)	270.50
5	Dholpur Combined Cycle Gas based Thermal Power Plant (DCCPP)	330
6	Mahi Hydrel Power Project (MAHI)	140
Total		4480.50

2.2 Further, in accordance with Regulation 11 of RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 (hereinafter referred to as RERC Tariff Regulations, 2019), RVUN also prayed for approval of ARR and determination of tariff for supply of electricity to Distribution Companies for FY 2021-22 in respect of the following power stations:

Table 2: RVUN Generating Stations under ARR and Tariff for FY 2021-22

SR. No.	Particulars	Capacity (MW)
1	Kota Thermal Power Station (KTPS) (Units 1-7)	1240
2	Suratgarh Thermal Power Station (STPS) (Units 1-6)	1500
3	Chhabra Thermal Power Station (CTPP) (Units 1 - 4)	1000
4	Suratgarh Super Critical Thermal Power Plant (SSCTPP) (Units 7&8)	1320

SR. No.	Particulars	Capacity (MW)
5	Ramgarh Gas Thermal Power Station (RGTPS) (270.5 MW)	270.50
6	Dholpur Combined Cycle Gas based Thermal Power Plant (DCCPP)	330
7	Mahi Hydel Power Project (MAHI)	140
Total		5800.50

2.3 As required under Section 64(2) of the Electricity Act, 2003, public notices with salient features of the petition inviting objections/comments/suggestions were published in the following newspapers on the dates mentioned against each:

Table 3: Details of Newspapers

Sr. No.	Name of News Paper	Date of publishing
(i)	Dainik Navajyoti	27.02.2021
(ii)	Rashtrdoot	27.02.2021
(iii)	Times of India	28.02.2021

2.4 The petition was also placed on the websites of the Commission and the Petitioner. The objections/comments/suggestions were received from Shri. G. L. Sharma, Shri. Shanti Prasad and Discom.

2.5 The Commission forwarded the objections/ comments/ suggestions of the stakeholder to RVUN for filing its reply.

2.6 The Commission vide letter dated 04.08.2021 and 10.11.2021, communicated some data gaps and deficiencies in the petition. The Petitioner furnished information vide its letter dated 09.09.2021 and 24.11.2021. The Petitioner also replied to the objections/ comments/ suggestions made by the stakeholders vide its letter dated 28.06.2021, 30.09.2021.

2.7 The public hearing in the matter was held on 20.10.2021.

2.8 The Commission had approved the Tariff for FY 2019-20 in respect of KTPS

(Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), RGTPS (270.50 MW), DCCPP and Mahi Hydel Power Project vide its Tariff Order dated 18.12.2019. The Commission had approved the tariff for FY 2020-21 for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), CSCTPP (Units 5-6), DCCPP, RGTPS (110.50 MW & 160 MW) and Mahi Hydel Power Stations vide its Tariff Order dated 11.09.2020. Subsequently, RVUN filed a review petition seeking review on the Commission's ruling on some of the issues of the tariff Order dated 11.09.2020. The Commission dismissed the review petition vide its Order dated 22.03.2021 as not admissible.

2.9 In this Order, the Commission has undertaken the truing up for FY 2019-20 and determination of tariff for FY 2021-22 for RVUN Generating Stations along with the determination of Provisional tariff for SSCTPP Units 7&8 of RVUN for FY 2021-22, as petitioned.

2.10 To facilitate reference, an index of the issues and points dealt with are placed at Annexure-1.

SECTION 3

Summary of objections/comments/suggestions received form stakeholders and RVUN's response thereon

A. Truing-Up of RVUN's Generating Stations for FY 2019-20

General

Stakeholder's comments/suggestions

- 3.1 The Stakeholder submitted that the company has taken certain assets on lease and out of these assets the ownership of leased assets has not been transferred in the name of the company after expiry of lease agreements. The Petitioner is required to provide a detailed note on this along with the copy of lease agreement.
- 3.2 The Stakeholder further submitted that company has stock of material at construction stores amounting to Rs. 1.53 Crore. This material has been lying in inventory for a very long period of time and company has made a provision of Rs. 0.79 Crore for determination in the value of stock. In this respect, the Petitioner may provide the information on following points:
- i. To which project this stock of material relates and where its cost has been charged;
 - ii. From which period this stock of material has been lying in stock.
- 3.3 The Stakeholder sought reasons as well as station wise details of inventory worth Rs. 946.21Crore.
- 3.4 An amount of Rs. 1770.87 Crore has been shown as receivable from Giral. The Commission is requested to disallow the interest on such huge amount. The Petitioner may also provide details of the fund of the Generating Station from which such amount was made available to Giral.

3.5 The Stakeholder sought justification of Rs. 242.69 Crore shown in receivables.

3.6 The Stakeholder submitted that an amount of Rs. 21863.40 Crore is outstanding and is mentioned as trade receivable. To meet this gap, the Petitioner must have obtained the loan from outside sources. The Stakeholder requested the Commission to disallow the interest of such loans.

RVUN's Response

3.7 The Petitioner submitted that the company has taken certain assets on lease. Out of these assets the ownership of the lease assets of the following entities has not been transferred in name of the company after expiry of lease agreement due to pending litigation in record or in absence of power of attorney. The details of such assets are as under:

Table 4: Details of Assets

S. No.	Name of Lessor	Lease Value (Rs.in Lakh)	Residual Value (Rs.in Lakh)	Kind and purpose of asset	Period	Conditions
1	M/s ICICI Ltd.	8400.00	84.00	Sale and lease back of High Efficiency Boiler of KTPS Stg-III	Lease Documents Executed on dated 28.03.1995 for 72 months	Neither Security Deposit (being the agreed residual value of asset) nor Power of attorney has been provided by ICICI, so far after expiry of lease period.
2	M/s Indo Nissan Oxo-chemical Ltd.	623.34	155.84	Sale and lease back of Ash handling system and evacuative system for KTPS Stg-II	Lease Documents Executed on dated 30.03.1996 for 96 months lease period	Indo Nissan Oxo-chemical Ltd has filed a SBC Civil Writ Petition 2726/2003 in Supreme Court. The decision for which is pending. Any adjustment on the matter will be taken as per the decision.
Total		9023.34	239.84			

3.8 The Petitioner submitted that this stock of material pertains to RGTPP and DCCPP and the cost of material has been charged as Rs. 1.39 Crore and Rs. 0.14 Crore respectively. This material has been lying in the stock from the year FY 2000-01.

3.9 Inventory for fuel and spares are essentially required for running the plant

without any interruption. The details of inventory (station wise) recognized as expense in FY 2019-20 are as under:

Table 5: Details of Inventory (Station wise)

S. No.	Particulars	Fuel (Rs in Cr.)	Store& Spare (Rs in Cr.)
1	KTPS	1956.53	38.47
2	STPS	1708.03	30.85
3	CTPP	1846.90	41.63
4	KaTPP	1793.39	27.21
5	CSCTPP	1807.98	8.35
6	DCCPP	0.32	1.27
7	RGTPP	241.72	3.03
8	SSCTPP	189.78	-
9	Mahi	-	0.42
10	MMH	-	0.33
	TOTAL	9544.65	151.56

3.10 The receivable from Giral Lignite power Ltd is intercompany transaction and does not have any impact.

3.11 The amount of Rs. 242.69 Crore pertains to fuel related receivable.

3.12 The default payments mentioned in the petition are due to non-payment by Discoms, which has accumulated to huge outstanding of Rs 27,648 Crore approximately as on 01.04.2021. The details of additional payments paid to financial institution on account of default are as under:

Table 6: Details of Additional payments

S. No.	Name of the FI/Bank	Additional interest Paid during FY 2019-20 (Rs. In Cr.)		
		Interest on Interest/overdue interest	Penal interest	Total
1	Power Finance Corporation Ltd	44.13	12.05	56.18
2	REC Ltd	13.50	2.64	16.14
3	Commercial Bank	13.37	2.38	15.75
	Total	71.00	17.07	88.07

3.13 As per the accounts, the outstanding amount to the Discoms as on

31.03.2020 is Rs. 21863.40 Crore. Interest on Working Capital has been claimed as per RERC Tariff Regulations, 2019, i.e., based on normative working capital and taking normative rate of interest as per Regulation.

Target Availability

Stakeholder's comments/suggestions

3.14 The Stakeholder submitted that for Mahi Hydel Power Station, the target availability has to be considered as 90% for full recovery of fixed charges. Since, actual availability in the present case has been shown as 82.99% and as such proportionate reduction in annual fixed/capacity charges is required.

RVUN's Response

3.15 RVUN has claimed normative target Availability of 85% for Mahi power station as per the RERC Tariff Regulations, 2019. The Mahi power station is RoR (Run of River) with pondage and storage type, hence it is eligible for target availability of 85% as per above Regulation. Since, FY 2019-20 is first year for the RERC Tariff Regulations, 2019, so any order passed earlier is not applicable in case of present APR of FY 2019-20 here. It would also be apt here to apprise that Mahi power station is a Hydro generation plant under the category of Run-of-river with pondage and storage type since beginning and accordingly, the Petitioner always claimed tariff (Fixed charges) as defined in Regulations for past so many years and were never objected by Commission or any of the Stakeholder. In order to substantiate the claim of Mahi Power station as Run of river with pondage and storage type, the Petitioner submitted the following facts:

- i. The Mahi Power Station (PH-I & PH-II) is part of Mahi Bajaj Sagar Project, constructed mainly for the purpose of Irrigation in the southern region of Rajasthan.

- ii. The Mahi Bajaj Sagar Project is located at the river Mahi, which is not perennial and depends on water collected from catchment area of around 6149 square km, during rainy season.
- iii. The live storage Capacity of the Dam is 64.75 TMC ft. between full reservoir level of 281.50 meters & minimum water level of 259.00 meters, which is utilized for the purpose of generation and irrigation.
- iv. The water is drawn from Intake of saddle dam (Storage Type) through 2 Penstock having 4.2 m diameter & 90 m length for each Unit of Mahi PH-I for running of Plant.
- v. Further, as per RERC Tariff Regulations, 2019, it is categorically mentioned that "Storage type power station" means a hydro power Generating Station associated with large storage capacity to enable variation in generation of electricity according to demand; and that "Run-of-river Generating Station" means a hydro Generating Station, which does not have upstream pondage;
- vi. It is evident from definitions of Regulations, 2019 and actual physical status/position at ground already explained above that Mahi PH-I is RoR with pondage/storage type & PH-II is Storage type Hydro Generating Station.
- vii. It is also evident from CEA website general report that Mahi PH-I and PH-II categorized as RoR with pondage & storage type respectively based on their actual physical status at ground.

Considering above facts, Mahi PH-I is RoR with Pondage Type & Mahi PH-II is Storage Type Power Station, RVUN is eligible to claim target availability of 85%, as also permissible under RERC Tariff Regulations, 2019. Therefore, RVUN requested the Commission to consider target availability as 85% for Mahi

Power station PH-I and PH-II.

PLF and Availability

Stakeholder's comments/suggestions

3.16 For KTPS (Units 1-7), PLF has been less than the normative hence, necessary reduction in the fixed charges may be considered by the Commission. The availability in July 2019, August 2019, September 2019, October 2019 and March 2020 has been respectively as 77.63%, 73.69%, 72.98%, 76.56% and 78.09%, which are less than normative.

For STPS (Units 1-6), though average availability of the year is more than normative availability of 83%, but in the month of July 2019, the availability as certified by SLDC is 79.72% as against normative 83%.

For CTPP (Units 1-4), the availability vide petition has been shown as 89.78% but from the certificate, availability of Units 3&4 in May, June and July, 2019 has been less than normative one, i.e., against 83% in these months, it is 63.17%, 68.31%, and 60.24% and of Units 1&2 in July, 2019 it is 65.51%. Besides this, in January, 2020 combined availabilities of all 4 units is 72.07% only.

For RGTPP, the availability has been shown as 32.03% as against normative availability of 70.00%.

Since, fixed charges are payable on monthly basis, the same may be reduced on proportional basis for the generating stations.

3.17 For DCCPP, the availability of 93.08% has been claimed by the Petitioner based on certificate of SLDC but from the data provided in table it is noted that units generated are zero during whole year. Auxiliary consumption has also been zero. Therefore, availability of 93.08% does not appear to be correct. The Commission in Order dated 11.09.2020 has observed that *“the availability of the plant is to be considered during considering the availability*

of fuel". Zero generation and even zero consumption indicates that any availability intimated to SLDC has been a manipulated one. Therefore, Petitioner is required to justify the claim of availability of 93.08%.

Further, it is submitted that from the data provided by the Petitioner in their true up petition for FY 2018-19, it was observed that from November, 2018 to March, 2019 the fuel available in store on each month opening balance has been zero, Gas burnt in these months has been zero and balance of fuel on each month has been zero and amount charged by GAIL has also been zero. Therefore, the availability of 93.08% and even the SLDC certificate of availability seems to be manipulated. The Stakeholder sought details of month wise Gas fuel received during FY 2019-20 and costs paid for the same.

RVUN's Response

3.18 The operating parameters such as PLF and availability are computed annually as per RERC Tariff Regulations, 2019. Further, the availability of plant has been considered on the basis of declared capacity duly certified by SLDC and for KTPS for FY 2019-20 the availability is 86.13%, for STPS for FY 2019-20 the availability is 90.17%, for CTPP for FY 2019-20 the availability is 89.78%, for DCCPP for FY 2019-20 the availability is 93.09% which is well above the normative target availability approved by the Commission, accordingly eligible to claim full fixed charges. The observation of Stakeholder is not in line with the provisions of RERC Tariff Regulations, 2019. Hence, RVUN requested the Commission to allow fixed charges as claimed.

3.19 RVUN submitted that plant capacity is declared, based on quantity of fuel actually available and there was no manipulation ever. Power has been scheduled by SLDC as per their requirement and consideration of Merit Order Dispatch. DCCPP was available as claimed in the petition and as per RERC Tariff Regulations, 2019 and is entitled to recover capacity/fixed

charges accordingly. Therefore, RVUN requested the Commission to allow availability as claimed. In the gas-based power plant, gas is never stored at plant level, whereas it always remains available at transfer point between user and supplier and on running of plant, gas is supplied from the supplier.

Since, the plant was not scheduled by RUVNL/DISCOMs as already explained during FY 2019-20, hence desired information has no relevance. The consumption of fuel and cost details has already been provided in the main petition.

Additional Capitalization

Stakeholder's comments/suggestions

3.20 Additional capitalization claimed by the Petitioner for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and DCCPP is Rs. 0.57 Crore, Rs. 1.11 Crore, Rs. 1.68 Crore and Rs. 0.08 Crore respectively for vehicle, furniture and fixture and office equipment. The Commission in the past has disallowed such expenses and considered them as O&M expense. Besides above, the Petitioner is claiming this expenditure under Regulation 17(5)(e), but has ignored the provision which says "*Generating company shall file the petition for in-principle approval of the Commission before incurring such additional capital expenditure*". In this regard, the Petitioner is required to provide the copy of the in-principle approval accorded by the Commission to substantiate their claim. The Stakeholder requested the Commission to disallow any cost associated with additional capitalization as submitted by the Petitioner.

3.21 The CTPP (Units 1-4) achieved COD respectively on 11.06.2010, 15.10.2011, 13.12.2013 and 30.12.2014, and the cut-off date of all has already expired long back. Further, the Stakeholder submitted that as per regulations, the claimed additional capitalization is not admissible and hence, the Petitioner

may quote the relevant regulation under which the additional capitalization is being claimed.

RVUN's Response

3.22 The additional capitalization of Rs. 0.57 Crore at KTPS (Units 1-7), Rs. 1.11 Crore at STPS (Units 1-7) and Rs. 7.43 Crore at CTPP (Units 1-4) belongs to vehicle, furniture fixtures, building, civil works, hydraulic works, plant machinery, lines/cables, furniture fixtures, capital spare and office equipment, which were urgent in nature and essential for smooth functioning of plant. Further, such works falls under the definition of additional capitalization. RVUN requested the Commission to allow additional capitalization as claimed.

3.23 RVUN has filed true up petition considering the GFA already approved by the Commission in its order dated 11.09.2020 that belongs to true up of RVUN plants for FY 2018-19 and subsequent additions with details provided in the main petition. Therefore, RVUN requested the commission to consider GFA as claimed.

O&M Expenses

Stakeholder's comments/suggestions

3.24 The total actual O&M expenses in the petition have been shown as Rs. 948.64 Crore, whereas in the accounts such amount works out to be Rs. 846.10 Crore. Even as per allocation statement in the petition, the total O&M expenses work out to be Rs. 846.10 Crore. The Petitioner is required to clarify the basis of claiming amount of Rs. 948.64 Crore as actual expense.

3.25 Further, the O&M expenses provided in the petition are also not correct when reconciled with the details given in allocation statement. The differences though are being submitted in respect of each station. The

Petitioner may clarify the position as to for what reason correct position has been hidden. It is further submitted that in the form GT-4 as approved by the Commission in Order dated 30.05.2019 has the nomenclature as "Actuals Audited/Accounts" whereas the Petitioner has changed it as "Claimed as per Audited accounts" which too is not proved as so as per accounts. The Petitioner has to provide reasons for such changes. The Commission is requested to take necessary actions against the Petitioner for misleading and for submitting wrong information.

3.26 Actual O&M expenses for KTPS (Units 1-7) has been much lower than the normative one, which results in savings of Rs. 20.08 Crore with respect to the claimed normative O&M expenses.

3.27 Actual O&M expenses for STPS (Units 1-6) has been much lower than the normative one which results in savings of Rs. 130.82 Crore with respect to the claimed normative O&M expenses.

3.28 Actual O&M expenses for CTPP (Units 1-4) during this year has only been Rs. 166.84 Crore as against normative of Rs. 202.00 Crore and thus there has been savings of Rs. 35.16 Crore.

3.29 Actual O&M expenses for RGTPP has been Rs. 29.84 Crore as against normative of Rs. 44.52 Crore and thus there has been a savings of Rs. 14.08 Crore.

3.30 For Mahi Hydrel Power Station, the stakeholder submitted that the Petitioner has claimed these charges on normative basis and the same may be allowed.

In this regard, the Stakeholder requested the Commission to direct the Petitioner to deposit the savings amount for all the above stations in the terminal benefit as this will also reduce their further demand in this respect.

RVUN's Response

3.31 The Petitioner submitted that the details of actual O&M expenses of petition is correct and is well matched with the allocation statement. The details are given in the table below:

Particulars	Amount (Rs in Cr.)
Repair and maintenance	309.94
Employee Cost	387.77
Admin and other expense	148.39
Other comprehensive income that will not be reclassified	82.91
Operating expense booked in generation and other direct expense	55.47
Less Insurance charges claimed as insurance	34.84
Total	949.64

3.32 The O&M expenses are claimed as per the normative allowed under RERC Tariff Regulations, 2019. RVUN provided actual O&M expenses and reconciliation of O&M expenses with allocation statement, so there is no misguiding or submitting wrong information on the part of Petitioner. It appears that Stakeholder has misunderstood the issue and misinterpreted the submission of the Petitioner.

3.33 The actual O&M expenses at KTPS (Units 1-7) were Rs. 256.76 Crore, STPS (Units 1-6) were Rs. 211.00 Crore, CTPP (Units 1-4) were Rs. 177.40 Crore, RGTPP were Rs. 33.77 Crore as provided in the petition, which are above the normative O&M allowed by the Commission. The gain and loss are accounted as per Regulation 9(3) of the RERC Tariff Regulations, 2019. In view of above regulation, O&M gain/loss has to be borne by Generation Company, accordingly RVUN has claimed O&M expenses as normative only, which is also being done for past many years and have duly been allowed by the Commission.

Terminal Benefits

Stakeholder's comments/suggestions

3.34 For KTPS (Units 1-7), the Petitioner has claimed Rs. 51.07 Crore against Rs. 31.10 Crore approved in the order dated 18.12.2019 on normative basis. For STPS (Units 1-6), the Petitioner has claimed Rs. 42.26 Crore against Rs. 37.63 Crore approved in the order dated 18.12.2019, which is on higher side. For CTPP (Units 1-4), the Petitioner has claimed Rs. 22.75 Crore against Rs. 25.08 Crore approved in the order. For RGTPP, the Petitioner has claimed Rs. 7.96 Crore against Rs. 6.79 Crore approved in the Order. For Mahi Hydel, the Petitioner has claimed Rs. 6.76 Crore against Rs. 3.51 Crore approved in the Order.

3.35 The Petitioner has not mentioned the amount that has been deposited in the designated fund. Regulation 47(7) proviso says such liabilities is subjected to prudence check. In order to judge the reasonability of the claim, the Stakeholder submitted that the Petitioner should submit the certificate showing actual amount deposited in the designated fund. Further, the Stakeholder also submitted that terminal benefits are not one of the components of ARR fixed charges as would be clear from Regulation 43(3).

RVUN's Response

3.36 RVUN has claimed terminal benefit in ARR FY 2019-20 on the basis of actuarial valuation report of FY 2018-19, allocating the amount on the basis of plant capacity. Now in true up, RVUN has claimed terminal benefits as per the actuarial valuation report of FY 2019-20 allocated in the ratio of employee cost. The details of deposit are as under:

Table 8: Details of Deposits

Particulars	Amount (Rs. In Cr.)
Pension Fund	13.40
Gratuity	11.31
Leave encashment	7.82

3.37 RVUN is facing financial crunch due to non-payment of outstanding dues by Discoms. Therefore, RVUN requested the Commission to allow amount of terminal benefit as claimed. Further, RVUN had already submitted the actuarial valuation report in the instant petition along with the details of actual deposited amount against terminal benefits for FY 2019-20.

Depreciation

Stakeholder's comments/suggestions

3.38 For KTPS (Units 1-7), STPS (Units 1-6), CTPS (Units 1-4), RGTPP and Mahi Hydel Power Station, as no additional capitalization is admissible as earlier submitted, no addition of depreciation in this account is admissible. Also, since single tariff is being sought and determined for all the units of these stations, the petitioner has to submit information about calculation of depreciation from the effective date of commercial operation taking into consideration of the depreciation of individual units of the station as per Regulation 22(8) of RERC Tariff Regulations, 2019. Further, addition of fixed asset has also not been explained in the petition therefore Petitioner may also provide necessary information accordingly as no addition in fixed asset is admissible.

3.39 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and RGTPP, the petitioner has claimed actual depreciation of Rs.72.77 Crore, Rs.164.24 Crore, Rs.265.69 Crore and Rs.42.59 Crore respectively against approved depreciation of Rs.72.72 Crore, Rs.164.17 Crore, Rs.265.52 Crore and Rs.42.58 Crore respectively, which was determined vide ARR order for FY 2019-20. The petitioner has justified the excess claim of depreciation of Rs.0.05 Crore, Rs.0.07 Crore, Rs.0.17 Crore and Rs.0.01 Crore respectively on account of additional capitalization. However, it is submitted that the component of additional capitalization claimed by the petitioner are not of the nature of capital expenditure. Therefore, the Commission is requested to allow

depreciation to the extent of approved depreciation in accordance with the ARR Order for FY 2019-20.

RVUN's Response

3.40 RVUN has claimed additional capitalization in the main petition and has requested the Commission to allow depreciation as claimed. Also, RVUN has claimed depreciation as per Regulation 22(8) of RERC Tariff Regulations, 2019 in which the depreciation up to 12 years is computed as per the rates of depreciation and for the units completed 12 years the remaining depreciation has been spread over to 13 years of remaining life of plant. The detailed computations of depreciation are submitted as part of ARR as format 6.1 whereas in true-up format GT 6.1 is applicable which has been submitted along with the petition.

3.41 RVUN has filed the true up petition considering the GFA already approved by the Commission in its order dated 11.09.2020 that belongs to true up of RVUN plants for FY 2018-19 and subsequent additions. Accordingly, RVUN has computed the depreciation considering aforesaid addition in GFA. Therefore, RVUN requested the Commission to allow depreciation as claimed.

Insurance Charges

Stakeholder's comments/suggestions

3.42 The Stakeholder submitted that five units of KTPS (Units 1-5) has completed their 25 years life and justification for insurance claimed for these units shall be provided by the Petitioner.

3.43 For STPS (Units 1-6), CTPP (Units 1-4) and RGTPP Insurance of fixed Assets may be allowed on the basis of documents submitted and only on fixed Assets admitted and further no incidence of additional capitalisation be allowed

here as well.

RVUN's Response

3.44 RVUN has submitted that since the units are in operation, insurance for boiler explosion and fire hazard are essential and the insurance charges are claimed on actual basis and relevant documents has already been submitted along with the petition. Therefore, RVUN requested the Commission to allow insurance charges as claimed.

Lease Rental

Stakeholder's comments/suggestions

3.45 The Stakeholder submitted that no lease rental is admissible in ARR. Further, Regulation 23 says lease charges shall be considered as per lease agreement provided, if they are considered reasonable by the Commission and the Petitioner may provide copy of agreement and justification for such claim.

RVUN's Response

3.46 For KTPS (Units 1-7), lease rental expenses of Rs.0.46 Crore are claimed as per the actual expenditure incurred at Head office and allocated to the power plant in the ratio of capacity. The copies of agreement/document are submitted as sought by the Stakeholder.

3.47 For STPS (Units 1-6), lease rental expenses of Rs.0.035 Crore are claimed as per the actual expenditure incurred for the plant. The copies of agreement/document are submitted as sought by the Stakeholder. Total expense of Rs.0.56 Crore for the Head Office expenses has been bifurcated for the power plant in the ratio of their capacity and the copies of agreement/document of expenses at Head Office are submitted as well.

3.48 For CTPP (Units 1-4) lease rental expenses of Rs. 0.123 Crore are claimed as

per the actual expenditure incurred for the plant. The copies of agreement/document are submitted as sought by the Stakeholder.

3.49 For RGTPP lease rental expenses of Rs. 0.012 Crore are claimed as per the actual expenditure incurred on account of lease rental at plant. The copies of agreement/document are submitted as sought by the Stakeholder.

3.50 For Mahi Hydel Power Station Lease rental expenses of Rs. 0.003 Crore are claimed as per the actual expenditure incurred on account of lease rental at plant. The copies of agreement/document are submitted as sought by the Stakeholder

Interest and Finance charges
Stakeholder's comments/suggestions

3.51 The Stakeholder submitted that for Interest and finance charge interest on additional capitalisation should be disallowed. Further, the stakeholder requested the Petitioner to submit the information about subvention and loan amount as per directions of the Commission. Further, this may be allowed as per rates and on admitted loan only.

3.52 An amount of Rs.18.98 Crore has been mentioned as subvention receivable from State Government. The issue of subvention from State was raised in respect of True up Petition of the Petitioner for FY 2017-18 and Commission in their order dated 5.08.2019 had directed the Petitioner to submit details as a part of True up Petition to be filed for FY 2018-19. Relevant extracts of the said order are as follows: -

"4.130 The Commission finds that this issue requires detailed analysis and information for taking a view on the same. Therefore, the Commission directs RVUN to submit following details as a part of the True up Petition to be filled for FY 2018-19:

- Detailed note on subvention amount and basis of same
- Details of loan (i.e., Amount and Date of loan) provided by State Govt. to RVUN for construction of STPS power plant.
- Following details for each year starting up from the year in which the subvention was allotted to RVUN.
 - i. Financial Year
 - ii. Outstanding State Govt. loan for STPS at the beginning of the year.
 - iii. Outstanding Subvention amount at the beginning of the year.
 - iv. Interest on subvention amount adjusted on State Government loan for STPS during the year."

The Petitioner to provide information as per above directions of the Commission.

3.53 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and RGTPP, the petitioner in true-up petition for FY 2019-20 has claimed actual Interest and finance charge of Rs.29.21 Crore, Rs.39.94 Crore, Rs.274.43 Crore and Rs.46.37 Crore respectively against the approved Interest and finance charges of Rs.27.83 Crore, Rs.38.65 Crore, Rs.265.51 Crore and Rs.44.95 Crore respectively.

The Petitioner has justified the excess claim of Interest and finance charge of Rs.1.38 Crore, Rs.1.29 Crore, Rs.8.92 Crore and Rs.1.42 Crore on account of additional capitalization, interest rate variation and actual finance charges. However, it is submitted that the component of additional capitalization claimed by the petitioner are not of the nature of capital expenditure. Therefore, the Commission is requested to allow interest and finance charges to the extent of approved depreciation in accordance with the ARR Order for FY 2019-20.

RVUN's Response

3.54 RVUN has claimed Interest on term loan on the normative debt with actual

interest rate as per RERC Tariff Regulations, 2019 and finance charges incurred on the actual basis in audited accounts. Therefore, RVUN requested the Commission to allow interest on term loan and finance charges as claimed.

3.55 In the matter of subvention, the Commission directed RVUN to submit information, which was submitted along with true-up petition of FY 2018-19, the Commission's analysis was as under:

“With respect to the subvention receivable amount from State Government, i.e., Rs.158.72 Crore and Rs.139.74 Crore for FY 2016-17 and FY 2017-18 respectively and current maturity amount of Rs.18.95 Crore each for FY 2016-17 and FY 2017-18 as per the audited accounts, the Commission vide true-up order against Petition No. 1441/18 directed the Petitioner to submit “detailed note on subvention amount and basis of same and details of Loan (i.e., Amount and Date of loan) provided by State Govt. to RVUN for construction of STPS power plant.” Vide the instant petition, the Petitioner has submitted the information as sought. The Commission has gone through the submissions and were found to be prudent as per the audited accounts.”

Hence, RVUN submitted that the observation of the Stakeholder is not correct in the matter of subvention.

3.56 The computations of weighted average interest rate on long term loans for FY 2019-20 have already been submitted along with the petition. Further, the computation of rate of interest on actual loan portfolio is submitted along with the documents in the reply to the Data Gaps of the Commission. The difference in rate of interest at time of ARR and true up is submitted.

Interest on working capital
Stakeholder’s comments/suggestions

3.57 The Stakeholder submitted that interest on working capital may be allowed

on normative basis and additional capitalisation should not be considered.

3.58 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), DCCPP, RGTPP and Mahi Hydel, the petitioner has claimed actual Interest on Working Capital of Rs. 94.52 Crore, Rs.136.31Crore, Rs.73.87 Crore, Rs.28.65 Crore, Rs.13.40 Crore and Rs.1.24 Crore respectively against approved Interest on Working Capital of Rs. 86.33 Crore, Rs.121.04 Crore, Rs.64.26 Crore, Rs.26.32 Crore, Rs.13.10 Crore and Rs.1.17 Crore respectively.

3.59 The petitioner has justified the excess claim of Interest on Working Capital of Rs. 8.19 Crore, Rs. 15.27 Crore, Rs. 9.61 Crore, Rs. 2.33 Crore, Rs. 0.30 Crore and Rs. 0.07 Crore respectively on account of variation from actual expense in variable cost. Therefore, the Commission is requested to allow interest on working capital as approved.

RVUN's Response

3.60 RVUN has claimed Interest on working capital on the normative basis and requested the Commission to allow Interest on working capital as claimed. The approved Interest on working capital for ARR for FY 2019-20 was based on the estimated coal data such as Coal price and GCV. Now in true up, the coal price and GCV has been finalised and accordingly the interest on working capital has been claimed.

Return on Equity

Stakeholder's comments/suggestions

3.61 Return on Equity may be allowed only on admitted equity and no additional equity on account of additional capitalization be admissible.

3.62 For KTPS (Units 1-7), STPS (Units 1-6) and CTPP (Units 1-4), the petitioner has claimed an additional ROE of Rs.0.43 Crore, Rs.0.04 Crore and Rs.0.11 Crore respectively beyond the approved ROE during the ARR for FY 2019-20. The

petitioner has justified its claim for additional ROE based on additional capitalization claimed in FY 2019-20. However, it is submitted that the component of additional capitalization claimed by the petitioner are not of the nature of capital expenditure. Therefore, the Commission is requested to allow ROE to the extent of approved depreciation in accordance with the ARR Order for FY 2019-20.

RVUN's Response

3.63 RVUN has claimed ROE on the equity considering additional capitalization, which is permissible as per Regulation (20) of RERC Tariff Regulations, 2019 and requested the Commission to allow ROE as claimed.

Non-Tariff Income

Stakeholder's comments/suggestions

3.64 The company has accumulated balance of Rs. 343.50 Crore in fly ash utilization fund as on 31.03.2020. In this respect, the Petitioner may provide the generating station wise details of this accumulated balance of Rs. 343.50 Crore. Further, it may also be clarified that whether any amount collected from the sale of fly ash has been considered as non-tariff income or not and reasons for the same may be provided.

RVUN's Response

3.65 The details of amount of Rs.343.50 Crore collected from the sale of fly ash (Plant wise) up to 31.03.2020 are as follows:

Table 9: Sale of Fly Ash (Plant wise)

Particulars	Amount (Rs. In Cr)
KTPS	226.90
STPS	50.43
CTPP	43.84
SSCTPP	0.41
CSCCTPP	21.92
TOTAL	343.50

3.66 As per the directions of the Ministry of Environment and Forest & Climate Change (MoEF&CC), GOI, vide Gazette notification dated 03.11.2009, the amount of fly ash should not be considered as the non-Tariff income, and it has to be separately kept as accounted in fly ash utilization fund. All the amount collected from the sale of fly ash are credited to aforesaid fund and shall be utilized only in development of infrastructure, promotion and facilitation activities for utilization of fly ash, until 100% fly ash utilization level is achieved. The amount collected from sale of fly ash is for specific purpose only, hence it is not a non-tariff income.

Interest on transitional loan

Stakeholder's comments/suggestions

3.67 The Stakeholder submitted that for STPS (Units 1-6), Interest on Transitional Loan has to be allowed as per the past order. It is further submitted that such transitional loan may be wiped off once for all in-one stroke to mitigate the evergreen problem.

RVUN's Response

3.68 Interest on Transitional Loan has been claimed as per the previous orders and RVUN requested the Commission to allow Interest on Transitional Loan as claimed.

Auxiliary Consumption

Stakeholder's comments/suggestions

3.69 The Stakeholder submitted that for KTPS (Units 1-7), actual auxiliary consumption of 11.90% is higher than the normative auxiliary consumption. As per past orders, auxiliary consumption may be allowed only on normative basis.

3.70 As per Regulation 45(6)(d), normative Auxiliary consumption for STPS (Units 1-

6) is 9%. As per the provisions under this Regulations for plants which uses tube type coal mill, the norms shall be further increased by 0.8% i.e., 9% is to be increased by 0.8%. Thus, 8% become 9.072% and not 9.80%. However, the actual consumption is 10.05% which is higher than normative one and as submitted earlier, only normative percentage has to be allowed.

3.71 The Stakeholder submitted that for CTPP (Units 1-4), normative auxiliary consumption is 9%. However as per provisions under this Regulations for plants which uses tube type coal mill, the norms shall be further increased by 0.8% i.e., 9% is to be increased by 0.8%. Since actual consumption of 9.66 % is higher than 9.072 %, the Commission should allow normative percentage.

3.72 The Stakeholder submitted that for RGTPP, actual consumption has been shown as 3.81% against normative of 2.80 %. The reasons given to justify this was shortage of Gas availability, however, such reasons have not been accepted by the Commission. Hence, the excess consumption of Auxiliary consumption should be disallowed.

3.73 For DCCPP, the Stakeholder sought justification for zero Auxiliary consumption. In view of the above, the Petitioner is not entitled for any fixed charges or variable charges.

RVUN's Response

3.74 The Auxiliary consumption is generally on the higher side due to the frequent back down/box up of units as per the instruction of SLDC. Further, it is to clarify that Auxiliary consumption does not reduce in the same proportion of generation because of electric motors of major auxiliaries like Circulating Water(CW), Auxiliary Cooling Water System(ACWS), Demineralized water clarified cooling water (DMCCW), Water System, Compressed Air System are designed to run on their rated capacities while few auxiliaries like Cool Mills,

Induced Draught (ID) Fan, Boiler Feed Pump (BFP), Forced Draft (FD) fan could run on reduced load but their power consumption does not reduce in the same proportion of generation. Therefore, such loss of generation, if availed, the overall auxiliary consumption would be achieved within normative value. However, such situation is beyond the control of RVUN. It is further submitted that the CERC has already passed regulations on Technical Minimum, where the Central utilities are getting the benefit of additional auxiliary consumption on account of operation of plant at technical minimum due to Back Down of Power Stations. The above issue has been brought to the notice of the Commission for suitable compensation in line and to be allowed under Indian Grid Code (IGC), which is still under consideration of the Commission. RVUN requested the Commission to allow Auxiliary consumption as claimed till suitable compensation in line with allowed under Indian Grid Code (IGC), is permitted.

3.75 The actual auxiliary consumption of RGTPP is 3.81% as against normative value of 2.8%, due to running of the plant on reduced load as the gas was not available in sufficient quantity. Therefore, RVUN requested the Commission to allow auxiliary consumption, as claimed i.e., 3.81%. The plant was operational under combined cycle for 8372.32 hrs and open cycle for 1062.10 hrs. Based on operational hours of combined cycle and open cycle, the auxiliary consumption is on higher side due to frequent tripping of Units on account of disturbance in Grid, which was beyond the control of RVUN.

3.76 RVUN has declared the availability duly certified by SLDC for DCCPP which is well above the normative target availability approved by the commission for FY 2019-20 based on quantity of fuel actual available. Although, power has not been scheduled by RUVN/SLDC as per their requirement and consideration of MOD, which is their prerogative also. Further, it is also a fact that DCCPP was available as per the RERC Tariff Regulations, 2019 and

hence, entitled to recover full capacity/fixed charges accordingly as per provision of the RERC Tariff Regulations, 2019. Therefore, RVUN requested the Commission to allow fixed and variable charges, as claimed.

Station Heat Rate (SHR)

Stakeholder's comments/suggestions

- 3.77 For KTPS (Units 1-7), SHR claimed is on lower side. However, the Petitioner may provide details of SHR of 2552.6 kCal/kWh calculated by them.
- 3.78 For STPS (Units 1-6) claimed SHR is on lower side. However, the Petitioner may provide the detailed calculation of 2471.48 kCal/kWh.
- 3.79 For CTPP (Units 1-4), SHR has been claimed on higher side, i.e., against 2400 kCal/kWh, the Petitioner is claiming SHR of 2471.30 kCal/kWh. However, in exercise of its power under Regulation 94 of the RERC Tariff Regulations, 2014, the Commission increased the SHR for CTPP (unit 1-4) to 2400 Kcal/kwh. This increased SHR of 2400 kCal/kWh has also been kept in the RERC Tariff Regulations, 2019. Still the Petitioner has not been able to achieve the normative SHR 2400 kCal/kWh. Due to the increased SHR, the coal consumption has been on higher side and this may be disallowed by the Commission as this will also be reflected in cost of coal. Therefore, the Commission is requested to direct the petitioner to explain the reasons for higher heat rate and steps that have been taken for reducing the same. Stakeholder further requested to approve heat rate as approved earlier.
- 3.80 For RGTTP, the petitioner has submitted actual SHR of 2339.23 kCal/kWh against normative SHR of 2038 kCal/kWh and here also the reason given for the increase in SHR was shortage of gas availability, however, such reasons have not been accepted by the Commission. The Commission has already observed that responsibility for required gas is of the generator and only normative SHR be allowed. Hence, on account of higher SHR, cost of

increased quantum of gas be disallowed.

RVUN's Response

3.81 For KTPS (Units 1-7), the SHR claimed in the petition is as per the computation of RERC Tariff Regulations, 2019.

3.82 For CTPP (Units 1-4), the SHR claimed in petition is actual as achieved by the station and normative SHR could not be achieved due to frequent backing down of the Units by SLDC. Therefore, RVUN requested the Commission to allow SHR as claimed.

3.83 For RGTPP, the SHR claimed in petition is as per actuals and it is higher than normative due to partial load, as the gas is not available to run the plant at full load. The plant was operational under combined cycle for 8372.32 hrs and open cycle for 1062.10 hrs. Thus, the normative SHR based on actual open and close cycle comes out to be 2049.06 kCal/kWh. The RGTPS Plant has recorded the actual SHR of 2339.23 kCal/kWh against the approved SHR of 2038 kCal/kWh as allowed by the Commission. Therefore, RVUN requested the Commission to allow SHR as claimed.

Fuel Consumption

Stakeholder's comments/suggestions

3.84 For STPS (Units 1-6), specific coal consumption has been claimed on higher side in spite of improved SHR and the Stakeholder sought clarification for the same.

3.85 The Petitioner requested that the variable charges to be allowed as per scheduled generation but has not quoted any relevant regulations to substantiate the same. Energy charges are based on primary fuel required for generation to be computed on the basis of normative gross SHR less heat contributed by secondary fuel oil etc. Therefore, it relates to actual of fuel

coal (oil) burnt and not of others.

3.86 For CTPP (Units 1-4), the Stakeholder sought the supporting documents to substantiate the coal price.

RVUN's Response

3.87 For STPS Units 1-6, the Petitioner submitted that the specific coal consumption of plant depends on the fuel quality such as gross calorific value of coal. Further, SHR gets affected due to various factors, hence the observation made by Stakeholder is not correct and therefore, RVUN requested the Commission to allow specific coal consumption as claimed.

3.88 The energy charges are computed as per Regulation 51(1) of RERC Tariff Regulations, 2019, which is reproduced as under:

“(1) 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”

Whereas, Rate of energy charges are computed as per Regulation 51(2) of the RERC Tariff Regulations, 2019 as explained by the Stakeholder. Therefore, RVUN requested the Commission to allow rate of energy charges as claimed.

3.89 The Petitioner submitted sample copy of bills against fuel, as sought by the Stakeholder for CTPP Units 1-4.

GCV of Coal

Stakeholder's comments/suggestions

3.90 The Stakeholder sought the analysis report for GCV of Indian Coal. Also, the Commission is requested to direct the Petitioner to submit both 'as received'

and 'as fired' GCV of primary fuel for each station separately with supporting documents for the same in its forthcoming petition for tariff determination and True up. A copy from a government recognized lab providing GCV values along with detailed methodology for arriving at the figure of GCV mentioned in the petition may also be submitted.

3.91 Further for STPS (Units 1-6), GCV of coal has been shown on lower side than approved one and the Petitioner is requested to provide the analysis report of GCV of coal 'as required' and 'as burnt' as well.

3.92 For CTPP (Units 1-4), GCV of coal has been shown on lower side, which affect the coal consumption and cost thereof. Hence, this lower GCV may not be allowed.

3.93 For RGTPP, the Petitioner has claimed higher GCV of 5338.55 kCal/SCM against allowed GCV of gas as 5138.17 kCal/SCM without submitting any document in this respect. Further, the Petitioner is required to submit required documents. Due to higher GCV, the cost of fuel has been on higher side, which may not be allowed.

RVUN's Response

3.94 The Petitioner submitted the GCV of the coal as received and fired with sample analysis of coal as sought by the stakeholder.

3.95 It is submitted that GCV considered for ARR was estimated from previous data, which are likely to change on actual received basis. Therefore, the difference of GCV claimed is incorrect and requested Commission to allow the variable cost considering GCV of coal as claimed. As per Regulation (51) of the RERC Tariff Regulations, 2019:

"Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in kg or litre or cum, as the case may be, and shall be

computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based Generating Stations) and gross calorific value of coal/lignite or gas or liquid fuel as received less 85 kCal/kg or gross calorific value as fired, whichever is higher."

Further, RVUN requested the Commission to consider GCV of FY 2019-20 as received less 85 kCal/kg or gross calorific value as fired, whichever is higher.

3.96 For CTPP, the GCV considered for the coal is as per received basis of the coal and on the basis of the analysis carried out by Central Institute of Mining and Fuel Research (CIMFER) and sample analysis and the statement of monthly GCV of coal as fired and as received are submitted as sought by the Stakeholder.

3.97 For RGTPP, the GCV considered for the gas is as received in actual and on the basis of the invoice of the gas and sample invoice of gas are submitted as sought by the stakeholder. The GCV of gas depends on the quality of gas received at the site. In ARR, GCV for gas has been estimated on the basis of previous data of gas, whereas in True-up these are the actual values received during FY 2019-20.

Transit Loss

Stakeholder's comments/suggestions

3.98 For KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), Transition loss of 0.80% may be allowed.

RVUN's Response

3.99 The Petitioner has claimed transit loss as per Regulation 45(7) of the RERC Tariff Regulations, 2019, and requested the Commission to allow the same.

B. ARR and Tariff of RVUN's Generating Stations for FY 2021-22

Preliminary Submissions

Stakeholder's comments/suggestions

3.100 The Petitioner has filed petition on hypothetical basis. The material details like date of purchase of assets, details of each individual Unit (at each plant) have not been disclosed. The Petitioner is required to submit proper and requisite details.

RVUN's Response

3.101 RVUN has filed the petition considering all the actual facts, figures and documents. Therefore, RVUN requested the Commission to consider petition as submitted.

3.102 RVUN has filed the petition considering the Gross Fixed Assets (GFA) already approved by the Commission in its order dated 11.09.2020 that belongs to true up of RVUN plants for FY 2018-19. Further the GFA for FY 2020-21 have been taken from the GFA already approved by the Commission with subsequent additions. Therefore, RVUN requested the Commission to consider instant petition as submitted.

Separate Tariff Petitions for each Generating Unit

Stakeholder's comments/suggestions

3.103 The Petitioner should have filed separate petitions for each generating Unit. It is an established practice across the country by various generating stations to compute unit-wise ARR and Tariff. Further, the Stakeholder submitted that Petitioner has not placed complete and true facts before the Commission. The non-submission of unit wise details is not justified and the Commission is requested to direct the Petitioner to submit such records.

3.104 The Stakeholder sought audited books of account along with details for each generating unit from the Petitioner. The Commission is requested to

direct the Petitioner to maintain Unit-wise audited books of accounts and submit the same before the Commission to seek determination of Tariff.

RVUN's Response

3.105 RVUN has filed Petition for determination of ARR for FY 2021-22 as per Regulation 11 of RERC Tariff Regulations, 2019. Moreover, the Commission has already decided in the matter of Unit wise tariff determination in its order dated 28.10.2020.

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

Further, the operational norms specified in the Regulations are station based not unit based. Therefore, RVUN requested the Commission to consider the petition as filed.

3.106 RVUN submitted that at stations, cost of maintenance of the equipment is overlapped amongst the Units, as the common auxiliaries are used. Further, Station wise allocation of all cost has already been submitted along with the main petition as it was directed by the Commission. Therefore, RVUN requested the Commission to determine the tariff of RVUN plants as claimed.

No Agreement for Firm fuel at firm price

Stakeholder's comments/suggestions

3.107 For DCCPP, the Stakeholder submitted that Commission in order dated 11.08.2020 has mentioned that: -

“As per provisions of our RERC Tariff Regulations, 2019, the availability of the plant is to be considered duly considering the availability of fuel. In case of DCCPP, firm fuel is not available at firm price. Also, in previous financial year availability of fuel remain inadequate because of which DCCPP was not able to achieve the optimum level of generation. Hence, the Commission deems it

appropriate not to determine the tariff for DCCPP at this stage in absence of firm fuel and firm price..."

However, in the present petition, the Petitioner has not provided any documents related to their firm fuel tie up at firm price. Hence the petition is not maintainable.

3.108 However, Petitioner has filed a fresh petition (Petition number 1878/21) for FY 2020-21 of this station stating that RVUN has signed a firm Spot Gas Sales Agreement (SGSA) on long-term basis with M/s GAIL on 29.07.2020 valid up to 01.01.2026. A copy of the same has also been submitted with the petition. In the said petition, the Petitioner has mentioned that as per this agreement the price of Gas is variable and shall be as per Gas Sales Purchase Notice (GSPN).

3.109 In the aforesaid petition, it is mentioned that "In terms of Article 2 (transaction) of SGSA, quantity and price of gas shall be regulated through gas supply and purchase notice which will be offered by M/S GAIL from time to time." This provision clearly says that neither the quantity nor the price of fuel is firm and thus it will be varying from time to time, thus the requirement of Commission directions are not fulfilled. Hence the Stakeholder requested the Commission to dismiss the present petition on the basis that firm fuel is not available at firm price. The Stakeholder has also requested the Commission to direct the Petitioner to file fresh petition only after submission of fuel supply agreement with a firm price.

RVUN's Response

3.110 RVUN has already filed a fresh petition as per the Commission directions in its order dated 11.09.2020, wherein all relevant documents complying to above order has been submitted, which is under consideration of the Commission. In continuity of above, the instant petition for ARR and Tariff for FY 2021-22 for

DCCPP has been filed and is well maintainable. Therefore, RVUN requested the Commission to determine ARR and Tariff for DCCPP for FY 2021-22.

3.111 Further, RVUN submitted that prior to issue of order dated 11.09.2020, RVUN has initiated concerted efforts for arrangement of gas for DCCPP on long term basis in required quantity. In view of non-availability of Administered Pricing Mechanism (APM) gas from Panna-Mukta and Tapti (PMT) gas fields in December 2019 under the agreement dated 31.10.2005 executed with M/s ONGC and after detailed discussions with M/s GAIL, RVUN entered into long term SGSA dated 29.07.2020 valid up to 01.01.2026 for supply of firm gas (Re-gasified Liquid Natural Gas (RLNG)) for DCCPP in required quantity on regular basis with Take or Pay (ToP) obligation of 50% in the present. In terms of SGSA dated 29.07.2020, the supply quantum and price of gas was to be regulated as per GSPN which is a standard practice by M/s GAIL for executing Spot gas Agreement with all other entities as well. M/s GAIL has offered two options of GSPN under the agreement dated 29.07.2020, which are as under: -

a. Option 1: The supply of gas on firm basis and price of Gas on lower side, but there was take or pay charges 50% (with minimum quantity obligation) in the present.

b. Option 2: The supply of gas on Reasonable Endeavours (R.E) basis and price were on higher side than option 1, but there was no ToP obligation.

It is pertinent here to mention that under agreement dated 29.07.2020, gas is available on firm basis, but take or pay obligation of 50%, which is to be borne by Discoms and consent from Discoms is essential for the same. As there was no consent given by Discoms except for the period from 01.08.2020 to 31.08.2020 under the agreement dated 29.07.2020, hence RVUN was constrained to opt for the second option available, which was

also informed to Discoms vide communication dated 20.10.2020 and 12.11.2020. In view of above-mentioned facts, RVUN has duly complied the directions as passed by order dated 11.09.2020 and gas is available consistently in required quantity. The entire issue has been duly explained in the Data gap reply as well, hence RVUN is entitled for Tariff determination for FY 2021-22.

Availability, Plant Load Factor and closing down
Stakeholder's comments/suggestions

3.112 The Stakeholder submitted that availability and Plant load factor of Kota and Suratgarh TPS (Unit 1-6) has been indicated as 83% stating that it has been considered as per Regulation 45(1)(c) and 45(2)(c) of RERC Tariff Regulations 2019.

Table 10: Details of Availability/Plant Load Factor

Particulars	Kota Thermal Power Station			Suratgarh Thermal Power Station (1-6)		
	FY19-20	FY20-21	FY 21-22	FY 19-20	FY 20-21	FY 21-22
Total Capacity MW	1240	1240	1240	1500	1500	1500
Availability %	86.13%	89.34%	83.00%	90.17%	90.91%	83.00%
Plant Load Factor %	58.31%	58.71%	83.00%	35.50%	44.69%	83.00%
Fixed Charges Rs. Cr.			532.88			748.43
Variable Charges/kwh sent out, Rs/kwh			3.52			4.27
Likely PLF / Availability			58.71%			44.69%
Extra Fixed Charges			155.9477			345.45

3.113 The Stakeholder further submitted that generating units of Kota and Suratgarh power stations has been frequently backed down and boxed up. During box up, they are deemed to be available. On this account, though theoretically they have high availability, but availability to Discoms / consumers is about 50% of their capacity. On account of theoretically high availability, there is high incidence of fixed charges but lower plant load factor resulting in extra fixed charges to the tune of Rs.500 Crore (as per

above table). With higher RE penetration, it is unlikely that Kota and Suratgarh TPS will be scheduled lesser and accordingly availability and PLF may not exceed that of FY 2019-20.

3.114 First four units of KTPS has already operated for more than 25 years. Accordingly, there is no debt liability. As per time block-wise details submitted by Discom with their petition for determination of additional surcharge, average backdown and box up of units at KTPS during FY 2019-20 has been about 324 MW and likely to increase with RE penetration. In view of above, it may be prudent that first four units of Kota Thermal power stations (i.e., about 50% Capacity), which have outlived their useful life, are permanently closed down and PPA determined with one-time payment liability which will save recurring annual payment of extra fixed charges.

3.115 First four units at Suratgarh TPS, has already operated for more than 18 to 21 years and their debt liability must have been met. As per time block-wise details, average backdown and box up of units at STPS during FY 2019-20 has been about 755 MW. With the commissioning of supercritical units having lower variable charges, scheduling in all probability will be for supercritical units. On this account and considering higher RE penetration, backing down / boxed up will be higher at Suratgarh. For Suratgarh, it may be prudent to close down first four units and determine PPA with one-time payment liability to save recurring annual payment of extra fixed charges.

3.116 The Stakeholder requested the Commission to conduct study regarding the closing down and termination of PPAs for Units at Kota and Suratgarh thermal power stations with one time liability.

3.117 For Mahi Hydro Project operation, the Stakeholder submitted that the submission made in the petition in respect of operation of Mahi hydro projects is the same as given on petition for Truing up of ARR for FY 2018-19

and tariff for FY 2020-21 to which the Commission was not satisfied and a Committee constituted by RVUN was directed to review the matter with the concerned authority including breach in Left Main Canal (LMC) (if any), and measures already taken /to be taken for improving the generation from Mahi Project. Its report is awaited. However, it is submitted that irrigation schedule is intimated to the plant at very short notice and as such it is not possible to provide a pre-decided schedule of declared capacity of the machines, does not appear to be entirely true, as all multipurpose hydro projects (including Bhakra- Beas and Chambal) operate on water discharges as per irrigation requirements but power generation has been scheduled considering storage capacity of barrage and they do not have such problems. The Water Irrigation Committee headed by the District Collector Banswara, must be deciding water discharge schedules, weeks / months in advance and with balancing reservoir at Kagadi, some variation in diurnal discharge from power plant will be feasible.

3.118 Further, since inception it is known that LMC on which PH-II is situated at tail end with storage reservoir is mainly to affect a major part of 40 Tmc ft water supply to Gujarat. With lesser generation at PH-II, water supply to Gujarat must have been affected through Mahi River (downstream of Mahi dam) instead of LMC. Hydro generation is environment friendly and because of its very steep ramp rate, it is most appropriate for balancing variation of RE generation (which is not balanced by thermal generation). Data on RVUN's website indicate wide annual fluctuations in Mahi generation. It appears that generation is dependent on maintenance of canals and availability of funds required for the same. Earlier, there has been issues on sharing of O&M cost of dams and canal works. RVUN may indicate whether these have been resolved and whether payments to irrigation department have been made regularly. The Stakeholder further submitted that the Committee

constituted by RVUN may not bring out resolution of all issues relevant to irrigation department and it may be more appropriate if committee is also constituted at State Government Level. The Commission may consider advising Government under Section 86(2) of the Electricity Act, 2003.

3.119 The Stakeholder submitted that for Mahi station, the Targeted Availability has been prescribed in various previous true-up petition as 90% and as such in the present it shall be 90% and not 85% as mentioned by the Petitioner.

RVUN's Response

3.120 The Petitioner submitted that the projections made for parameters in the Aggregate Revenue Requirement (ARR) are on normative basis on which tariffs are determined and actual values of parameters are submitted before the Commission at the time of true up. The actual Plant Load Factor (PLF) of the plant is directly depending upon the scheduling power by Discoms. Thus, the case of extra fixed charges does not arise.

3.121 In the present scenario, the power from RE generators is increasing day by day and the back down of thermal generators leading towards Technical Minimum, that is of 55% PLF to cater the higher penetration from RE generators to the grid and the power is restored from thermal plant during peak hours demand.

3.122 The Petitioner submitted that with the power of unstable RE penetration to the grid, thermal plants are also essential for the grid stability.

3.123 The Petitioner submitted that the Canal Schedule have been decided by the Irrigation Authorities in weeks/months advance, but no proper information is being provided by them in advance. It is informed by Irrigation Department telephonically a day before or on same day of opening and closure of Canals. Besides this, RVUN is regularly submitting the day ahead

schedule of declared capacity on the Eltrix Portal of RRVPNL-STOMS, even if there are revisions in it, since September 2019. It is submitted that the irrigation schedule intimated to the plant is very short and as the machines remain in ready to start mode, they are in operation. However, the plant is providing the schedule of Declared Capacity on the basis of which capacity index is decided.

3.124 The Petitioner has also submitted that as per the irrigation authorities, 40 Tmc ft water is kept reserved in Mahi Dam. The water in canal is released as per the requirement of Gujarat Government through Mahi PH-II (LMC) after generation. The actual Generation for the years from FY 2010-11 to FY 2019-20 was based on the maximum Level of Mahi Dam in the respective year. In the year FY 2010-11, the Maximum Dam Level was 274.35 Mt as on 27.09.2010 and generation was 69.26 MU, in the year 2013-14, the Maximum Dam Level was 281.50 Mt achieved as on 28.07.2013 with generation 227.08 MU, in the year FY 2016-17 the generation was 209.66 MU in place of 22.62 MU as specified by Stakeholder and in the year FY 2018-19, the Generation was 117.06 MU in place of 219.84 MU as specified by Stakeholder as the Maximum dam Level achieved 280.95 Mt as on 14.10.2018 in the year FY 2018-19. So, the Optimum Generation has been done by the Mahi Hydel Power Plants as per Level of Dam, Strength of Monsoon Season, and availability of water as per irrigation demand & requirement and inflow in Dam. The detailed justification was also submitted for the same. The Repair & Maintenance Payment of Left Main Canal (LMC) claimed by Irrigation Department are being paid by RVUN time to time when demand raised.

3.125 Normative target availability of 85% has been claimed for Mahi power station as per Regulation 46 of RERC Tariff Regulations, 2019. The Mahi power station is Run-of-River with pondage and storage type, hence eligible for target availability of 85% as per above Regulation. Therefore, the Petitioner

requested the Commission to consider target availability as 85% for FY 2021-22 for Mahi Power station PH-I and PH-II.

Auxiliary Consumption

Stakeholder's comments/suggestions

- 3.126 For RGTPP, the auxiliary consumption has been allowed as 2.40% and not 2.80% as provided now. The Stakeholder sought the details of number of operational hours in combined cycle and open cycle for RGTPP.
- 3.127 The auxiliary consumption for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and DCCPP, works out to 9.34%, 9.072%, 9.072% and 3% respectively as against the Petitioner's claim of 9.65%, 9.80%, 9.80% and 2.90% respectively which are higher than the admissible one. The Stakeholder requested the Commission to direct the petitioner to submit detailed reasons for claiming Auxiliary Consumption higher than the norms. Further, the Stakeholder submitted that the Commission may only approve Auxiliary Consumption as per norms.

RVUN's Response

- 3.128 RVUN has considered running of RGTPP in open cycle for 10% and in closed cycle for 90%, accordingly the calculation of Auxiliary Power Consumption (APC) becomes 2.8% and SHR becomes 2038 kCal/kWh.
- 3.129 The normative auxiliary consumption at KTPS (Units 1-7), STPS (Units 1-6) and CTPP (Units 1-4) has already been approved by the Commission as per Regulation 45(6)(d) of RERC Tariff Regulations, 2019 for FY 2020-21. Further, it is submitted that the auxiliary consumption for FY 2019-20 and FY 2020-21 are actual values and does not have any impact on determination of ARR. Therefore, RVUN requested the Commission to allow auxiliary consumption as claimed.

Capital Cost

Stakeholder's comments/suggestions

- 3.130 With regards to capital cost of Suratgarh Unit 7 & 8, the Stakeholder submitted that the Commission in their order dated 3.02.2021 has provisionally approved the capital cost of Unit 7 as Rs. 4309.64 Crore as on its COD and for Unit 8 as Rs. 2898.75 Crore as on anticipated COD. Therefore, these capital costs are only to be taken in the present petition and no other cost should be allowed.
- 3.131 Earlier, the Petitioner in their Petition no. (1612/20) had indicated anticipated COD of Unit 7 as 10.02.2020 and Unit 8 as 20.03.2020 and actual COD of Unit 7 has been on 01.12.2020 i.e. after 10 months of anticipated date and in respect of Unit 8 it is being anticipated on 31.03.2021 i.e., after one year of earlier date. Even in the present petition, the date on which Unit 8 has been synchronized has not been mentioned. In such circumstances, the Petitioner to provide clarification for the statements submitted.

RVUN's Response

- 3.132 RVUN filed petition for provisional ARR and tariff for SSCTPP Unit 7&8 as on 31.12.2020 on the basis of actual capital cost incurred up to 31.03.2020, whereas the Commission has issued its order for provisional ARR and Tariff on dated 03.02.2021 i.e., almost one year later. Therefore, RVUN requested the Commission to allow provisional ARR and Tariff as claimed.
- 3.133 The reason for delay in achieving COD of Unit 7 and anticipated COD of Unit 8 have been given in the petition filed on 27.01.2020. Further the SSCTPP Unit 8 has been synchronized with Grid on dated 23.03.2021 and the expected COD of the Unit 8 shall be revised and intimated soon.

Depreciation

Stakeholder's comments/suggestions

3.134 The Petitioner may provide information as per Regulation 22(8) of RERC Tariff Regulations, 2019. Also, since single tariff is being sought and determined for all the units of these stations, the petitioner has to submit information about calculation of depreciation from the effective date of commercial operation taking into consideration of the depreciation of individual units of the station as per Regulation 22(8) of RERC Tariff Regulations, 2019. Addition of fixed asset has also not been explained in the petition. Therefore, the Petitioner may also provide necessary information accordingly, as no addition in fixed asset is admissible.

RVUN's Response

3.135 RVUN has claimed depreciation on admitted Gross Assets and with consideration of additional capitalization of FY 2019-20 as per the provision of the RERC Tariff Regulations, 2019. The Petitioner requested the Commission to allow depreciation as claimed.

Interest on Loan

Stakeholder's comments/suggestions

3.136 The Petitioner has taken actual loan as per audited accounts for the calculation of interest on normative loan. The Petitioner has not provided any basis for taking the opening balance of the loan for FY 2019-20 over which the entire calculation for interest on loan for FY 2021-22 has been done. Therefore, calculation of interest is not in accordance with the Regulations and cannot be considered. In addition, it is submitted that there is no information submitted on the commissioning date of the fixed assets and hence the normative depreciation cannot be estimated and it cannot be ascertained, if the loan repayment taken is correct or not. The

Commission is requested to direct the Petitioner to submit the Interest on normative loan amount calculated as per the methodology prescribed in the RERC Tariff Regulations, 2019 and submit the explanation of arriving at the opening balance of the loan for FY 2019-20.

RVUN's Response

- 3.137 The computation of weighted average interest rate on long term loans for FY 2020-21 has been submitted in data gaps and accordingly, the revised rate of interest for FY 2021-22 has already been submitted in the reply of data gaps. The interest on term loan has been computed considering normative outstanding debt and actual rate of interest as per actual term loan portfolio. Therefore, RVUN requested the Commission to allow interest rate and finance charges on term loans as claimed.

Interest on Working Capital

Stakeholder's comments/suggestions

- 3.138 Interest on working capital may be allowed by the Commission on normative basis in all cases.

RVUN's Response

- 3.139 RVUN has claimed interest on working capital as normative and requested the Commission to allow interest on working capital as claimed.

Insurance charges

Stakeholder's comments/suggestions

- 3.140 Insurance charges may be allowed on the basis of last year payment in all cases and may be allowed only in respect of gross assets admitted.
- 3.141 Insurance charges claimed by the Petitioner for generating stations in FY 2021-22 are exceeding the maximum ceiling i.e. (0.2% of Net Fixed Assets (NFA)). Thus, the stakeholder requested the Commission to disallow

insurance charges beyond the normative insurance charges.

RVUN's Response

3.142 RVUN has claimed insurance charges considering 5% hike year on year on actual insurance charges for FY 2019-20. Now the actual insurance charges for FY 2020-21 (unaudited) are as under:

Table 11: Actual Insurance Charges (FY2020-21)

Particulars	KTPS	STPS	CTPP	KaTPP	CSC TPP	SSCTPP	DCCPP	RGTPP
Amount (Rs. In Cr)	7.05	8.55	5.70	6.82	7.42	0.43	1.91	1.58
Revised Claim	7.40	8.98	5.98	7.16	7.79	2.26*	2.01	1.66

**In the case of SSCTPP the amount for FY 2020-21 is only for 4 months for Unit 7 only. Now it is computed for Unit 7 for full year and for Unit 8 for 8 months. In view of above, the Petitioner requested the Commission to allow insurance charges considering 5% hike for FY 2021-22 in the value of insurance charges actual incurred in FY 2020-21 as given above.*

Return on Equity

Stakeholder's comments/suggestions

3.143 With respect to equity of KTPS calculated in the petition, the Stakeholder sought the following information:

- a. The relevant reference of para and order of the Commission where additional capitalisation of Rs.102.4 Crore has been allowed in FY2018-19 true-up.
- b. Clarification as to how the capital cost of head office is being added in KTPS petition and under which regulation. Head office expenses are part of O&M and cannot be part of capital cost.
- c. It is incorrect to say that only KTPS unit 1 to 4 has completed useful life. It may be noted that even Unit 5 has also completed its useful life on 17.05.2020.

3.144 The Return on Equity may be allowed on admitted equity only.

RVUN's Response

3.145 The Petitioner submitted the following responses in respect to above submitted objections:

- a. The additional capitalization of Rs.102.44 Crore has been allowed by the Commission in various true-up orders of RVUN plants up to FY 2018-19, which are available on RERC website.
- b. The HO allocation of capital was considered under KTPS in the table for computation of equity in petition and was done at the time of unbundling of RSEB, which has not contributed any equity.
- c. The KTPS unit 5 has completed its useful life on 17.05.2020 as mentioned in the petition and accordingly computations are also made in the petition.
- d. RVUN has considered equity for FY 2019-20 based on closing value of FY 2018-19 as per its true-up and for FY 2020-21, the equity has been considered with the consideration of additional capitalization for FY 2019-20 and so on. The equity for the plants which has completed their useful life has been computed as per the Regulations provision.

3.146 RVUN has claimed ROE on admitted equity allowed by the Commission in its order dated 11.09.2020 with consideration of additional capitalization for FY 2019-20. Therefore, RVUN requested the Commission to allow ROE as claimed.

O&M Expenses

Stakeholder's comments/suggestions

3.147 For CTPP (Unit1-4), the Commission in the RERC Tariff Regulations, 2019 has increased the per MW O&M cost from Rs.16.09 Lakh to Rs.20.20 Lakh.

3.148 For DCCP and RGTPP, the per MW O&M cost has been increased from Rs.12.06 Lakh to Rs.15.14 Lakh. It can be clearly observed that the petitioner in the past three financial years has gained more than Rs.50 Crore on account of difference between normative allowed O&M expense and

actual O&M expense.

3.149 The Stakeholder observed that the petitioner in the previous financial years has gained on account of difference between normative allowed O&M expense and actual O&M expense. The Commission is requested to allow O&M expense for FY 2021-22 on actual Lakh per MW rate. This additional O&M cost borne by the utility is passed on to the end consumer which is against the intention of Electricity Act, 2003 to protect consumer interest and provide cheaper power to the consumer. The Commission is also requested to amend the new regulation and pass on actual cost to the end consumers or allow sharing of gains over the O&M expense.

RVUN's Response

3.150 For CTPP (Unit1-4), the respondent has not taken the escalation for increase in O&M charges under the Regulation, 2014 as it was Rs.16.09 Lakh/MW for FY 2014-15 which becomes as Rs.20.20 Lakh/MW for FY2018-19 with escalation. While issuing RERC Tariff Regulations, 2019, the Commission stringently kept the same as Rs.20.20 Lakh/MW for FY 2019-20 without any escalation. RVUN has claimed O&M for FY 2021-22 considering escalation of 3.51% per annum. Therefore, RVUN requested the Commission to allow Operation and Maintenance Expenses as claimed.

3.151 For DCCPP, RVUN has computed O&M expenses as per Regulation 47(3) of RERC Tariff Regulation, 2019. The Commission in the Regulation has allowed O&M expenses of Rs.15.14 Lakh/MW for FY 2019-20 Unit size of gas power plants of capacity more 50 MW with the year wise escalation at 3.51%. Accordingly, RVUN has calculated O&M expenses for FY 2021-22 which comes Rs.16.22 Lakh/MW.

3.152 For RGTPP, the Commission has allowed O&M expenses of Rs.18.38 Lakh/MW

for Unit size of less than 50 MW and Rs.15.14 Lakh/MW for Unit size of 50 MW or above for gas-based power plant with the year wise escalation at 3.51%. Accordingly, the weighted average of both kind of units for FY 2021-22 comes Rs.17.64 Lakh/MW.

Terminal Benefits

Stakeholder's comments/suggestions

- 3.153 The Petitioner is required to submit the copy of actual valuation report and further intimate the amount of terminal benefits deposited in the designated fund during last 3 years pertaining to each generating station separately. These expenses are to be based on actual valuation and are subject to prudence check.
- 3.154 The Stakeholder submitted that in all petitions, RVUN has computed terminal benefits on the basis of actuarial valuation of previous year audited accounts (of FY 2019-20). The terminal benefit obligation at the end of FY 2019-20 is Rs. 1471.54 Crore (Rs. 1144.55 Crore (pension) + Rs. 189.66 Crore (gratuity) + Rs. 137.33 Crore (earned leave)) and the fair value of planned asset for them is Rs. 762.2 Crore (Rs. 553.35 Crore (pension) + Rs. 203.85 Crore (gratuity)). Thus, there is undischarged liability of Rs.709.64 Crore. Thus, it is not correct that terminal benefit of Rs. 149.97 Crore as per this petition and other petitions (vide table below) is the actuarial liability of the RVUN.

Table 12: Details of Station-wise Terminal Benefits

Power Stations	Provisions in Rs. Crore		
	FY 2019-20	FY 2020-21	FY 2021-22
Kota TPS	51.07	49.85	47.57
Suratgarh TPS (1-6)	42.26	41.25	39.36
Suratgarh super critical TPS		4.02	11.56
Dholpur GTPS	4.33	4.23	4.03
Mahi hydro power stations	6.76	6.6	6.3
Ramgarh GTPP	7.96	7.77	7.42
Chhabra TPS (Unit1 to 4)	22.75	22.21	21.19

Chhabra super critical TPS	13.45	13.14	12.54
Kalisindh TPS (True-up Petition)		19.25	
MMH schemes (True up Petition)		0.74	
Total	148.58	169.06	149.97

3.155 It was observed that provisions are progressively reduced and that for FY 2021-22 is less than that for FY 2019-20 (for power stations / units in operation that year) while it should have been higher considering additional retirees, if any, and increase in dearness allowance / relief. The provision proposed by RVUN thus appears to be based on conservative estimate of terminal benefit. If on account of financial stringency, outstanding liability cannot be discharged in few installments then annual expenses on pension, gratuity and earned leave should at least be contributed to respective funds by RVUN. The stakeholder submitted that it should be at least 20% more than that of FY 2019-20 considering retirements and DA/DR increase.

RVUN's Response

3.156 The Petitioner submitted that the amount claimed towards terminal benefit for FY 2021-22 is Rs 168.59 Crore considering same as per the actuarial valuation report of FY 2019-20 and any difference if arise shall be claimed at the time of true-up.

Variable charges

Stakeholder's comments/suggestions

3.157 The Stakeholder submitted the following:

- a. SHR may be allowed only on normative basis and not on higher basis.
- b. As regards to GCV of fuel, the Petitioner has to submit information as per direction of the Commission given in order dated 11.09.2020.
- c. The Petitioner has to provide necessary documents about the cost of coal/ fuel etc.
- d. Transit loss may not be allowed more than normative one.

RVUN's Response

3.158 The Petitioner submitted the following responses in respect to above submitted objections:

- a. RVUN has considered and claimed SHR as approved by the Commission and RVUN requested the Commission to allow SHR as claimed.
- b. GCV of fuel has been considered on the basis of actual receipt of fuel GCV in 1st and 2nd quarter of the plant. The GCV for the months from March 2021 to May 2021 of the coal as received and fired with sample analysis of coal has been submitted with the replies to data gap.
- c. The sample bills of the fuel cost for the months of November 2020, December 2020 and January 2021 were submitted as sought by the stakeholder.
- d. The transit loss has been claimed as per normative allowed by the Commission.

SECTION 4

Analysis of True-Up of RVUN stations for FY 2019-20

Norms of Operation

Availability

RVUN's Submission

- 4.1 The actual Availability/ Capacity Index submitted by RVUN for its stations for FY 2019-20 are as shown in the table below:

Table 13: Availability/Capacity Index as submitted by RVUN

Particulars	FY 2019-20					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP	Mahi
Target Availability for full recovery of fixed charges	83.00%	83.00%	83.00%	70.00%	70.00%	85.00%
Actual as claimed	86.13%	90.17%	89.78%	32.03%	93.09%	82.99%

- 4.2 RVUN submitted that KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4) and DCCPP have achieved availability factor higher than the normative, whereas RGTPS (270.50 MW) and Mahi Hydel achieved availability factor lower than the normative availability factor.
- 4.3 RVUN submitted that Mahi Powerhouse – I is located on a saddle dam of Mahi Dam periphery. The Mahi Dam is the property of Water Resources Department and the use/distribution of water stored in the dam is completely in the control of Water Irrigation Committee headed by District collector, Banswara. Whenever there is need of irrigation in the area, water releases in the LMC (Left Main Canal) & RMC (Right Main Canal) and then only the operation of machines at Mahi Powerhouse - I could be possible. For this purpose, the water irrigation committee intimates the plant in-charge regarding the schedule of canals and quantity of water to be released in the LMC and RMC and accordingly, the running hours of machines are decided. Therefore, the operation of Mahi PH - I totally depends on the irrigation requirements and the Mahi PH - I is not purely run of river power station with pondage and storage type. RVUN does not have any control on water utilization. The irrigation schedule is intimated to the

plant on short notice and as the machines remain in ready to start mode, they are in operation. It is not possible to provide a pre-decided schedule of declared capacity of the machines.

- 4.4 Mahi PH - II is a canal-based power plant and its balancing reservoir is located at the end of LMC, which means whenever water is released in LMC and after meeting the irrigation demand, the balance water stores in the balancing reservoir. For the operation of machines, a certain level of water reservoir is required. If the available water in the reservoir is optimum for generation, then only the machines at Mahi PH - II can run. So, at Mahi PH - II, machines remain in ready to start mode/available for operation but operation of machines is totally dependent on the availability of water.
- 4.5 Considering the above uncontrollable factor and RERC Tariff Regulations, 2019, RVUN requested the Commission to not reduce the fixed charges for Mahi, on pro-rata basis.
- 4.6 RVUN requested the Commission to consider the availability for its stations for FY 2019-20, for recovery of fixed charges, as shown in the table below:

Table 14: Availability Computations submitted by RVUN

Particulars	FY 2019-20				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP
Installed Capacity (MW)	1240	1500	1000	270.5	330
Normative Auxiliary Consumption (%)	9.65%	9.80%	9.80%	2.80%	2.90%
Declared Capacity Verified by SLDC (MU) (A)	8476.29	10716.47	7113.62	739.83	2620.25
Max. Capacity can be generated (MU) (B)	9841.07	11884.75	7923.17	2309.54	2814.66
Availability (%) ((A/B)*100)	86.13%	90.17%	89.78%	32.03%	93.09%

Commission's Analysis

- 4.7 RVUN in the instant petition submitted that Deviation Settlement Mechanism

(DSM) has been implemented w.e.f. 01.01.2018. RVUN also submitted SLDC certificate certifying the declared capacity and scheduled generation as claimed by RVUN.

4.8 The Commission observes that RVUN has computed Availability for FY 2019-20 considering the Declared Capacity. The Commission finds the computations of Availability submitted by RVUN to be in order.

4.9 The Availability/Capacity Index approved by the Commission is as shown in the table below:

Table 15: Availability/Capacity Index approved by the Commission

Particulars	FY 2019-20					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP	Mahi
Target Availability	83.00%	83.00%	83.00%	70.00%	70.00%	90.00%
Actual as claimed	86.13%	90.17%	89.78%	32.03%	93.09%	82.99%
Approved on true up	86.13%	90.17%	89.78%	32.03%	93.09%	82.99%

4.10 The full fixed charges are recoverable on achievement of target Availability. The Commission had allowed the recovery of full fixed charges for the stations which have achieved the target Availability and on pro-rata basis for the stations which have not achieved target Availability.

4.11 The Commission vide data gaps sought justification for considering Target Availability of Mahi Hydel as 85%, though it has been rejected by the Commission vide Order dated 11.09.2020 against Petition No. 1590/19 and vide Order dated 22.03.2021 against Review Petition No. 1818/2020.

4.12 Against it, the Petitioner submitted detailed reply for considering target availability as 85%. However, the Commission observed that the Petitioner vide instant Petition submitted that “.....operation of Mahi PH - I totally depends on the irrigation requirements and Mahi PH - I is not purely run of river power station with pondage and storage type because RVUN does not

have any control on water utilization” and “Mahi PH - II is a canal-based power plant and its balancing reservoir is located at the end of LMC, which means whenever water is released in LMC and after meeting the irrigation demand, the balance water stores in the balancing reservoir. For the operation of machines, a certain level of water reservoir is required. If the available water in the reservoir is optimum for generation, then only the machines at Mahi PH - II can run” whereas the Petitioner vide data gaps reply dated 09.09.2021 submitted the claims for considering Mahi Power Station with pondage and storage type.

- 4.13 The above two submissions of the Petitioner are contradictory to each other. In one of its submissions the Petitioner has submitted that operation of Mahi PH - I totally depends on the irrigation requirements and Mahi PH - I is not purely run of river power station with pondage and storage type because RVUN does not have any control on water utilization and in other submission, the Petitioner submitted that Mahi Project is run of river power station with pondage and storage type. The Commission fails to understand that when RVUN does not have any control on water utilization and the reservoir for the project is only a balancing reservoir, then how it can be treated as project with pondage and storage. Considering the fact as submitted by the Petitioner itself that they does not have any control on utilization of water, the Commission does not consider the Mahi Project as with pondage and storage type and accordingly considers target availability of 90%.

Plant Load Factor (PLF)

RVUN's Submission

- 4.14 The actual PLF as submitted by RVUN for its stations for FY 2019-20 is as shown in the table below:

Table 16: PLF as submitted by RVUN

Particulars	FY 2019-20				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP
Target PLF for incentive	83.00%	83.00%	83.00%	70.00%	70.00%
Approved in Tariff Order	83.00%	83.00%	83.00%	70.00%	70.00%
Actual as claimed	58.31%	35.50%	80.85%	31.27%	0.00%

Commission's Analysis

- 4.15 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.
- 4.16 RERC Tariff Regulations, 2019 specifically define the PLF as specified below:

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

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

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

AGi = Actual ex-bus Generation in MW for the ith time block in such period IC = Installed Capacity of the generating station in MW,

AUXn = Normative Auxiliary Consumption in MW, expressed as a percentage of gross generation”

- 4.17 The Commission, based on the actual net generation submitted and the normative net generation considering the normative auxiliary consumption, has recomputed the actual PLF as per the above specified formula. The PLF

as submitted by the Petitioner and as approved by the Commission for FY 2019-20 is as shown in the table below:

Table 17: PLF approved by the Commission

Particulars	FY 2019-20				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.50 MW)	DCCPP
Actual as claimed	58.31%	35.50%	80.85%	31.27%	0.00%
Approved on true up	58.31%	35.50%	80.85%	31.27%	0.00%

Auxiliary Consumption
RVUN's Submissions

4.18 The actual auxiliary consumption submitted by RVUN for its stations for FY 2019-20 is as shown in the table below:

Table 18: Auxiliary consumption as submitted by RVUN

Particulars	FY 2019-20							Mahi
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)		DCCPP		
				CC	OC	CC	OC	
Normative	9.65%	9.80%	9.80%	3.00%	1.00%	3.00%	1.00%	0.99%
Approved in Tariff Order	9.65%	9.80%	9.80%	2.80%		2.90%		-
Actual as claimed	11.90%	10.05%	9.66%	3.81%		0.00%		0.68%

4.19 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.

4.20 RVUN further submitted that at KTPS, as the tube mills are used instead of bowl mills, the auxiliary consumption for FY 2019-20 is higher than the normative, because tube mills are of high rating than the bowl mills.

4.21 RVUN submitted that based on the hours of operation in combined cycle and open cycle mode, the normative auxiliary consumption of DCCPP works out as 0.00%, 2.77% for RGTPS 270.50 MW for FY 2019-20 against the actual auxiliary consumption of 0.00% and 3.81% for DCCPP and RGTPS (both 110.50 MW & 160 MW) respectively for FY 2019-20.

Commission's Analysis

4.22 The Commission observes that RVUN has stated that the reason for higher auxiliary consumption as compared to the normative values is on account of instructions from SLDC for back-down/box-up of its stations.

4.23 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.”

4.24 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.

4.25 It is also observed that RGTPS and DCCPP 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 these stations considering the number of hours of operation in open and combined cycle mode. With regards to the normative auxiliary consumption of Mahi station for FY 2019-20, Regulation 46 of the RERC Tariff Regulations, 2019 stipulates as:

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

(2) Auxiliary energy consumption

(c) Auxiliary energy consumption for existing hydro power stations

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

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

4.26 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.

4.27 The auxiliary consumption approved by Commission for FY 2019-20 is as shown in the table below:

Table 19: Auxiliary consumption approved by the Commission

Particulars	FY 2019-20					
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP	Mahi
Actual as claimed	11.90%	10.05%	9.66%	3.81%	0.00%	0.68%
Approved on true up	9.65%	9.80%	9.80%	2.77%	0.00%	0.99%

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

4.28 The actual station heat rate submitted by RVUN for its stations for FY 2019-20 is as shown in the table below:

Table 20: Actual Station Rate as submitted by RVUN (kcal/kWh)

Particulars	FY 2019-20						
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)		DCCPP	
				CC	OC	CC	OC
Normative	2561.70	2476.28	2400.00	1950.00	2830.00	0.00	0.00
Approved in Tariff Order	2561.70	2476.28	2400.00	2038.00		1994.00	
Actual as claimed	2552.67	2471.48	2471.30	2339.23		0.00	

4.29 RVUN submitted that for RGTPS, due to shortage of gas, which is beyond their control, there has been increased SHR of the plant. RVUN requested the Commission to allow actual SHR achieved in the true-up for FY 2019-20.

4.30 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 2049.07 kcal/kWh for FY 2019-20 against the actual SHR of 2339.23 kCal/kWh for FY 2019-20.

4.31 Vide reply to data gaps dated 24.11.2021, RVUN submitted that since the SLDC had not scheduled power from DCCPP in FY 2019-20, therefore the generation of DCCPP in FY 2019-20 was nil and accordingly SHR claimed is zero.

Commission's Analysis

4.32 The actual SHR of KTPS, STPS for FY 2019-20 is lower than the normative SHR.

Further, as regards the higher SHR for CTPP, 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. Also, since the generation of DCCPP in FY 2019-20 was nil, the Commission considers SHR as zero for it. In line with the approach adopted in the true up for FY 2018-19, 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 2019-20 except for DCCPP.

4.33 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 2019-20 is as shown in the table below:

Table 21: Station Heat Rate approved by the Commission (kcal/kWh)

Particulars	FY 2019-20				
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1-4)	RGTPS (270.5 MW)	DCCPP
Actual as claimed	2552.67	2471.48	2471.30	2339.23	0.00
Approved on true up	2561.70	2476.28	2400.00	2049.07	0.00

Secondary Fuel Oil Consumption (SFOC)

RVUN's Submission

4.34 The actual SFOC submitted by RVUN for its stations for FY 2019-20 is as shown in table below:

Table 22: SFOC as submitted by RVUN (ml/kWh)

Particulars	FY 2019-20		
	KTPS (Units1-7)	KTPS (Units1-7)	KTPS (Units1-7)
Normative	0.50	0.50	0.50
Actual as claimed	0.77	0.92	0.22

Commission's Analysis

- 4.35 The Commission has allowed SFOC for all generating stations for FY 2019-20 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 23: SFOC approved by the Commission (ml/kWh)

Particulars	FY 2019-20		
	KTPS (Units 1-7)	STPS (Units 1-6)	CTPP (Units 1&2)
Actual as claimed	0.77	0.92	0.22
Approved on true up	0.50	0.50	0.50

Coal Transit Loss

Commission's Analysis

- 4.36 RVUN has not submitted the Coal Transit Loss separately in percentage terms as specified by RERC Tariff Regulations, 2019. The Commission has computed the transit Loss in percentage terms from the actual coal cost data submitted by RVUN.
- 4.37 The Commission, therefore, for the purpose of truing up, has considered the normative transit loss of 0.80% for domestic coal for FY 2019-20 as specified in RERC Tariff Regulations, 2019. The transit loss approved by the Commission for FY 2019-20 is as shown in the table below:

Table 24: Transit loss approved by the Commission

Particulars	FY 2019-20	
	KTPS (Units 1-7)	STPS (Units 1-6)
Actual as claimed	0.73%	0.55%
Approved on true up	0.80%	0.80%

Fuel Price and Calorific Value

RVUN's Submission

- 4.38 The actual fuel prices and GCV as submitted by RVUN for FY 2019-20 are shown in the table below:

Table 25: Actual fuel prices and GCV for FY 2019-20 as submitted by RVUN

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV (kcal/kg / kcal/SCM)	Price (Rs./MT / Rs./SCM)	GCV (kcal/lt)	Price (Rs./kL)
KTPS(Units 1-7)	3499.11	4114.53	10005.62	42091.51
STPS(Units 1-6)	3802.09	5569.21	9439.26	46428.31
CTPP (Units 1-4)	4328.65	4569.63	9965.79	43166.10
RGTPS (270.50 MW)	5358.55	7.38	9300.00	42992.58
DCCPP	9135.56	133.83	0.00	0.00

4.39 RVUN also submitted the month-wise details of the fuel prices and GCV for its stations for FY 2019-20.

Commission's Analysis

4.40 The Commission observes that RVUN has not burnt/consumed any imported coal for power generation in FY 2019-20. The Commission has considered the actual 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 2019-20 for the computations of energy charges for FY 2019-20.

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

4.42 The Commission observes that it is the responsibility of RVUN to ensure that the landed price of coal being paid to coal supplier is strictly in accordance with the agreement. As the coal is being supplied under CMDA approved by the State Government, the Commission has considered the actual landed fuel prices and GCV as submitted by RVUN for the computations of energy charges for FY 2019-20 for CTPP and the Commission has not specifically dealt with the issue of landed price of coal including transit loss.

4.43 The fuel prices and GCV considered by the Commission in the true up for FY 2019-20 are as shown in the table below:

Table 26: Fuel prices and GCV considered by the Commission for FY 2019-20

Station	Primary Fuel (Coal/Gas)		Fuel Oil	
	GCV (kcal/kg / kcal/SCM)	Price (Rs./MT / Rs./SCM)	GCV (kcal/lt)	Price (Rs./kl)
KTPS(Units 1-7)	3499.11	4117.45	10005.62	42091.51
STPS(Units 1-6)	3802.09	5583.39	9439.26	46428.31
CTPP (Units 1-4)	4328.65	4569.63	9965.79	43166.10
RGTPS (270.50 MW)	5358.55	7.38	9300.00	42992.58
DCCPP	9135.56	133.83	0.00	0.00

Other Charges

RVUN's Submission

4.44 In addition to fuel cost, RVUN has claimed other charges under the heads of fuel related cost.

Commission's Analysis

4.45 The amount claimed by RVUN under other charges are towards the expenses related to fuel handling charges within the power station like coal handling contract charges, demurrage on coal wagons, payment to railway staff etc.

- 4.46 The Commission is of the view that the cost related to arrangement of fuel can only be considered as part of fuel cost to work out the variable charges. The Commission observes that the other charges claimed by RVUN are related to fuel and hence the Commission has considered the fuel related costs as claimed by RVUN while approving the variable charges.
- 4.47 The other charges approved by the Commission for FY 2019-20 are as shown in the table below:

Table 27: Other charges approved by the Commission (Rs. Crore)

Station	FY 2019-20	
	Claimed	Approved
KTPS (Units 1-7)	22.23	22.23
STPS (Units 1-6)	7.25	7.25
CTPP (Units 1-4)	-4.46	-4.46
RGTPS (270.50 MW)	0.00	0.00
DCCPP	0.00	0.00
Total	25.01	25.01

Annual Fixed Charges

- 4.48 The Annual Fixed Charges comprise of the following elements:
- i. Operation and Maintenance (O&M) expenses
 - ii. Depreciation
 - iii. Interest and Finance Charges on Term Loans
 - iv. Interest on Transitional Loans
 - v. Interest on Working Capital
 - vi. Lease Charges
 - vii. Return on Equity
 - viii. Insurance Charges
 - ix. Less: Non-Tariff Income

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

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

4.50 RVUN claimed the normative O&M expenses for FY 2019-20 as approved by the Commission. The details of O&M expenses approved in the tariff order for FY 2019-20, and claimed for true up are as shown in the table below:

Table 28: O&M expenses claimed by RVUN (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Actual	Claimed for true up
KTPS (Units 1-7)	250.48	256.76	250.48
STPS (Units 1-6)	303.00	211.00	303.00
CTPP (Units 1-4)	202.00	177.40	202.00
RGTPS (270.5 MW)	44.53	33.77	44.53
DCCPP	49.96	21.95	49.96
Mahi	17.43	25.38	17.43
Total	867.41	726.26	867.41

Commission's Analysis

4.51 The Commission in the Tariff Order for FY 2019-20 had approved the O&M expenses considering the normative O&M expenses specified in the RERC Tariff Regulations, 2019.

4.52 As against the approved O&M expenses of Rs. 867.41 Crore, RVUN has claimed the actual O&M expenses of Rs. 726.26 Crore. Thus, the actual O&M expenses claimed by RVUN are lower than the approved O&M expenses by Rs.141.15 Crore.

4.53 The Petitioner for FY 2019-20 has claimed additional capitalization pertaining to vehicles, furniture and fixtures, Office Equipment's etc. The Commission in the Para 4.67 have ruled that the cost of assets pertaining to procurement of vehicles, furniture and fixtures, Office Equipment's etc. are to be treated as O&M expenses and not capital expenses due to the nature of such small works. Hence, the Commission has considered the cost of the same as part

of actual O&M expenses for FY 2019-20.

4.54 Therefore, the actual O&M expenses considered by the Commission for FY 2019-20 are as under:

Table 29: Actual O&M expenses for FY 2019-20 considered by the Commission (Rs. Crore)

Station	Actual as claimed by RVUN	Cost of minor assets	Total actual O&M expenses considered by the Commission
KTPS (Units 1-7)	256.76	0.57	257.34
STPS (Units 1-6)	211.00	0.67	211.67
CTPP (Units 1-4)	177.40	0.67	178.07
RGTPS (270.5 MW)	33.77	0.15	33.92
DCCPP	21.95	0.08	22.04
Mahi	25.38	0.08	25.46
Total	726.26	2.22	728.48

4.55 The Commission hereby approves the O&M expenses as approved in the Tariff Order for FY 2019-20, in the true up of FY 2019-20. Thus, there is a savings of Rs. 138.93 Crore for the Petitioner with respect to the actual O&M expense considered. The Commission directs the Petitioner to deposit this amount of Rs. 138.93 Crore to the Pension Fund. Further, the Commission also directs the Petitioner to submit the supporting documents against it in the upcoming true-up Petition. The O&M expense approved by the Commission is as shown in the table below:

Table 30: O&M expenses approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS (Units 1-7)	250.48	250.48	250.48
STPS (Units 1-6)	303.00	303.00	303.00
CTPP (Units 1-4)	202.00	202.00	202.00
RGTPS (270.5 MW)	44.53	44.53	44.53
DCCPP	49.96	49.96	49.96
Mahi	17.43	17.43	17.43
Total	867.41	867.41	867.41

Additional Capitalization
RVUN's Submission

4.56 RVUN has claimed the additional capitalization of Rs. 9.48 Crore for true up for FY 2019-20 as shown in the table below:

Table 31: Additional capitalization claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS (Units 1-7)	0.00	0.57
STPS (Units 1-6)	0.00	1.11
CTPP (Units 1&2)	0.00	0.06
CTPP (Units 3&4)	0.00	7.43
RGTPS (110.5 MW)	0.00	0.00
RGTPS (160 MW)	0.00	0.15
DCCPP	0.00	0.08
Mahi	0.00	0.08
Total	0.00	9.48

4.57 RVUN claimed the additional capitalization of Rs. 0.57 Crore for KTPS (Units 1-6) for FY 2019-20 citing Regulation 17(5)(e) of RERC Tariff Regulations, 2019. The details of the additional capitalization are as follows:

- i. Rs. 0.11 Crore towards plants and machinery.
- ii. Rs. 0.18 Crore towards purchase of furniture and fixtures.
- iii. Rs. 0.28 Crore towards purchase of office equipment's.

4.58 RVUN submitted that for STPS (Units 1-5), it has incurred the additional capitalization of Rs. 1.11 Crore for the following:

- i. Rs. 0.44 Crore towards building and Civil Works of Power plant;
- ii. Rs. 0.39 Crore towards purchase of Vehicles;
- iii. Rs. 0.07 Crore towards purchase of furniture and fixtures;
- iv. Rs. 0.20 Crore towards purchase of office equipment's.

The additional capitalization has been claimed as per Regulation 17(5)(e) of

RERC Tariff Regulation 2019, as it is inevitable for smooth functioning of plant and was not covered under original scope of work, so RVUN requested the Commission to approve the above additional capitalization.

4.59 RVUN submitted that it has incurred the additional capitalization of Rs. 0.08 Crore in FY 2019-20 for DCCPP on account of office equipment's. The additional capitalization has been claimed as per Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. RVUN requested the Commission to approve the same.

4.60 RVUN claimed the additional capitalization of Rs. 0.15 Crore for RGTPS (160 MW) for FY 2019-20 citing Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. The details of the additional capitalization are as follows:

- i. Rs. 0.14 Crore towards purchase of office equipment's;
- ii. Rs. 0.01 Crore towards purchase of furniture and fixtures.

4.61 RVUN claimed the additional capitalization of Rs. 7.49 Crore for CTPP Units 1-4 for FY 2019-20 citing Regulation 17(4) of the RERC Tariff Regulations, 2019. The details of the additional capitalization are as follows:

- i. Rs. 0.33 Crore under the head of the Building and Civil works of power plant;
- ii. Rs. 0.14 Crore under the head of the hydraulic works;
- iii. Rs. 0.05 Crore under the head of other civil works;
- iv. Rs. 4.65 Crore under the head of plant & machinery;
- v. Rs. 0.05 Crore under the head of Lines and Cable Networks;
- vi. Rs. 0.08 Crore under the head of furniture & fixture;
- vii. Rs. 0.53 Crore under the head of office equipment's;
- viii. Rs. 1.60 Crore under the head of Capital spares; and
- ix. Rs. 0.06 Crore under the head of Vehicles.

4.62 RVUN claimed the additional capitalization of Rs. 0.02 Crore and Rs. 0.06

Crore towards furniture and fixtures and Office Equipment's respectively for Mahi for FY 2019-20 citing Regulation 17(5)(e) of the RERC Tariff Regulations, 2019.

Commission's Analysis

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

"17. Additional capitalization

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

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

(b) On works deferred for execution;

(c) Liabilities to meet award of arbitration or for compliance of direction or order of any statutory authority or satisfaction of order or decree of any court of law;

(d) On account of change in law or compliance of any existing law within cut-off date;;

(e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 16(8).

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

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

Provided also that the Generating Company or the transmission Licensee, as the case may be, shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a

future date and the works deferred for execution giving reasons therefor.

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

(b) Change in law;

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date; and

(e) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

.....”

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

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

4.66 RVUN has also sought the capitalization of cost of assets pertaining to procurement of vehicles, office equipment and furniture and fixtures in FY 2019-20 which are minor in nature, as shown in the table below:

Table 32: Cost of minor assets claimed by RVUN (Rs. Crore)

Station	Particulars	FY 2019-20
KTPS (Units 1-6)	Vehicles	0.11
	Furniture	0.18
	Office equipment	0.28
Total KTPS		0.57
STPS (Units 1-5)	Vehicles	0.39
	Furniture	0.07
	Office equipment	0.20
Total STPS		0.67
DCCPP	Office equipment	0.08
CTPP (Units 1&2)	Vehicles	0.06
CTPP (Units 3&4)	Furniture & Fixtures	0.08
	Office Equipment's	0.53
Total CTPP (Units 1-4)		0.67
RGTPS (160 MW)	Furniture & Fixtures	0.01
	Office Equipment's	0.14
Total RGTPS (160 MW)		0.15
Mahi	Furniture & Fixtures	0.02
	Office Equipment's	0.06
Total Mahi		0.08

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 2019-20, the Commission has adopted the same approach as was adopted during the true-up of FY 2018-19. Accordingly, the Commission has not approved the cost incurred towards the minor assets, as additional capitalization for FY 2019-20.

4.68 Regarding additional capitalization claimed towards STPS (Units 1-5) and CTPP(Units 3-4), the Commission is of the view that in accordance with the Regulation 2(15) of the RERC Tariff Regulations, 2019, the cut-off date of these stations have already been over. Hence, the Commission has not approved the additional capitalization claimed by RVUN for STPS (Units 1-5) and CTPP (Units 3-4).

4.69 In light of the above, the additional capitalization approved by the

Commission for FY 2019-20 is as shown in the table below:

Table 33: Additional capitalization approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS (Units 1-7)	0.00	0.57	0.00
STPS (Units 1-6)	0.00	1.11	0.00
CTPP (Units 1&2)	0.00	0.06	0.00
CTPP (Units 3&4)	0.00	7.43	0.00
RGTPS (110.5 MW)	0.00	0.00	0.00
RGTPS (160 MW)	0.00	0.15	0.00
DCCPP	0.00	0.08	0.00
Mahi	0.00	0.08	0.00
Total	0.00	9.48	0.00

Gross Fixed Asset (GFA)
Commission's Analysis

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

Table 34: GFA base for KTPS (Units 1-6), STPS (Units 1-5), RGTPS (110.50 MW) and Mahi (Rs. Crore)

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

4.71 The opening GFA for FY 2019-20 considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP (Units 1&2), CTPP (Units 3-4), RGTPS (160 MW) and DCCPP is as shown in the table below:

Table 35: Opening GFA for FY 2019-20 (Rs. Crore)

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-2)	CTPP (Units 3-4)	RGTPP (160 MW)	DCCPP
Land & Land Rights	0.00	0.00	12.73	0.00	0.00	2.86
Building & Civil Works of Power Plants	126.19	209.48	257.85	315.51	64.04	39.11
Hydraulic Works	10.98	15.73	20.84	135.41	31.24	14.96
Other Civil Works	4.70	7.10	88.55	83.58	0.10	2.86
Plant & Machinery	705.38	768.70	2005.79	2226.50	711.13	1011.09
Lines & Cable Network	0.00	0.45	28.97	38.36	0.00	2.45
Vehicles	0.00	0.00	0.12	0.00	0.00	0.12
Furniture & Fixtures	0.04	0.10	0.72	1.41	0.00	0.80
Office Equipment	-3.19	4.63	6.84	0.02	0.00	0.12
Capital Spares	7.76	20.60	37.66	52.11	0.00	40.61
Total	851.86	1026.79	2460.06	2852.90	806.52	1115.00

4.72 Since, the Commission has not considered any additional capitalization for FY 2019-20, the closing GFA for FY 2019-20 will remain same as opening GFA for FY 2019-20 for KTPS Unit 7, STPS Unit 6, CTPP (Units 1&2), CTPP (Units 3-4), RGTPP (160 MW) and DCCPP, i.e., as per the aforesaid table.

Depreciation

RVUN's Submission

4.73 The details of depreciation approved in the tariff Order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

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

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS (Units 1-7)	72.72	72.77
STPS (Units 1-6)	164.17	164.24
CTPP (Units 1-4)	265.52	265.69
RGTPS (270.50 MW)	42.58	42.59
DCCPP	57.92	57.92
Mahi	4.42	4.42
Total	607.33	607.63

4.74 RVUN submitted that the variation in depreciation for KTPS, STPS, CTPP Units 1-4, RGTPP 270.50 MW in FY 2019-20 is due to additional capitalization claimed for FY 2019-20.

Commission's Analysis

4.75 The Commission in this order has approved the depreciation of KTPS (Unit 1-6), STPS (Unit 1-5), RGTPS 110.50 MW, DCCPP and Mahi Hydel Power for FY 2019-20 by adopting the provisions of the RERC Tariff Regulations, 2019. The Commission has computed the depreciation in the following manner:

- i. Considered Accumulated Depreciation till FY 2018-19 by adding year wise depreciation allowed in Tariff orders/True up orders from FY 2009-10 to FY 2018-19 to the accumulated depreciation till FY 2009-10.
- ii. Depreciation @5.28% if the Station/Stage/Unit has not completed 12 years life from the date of commissioning.
- iii. If the Station/Stage/Unit has completed 12 years life, depreciation computed by spreading remaining depreciation to be charged over the balance useful life of the asset.

4.76 For KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4) and RGTPS (160 MW), the Commission has approved the depreciation for FY 2019-20 considering the closing GFA approved in true up for FY 2018-19 as the opening GFA for FY 2019-20.

4.77 The Commission has not considered any additional capitalization for FY 2019-20 while approving the depreciation for FY 2019-20.

Table 37: Depreciation approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	72.72	72.77	72.75
STPS(Units 1-6)	164.17	164.24	164.22
CTPP(Units 1-4)	265.52	265.69	265.49
RGTPS (270.50 MW)	42.58	42.59	42.58
DCCPP	57.92	57.92	57.92
Mahi	4.42	4.42	4.42
Total	607.33	607.63	607.38

Interest and Finance Charges on Term Loans**RVUN's Submission**

4.78 The details of interest and finance charges as approved in the tariff order of FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 38: Interest and finance charges claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	27.83	29.21
STPS(Units 1-6)	38.65	39.94
CTPP(Units 1-4)	265.51	274.43
RGTPS (270.5 MW)	44.95	46.37
DCCPP	6.39	6.35
Mahi	0.00	0.00
Total	383.33	396.30

*Claimed value of Rs. 274.43 Crore includes cost towards carrying cost also, i.e., Rs. 3.98 Crore

4.79 RVUN submitted that the variation in interest and finance charge for KTPS, STPS, CTPP Unit (1-4) is due to variation in interest rate, additional capitalization during FY 2019-20 and actual finance charges.

4.80 RVUN submitted that the variation in interest and finance charge for DCCPP, RGTPP 270.50 MW is due to variation in interest rate.

4.81 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 39: Carrying cost of allowed expenditure on reconstruction of road claimed by Petitioner (Rs. Crore)

Parameters	FY 2019-20
Opening balance	40.14
Amount considered for recovery	7.96
Closing Balance	32.18
Average Balance	36.16
Rate of interest as on term loan	11.01%
Interest Amount	3.98

Commission's Analysis

4.82 It may be noted that the interest expenses would change from the approved figures only due to change in loan balances and due to interest rate variation. The Commission has computed the interest on term loans considering the closing loan balance for the respective stations approved in the true up for FY 2018-19 as the opening balance for FY 2019-20 and rate of interest in accordance with the RERC Tariff Regulations, 2019. The Commission has not considered any addition in debt component, since no additional capitalization has been approved during the year. The Commission has considered the normative repayment as equivalent to the approved depreciation.

4.83 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".

- 4.84 Accordingly, the Commission allows the carrying cost for FY 2019-20 on recovery of allowed expenditure for reconstruction of road as claimed by Petitioner.
- 4.85 However, the same has been considered separately while computing revenue gap/surplus.
- 4.86 The Commission has considered the finance charge for each station as deducting the lease rent approved by the Commission.
- 4.87 The Commission observed that the interest rates for FY 2019-20 are higher than the interest rates approved for FY 2018-19 and FY 2017-18 in the true-up Orders dated 11.09.2020 and 05.08.2019 against Petition No. 1590/19 and 1441/18 respectively, though the declining trend is observed in interest rates including base rates in the country.
- 4.88 The Commission, therefore, directs RVUN to form a committee headed by Director (Finance) and other experts to optimise the interest costs. The Committee in its study explore the options for restructuring of loans for reduction in interest rate against term loans. While studying the matter Committee shall verify and confirm in its report that no penal/ late payment interest have been claimed/ included while arriving at interest rate. The

Petitioner shall submit the detailed report on it within 2 months from the date of this Order to the Commission along with the supporting documents.

4.89 The Commission for the purpose of this Order has considered the interest rate as claimed by the Petitioner. The loan balance considered by the Commission for FY 2019-20 is as shown in the table below:

Table 40: Interest and finance charges on term loans approved by the Commission for FY 2019-20 (Rs. Crore)

Particulars	KTPS (Units 1-6)	KTPS Unit 7	Total KTPS	STPS (Units 1-5)	STPS Unit 6	Total STPS
Op. balance	0.00	278.71	278.71	0.00	358.56	358.56
Addition	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	0.00	42.41	42.41	0.00	50.06	50.06
Closing balance	0.00	236.31	236.31	0.00	308.50	308.50
Interest rate			11.14%			11.82%
Interest			28.68			39.43
Finance charges			0.54			0.53
Interest and finance charges			29.22			39.96

Particulars	CTPP (Units 1&2)	CTPP (Units 3&4)	RGTPS (110.50 MW)	RGTPS (160 MW)	DCCPP	Mahi
Op. balance	972.78	1606.83	0.00	434.19	87.67	0.00
Addition	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	122.58	142.91	0.00	41.34	57.92	0.00
Closing balance	850.20	1463.92	0.00	392.85	29.75	0.00
Interest rate	11.01%	11.01%	11.06%	11.06%	10.75%	0.00%
Interest	100.35	169.04	0.00	45.73	6.31	0.00
Finance charges	0.01	0.77	0.00	0.66	0.03	0.00
Interest and finance charges	100.36	169.81	0.00	46.39	6.35	0.00

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

Table 41: Interest and finance charges on term loans approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	27.83	29.21	29.22
STPS(Units 1-6)	38.65	39.94	39.96
CTPP(Units 1-4)	265.51	274.43	270.17
RGTPS (270.5 MW)	44.95	46.37	46.39
DCCPP	6.39	6.35	6.35
Mahi	0.00	0.00	0.00
Total	383.33	396.30	392.09

Interest on Transitional Loans**RVUN's Submission**

4.91 The details of interest on transitional loans approved in the tariff order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 42: Interest on transitional loans claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
STPS(Units 1-5)	4.38	4.41
DCCPP	2.10	2.10
Total	6.48	6.51

Commission's Analysis

4.92 The Commission has already settled the issue of transitional loans earlier vide its review order dated 21.01.2010 in Petition No. 206/09 as below:

"15. The Commission has already held that the transition loan taken in the past as bridge loan is to be discharged from the excess depreciation in subsequent years. In view of this the Commission in its order dated 31.8.2009 has already recognized the need to allow interest liability on the existing transitional loans at para 2.8.4 of the order. In its MYT petition for the period 2009-10 to 2013-14, RVUN projected interest on transitional loans considering availing fresh transitional loans to meet out the repayment liability of transitional loans. Since the RERC(Tariff) Regulations

2009 does not provide for allowing Advance Against Depreciation or transitional loans, RVUN is however entitled to the interest on balance transitional loans only recognized by the Commission as at the end of the year 2008-09.

16. In case of transitional loans Commission allowed interest on actual existing loans considering the repayments as projected by RVUN. As the repayments projected by RVUN were more than the depreciation net of repayment of term loan, this put RVUN in a disadvantageous position more so when fresh loan to meet out this gap was also not allowed. Commission is in agreement with the petitioner that interest on balance transitional loan not met by surplus depreciation after meeting out the repayment liabilities of term loans is allowable as per earlier order of the Commission in the year 2008-09 and hence the necessity has arisen for reassessment of interest liability on transition loan and is being considered through this review petition".

4.93 In line with the approach adopted by the Commission in the true up for FY 2018-19, the Commission has approved the interest on transitional loans for FY 2019-20 as considered in order dated 21.01.2010. The details of opening and closing balances of transitional loan for FY 2019-20 are as shown in the table below:

Table 43: Transitional loan approved by the Commission for FY 2019-20 (Rs. Crore)

Particulars	STPS(Units 1-5)	DCCPP
Opening balance	89.13	21.20
Depreciation	114.15	57.92
Term Loan repayment	0.00	57.92
Available balance to make repayment of transitional loan	114.15	0.00
Closing balance	0.00	21.20
Rate of Interest	9.895%	9.895%
Interest	4.41	2.10

4.94 The interest on Transitional Loans approved by the Commission is as shown in the table below:

Table 44: Interest on transitional loan approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
STPS(Units 1-5)	4.38	4.41	4.41
DCCPP	2.10	2.10	2.10
Total	6.48	6.51	6.51

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

4.95 The details of loWC approved in the tariff order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 45: Interest on working capital claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	86.33	94.52
STPS(Units 1-6)	121.04	136.31
CTPP(Units 1-4)	64.26	73.87
RGTPS (270.5 MW)	13.10	13.40
DCCPP	26.32	28.65
Mahi	1.17	1.24
Total	312.22	347.99

4.96 RVUN submitted that the variation in interest on working capital is due to higher variable charges than that approved in the tariff order.

Commission's Analysis

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

“(2) Rate of interest on working capital to be computed shall be on normative basis and shall be 300 basis points higher than the average Base Rate of State Bank of India prevalent during first six month of the year

previous to the relevant year. The working capital and interest thereon shall be computed on normative basis notwithstanding that the Generating Company or Licensee has not taken working capital loan from any outside agency.

(3) The variation in the interest amount on account of actual vis-à-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the Generating Company/Licensee/SLDC and the beneficiary."

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

Table 46: 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 2019-20	01-04-2018	31-05-2018	61	8.15%	3.00%	11.25%
	01-06-2018	31-08-2018	92	8.25%		
	01-09-2018	30-09-2018	30	8.45%		

4.99 Further, as loWC on account of interest rate is a controllable factor, the Commission has computed the sharing of gains/losses in accordance with Regulation 27(3) of 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 11.25%.

4.101 RVUN has submitted the actual weighted average rate of interest as 11.31% on working capital loans. The loWC approved by the Commission for FY 2019-20 considering actual weighted average rate of interest as 11.31% on working capital loans is as shown in the table below:

Table 47: Approved IoWC by the Commission for FY 2019-20 (Rs. Crore)

Station	IoWC at normative rate of IoWC	IoWC at actual rate of IoWC	(Gain)/Loss	Sharing of (Gain)/Loss
	A (approved)	B	C=B-A	D=50%*C
KTPS(Units 1-7)	91.13	91.62	0.49	0.25
STPS(Units 1-6)	130.97	131.67	0.70	0.35
CTPP(Units 1-4)	70.07	70.45	0.38	0.19
RGTPS(270.5 MW)	12.73	12.80	0.07	0.03
DCCPP	3.86	3.88	0.02	0.01
Mahi	0.77	0.78	0.00	0.00
Total	309.55	311.21	1.67	0.83

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

4.102 RVUN submitted the actual insurance on fixed assets along with supporting documents as against that approved in Tariff Order for FY 2019-20 as follows:

Table 48: Insurance on fixed assets claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	3.71	6.13
STPS(Units 1-6)	6.27	7.31
CTPP(Units 1-4)	4.25	6.41
RGTPS (270.5 MW)	1.02	1.36
DCCPP	1.04	1.41
Mahi	0.00	0.00
Total	16.29	22.62

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 station wise reconciliation statement of the actual insurance charges as per the audited accounts. RVUN in its replies to the data gaps submitted the same. The

Commission found it to be prudent and accordingly, approves the actual insurance charges on fixed assets for FY 2019-20 as shown in the table below:

Table 49: Approved insurance on fixed assets by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	3.71	6.13	6.13
STPS(Units 1-6)	6.27	7.31	7.31
CTPP(Units 1-4)	4.25	6.41	6.41
RGTPS (270.5 MW)	1.02	1.36	1.36
DCCPP	1.04	1.41	1.41
Mahi	0.00	0.00	0.00
Total	16.29	22.62	22.62

Return on Equity (RoE)
RVUN's Submission

4.105 The details of RoE approved in the tariff order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 50: RoE claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	75.69	76.12
STPS(Units 1-6)	176.40	176.44
CTPP(Units 1-4)	160.06	160.17
RGTPS (270.5 MW)	42.31	42.31
DCCPP	52.05	52.05
Mahi	25.56	25.56
Total	532.07	532.66

4.106 RVUN submitted that the variation in RoE is due to additional capitalization claimed during the year.

Commission's Analysis

4.107 The Commission has considered the closing equity balance approved for FY 2018-19 on truing up, as the opening equity balance for FY 2019-20. Further, the Commission has not considered any equity addition for FY 2019-20, since, no additional capitalization has been approved for FY 2019-20.

4.108 Rate of RoE for FY 2019-20 has been considered as 0.00%, i.e., in accordance with the letter dated 17.09.2021, issued by Energy Department, GOR on Return on Equity for RVUNL. The relevant part of it is as below:

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

Table 51: Equity base approved for FY 2019-20 (Rs. Crore)

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

Particulars	RGTPS (110.5 MW)	RGTPS (160 MW)	DCCPP	Mahi
Opening Equity	120.11	161.96	347.00	170.38
Addition	0.00	0.00	0.00	0.00
Closing Equity	120.11	161.96	347.00	170.38

4.109 Accordingly, the Commission, has not approved RoE while carrying out true up of FY 2019-20 as the Energy Department, GOR have decided to withdraw RoE charge for FY 2019-20, which is as shown in the table below:

Table 52: RoE approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	75.69	76.12	0.00
STPS(Units 1-6)	176.40	176.44	0.00
CTPP(Units 1-4)	160.06	160.17	0.00
RGTPS (270.5 MW)	42.31	42.31	0.00
DCCPP	52.05	52.05	0.00
Mahi	25.56	25.56	0.00
Total	532.07	532.66	0.00

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

4.110 The details of plant-wise non-tariff income approved in the tariff order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 53: Non-tariff income claimed by RVUN (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	17.29	12.59
STPS(Units 1-6)	13.47	2.84
CTPP(Units 1-4)	15.93	7.93
RGTPS (270.5 MW)	2.36	3.40
DCCPP	2.91	0.17
Mahi	1.21	0.12
Total	53.17	27.06

Commission's Analysis

4.111 The Commission has considered the non-tariff income as per the petition, based on actual/audited accounts in true up for FY 2019-20 as under:

Table 54: Non-tariff income approved by the Commission (Rs. Crore)

Station	FY 2019-20		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
KTPS(Units 1-7)	17.29	12.59	12.59
STPS(Units 1-6)	13.47	2.84	2.84
CTPP(Units 1-4)	15.93	7.93	7.93
RGTPS (270.5 MW)	2.36	3.40	3.40
DCCPP	2.91	0.17	0.17
Mahi	1.21	0.12	0.12
Total	53.17	27.06	27.06

Additional Terminal Benefit **RVUN's Submission**

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

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

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

Table 55: Terminal Benefit claimed by the Petitioner (Rs. Crore)

Station	FY 2019-20	
	Approved in the Tariff Order	Claimed for true up
KTPS(Units 1-7)	31.10	51.07
STPS(Units 1-6)	37.63	42.26
CTPP(Units 1-4)	25.08	22.75
RGTPS (270.5 MW)	6.79	7.96
DCCPP	8.28	4.33
Mahi	3.51	6.76
Total	112.39	135.14

Commission's Analysis

4.114 It is observed that Petitioner is claiming the terminal benefits, which is part of normal O&M. The Petitioner has not submitted supporting documents demonstrating that any extra amount over and above the routine terminal liabilities has been deposited in the designated fund. The terminal liabilities which are routine has to be deposited through normative O&M and extra amount deposited based on actuarial valuation shall be reimbursed as extra amount. Since, the amount deposited is not as per actuarial valuation, the Commission, therefore, does not allow the same for FY 2019-20.

Lease Rentals

RVUN's Submission

4.115 The details of plant-wise lease charges approved in the tariff order for FY 2019-20 and petitioned for true up based on actual/audited accounts are as shown in the table below:

Table 56: Lease Rentals claimed by RVUN (Rs. Crore)

Particulars		FY 2019-20					
		KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	RGTPS (270.5 MW)	DCCPP	Mahi
Approved in Tariff Order		0.00	0.00	0.00	0.00	0.00	0.00
Claimed	Lease Rent Expense	0.00	0.03	0.12	0.01	0.16	0.00
	Ambikapur Share	0.00	0.00	0.01	0.00	0.00	0.00
	TD Share	0.46	0.56	0.37	0.10	0.12	0.05
	Total	0.46	0.60	0.51	0.11	0.28	0.06

Commission's Analysis

4.116 The Commission vide data gaps asked RVUN to submit the reconciliation statement of Lease Rent with the audited accounts of FY 2019-20. RVUN vide replies dated 24.11.2021 submitted as below:

Table 57: Reconciliation Statement submitted vide RVUN reply dated 24.11.2021 (Rs. Crore)

Particulars	FY 2019-20						
	KTPS	STPS Sub	CTPP Sub	Dholpur	RGTPP	Mahi	Total
Lease Rent deducted from Finance Charges	0.02	0.06	0.16	0.17	0.04	0.003	0.453
Allocation of Ambikapur and TD Actual Lease rent	0.46	0.56	0.39	0.12	0.1	0.05	1.68
Total Lease Rent	0.49	0.62	0.55	0.29	0.14	0.06	2.15

4.117 RVUN vide reply to data gaps against KaTPP True up petition for FY 2014-15 to FY 2019-20, i.e., Petition No. 1880/21 dated 09.06.2021 (Annexure – L) submitted reconciliation statement of lease rent for FY 2019-20 as below:

Table 58: Reconciliation Statement submitted vide RVUN reply dated 09.06.2021 in Petition No. 1880/21 (Rs. Crore)

Particulars	FY 2019-20						
	KTPS	STPS Sub	CTPP Sub	Dholpur	RGTPP	Mahi	Total
Lease Rent	0	0.03	0.12	0.15	0.012	0.002	0.314
Ambikapur Share	0	0	0.01	0	0	0	0.01
TD Share	0.46	0.56	0.37	0.123	0.101	0.05	1.664
Total of Ambikapur Share and TD Share	0.46	0.56	0.38	0.12	0.1	0.05	1.67
Total Lease Rent	0.46	0.59	0.5	0.27	0.11	0.05	1.98

4.118 The Commission observed that there is a variance in reconciliation statement of lease rent submitted vide instant petition and vide Petition No. 1880/21. Further, the Petitioner has not submitted the proper justification towards variation in lease rent. As the Commission has carried out the detailed analysis of lease rent submitted vide Petition No. 1880/21, the Commission has considered the same while approving the true up of RVUN for FY 2019-20. Also, the Commission does not find it prudent to consider lease rent expense towards Ambikapur Share and TD Share. The lease rent approved by the Commission is as shown in the table below:

Table 59: Lease Rent Approved by the Commission

Particulars	FY 2019-20 (Rs. Crore)					
	KTPS(Units 1-7)	STPS(Units 1-6)	CTPP(Units 1-4)	RGTPS (270.5 MW)	DCCPP	Mahi
Approved on True-up	0.00	0.03	0.12	0.01	0.15	0.00

Adjustment of excess depreciation
Commission's Analysis

4.119 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."

4.120 The Commission at the time of tariff determination for FY 2019-20 had only carried out the true-up up to FY 2017-18 only. Subsequently, the Commission had carried out the true up for FY 2018-19 wherein, the Commission had approved the additional capitalization for the respective years. Therefore, the adjustment of excess depreciation as determined in the Tariff order for FY 2019-20 need to be reworked considering the revised loan balances for FY 2018-19. Accordingly, the adjustment of advance against depreciation reworked for FY 2019-20 is as shown in the table below:

Table 60: Adjustment of Advance Against Depreciation (Rs. Crore)

Particulars	KTPS(Units 1-6)	STPS(Units 1-5)	RGTPS (110.5 MW)	DCCPP
AAD allowed till FY 2008-09 and after adjustment in FY 2009-10, FY 2013-14, FY 2016-17, FY 2017-18 and FY 2018-19	198.14	455.14	12.48	7.00
Outstanding transitional loan	0.00	89.13	0.00	21.20
Depreciation for the year	30.35	114.15	1.24	57.92
Repayment of LT loan	0.00	0.00	0.00	57.92
Balance Depreciation available for repayment of transitional loan	30.35	114.15	1.24	0.00
Repayment of transitional Loan	0.00	89.13	0.00	0.00
Excess depreciation to be deducted from AFC of FY 2019-20	30.35	25.02	1.24	0.00
Balance AAD to be adjusted in subsequent years	167.79	430.12	11.25	7.00

Annual Fixed Charges

4.121 The actual availability of some of the stations of RVUN has been lower than the normative availability approved by the Commission in this Order. For such stations, the Commission has reduced the recovery of Annual Fixed Charge on pro-rata basis. The approved Annual Fixed Charges and Annual Fixed charges reduced by the Commission are as shown in table below:

Table 61: Approved AFC for FY 2019-20 (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	250.48	250.48	250.48	303.00	303.00	303.00	202.00	202.00	202.00
Depreciation	72.72	72.77	72.75	164.17	164.24	164.22	265.52	265.69	265.49
Interest on term loans & finance charges	27.83	29.21	29.22	38.65	39.94	39.96	265.51	274.43	270.17
Interest on transitional loan	0.00	0.00	0.00	4.38	4.41	4.41	0.00	0.00	0.00
Interest on working capital	86.33	94.52	91.13	121.04	136.31	130.97	64.26	73.87	70.07

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
Return on Equity	75.69	76.12	0.00	176.40	176.44	0.00	160.06	160.17	0.00
Lease Charges	0.00	0.46	0.00	0.00	0.60	0.03	0.00	0.51	0.12
Insurance on fixed assets	3.71	6.13	6.13	6.27	7.31	7.31	4.25	6.41	6.41
Terminal Benefit	31.10	51.07	0.00	37.63	42.26	0.00	25.08	22.75	0.00
Minus: Non-tariff income	17.29	12.59	12.59	13.47	2.84	2.84	15.93	7.93	7.93
Minus: Adjustment of excess depreciation	30.32	29.91	30.35	25.62	24.16	25.02	0.00	0.00	0.00
Annual Fixed Charges	500.25	538.26	406.78	812.45	847.50	622.03	970.75	997.91	806.34

Station	RGTPS(270.50 MW)			DCCPP			Mahi		
	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	44.53	44.53	44.53	49.96	49.96	49.96	17.43	17.43	17.43
Depreciation	42.58	42.59	42.58	57.92	57.92	57.92	4.42	4.42	4.42
Interest on term loans & finance charges	44.95	46.37	46.39	6.39	6.35	6.35	0.00	0.00	0.00
Interest on transitional loan	0.00	0.00	0.00	2.10	2.10	2.10	0.00	0.00	0.00
Interest on working capital	13.10	13.40	12.73	26.32	28.65	3.86	1.17	1.24	0.77
Return on Equity	42.31	42.31	0.00	52.05	52.05	0.00	25.56	25.56	0.00
Lease Charges	0.00	0.11	0.01	0.00	0.28	0.16	0.00	0.06	0.00
Insurance on fixed assets	1.02	1.36	1.36	1.04	1.41	1.41	0.00	0.00	0.00
Terminal Benefit	6.79	7.96	0.00	8.28	4.33	0.00	3.51	6.76	0.00
Minus: Non-tariff income	2.36	3.40	3.40	2.91	0.17	0.17	1.21	0.12	0.12
Minus: Adjustment of excess depreciation	1.24	1.24	1.24	0.00	0.00	0.00	0.00	0.00	0.00
Annual Fixed Charges	191.68	194.00	142.97	201.15	202.87	121.58	50.88	55.35	22.51

Station	Total RVUN		
	Approved in the Tariff Order	Claimed for true up	Approved on true up
O&M expenses	867.41	867.41	867.41
Depreciation	607.33	607.63	607.38
Interest on term loans & finance charges	383.33	396.30	392.09
Interest on transitional loan	6.48	6.51	6.51
Interest on working capital	312.22	347.99	309.55
Return on Equity	532.07	532.66	0.00
Lease Charges	0.00	2.02	0.33
Insurance on fixed assets	16.29	22.62	22.62
Terminal Benefit	112.39	135.14	0.00
Minus: Non-tariff income	53.17	27.06	27.06
Minus: Adjustment of excess depreciation	57.18	55.31	56.61
Annual Fixed Charges	2727.17	2835.89	2122.21

4.122 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 truing up of FY 2019-20.

Table 62: AFC reduced for non-achievement of target Availability

Station	AFC after true up	Actual Availability considered by the Commission	Target Availability for full recovery of fixed charges	Reduced AFC	AFC reduced
KTPS(Units 1-7)	406.78	86.13%	83.00%	406.78	0.00
STPS(Units 1-6)	622.03	90.17%	83.00%	622.03	0.00
CTPP(Units 1-4)	806.34	89.78%	83.00%	806.34	0.00
RGTPS(270.5 MW)	142.97	32.03%	70.00%	65.43	77.54
DCCPP	121.58	93.09%	70.00%	121.58	0.00
Mahi	22.51	82.99%	90.0%	20.75	1.75
Total	2122.21			2042.91	79.30

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 2019-20 considering the approved performance parameters and actual fuel prices and calorific value.

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

4.127 The energy charges computed by the Commission for FY 2019-20 are as shown in the table below:

Table 63: Energy Charges approved for FY 2019-20

Particulars	Units	KTSP (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Gross Generation	MU	6513.08		4690.33		7090.64		750.90	
Auxiliary Consumption	%	11.90%	9.65%	10.05%	9.80%	9.66%	9.80%	3.81%	2.77%
Net Generation	MU	5738.02	5890.30	4218.93	4354.77	6405.52	6522.84	722.30	739.82

Particulars	Units	KTPS (Units 1-7)		STPS (Units 1-6)		CTPP (Units 1-4)		RGTPP (270.50 MW)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Landed Price of Coal	Rs./kg	4.11	4.12	5.57	5.58	4.57	4.57	7.38	7.38
Gross Station Heat Rate	kcal/kWh	2552.67	2561.70	2471.48	2476.28	2471.30	2400.00	2339.23	2049.07
Price of Secondary fuel oil	Rs./ml	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04
Secondary fuel oil Consumption	ml/kWh	0.77	0.50	0.92	0.50	0.22	0.50	0.00	0.00
Gross Calorific Value of Secondary fuel oil	kcal/ml	10.01	10.01	9.44	9.44	9.97	9.97	9.30	9.30
Heat Contribution from Secondary fuel oil	kcal/kWh	7.65	5.00	8.71	4.72	2.21	4.98	0.04	0.03
Heat Contribution from Coal	kcal/kWh	2545.01	2556.70	2462.77	2471.56	2469.09	2395.02	2339.19	2049.03
Gross Calorific Value of coal	kcal/kg	3499.11	3499.11	3802.09	3802.09	4328.65	4328.65	5358.55	5358.55
Specific coal consumption	kg/kWh	0.73	0.73	0.65	0.65	0.57	0.55	0.44	0.38
Rate of Energy Charge	Rs./kWh	3.43	3.35	4.06	4.05	2.90	2.83	3.35	2.90
Other Charges	Rs. Crore	22.23	22.23	7.25	7.25	-4.46	-4.46	0.00	0.00
Total Energy Charges	Rs. Crore	1992.32	1997.32	1719.34	1770.74	1850.52	1839.53	241.99	214.81
	Rs./kWh	3.472	3.391	4.075	4.066	2.889	2.820	3.350	2.904

Particulars	Units	DCCPP		Total	
		Claimed	Approved	Claimed	Approved
Gross Generation	MU	0.00		19044.95	0.00
Auxiliary Consumption	%	0.00			
Net Generation	MU	0.00%	0.00%	17084.77	17507.73
Landed Price of Gas	Rs./SCM	0.00	0.00		
Gross Station Heat Rate	kcal/kWh	133.83	133.83		
Price of fuel oil	Rs./ml	0.00	0.00		
Fuel oil Consumption	ml/kWh	0.00	0.00		
Gross Calorific Value of fuel oil	kcal/ml	0.00	0.00		
Heat Contribution from fuel oil	kcal/kWh	0.00	0.00		
Heat Contribution from Gas	kcal/kWh	0.00	0.00		
Gross Calorific Value of Gas	kcal/SCM	0.00	0.00		
Specific Gas consumption	SCM/kWh	9135.56	9135.56		
Rate of Energy Charge	Rs./kWh	0.00	0.00		
Other Charges	Rs. Crore	0.00	0.00	25.01	25.01
Total Energy Charges	Rs. Crore	0.00	0.00	5804.18	5822.40
	Rs./kWh	0.00	0.00	3.397	3.326

4.128 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.

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

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

(1) ...

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

4.130 Therefore, 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. Therefore, the Commission in this order has not done the sharing of energy charges in accordance with Regulation 56(2) of the RERC Tariff Regulations, 2019.

4.131 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.”

4.132 The Commission has not allowed any incentive for RVUN stations as the Petitioner has not been able to surpass target PLF for FY 2019-20.

Revenue Side True up
RVUN's Submission

4.133 RVUN has claimed the revenue for true up of FY 2019-20 as shown in the table below:

Table 64: Actual Revenue as per Annual Accounts as submitted by the Petitioner(Rs. Crore)

Station	Revenue
KTPS(Units 1-7)	2492.46
STPS(Units 1-6)	2581.61
CTPP(Units 1-4)	2815.61
RGTPS(270.5 MW)	301.54
DCCPP	201.15
Mahi	49.67
Total	8442.03

Commission's Analysis

4.134 The Commission has considered the revenue earned from fixed charges, energy charges and Fuel Price Adjustment for carrying out the truing up of FY 2019-20.

4.135 Vide the data gaps, the Commission sought reconciliation statement of the actual revenue, as per the audited accounts for FY 2019-20. RVUN submitted the same and were found to be prudent.

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

Table 65: Annual Revenue as per annual accounts for FY 2019-20 (Rs. Crore)

Station	Fixed Charges	Energy Charges	FPA	Total
KTPS(Units 1-7)	500.25	1825.99	166.21	2492.46
STPS(Units 1-6)	812.45	1566.85	202.31	2581.61
CTPP(Units 1-4)	970.75	1555.04	289.81	2815.61
RGTPS(270.5 MW)	87.71	207.08	6.75	301.54
DCCPP	201.15	0.00	0.00	201.15
Mahi	43.12	6.55	0.00	49.67
Total	2615.43	5161.51	665.09	8442.03

Summary of True Up
RVUN's submission

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

Table 66: Summary of true up for FY 2019-20 claimed by RVUN (Rs. Crore)

Particulars	As per Tariff Order	Claimed for true up
<u>Cost side True Up</u>		
Total Fixed Cost	2727.17	2835.89
Variable cost	9355.73	5804.18
Total Expenses (A)	12082.90	8640.07
<u>Revenue Side True up</u>		
Revenue From electricity (fixed And Energy charges)	12082.90	8442.03
Total Revenue (B)	12082.90	8442.03
Total Amount Sought from Discom C=(A-B)		198.04

4.138 RVUN has claimed the net gap of Rs. 198.04 Crore on true-up for FY 2019-20.

Commission's Analysis

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

Table 67: Summary of true up approved by the Commission for FY 2019-20 (Rs. Crore)

Particulars	Approved
<u>Cost side True Up</u>	
Fixed Cost	2149.27
Variable cost	5822.40
Sharing of (gain)/loss in rate of IoWC	0.83
Add: PLF based Incentive	0.00
Add: Carrying Cost of allowed expenditure on reconstruction of road against CTPP Units 3-4	3.98
Less: Reduction in AFC due to non-achievement of Target Availability	79.30
TOTAL (A)	7897.19
<u>Revenue Side True up</u>	
Revenue From sale of electricity	8442.03
Add: PLF based Incentive	0.00
Non-tariff income	27.06
TOTAL (B)	8469.09
Revenue Gap/Surplus (C=A-B)	-571.90

4.140 Accordingly, the Commission has approved the revenue surplus of Rs. 571.90 Crore as against the revenue gap of Rs. 198.04 Crore claimed by RVUN for FY 2019-20. The Commission directs RVUN to refund the net approved revenue surplus of Rs. 571.90 Crore for the period FY 2019-20 to the Discoms in 3 instalments in next 3 billing cycles from the date of this Order, in the ratio of total energy purchased by them in FY 2019-20.

4.141 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;

....."

In this regard, RVUN is directed to submit the station wise Allocation Statement in accordance with 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 2021-22

5.1 RVUN in the instant petition has also sought approval of ARR and Tariff for FY 2021-22 for the following Generating Stations:

- i. Kota Thermal Power Station (KTPS) (Units 1-7)
- ii. Suratgarh Thermal Power Station (STPS) (Units 1-6)
- iii. Chhabra Thermal Power Station (CTPP)(Units 1-4)
- iv. Suratgarh Super Critical Thermal Power Plant (SSCTPP) (Units 7&8)
– Provisional Tariff for FY 2021-22
- v. Ramgarh Gas Thermal Power Station (RGTPS) (270.50 MW)
- vi. Dholpur Combined Cycle Gas based Thermal Power Plant (DCCPP)
- vii. Mahi Hydel Power Project (Mahi)

5.2 The Commission has considered the submissions of Petitioner, Respondent, Stakeholders, and oral arguments made on behalf of the Petitioner and Respondent regarding determination of tariff for FY 2021-22 for Dholpur Combined Cycle Power Plant (DCCPP).

5.3 The Commission vide Order dated 11.09.2020 against Petition No. 1590/2019 for determination of Tariff for DCCPP for FY 2020-21 ruled as below:

“5.5 shortage of fuel cannot be considered as a sufficient reason for not maintaining normative availability of the plant

5.6. As per the provisions of RERC Tariff Regulations, 2019, the availability of the plant is to be considered duly considering the availability of fuel. In case of DCCPP, firm fuel is not available at firm price. Also, in previous financial years availability of fuel remain inadequate because of which, DCCPP was not able to achieve the optimum level of generation. Hence, the Commission, deems it

appropriate not to determine the tariff for DCCPP at this stage in the absence of firm fuel tie-up at firm price. However, the Petitioner is directed to file a fresh petition for determination of tariff for FY 2020-21 for DCCPP, once the fuel is tied up in required quantity on firm basis and the Commission will determine the tariff considering the fuel tied up by RVUN”.

- 5.4 In compliance to the above direction, RVUN filed the revised Petition for determination of ARR and Tariff for FY 2020-21 for DCCPP. The Commission vide Order dated 22.11.2021 against Petition No. 1878/2021 for determination of Tariff for DCCPP for FY 2020-21 ruled as below:

“89. The Commission observes that the Order dated 11.09.2020 has attained finality, and the Petitioner was therefore obligated to file a fresh petition only after tying up firm source of fuel at firm price. The Petitioner has filed a Petition again with the same type of Fuel Supply Agreement which was rejected by the Commission vide its Order dated 11.09.2020 and hence the Commission is constrained to reject this Petition for determination of tariff.

90. In view of the present fuel arrangement not fulfilling the Commission's directive, the Commission has no other option than to dismiss the petition. The Commission can determine the tariff only when the Petitioner submits the Firm Fuel Supply Agreement with firm price”

- 5.5 It is observed that in the instant petition, RVUN is only rearguing the case and seeking tariff for DCCPP for FY 2021-22. The Petitioner has filed a Petition again with the same type of Fuel Supply Agreement which was rejected by the Commission vide its Order dated 11.09.2020 and 22.11.2021. In view of the present fuel arrangement not fulfilling the Commission's directive, the Commission is not considering the determination of DCCPP Tariff .

- 5.6 The Commission in this section has determined the Tariff for KTPS (Units 1-7), STPS (Units 1-6), CTPP (Units 1-4), RGTPS (270.50 MW) and Mahi Power Plant. For SSCTPP (Units 7&8), against which the final capital cost is yet to be approved, the provisional tariff has been determined in the next section of this Order.

5.7 The Annual Fixed Charges comprises of the following elements:

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

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

Operation and Maintenance Expenses

RVUN's Submission

5.9 RVUN submitted that the Operation & Maintenance Expenses for FY 2021-22 have been computed on the basis of norms prescribed under Regulation 47 of RERC Tariff Regulations, 2019.

Commission's Analysis

5.10 The Commission has verified RVUN's computations of normative O&M expenses and found it to be in order as per the provisions of RERC Tariff Regulations, 2019 and accordingly, the same has been approved.

5.11 The O&M expenses as approved by the Commission for FY 2021-22 are as shown in the table below:

Table 68: O&M expenses approved by the Commission (Rs. Crore)

Station	FY 2021-22	
	Claimed	Approved
KTPS (Units 1-7)	268.37	268.37
STPS (Units 1-6)	324.64	324.64

Station	FY 2021-22	
	Claimed	Approved
CTPP (Units 1-4)	216.43	216.43
RGTPS (270.50 MW)	47.72	47.72
Mahi	18.68	18.68
Total	875.84	875.84

Depreciation

RVUN's Submission

- 5.12 RVUN submitted that, for computation of depreciation, it has considered the capital cost of KTPS (Units 1-6) as Rs. 1287.01 Crore for FY 2019-20 as per the RERC order dated 11.09.2020. Similarly, as per the aforesaid true-up order of FY 2018-19, the approved cost of capital for KTPS Unit 7 as on 01.04.2019 is considered as Rs. 851.86 Core. Further, in FY 2019-20, RVUN has booked an additional capitalization of Rs. 0.11 Crore under head of vehicle, Rs. 0.18 Crore under head of furniture and fixtures and Rs. 0.28 Crore towards office equipment's for KTPS (Units 1-6), i.e., in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations had also been considered.
- 5.13 For STPS (Units 1-5) and Unit 6, RVUN has considered the approved capital cost as on 01.04.2019, i.e., Rs. 4234.63 Crore and Rs. 1026.79 Crore respectively for FY 2019-20, as per the aforesaid true up order of FY 2018-19. Further, in FY 2019-20, RVUN has booked an additional capitalization of Rs. 0.44 Crore towards building and civil works, Rs. 0.39 Crore towards vehicle Rs. 0.07 Crore towards furniture and fixture, Rs. 0.20 Crore towards office equipment's for STPS (Units 1-5) in accordance with the Regulation 17(5)(e) of RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations had also been considered.
- 5.14 For CTPP (Units 1-4), RVUN has considered the approved capital cost as on

01.04.2019, i.e., Rs. 5312.96 Crore for FY 2019-20, as per the RERC order dated 11.09.2020. Further, in FY 2019-20, RVUN has booked an additional capitalization of Rs. 0.33 Crore for Building & Civil works, Rs. 0.14 Crore for Hydraulic works, Rs. 0.05 Crore for other civil works, Rs. 4.65 Crore for Plant & Machinery, Rs. 0.06 Crore for vehicle, Rs. 0.05 Crore for lines & cable network, Rs. 0.08 Crore for Furniture & Fixture, Rs. 0.53 Crore for office equipment and Rs 1.60 Crore for capital spares in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations had also been considered.

5.15 RVUN submitted that it has considered the opening balance of Capital cost as on 01.04.2019 of RGTPP as Rs. 1117.55 Crore, as per the Commission's order dated 11.09.2020. Further, in FY 2019-20, RVUN has booked an additional capitalization of Rs. 0.01 Crore and Rs. 0.14 Crore towards plant furniture & fixtures and office equipment respectively in accordance with the Regulation 17(5)(e) of the RERC Tariff Regulations, 2019. While computing the depreciation, these additional capitalizations had also been considered.

5.16 RVUN submitted that it has considered the opening balance of capital cost as on 01.04.2019 of Mahi Hydel as Rs. 259.02 Crore as per the Commission's order dated 11.09.2020.

5.17 The details of depreciation as claimed in the petition for FY 2021-22 are as shown in the table below:

Table 69: Depreciation claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	67.91
STPS (Units 1-6)	164.27
CTPP (Units 1-4)	265.88
RGTPS	41.35
Mahi	4.42
Total	543.83

Commission's Analysis

- 5.18 The Commission has approved the depreciation for FY 2021-22 in accordance with Regulation 22 of RERC Tariff Regulations, 2019.
- 5.19 The Commission has considered the closing GFA approved for FY 2019-20 as the opening GFA for FY 2020-21. RVUN has not claimed any additional capitalization for FY 2020-21. Accordingly, the Commission has not considered any additional capitalization for FY 2020-21. The closing GFA for FY 2020-21 has been considered as the opening GFA for FY 2021-22. RVUN has not claimed any additional capitalization for FY 2021-22. Accordingly, the Commission has not considered any additional capitalization for FY 2021-22.
- 5.20 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 same as approved in true up of FY 2019-20, which is as under:-

Table 70: 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
Approved in true up of FY 2019-20	1287.61	4234.63	311.03	259.02

- 5.21 The details of GFA base considered by the Commission for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4) and RGTPP (160 MW) for computing the depreciation for FY 2021-22 are same as approved in true up of FY 2019-20, which is as under:-

Table 71: GFA base for KTPS Unit 7, STPS Unit 6, CTPP (Units 1-4) and RGTPP (160 MW)

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-4)	RGTPP (160MW)
Land & Land Rights	0.00	0.00	12.73	0.00
Building & Civil Works of Power Plants	126.19	209.48	573.36	64.04
Hydraulic Works	10.98	15.73	156.25	31.24
Other Civil Works	4.70	7.10	172.13	0.10

Particulars	KTPS Unit 7	STPS Unit 6	CTPP (Units 1-4)	RGTPP (160MW)
Plant & Machinery	705.38	768.70	4232.28	711.13
Lines & Cable Net work	0.00	0.45	67.32	0.00
Vehicles	0.00	0.00	0.12	0.00
Furniture & Fixtures	0.04	0.10	2.13	0.00
Office Equipment	-3.19	4.63	6.86	0.00
Capital Spares	7.76	20.60	89.77	0.00
Total	851.86	1026.79	5312.96	806.52

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

- i. Considered Accumulated Depreciation till FY 2020-21 by adding year wise depreciation allowed in Tariff Orders/True up orders from FY 2009-10 to FY 2020-21 to the accumulated depreciation till FY 2009-10.
- ii. Depreciation @5.28% if the Station/Stage/Unit has not completed 12 years life from the date of commissioning.
- iii. If the Station/Stage/Unit has completed 12 years life, depreciation computed by spreading remaining depreciation to be charged over the balance useful life of the asset.

Table 72: Details of accumulated depreciation of old stations (Rs. Crore)

Particulars	KTPS (Units 1-6)	STPS (Units 1-5)	RGTPS (110.5 MW)	Mahi
Capital Cost	1185.17	4223.32	311.08	259.02
Depreciable value=90% of capital cost	1066.65	3800.99	279.97	233.11
Cumulative depreciation approved up to FY 2019-20	881.88	3226.10	278.73	219.86
Depreciation for FY 2020-21	20.53	113.63	1.24	4.42
Depreciation approved for FY 2021-22	20.53	113.63	0.00	4.42
Cumulative depreciation approved up to FY 2021-22	922.94	3453.37	279.97	228.70
Balance depreciation allowable	143.71	347.62	0.00	4.42

5.23 Accordingly, the depreciation approved by the Commission for FY 2021-22, is as shown in the table below:

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

Station	FY 2021-22	
	Claimed	Approved
KTPS (Units 1-7)	67.91	67.87
STPS (Units 1-6)	164.27	164.22
CTPP (Units 1-4)	265.88	265.49
RGTPS (270.50 MW)	41.35	41.34
Mahi	4.42	4.42
Total	543.83	543.34

Interest and finance charges on Term Loan

RVUN's Submission

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

5.25 The details of interest charges on long term loans as submitted by RVUN in its petition for FY 2021-22 is as shown in the table below:

Table 74: Interest on term loan claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	19.58
STPS (Units 1-6)	28.29
CTPP (Units 1-4)	218.40*
RGTPS	37.16
Mahi	0.00
Total	303.44

*Claimed value of Rs. 218.40 Crore includes cost towards carrying cost also, i.e., Rs. 2.28 Crore

Commission's Analysis

5.26 The Commission has considered the closing term loan balance approved in

true up for FY 2019-20 as the opening loan balance for FY 2020-21. Thereafter, the Commission has worked out the closing loan balances for FY 2020-21 considering the normative repayment for FY 2020-21 as the allowable depreciation for the year. The Commission has considered the closing loan balance for FY 2020-21 as the opening loan balance for FY 2021-22. The allowable depreciation for the year has been considered as the normative repayment for the year.

- 5.27 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. The Commission has computed the applicable rate of interest on long term loans considering the information on outstanding loan balances for FY 2021-22 and applicable interest rates as submitted by RVUN vide reply to data gaps dated 09.09.2021.

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

Particulars	KTPS (Units 1-6)	KTPS Unit 7	Total KTPS	STPS (Units 1-5)	STPS Unit 6	Total STPS
Op. balance	0.00	193.90	193.90	0.00	258.44	258.44
Addition	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	0.00	42.41	42.41	0.00	50.06	50.06
Closing balance	0.00	151.50	151.50	0.00	208.37	208.37
Interest rate		11.34%			12.12%	
Interest	0.00	19.58	19.58	0.00	28.29	28.29
Finance charges		0.00	0.00			0.00
Interest and finance charges	0.00	19.58	19.58	0.00	28.29	28.29

Particulars	CTPP (Units 1-4)	RGTPS (270.5 MW)	Mahi
Op. balance	2048.63	351.51	0.00
Addition	0.00	0.00	0.00
Repayment	265.49	41.34	0.00
Closing balance	1783.14	310.17	0.00
Interest rate	11.25%	11.23%	10.64%
Interest	215.54	37.15	0.00
Finance charges	0.00	0.00	0.00
Interest and finance charges	215.54	37.15	0.00

Table 76: Interest and finance charges on term loans approved by the Commission (Rs. Crore)

Station	FY 2021-22	
	Claimed	Approved
KTPS (Units 1-7)	19.58	19.58
STPS (Units 1-6)	28.29	28.29
CTPP (Units 1-4)	218.40	215.54
RGTPS	37.16	37.15
Mahi	0.00	0.00
Total	303.44	300.56

5.28 The reason for variation in interest and finance charges approved by the Commission and claimed by the Petitioner for CTPP (Units 1-4) is because of the variance in approved opening loan balance for FY 2021-22 and repayment amount with respect to the claimed opening balance of FY 2021-22 and repayment amount.

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

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

5.30 Therefore, it will be examined in the true-up petition for FY 2021-22 and accordingly, the Commission does not find merit in its prudence check at this stage.

Interest on Working Capital (IoWC)

RVUN’s Submission

5.31 RVUN submitted that the requirement for working capital loan has been computed on the basis of Regulation 27 of RERC Tariff Regulations, 2019 and the rate of interest on Working Capital Loan has been taken equal to 300

basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year.

5.32 The details of interest on working capital as claimed in petition for FY 2021-22 have been provided in the table below:

Table 77: IoWC claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	80.63
STPS (Units 1-6)	116.10
CTPP (Units 1-4)	65.53
RGTPS (270.50 MW)	10.65
Mahi	0.82
Total	273.73

Commission's Analysis

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

Table 78: Computations of Bank rate as considered by the Commission for FY 2021-22

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

5.34 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 2021-22 has been provided in the table below:

Table 79: IoWC approved by the Commission (Rs. Crore)

Station	FY 2021-22	
	Claimed	Approved
KTPS(Units 1-7)	80.63	80.34
STPS(Units 1-6)	116.10	114.69
CTPP(Units 1-4)	65.53	65.52
RGTPS (270.50 MW)	10.65	10.66
Mahi	0.82	0.82
Total	273.73	272.03

Return on Equity (RoE)

RVUN's Submission

5.35 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.

5.36 RVUN submitted that KTPS (Units 1-4) has completed their useful life the Commission has approved additional capitalization for these units. Further, considering the additional capitalization for KTPS (Units 1-4), the depreciation is over and above term loan. Accordingly, equity has been reduced for computation of RoE. RVUN requested the Commission to consider net equity of Rs. 498.90 Crore for KTPS for computation of RoE.

5.37 RVUN vide reply to data gaps dated 24.11.2021 considered rate of RoE as 0.00% as per the Finance Department, Government of Rajasthan letter dated 10.11.2021. The details of Return on equity as claimed for FY 2021-22 is

as shown in the table below:

Table 80: RoE claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	0.00
STPS (Units 1-6)	0.00
CTPP (Units 1-4)	0.00
RGTPS (270.50 MW)	0.00
Mahi	0.00
Total	0.00

Commission's Analysis

5.38 The Commission has considered the closing equity balance approved for FY 2019-20 as the opening balance for FY 2020-21. RVUN has not claimed any additional capitalization for FY 2020-21 and accordingly no equity addition has been claimed in FY 2020-21. The closing equity balance for FY 2020-21 has been considered as the opening balance for FY 2021-22.

5.39 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."

5.40 RVUN submitted that KTPS (Units 1-4) have completed their useful life and Unit 5 also completed its useful life on 17.05.2020 and accordingly, claimed the reduced RoE for KTPS. The Commission has perused the computations of RVUN in this regard. The Commission finds the computations submitted by RVUN are incorrect on following counts:

- i. RVUN has considered the total additional capitalization for KTPS (1-6) up to FY 2019-20 as Rs. 102.14 Crore, whereas the Commission had approved the total additional capitalization of Rs. 102.44 Crore.

5.41 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 2021-22 as shown in table below:

Table 81: Equity reduction for KTPS in accordance with Regulation 19

Particulars	Units	Legend	KTPS						HO	Total for old units
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6			
Installed capacity	MW	A	220	210	210	210	195		1045	
COD	Date	B	01-Apr-84	11-Mar-89	06-Mar-90	18-Jul-95	01-Aug-04			
Trigger date	Date	C	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
No. of years in operation	No.	D	35	30	29	24	15			
Original capital cost	Rs. Crore	E	93.29	168.62	137.96	131.39	564.06	89.84	1185.17	
Additional capitalisation allowed till FY 2020-21	Rs. Crore	F	21.57	20.59	20.59	20.59	19.12	0.00	102.44	
Equity portion of original capital cost	Rs. Crore	G	20.46	36.98	30.25	28.81	190.00	0.00	306.50	
Equity portion of additional capitalisation	Rs. Crore	H	4.39	4.19	4.19	4.19	3.89	0.00	20.83	
Debt portion of original capital cost	Rs. Crore	I=E-G	72.83	131.64	107.71	102.58	374.06	89.84	878.67	
Debt portion of additional capitalisation	Rs. Crore	J=F-H	17.18	16.40	16.40	16.40	15.23	0.00	81.61	
Total Debt	Rs. Crore	K=I+J	90.01	148.04	124.11	118.98	389.29	89.84	960.28	
Outstanding Debt as on 01.04.2021	Rs. Crore	L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Outstanding Transitional loan as on 01.04.2021	Rs. Crore	M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cumulative repayment as on 01.04.2021	Rs. Crore	N=K-L-M	90.01	148.04	124.11	118.98	389.29	89.84	960.28	
Total depreciation on original capital cost allowable till FY 2020-21	Rs. Crore	O	83.96	151.76	124.17	118.26	343.41	80.85	902.41	
AAD allowed till FY 2008-09 and adjusted thereafter till FY 2020-21	Rs. Crore	P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total depreciation on additional capitalisation	Rs. Crore	Q	5.14	4.91	4.91	4.91	4.56	0.00	24.44	

Particulars	Units	Legend	KTPS						
			Units 1&2	Unit 3	Unit 4	Unit 5	Unit 6	HO	Total for old units
allowable till FY 2020-21									
Total depreciation	Rs. Crore	R=O+P+Q	89.10	156.67	129.08	123.17	347.97	80.85	926.84
Accumulated depreciation less cumulative repayment	Rs. Crore	S=R-N	-0.91	8.63	4.96	4.18	-41.32	-8.98	-33.43
Accumulated depreciation less cumulative repayment for Regulation 19	Rs. Crore	T	-0.91	8.63	4.96	4.18	-41.32	-8.98	-33.43
HO allocation	Rs. Crore	U	-2.33	-2.22	-2.22	-2.22			-8.98
Accumulated depreciation less cumulative repayment for Regulation 19 with HO allocation	Rs. Crore	V	-3.23	6.41	2.74	1.96	-41.32		
Depreciation admissible for FY 2021-22	Rs. Crore	W	0.00	0.00	0.00	0.00			0.00
Equity reduction for FY 2021-22	Rs. Crore	X=V+W	0.00	6.41	2.74	1.96			11.12

5.42 RVUN has not claimed any additional capitalization for FY 2021-22 and accordingly, no equity addition has been claimed in FY 2021-22. Accordingly, the Commission has not considered any equity addition in FY 2021-22. The equity base considered by the Commission for computing RoE for FY 2021-22 is as shown in the table below:

Table 82: Equity base considered by the Commission (Rs. Crore)

Station	FY 2021-22
KTPS (Units 1-7)	498.95
STPS (Units 1-6)	1176.19
CTPP (Units 1-4)	1067.06
RGTPS	282.08
Mahi	170.38
Total	3194.65

5.43 The rate of RoE has been considered as 0.00% as per the Finance Department, Government of Rajasthan letter dated 16.11.2021 which states

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. The aforesaid letter has been submitted by RVUN vide its data gaps reply dated 24.11.2021.

Insurance on fixed assets

RVUN's Submission

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

Table 83: Insurance on fixed assets claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	6.76
STPS (Units 1-6)	8.06
CTPP (Units 1-4)	7.07
RGTPS	1.50
Mahi	0.00
Total	23.39

Commission's Analysis

5.45 The Commission observed that RVUN vide its data gaps dated 09.09.2021 revised its claim on insurance charges. 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 2021-22. The insurance charges as approved by the Commission are as follows:

Table 84: Insurance on fixed assets approved by the Commission (Rs. Crore)

Station	FY 2021-22		
	Claimed	Revised Claim	Approved
KTPS(Units 1-7)	6.76	7.40	7.40
STPS(Units 1-6)	8.06	8.98	8.98

CTPP(Units 1-4)	7.07	5.98	5.98
RGTPS	1.50	1.66	1.66
Mahi	0.00	0.00	0.00
Total	23.39	24.02	24.02

Non-Tariff Income

RVUN's Submission

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

Table 85: Non-tariff income claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	13.88
STPS (Units 1-6)	3.13
CTPP (Units 1-4)	8.74
RGTPS	3.75
Mahi	0.13
Total	29.64

Commission's Analysis

5.47 The Commission has approved the Non-Tariff Income for FY 2021-22 as claimed by the Petitioner. Any variation shall be adjusted during the truing up exercise for FY 2021-22. The Non-Tariff Income as approved by the Commission is as shown in the table below:

Table 86: Non-tariff income approved by the Commission (Rs. Crore)

Station	FY 2021-22	
	Claimed	Approved
KTPS (Units 1-7)	13.88	13.88
STPS (Units 1-6)	3.13	3.13

Station	FY 2021-22	
	Claimed	Approved
CTPP (Units 1-4)	8.74	8.74
RGTPS	3.75	3.75
Mahi	0.13	0.13
Total	29.64	29.64

Terminal Benefit
RVUN's Submission

5.48 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.”

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

Table 87: Terminal Benefits claimed by RVUN (Rs. Crore)

Station	FY 2021-22
	Claimed
KTPS (Units 1-7)	47.57
STPS (Units 1-6)	39.36
CTPP (Units 1-4)	21.19
RGTPS (270.5 MW)	7.42
Mahi	6.30
Total	121.83

Commission's Analysis

5.50 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 2021-22. The terminal benefits as approved by the Commission are as follows:

Table 88: Terminal Benefit approved by the Commission (Rs. Crore)

Station	FY 2021-22	
	Claimed	Approved
KTPS (Units 1-7)	47.57	47.57
STPS (Units 1-6)	39.36	39.36
CTPP (Units 1-4)	21.19	21.19
RGTPS (270.5 MW)	7.42	7.42
Mahi	6.30	6.30
Total	121.83	121.83

Adjustment of Excess Depreciation**Commission's Analysis**

5.51 In line with the approach adopted by the Commission in the Tariff Orders for FY 2018-19, FY 2019-20 and FY 2020-21, the Commission has carried out the adjustment of excess depreciation in FY 2021-22 as shown in the table below:

Table 89: 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 & FY 2020-21	142.32	315.96	10.01
Outstanding transitional loan	0.00	0.00	0.00
Depreciation for the year	25.47	114.15	0.00
Repayment of LT loan	0.00	0.00	0.00
Balance Depreciation available for repayment of transitional loan	25.47	114.15	0.00
Repayment of transitional Loan	0.00	0.00	0.00
Excess depreciation to be deducted from AFC of FY 2021-22	25.47	114.15	0.00
Balance AAD to be adjusted in subsequent years	116.85	201.81	10.01

Annual Fixed Charges for FY 2021-22

5.52 Based on the above analysis, the approved Station wise AFC for FY 2021-22 is as shown in the table below:

Table 90: AFC for FY 2021-22 (Rs. Crore)

Station	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
	Claimed	Approved	Claimed	Approved	Claimed	Approved
O&M expenses	268.37	268.37	324.64	324.64	216.43	216.43
Depreciation	67.91	67.87	164.27	164.22	265.88	265.49
Interest on term loans & finance charges	19.58	19.58	28.29	28.29	218.40	215.54
Interest on transitional loan	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working capital	80.63	80.34	116.10	114.69	65.53	65.52
Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00
Insurance on fixed assets	7.40	7.40	8.98	8.98	5.98	5.98
Towards Terminal Benefits	47.57	47.57	39.36	39.36	21.19	21.19
Minus: Non-tariff income	13.88	13.88	3.13	3.13	8.74	8.74
Minus: Adjustment of excess depreciation	0.00	25.47	0.00	114.15	0.00	0.00
Annual Fixed Charges	477.58	451.79	678.51	562.89	784.66	781.40
Net Generation (MU)	8145.77	8145.77	9837.39	9837.39	6558.26	6558.26
Per unit fixed cost (Rs./kWh) (indicative only)	0.59	0.55	0.69	0.57	1.20	1.19

Station	RGTPS (270.50 MW)		Mahi	
	Claimed	Approved	Claimed	Approved
O&M expenses	47.72	47.72	18.68	18.68
Depreciation	41.35	41.34	4.42	4.42
Interest on term loans & finance charges	37.16	37.15	0.00	0.00
Interest on transitional loan	0.00	0.00	0.00	0.00
Interest on working capital	10.65	10.66	0.82	0.82
Return on Equity	0.00	0.00	0.00	0.00
Insurance on fixed assets	1.66	1.66	0.00	0.00
Towards Terminal Benefits	7.42	7.42	6.30	6.30
Minus: Non-tariff income	3.75	3.75	0.13	0.13
Minus: Adjustment of excess depreciation	0.00	0.00	0.00	0.00
Annual Fixed Charges	142.21	142.19	30.09	30.08
Net Generation (MU)	1612.26	1612.26	138.60	138.60
Per unit fixed cost (Rs./kWh) (indicative only)	0.882	0.882	2.171	2.170

Determination of Energy Charges for FY 2021-22

RVUN's Submissions

5.53 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).

- 5.54 RVUN claimed SHR for RGTPS (270.5 MW) as 2038.00 kcal/kWh considering 90% closed cycle operation and 10% open cycle operation.
- 5.55 RVUN submitted that availability and PLF have been considered in accordance with Regulations 41(1) & Regulation 41(2) of the RERC Tariff Regulations, 2019.
- 5.56 RVUN submitted that the auxiliary power consumption has been considered in accordance with Regulation 45(6)(d) of the RERC Tariff Regulations, 2019. RVUN further submitted that the KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) are having tube type coal mills so the norm has been increased by 0.8% in accordance with the Regulation 45(6)(d) of the RERC Tariff Regulations, 2019 as specified below:

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

- 5.57 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) have been calculated on the basis of receipts during FY 2020-21.
- 5.58 RVUN submitted that Gross Calorific Value and the average rate of gas have been calculated on the basis of receipts during FY 2020-21 for RGTPS (270.50 MW).

Commission's Analysis

- 5.59 As regards the GCV of primary fuel, the Commission observed that RVUN has considered the GCV of primary fuel “as received” in its computations of energy charges.

5.60 The Commission has approved the Energy Charges for the FY 2021-22 on the basis of following:

- i. While allowing the variable cost of the generating stations, the Commission has considered normative Station Heat Rate and Plant Load Factor.
- ii. Auxiliary Consumption has been considered on normative basis. For KTPS (Units 5-7), STPS (Units 1-6) and CTPP (Units 1-4) the auxiliary consumption has been considered as per Regulation 45(6)(d) of the RERC Tariff Regulations, 2019.
- iii. For RGTPS (270.50 MW), the Commission has considered the proportion of operation in closed cycle and open cycle for FY 2021-22 as proposed by RVUN and has accordingly considered the Station Heat Rate and Auxiliary Consumption same as that proposed by RVUN.
- iv. As regards GCV and price of fuels, the Commission has considered the actual prices and GCV of primary and secondary fuel as submitted by RVUN in its replies to data gaps, for the months of July, 2021 to September, 2021.
- v. Since, RVUN has JV Agreement with Adani Enterprises Ltd. regarding Parsa East Kanta Basan Coal mines through the procedure laid down by Govt. of Rajasthan and rates mentioned in these agreements have also been reported to be approved by Govt. of Rajasthan, onus to adhere to laid down procedures and rates are on RVUN. Therefore, RVUN must ensure compliance of the same strictly. The price of coal must be as determined by the Govt. approved mechanism.
- vi. Secondary fuel oil consumption has been allowed as per Regulation 45(4) of RERC Tariff Regulations, 2019.

5.61 Regulation 51(2) of the RERC Tariff Regulations, 2019 stipulates the GCV of coal or gas to be considered as the higher value of 'as received less 85 kcal/kg' or 'as fired'. The Petitioner vide data gaps submitted the GCV of coal 'as received' and 'as fired'. For the purpose of tariff determination, the

Commission has considered the GCV of coal "as received" as submitted by the Petitioner and subtracted 85 kcal/kg from the same. The Commission directs the Petitioner to submit both 'as received' and 'as fired' GCV of primary fuel for each station separately along with supporting documents for the same in its forthcoming Petitions for tariff determination and/or true-up.

5.62 Plant wise energy charges determined by Commission for FY 2021-22 are as under:

Table 91: 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	9015.79	9015.79	10906.20	10906.20	7270.80	7270.80
Auxiliary Consumption	%	9.65%	9.65%	9.80%	9.80%	9.80%	9.80%
Net Generation	MU	8145.77	8145.77	9837.39	9837.39	6558.26	6558.26
Landed Price of Coal	Rs./kg	3.98	3.98	5.15	5.15	4.40	4.40
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	0.04	0.04	0.05	0.05	0.05	0.05
Secondary fuel oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Gross Calorific Value of Secondary fuel oil	kcal/ml	9.96	9.96	9.84	9.84	9.99	9.99
Heat Contribution from Secondary fuel oil	kcal/kWh	4.98	4.98	4.92	4.92	4.99	4.99
Heat Contribution from Coal	kcal/kWh	2556.72	2556.72	2471.36	2471.36	2395.01	2395.01
Gross Calorific Value of Coal	kcal/kg	3505.91	3505.91	3616.07	3616.07	3979.53	3979.53
Specific coal consumption	kg/kWh	0.73	0.73	0.68	0.68	0.60	0.60
Rate of Energy Charge	Rs./kWh	3.23	3.23	3.93	3.93	2.96	2.96
Other Charges	Rs. Crore						
Total Energy Charges	Rs. Crore	2634.31	2634.31	3868.24	3868.24	1944.25	1944.25
	Rs./kWh	3.234	3.234	3.932	3.932	2.965	2.965

Particulars	Units	RGTPS (270.50 MW)	
		Claimed*	Approved
Gross Generation	MU	1658.71	1658.71
Auxiliary Consumption	%	2.80%	2.80%
Net Generation	MU	1612.26	1612.26
Landed Price of Gas	Rs./SCM	7.94	7.94
Gross Station Heat Rate	kcal/kWh	2038.00	2038.00
Price of fuel oil	Rs./ml	0.04	0.04
Fuel oil Consumption	ml/kWh	0.20	0.20
Gross Calorific Value of fuel oil	kcal/ml	9.30	9.30
Heat Contribution from fuel oil	kcal/kWh	1.90	1.90
Heat Contribution from Gas	kcal/kWh	2036.10	2036.10
Gross Calorific Value of Gas	kcal/SCM	6500.82	6500.82
Specific Gas consumption	SCM/kWh	0.31	0.31
Rate of Energy Charge	Rs./kWh	2.57	2.57
Other Charges	Rs. Crore		
Total Energy Charges	Rs. Crore	413.92	413.92
	Rs./kWh	2.567	2.567

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

Tariff for Mahi Hydel Generating Station

- 5.63 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.
- 5.64 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.
- 5.65 The tariff for Mahi approved by the Commission for FY 2021-22 is as shown in the table below:

Table 92: Approved tariff for Mahi Hydel Power Project for FY 2021-22

Annual Fixed Charges (Rs. in Crore)	Net Energy (MU)	Energy Rate (Paise/kWh)	Energy Charges (Rs. in Crore)	Capacity Charges (Rs. in Crore)
30.08	138.60	0.30	4.16	25.93

- 5.66 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.
- 5.67 Recovery of Capacity Charges shall be in accordance with Regulation 50 of RERC Tariff Regulations, 2019.
- 5.68 The Summary of tariff as approved by the Commission for FY 2021-22 is as shown in the table below:

Table 93: Approved tariff for FY 2021-22

Station	Units	KTPS(Units 1-7)		STPS(Units 1-6)		CTPP(Units 1-4)	
		Claimed	Approved	Claimed	Approved	Claimed	Approved
Fixed charges	Rs. Crore	477.58	451.79	678.51	562.89	784.66	781.40
Rate of fixed charges	Rs./kWh	0.59	0.55	0.69	0.57	1.20	1.19
Energy charges	Rs. Crore	2634.31	2634.31	3868.24	3868.24	1944.25	1944.25
Rate of energy charges	Rs./kWh	3.23	3.23	3.93	3.93	2.96	2.96
Total tariff	Rs./kWh	3.82	3.79	4.62	4.50	4.16	4.16

Station	Units	RGTPS (270.50 MW)	
		Claimed	Approved
Fixed charges	Rs. Crore	142.21	142.19
Rate of fixed charges	Rs./kWh	0.88	0.88
Energy charges	Rs. Crore	413.92	413.92
Rate of energy charges	Rs./kWh	2.57	2.57
Total tariff	Rs./kWh	3.45	3.45

- 5.69 The tariff approved by the Commission for RVUN Stations for FY 2021-22 shall be effective from 01.04.2021 and shall remain in force till 31.03.2022, thereafter it shall remain applicable provisionally till next order of the Commission.

.....

SECTION 6

Determination of Provisional Tariff for SSCTPP Units 7&8 for FY 2021-22

- 6.1 RVUN in the instant petition has also sought for approval of provisional tariff for SSCTPP Units 7&8 for FY 2021-22, based on the actual capital expenditure incurred up to 31.03.2020 duly certified by its Statutory Auditors and expenditure to be incurred after 31.03.2020.
- 6.2 The Petitioner has sought only the provisional tariff for FY 2021-22 and has not sought the approval of final capital cost. The Commission does not find it prudent to approve the tariff based on the capital cost claimed by the Petitioner without carrying out the prudence check of the actual capital expenditure incurred. Therefore, the Commission, in this order, has not gone into the merits of the Capital Cost.
- 6.3 It is observed that the Petitioner vide reply to data gaps of the Commission submitted that the SSCTPP Unit 8 was planned and expected to be declared under COD by March, 2021. However, it could not be declared under COD upto March, 2021 due to some reasons. Further, RVUN submitted vide letter dated 18.10.2021 that unit 8 has achieved COD on 07.10.2021.
- 6.4 Commission for the purpose of this Order has not gone into the details of the SSCTPP Unit 7&8 petition for provisional ARR and Tariff for FY 2021-22 and considers to continue the same tariff as approved provisionally vide Order dated 03.02.2021 against petition no. 1612/20. The same is as shown in the table below:

Table 94: Provisionally approved tariff

Particulars	Unit 7	Unit 8
Fixed Charges per Unit (Rs. /kWh)	2.038	1.916
Energy Charge Rate (Rs./kWh)	2.726	2.726
Total Tariff (Rs. /kWh)	4.76	4.64

- 6.5 The tariff provisionally approved by the Commission for SSCTPP Unit 7 shall be effective from 01.04.2021 and for Unit 8 from 07.10.2021 and shall remain in force till the Commission determines the final capital cost and final tariff for the respective financial years. In this regard, the Commission directs the Petitioner to file the petition for approval of final capital cost and tariff based on the audited capital cost along with justification for the variation in capital cost.
- 6.6 Copy of this order may be sent to the Petitioner, Respondents, Objectors, CEA and Government of Rajasthan.

(Prithvi Raj)
Member

(S. C. Dinkar)
Member

(Dr. B. N. Sharma)
Chairman

Index

Section/ Annexure	Particulars	Page No.
Section 1	General	1-2
Section 2	Summary of True-Up and Tariff determination process	3-5
Section 3	Summary of objections/ comments/suggestions received from Stakeholders and RVUN's response thereon	6-52
Section 4	Analysis of True-Up of RVUN stations for FY 2019-20	53-101
Section 5	Determination of ARR and Tariff for RVUN Generating Stations for FY 2021-22	102-126
Section 6	Determination of Provisional Tariff for SSCTPP Units 7&8 for FY 2021-22	127-128
Annexure 1	Index	129