

Petition for
Aggregate Revenue Requirement (ARR) and Tariff
for FY 2019-20 for
Mahi Hydel Hydel Power Station (MAHI HYDEL)

Submitted to
Rajasthan Electricity Regulatory Commission
Jaipur
by
Rajasthan Rajya Vidyut Utpadan Nigam Limited
Vidyut Bhavan, Janpath, Jaipur

June 2019

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Definitions

Act	The Electricity Act, 2003
Application	This ARR and Tariff Petition for FY-2019-20 for Mahi Hydel of Rajasthan Rajya Vidyut Utpadan Nigam Limited, Jaipur
Auxiliary Consumption (Aux. Con.)	Auxiliary Consumption in relation to a period means the quantum of energy consumed by auxiliary equipment of the generating station and transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station
Availability	Availability shall have the same meaning as defined in Section 2(7) of the RERC Tariff Regulations 2019.
Distribution Company / Discoms	Discoms or Distribution Company shall mean a company engaged primarily in the business of distribution & supply of electricity in its area of supply including Jaipur Vidyut Vitran Nigam Ltd. (JVVN), Ajmer Vidyut Vitran Nigam Ltd. (AVVN) and Jodhpur Vidyut Vitran Nigam Ltd. (JdVVN).
Gross Calorific Value (GCV)	Gross Calorific Value in relation to a thermal power generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be.
Regulation	The Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019 notified by RERC on May- 27, 2019
State	The State of Rajasthan.
Gross Station Heat Rate	Heat energy input in kCal required to generate one unit (kWh) of electrical energy at generator terminals.
Unit	Unit in relation to a generating station means electric generator, its prime mover and auxiliaries and in relation to a combined cycle thermal power generating station includes combustion turbine – generators, associated waste heat recovery boilers, connected steam turbine-generator and auxiliaries

ABBREVIATIONS

ARR	Aggregate Revenue Requirement
Ajmer Discom	Ajmer Vidyut Vitran Nigam Limited
CSR	Corporate Social Responsibility
FRP	Financial Restructuring Plan
FY	Financial Year
FY – 18	Financial Year 2017-18
FY – 19	Financial Year 2018-19
FY – 20	Financial Year 2019-20
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
Gol	Government of India
GoR	Government of Rajasthan
Jaipur Discom	Jaipur Vidyut Vitran Nigam Limited
Jodhpur Discom	Jodhpur Vidyut Vitran Nigam Limited
KWh	Kilo Watt Hour or Unit
MU	Million Units
MW	Megawatts
PLF	Plant Load Factor
PPA	Power Purchase Agreement
R&M	Repairs and Maintenance
RERC/ Commission	Rajasthan Electricity Regulatory Commission
RUVN	Rajasthan Urja Vikas Nigam Limited
RVUN	Rajasthan Vidyut Utpadan Nigam Limited
RVPN	Rajasthan Vidyut Prasaran Nigam Limited
Rs.	Indian Rupees
SHR	Station Heat Rate
Transfer Scheme	The Rajasthan Power Sector Reforms Transfer Scheme, 2000

Notes:

In this Petition:

All currency figures used in this Application, unless specifically stated otherwise, are in Rs Crores.

Capacity figures used in this Application, unless specifically stated otherwise, are in Megawatt (MW).

All energy unit figures used in this Application, unless specifically stated otherwise, are in Million Units (MU).

A1: BACKGROUND

- 1.1 Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RVUN) was incorporated under the Companies Act 1956, as one of the five successor companies of erstwhile Rajasthan State Electricity Board (RSEB) to take over the electricity generation business in the state of Rajasthan. The existing power stations and those under commissioning in the state sector were transferred to RVUN as per the Rajasthan Power Sector Reforms Transfer Scheme, 2000 notified by State Government provisionally on 19th July 2000 and finally on 18th January 2002.
- 1.2 From 1st April 2004 onwards, RVPN is no longer responsible for the bulk purchase of power in Rajasthan. The capacity allocated to RVPN from RVUN generating stations has been reallocated to the three Discoms (Jaipur, Ajmer and Jodhpur) in the ratio of 40.27:27.14:32.59 or as modified by competent authority from time to time. RVUN has entered into Long Term Power supply-Purchase Agreements (PPA) in respect of existing and future power projects for 25 Years with the three Discoms on 28.09.06, 07.06.2007, 18.05.2010 and further supplementary PPA was signed on date 29.06.2015 which includes Mahi Hydel (140MW).
- 1.3 RVUN have to file its petition for determination of Tariff and ARR Petition for FY 2019-20 in accordance with provision of Regulation 6(1) of RERC Tariff Regulations 2019. Accordingly, this petition is being submitted for Mahi Hydel Hydel for FY 2019-20 before RERC for ARR and Tariff determination.

A2: GENERATION FORECAST

- 2.1 The installed capacity of Mahi Hydel is 140 MW. The estimated figures of Gross generation, PLF & net energy sale to three Discoms from Mahi Hydel of RVUN for the period FY 2017-18, FY 2018-19 and FY 2019-20 are as shown in table below:

Table 1: Gross generation, PLF & Ex-bus energy sale from Mahi Hydel

Particulars	Units	FY 17-18	FY 18-19	FY19-20
Total Capacity	MW	140	140	140
Capacity Index	%	93.05	85.22	85.00
Design Energy	MU	288.66	288.66	288.66
Gross Generation	MU	180.16	117.06	150.00
Auxiliary Energy Consumption	%	0.72	1.00	1.00
Auxiliary Energy Consumption	MU	1.30	1.17	1.50
Net Generation	MU	178.86	115.89	148.50

- 2.2 The fixed cost elements are detailed hereunder for Mahi Hydel for the FY 2017-18, FY 2018-19, and FY 2019-20 are as below.

FIXED CHARGES

A3: MAHI HYDEL ANNUAL CAPACITY (FIXED) CHARGES FOR 2019-20

- 3.1 Mahi Hydel Power House -I is located on a saddle dam of Mahi Hydel Dam periphery. The Mahi Hydel Dam is the property of Water Resources Dept. and the use/distribution of the water stored in the dam is completely in the control of water irrigation Committee headed by the District collector Banswara. Whenever there is the need of irrigation in the area and water is to be released in the LMC (left Main Canal) & RMC (right Main Canal) then only the operation of machines at Mahi Hydel Power House-I is possible. For this purpose, the water Irrigation Committee intimates the plants in charge regarding the schedule of canals and quantity of water to be released in the LMC & RMC, so that as per designed discharge capacity of machines, the running Hours of machines or the operation of machines may be decided. So it is requested that at Mahi Hydel PH-I the operation of machines totally depended on the irrigation requirement, besides that the machines can remain in "ready to start mode"/available for operation. So the Mahi Hydel PH-I is not purely run of river power station with pondage and storage type because the storage of water (Mahi Hydel Dam) is not the part of RVUN.
- 3.2 Here it is to submit the irrigation schedule is intimated to the plant very shortly and as the machines remains in ready to start mode, they are in operation. So it is not possible to provide a pre-decided schedule of declared capacity of the machines.
- 3.3 Mahi Hydel power house-II is canal based power plant and its balancing reservoir is located at the end of LMC, means whenever water is released in LMC and after furnishing the irrigation demand, the balance water stores in the balancing reservoir. For the operation of machine, a certain level of water is to be maintained of reservoir means whenever water stores in the balancing reservoir. If the available water in the reservoir is optimum for generation then only the machines can run at Mahi Hydel PH-II. So at Mahi Hydel PH-II Machines remain in "ready to start mode"/available for operation but operation of machines totally depended on the availability of water.
- 3.4 The regulation 46(1)(c) of RERC tariff Regulations 2019 states that:
- The Commission may relax the normative capacity index in case of non availability of adequate quantity of water on case to case basis.*
- 3.5 Considering the above uncontrollable factor, the RVUN request the Hon'ble Commission to not to reduced the fixed charges on pro-rata basis.

Depreciation:-

- 3.6 For the purpose of computation of depreciation, RVUN has considered approved capital cost as per RERC order dated 18.05.2018. Accordingly, the opening capital cost of Mahi Hydel has been considered as Rs. 259.02 crore for FY 2017-18.

- 3.7 Considering the above approved capital cost, figures of depreciation for FY 2017-18, FY 2018-19 and FY 2019-20 as computed under format 6.1 are summarised in table below:

Table 2: Depreciation (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Depreciation	6.41	6.41	6.41

Interest on Loans:-

- 3.8 The 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 figure envisaged for FY 2017-18, FY 2018-19 and FY 2019-20.
- 3.9 Estimated figures for interest on term loan, transitional loan and finance charges are computed as per regulation 21 of RERC, Tariff Regulations, 2014 & 2019 and are summarised in table below:

Table 3: Interest on Loans (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Interest on term Loan & Finance charges	0.01	0.00	0.00

Interest on working Capital

- 3.10 The interest on working capital loan for FY 2017-18, FY 2018-19 and FY 2019-20 has been computed as per the norms defined under Regulation 27 of RERC Tariff regulation 2014 & 2019. For FY 2017-18 and FY 2018-19 the rate of interest on WCL has been taken equal to 250 basis points higher than the average Base Rate of State Bank of India prevalent during first six months of the previous year and for FY 2019-20, has been taken 300 basis points higher than the average Base Rate prevalent during first six months of the year previous to the relevant year. Estimated figure of Interest on Working Capital is summarised as below:

Table 4: Interest on Working Capital (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Interest on Working Capital	1.31	1.21	1.21

Operation & Maintenance Expenses

- 3.11 The Operation & Maintenance Expenses have been computed as per the norms prescribed under Regulation 47 of RERC Tariff Regulations 2014 & 2019 respectively.
- 3.12 Estimated figures for the period FY 2017-18, FY 2018-19 and FY 2019-20 are summarised in Table below.

Table 5: O & M Expenses (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
O & M Expenses	26.91	17.43	17.43

Insurance Charges

- 3.13 RVUN is claiming the insurance charges as per Regulation 25 of RERC Tariff Regulations 2019 for Mahi Hydel for the year 2019-20 on the basis of actual insurance charges paid in preceding year. The details are shown in the table below.

Table 6: Insurance Charges (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Insurance Charges	0.00	0.00	0.08

Return on Equity (ROE)

- 3.14 The Return on Equity has been computed as per the norms prescribed under Regulation 20 of RERC Tariff Regulation 2014 & 2019.
- 3.15 The Return on Equity (ROE) of FY 2017-18, FY 2018-19 and FY 2019-20 are summarised in Table below:

Table 7: Return on Equity (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Return on Equity	26.41	26.41	25.56

Tax on ROE

- 3.16 The Tax on Return on Equity has been computed as per the norms prescribed under Regulation 29 of RERC Tariff Regulation 2014 & 2019.
- 3.17 The Tax on Return on Equity (ROE) for FY 2017-18, FY 2018-19 and FY 2019-20 are summarised in Table below:

Table 8: Tax on RoE (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Tax on ROE	0.00	0.00	0.00

Toward Terminal Benefit

3.18 The Terminal Benefits has been separately allowed over and above the normative O&M expenses as per Regulation 47(7) of RERC Regulations, 2019 which is reproduced as below:

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

It is submitted that RVUN has computed terminal benefits on the basis of previous year audited accounts of FY 17-18.

3.19 The estimated benefits for FY 2017-18, FY 2018-19 and FY 2019-20 are summarised in Table below:

Table 9: Towards Terminal Benefit (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Towards Terminal Benefits	0.00	0.00	2.94

Non-Tariff Income

3.20 The following are the main head of accounts of Non tariff income:

- a) Sale of Scrap
- b) Interest on FD/ Staff Loans
- c) Miscellaneous receipts (rebates etc)

3.21 Estimated figures of Non Tariff Income for FY 2017-18, FY 2018-19 and FY 2019-20 are summarised in table below:

Table 10: Non-Tariff Income (Rs. in Crore)

Particulars	FY 17-18 (Audited)	FY 18-19 (Unaudited)	FY19-20 (Anticipated)
Non Tariff Income	1.10	1.16	1.21

3.22 As per Regulation 36 of RERC Tariff Regulations 2014 & 2019, the non-tariff income has been deducted from the fixed charges computed and only the net fixed charges are to be recovered from the three distribution companies.

A4: MAHI HYDEL ESTIMATED CAPACITY CHARGES (FIXED)

4.1 The net fixed charges is computed for FY 2017-18, FY 2018-19 and FY 2019-20 in the Table below:

Table 11: Net Capacity Charges for Mahi Hydel (Rs. in Crore)

Particulars	FY 17-18	FY 18-19	FY19-20
Depreciation	6.41	6.41	6.41
Interest on Loan	0.01	0.00	0.00
Return on Equity	26.41	26.41	25.56
Interest on Working Capital	1.31	1.21	1.21
O & M Expenses	26.91	17.43	17.43
Insurance Charges	0.00	0.00	0.08
Tax on ROE	0.00	0.00	0.00
Towards Terminal Benefits	0.00	0.00	2.94
Total Fixed Charges	61.05	51.47	53.63
Less: Non-Tariff income	1.10	1.16	1.21
Net Fixed Charges	59.95	50.31	52.42

A5: ESTIMATED ARR FOR MAHI HYDEL

5.1 The recovery of ARR proposed for MAHI HYDEL is summarised in table below

Table 12: ARR for Mahi Hydel (Rs. in Crores)

Particulars	FY 17-18	FY 18-19	FY19-20
Fixed Charges (Rs. in Cr.)	59.95	50.31	52.42
Variable Charges (Rs. in Cr.)	0.00	0.00	0.00
Total Aggregate Revenue Requirement (Rs. in Cr.)	59.95	50.31	52.42

A6: MAHI HYDEL ESTIMATED TARIFF

6.1 Total per Unit charge in Rs. / kWh is given in given table below:-

Table 13: Mahi Hydel Estimated Tariff

Particulars	FY 17-18	FY 18-19	FY19-20
Net Generation (MU)	178.86	115.89	148.50
Fixed Charges (Rs. in Cr.)	59.95	50.31	52.42
Variable Charges (Rs. in Cr.)	0.00	0.00	0.00
Total Aggregate Revenue Requirement (Rs. in Cr.)	59.95	50.31	52.42
Rate of Fixed Charges (Rs./kWh)	3.35	4.34	3.53
Rate of Variable Charges (Rs./kWh)	0.00	0.00	0.00
Rate of Sale of Energy (Rs./kWh)	3.35	4.34	3.53

A7: FUEL COST ADJUSTMENT

- 7.1 As per RERC Tariff Regulation 2019, there is provision of fuel cost adjustment on account of fuel related costs of electricity generation to take care of any variation in the variable cost. The fuel cost adjustment will be made accordingly.

A8: RESPONDENTS:-

- 8.1 All the Discom's (i.e JVNL/AVNL/ Jd.VNL/RUVNL) Jaipur/ Ajmer/ Jodhpur/Jaipur are respondents for the above petition.

A9: PRAYER

- 9.1 RVUN humbly request the Hon'ble Commission for :

- ◆ Approval of ARR & Tariff for FY-2019-20.
- ◆ Condoning any inadvertent omissions/errors/rounding off differences/ shortcomings and permit the Petitioner to add/alter this filing and make further submissions as may be required by the Hon'ble Commission; and
- ◆ Passing such other further orders as are deemed fit and proper in the facts and circumstances of the case.

(Ankush Jain)
Accounts Officer (Coml.)
RVUN, Jaipur.

(Prakash Israni)
Addl. Chief Engineer (PPMC & IT)
RVUN, Jaipur.

Form G 1.1

Summary of Tariff Proposal

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

(Rs. Crore)

S.No.	Particulars	Ref.of Form No	FY 17-18	FY 18-19		FY 19-20	Remark
			Actual/Audited	Approved By Commission	April - March (Unaudited)	Anticipated	
1	2	3	4	5	6	7	8
1	Capacity (Fixed) Charge						
1.1	Depreciation	6.1	6.41	4.42	6.41	6.41	
1.2	Interest on term Loan & Finance charges	6.2a	0.01	0.00	0.00	0.00	
1.3	Return on Equity	6.4	26.41	26.41	26.41	25.56	
1.4	Interest on Working Capital	6.6	1.31	1.18	1.21	1.21	
1.5	O & M Expenses	4.1	26.91	17.43	17.43	17.43	
1.6	Insurance Charges	6.70	0.00	0.00	0.00	0.08	
1.7	Tax on ROE	6.8	0.00	0.00	0.00	0.00	
1.8	Towards Terminal Benefits		0.00	0.00	0.00	2.94	
1.9	Less Adjustment of excess depreciation		0.00	0.00	0.00	0.00	
1.10	Less: Non-Tariff income	3.2	1.10	0.14	1.16	1.21	
	Total (1)- Capacity (Fixed Charges)		59.95	49.30	50.31	52.42	
2	Total- Energy (variable) charges		0.00	0.00	0.00	0.00	
3	Units sold to Discoms (MU)		178.86	148.50	115.89	148.50	
4	Rate of Fixed Charges. (1/3)		3.35	3.32	4.34	3.53	
5	Rate of Variable Charges.	5.3	0.00	0.00	0.00	0.00	
	(i) Coal/ Lignite		0.00	0.00	0.00	0.00	
	(ii) Imported Coal		0.00	0.00	0.00	0.00	
	(iii) Any Other fuel		0.00	0.00	0.00	0.00	
	Total 2.1		0.00	0.00	0.00	0.00	
5.2	Rate of Energy Charge from Secondary Fuel (REC) _s	5.3	0.00	0.00	0.00	0.00	
5.3	Total-(2) Rate of Energy Charge ex-bus(REC) ^{3A,3B,3C}	5.3	3.35	3.32	4.34	3.53	

Form G 1.2

Aggregate Revenue Requirement

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

(Rs. Crore)

S.No.	Particulars	Reference Form	FY 17-18	FY 18-19		FY 19-20
			Actual/Audited	Approved By Commission	April - March (Unaudited)	Anticipated
1	2	3	4	5	6	7
A	Receipts					
1	Revenue from Sale of Power (Tariff income)	3.1	59.95		50.31	52.42
2	Non Tariff income		1.10	0.14	1.16	1.21
3	Revenue Subsidies, Grants & Subvention from State Government		0.00	0.00	0.00	0.00
	Total- (A)		61.05		51.47	53.63
B	Expenditure					
1	Variable Costs, including Fuel Cost	5.3	0.00	0.00	0.00	0.00
2	Depreciation	6.1	6.41	4.42	6.41	6.41
3	Interest on term Loan & Finance charges	6.2a	0.01	0.00	0.00	0.00
4	Return on Equity	6.4	26.41	26.41	26.41	25.56
5	Interest on Working Capital	6.6	1.31	1.18	1.21	1.21
6	O & M Expenses	4.1	26.91	17.43	17.43	17.43
7	Insurance Charges	6.7	0.00	0.00	0.00	0.08
8	Tax on ROE	6.8	0.00	0.00	0.00	0.00
9	Towards Terminal Benefits		0.00	0.00	0.00	2.94
C	Total- (B) Expenditure		61.05	49.44	51.47	53.63
D	A.R.R. (C-A.2)		59.95	49.30	50.31	52.42

Plant Characteristics

Name of the Petitioner

Rajasthan Rajya Vidut Utpadan Nigam Limited,Jaipur (Raj.)

Name of the Power Station/Unit:

Mahi Hydel

Basic characteristics of the plant ¹	Hydel Power Station					
Special Features of the Plant						
Site Specific Features ²	Canal Based Power Station					
Special Technological Features ³	Semi Kaplan (Horizontal)					
Environmental Regulation related features ⁴						
Any other special features						
Fuel Details ⁵	Primary Fuel		Secondary Fuel		Alternate Fuels	
Details	Unit number					
	1	2	3	4		
	Unit 1	Unit 2	Unit 3	Unit 4		
Installed Capacity (IC)	25 MW	25 MW	45 MW	*		
Date of Commercial Operation (COD)	22.1.1986	6.2.1986	15.2.1989	17.9.1989		
Type of cooling system ⁶						
Type of Boiler Feed Pump ⁷						
Pressure (kg/cm ²)						
Temperature 0C						
-At Superheater Outlet						
-At Reheater Outlet						
Turbine Cycle heat Rate(Kcal/ Kwh)						
Boiler Efficiency (%)						
Guaranteed Design Heat rate (kCal/kWh) _s						
Conditions on which guaranteed						
% MCR						
% Makeup						
Design Fuel						
Design cooling water Temperature						
Back Pressure						

Form G 2.2

Operational Parameters - Generation

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

Rs in Cr.

S. No.	Particulars	Units	FY 17-18	FY 18-19		FY 19-20
			Actual/Audited	Approved By Commission	April - March (Unaudited)	Anticipated
1	2	3	4	5	6	7
1	Operational Parameters - Hydel					
1.1	Total Capacity	MW	140		140	140
1.2	Capacity Index	%	93.05		85.22	85.00
1.3	Design Energy	MU	288.66		288.66	288.66
1.4	Gross Generation	MU	180.16		117.06	150.00
1.5	Auxiliary Energy Consumption	%	0.72		1.00	1.00
1.6	Auxiliary Energy Consumption	MU	1.30		1.17	1.50
1.7	Net Generation	MU	178.86		115.89	148.50
2	Operational Parameters - Thermal					
2.1	Total Capacity	MW				
2.2	Availability	%				
2.3	Plant Load Factor	%				
2.4	Gross Generation	MU				
2.5	Auxiliary Energy Consumption	%				
2.6	Auxiliary Energy Consumption	MU				
2.7	Net Generation	MU				
2.8	Heat Rate	Kcal/Kwh)				

Form G 3.1

Revenue from Sale of Power

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

FY 17-18

Rs. Crore

S.No.	Particulars	Allocation (in %)/contract demand	Unit Sold (M.U)	% of total Unit Sold	Demand/fixd Charges @	Energy Charges @	Others, if any	Total (6+7+8)	Average' rate/kWh (paise/kWh)	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)		178.86		59.95	0.00		59.95	335.18	
1	Distribution Licensee/Trader/ Consumers									
(a)	JVVNL	40.00	71.54	40.00	23.98	0.00		23.98	335.18	
(b)	AVVNL	28.30	50.62	28.30	16.97	0.00		16.97	335.18	
(c)	IdVVNL	31.70	56.70	31.70	19.00	0.00		19.00	335.18	
2	Other recoveries									
3	Gross Revenue From Sale of Power									
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		178.86		59.95	0.00		59.95	335.18	

Form G 3.1

Revenue from Sale of Power

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

FY 18-19

Rs. Crore

S.No.	Particulars	Allocation (in %)/contract demand	Unit Sold (M.U)	% of total Unit Sold	Demand/fixd Charges @	Energy Charges @	Others, if any	Total (6+7+8)	Average' rate/kWh (paise/kWh)	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)		115.89		50.31	0.00		50.31	434.16	
1	Distribution Licensee/Trader/ Consumers									
(a)	JVVNL	40.27	46.67	40.27	20.26	0.00		20.26	434.16	
(b)	AVVNL	27.14	31.45	27.14	13.66	0.00		13.66	434.16	
(c)	IdVVNL	32.59	37.77	32.59	16.40	0.00		16.40	434.16	
2	Other recoveries									
3	Gross Revenue From Sale of Power									
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		115.89		50.31	0.00		50.31	434.16	

Form G 3.1

Revenue from Sale of Power

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

FY 19-20

Rs. Crore

S.No.	Particulars	Allocation (in %)/contract demand	Unit Sold (M.U)	% of total Unit Sold	Demand/fixd Charges @	Energy Charges @	Others, if any	Total (6+7+8)	Average' rate/kWh (paise/kWh)	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)		148.50		52.42	0.00		52.42	352.99	
1	Distribution Licensee/Trader/ Consumers									
(a)	JVVNL	40.27	59.80	40.27	21.11	0.00		21.11	352.99	
(b)	AVVNL	27.14	40.30	27.14	14.23	0.00		14.23	352.99	
(c)	IdVVNL	32.59	48.40	32.59	17.08	0.00		17.08	352.99	
2	Other recoveries									
3	Gross Revenue From Sale of Power									
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		148.50		52.42	0.00		52.42	352.99	

Form G 3.2

NON-TARIFF INCOME

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

Rs. Crore

S.No	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		(Actuals/audited)	Approved By Commission	April - March (Unaudited)	(Anticipated)	
1	2	3	4	5	6	7
	Non-tariff income					
i.	Interest on loans and advances to employees					
ii.	Interest on loans and advances to suppliers/contractors					
iii.	Interest and other income from investments and deposits					
iv.	Income from rent on land/building					
v.	Income from sale of scrap					
vi.	Interest on subvention received from govt.					
vii.	Net Income from sale of power to housing colony/ township for its staff					
viii.	Income from sale of ash/rejected coal					
ix.	Rebate for early payment					
x.	Income from advertisement					
xi.	Other miscellaneous receipts					
	Total non-tariff income	1.10	0.14	1.16	1.21	

Form G 3.3

REVENUE SUBSIDIES & GRANTS

Name of the Company RVUN
 Name of the Power Station : Mahi Hydel

Rs. Crore

S. No.	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		(Actuals/audited)	Approved By Commission	April - March (Unaudited)	(Anticipated)	
1	2	3	4	5	6	7
A)	Revenue Subsidies & Grants					
1	Subvention from State Government towards sale of electricity					
2	State Govt. Grant against addl. Intt. Liability on Company					
3	Any Other item					
	Total	0	0	0	0	

Form G 3.4

Capital Subsidies and Grants

Name of the Company
Name of the Power Station :

RVUN
Mahi Hydel

Rs. Crore

S. No.	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		(Actuals / audited)	Approved By Commission	April - March (Unaudited)	(Anticipated)	
1	2	3		6 = 4+5	7	8
A	Capital Cost					
	Subsidy towards cost of Capitals Asset					
	Grant towards cost of Capitals Assets					
	Receipts from State Govt. under any scheme as grant/subsidy					
	Total	0	0	0	0	

Form G 4.1

O&M Expenses

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

(Rs. Crore)

S.No.	Particulars	FY 17-18	FY 18-19		FY 19-20
		(Actuals/audited)	Approved By Commission	April - March (Unaudited)	(Anticipated)
1	2	3	4	5	6
1	O&M Expense norms (Rs. lakh per MW)	11.76	12.45	12.45	12.45
2	Total Capacity in MW	140.00	140.00	140.00	140.00
3	O&M expense	26.91	17.43	17.43	17.43
4	Special O&M expense for Water pipe lines>50 km				
a	Details of Water pumping Stations beyond 50 K.M. from Water intake point				
b	<u>Pumping Station No.1 :-</u>				
b.1	Power consumption Cost				
b.2	Repair / Maintenance / Employee / other Cost				
b.3	Sub total (b)				
c	<u>Pumping Station No.2 :-</u>				
	and so on				
d	Total (4) Special O&M Expenses				
5	Totsl O&M expenses	26.91	17.43	17.43	17.43

Form G 5.1

Details/Information to be Submitted in respect of Fuel for Computation of Energy Charges¹ for FPA

Name of the Company
Name of the Power Station

RVUN
Mahi Hydel

Particulars	Unit	For preceeding 3rd Month		For preceeding 2nd Month		For preceeding 1st Month	
		Domestic coal	Imported coal	Domestic coal	Imported coal	Domestic coal	Imported coal
2	3	4	5	6	7	8	9
Quantity of coal/lignite in stock at the beginning of the month	(MMT)	NA					
Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)						
Adjustment (+/-) in quantity supplied made by Coal/Lignite Company for diversion of wagons etc.	(MMT)						
Coal supplied by Coal/Lignite Company (2+3)	(MMT)						
Normative Transit & Handling Losses (For coal/Lignite based Projects)	(MMT)						
Net coal / Lignite Supplied (4-5)	(MMT)						
Total coal (Receipts & Opening Stock) (1)+(6)	(MMT)						
Coal/lignite burnt/consumed	(MMT)						
Coal/lignite in stock at the end of the month (7)-(8)	(MMT)						
Value of coal/lignite in stock	(Rs.)	NA					
Amount charged by the Coal /Lignite Company	(Rs.)						
Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)						
Total amount Charged (11+12)	(Rs.)						
Transportation charges by rail/ship/road transport	(Rs.)						
Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)						
Demurrage Charges, if any	(Rs.)						
Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)						
Total Transportation Charges (14+15+16+17)	(Rs.)						
Total amount Charged for coal/lignite supplied including Transportation (13+18)	(Rs.)						
Average cost of coal/lignite (Opening stock + receipts) (19/7)	(Rs./MMT)						
Cost of coal in stock at the end of the month (20)x(9)	(Rs.)						
Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)						
Weighted average GCV of coal/ Lignite as fired	(kCal/Kg)						
Weighted average Sulphur content	(%)						

Form G 5.2

Limestone for computation of Energy Rate

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

S. No.	Month	Unit	For preceeding 3rd Month	For preceeding 2nd Month	For preceeding 1st Month
1	2	3	4	5	6
1	Quantity of Limestone supplied by limestone Supply Company	(MMT)	NA	NA	NA
2	Adjustment (+/-) in quantity supplied made by Limestone supply Company	(MMT)			
3	Limestone supplied by Limestone supply Company (1+2)	(MMT)			
4	Amount charged by limestone Supply Company	(Rs.)			
5	Adjustment (+/-) in amount charged made by limestone Supply Company	(Rs.)			
6	Total amount Charged (4+5)	(Rs.)			
7	Transportation charges by rail/ship/road transport	(Rs.)			
8	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)			
9	Demurrage Charges, if any	(Rs.)			
10	Total Transportation Charges (7+8+9)	(Rs.)			
11	Total amount Charged for Limestone supplied including Transportation (6+10)	(Rs.)			

Form G 5.3

Energy Charges for Thermal Generation

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

S.No.	Particulars	Units	FY 17-18	FY 18-19		FY 19-20	Remarks
			April-March (Audited)	Approved By Commission	April - March (Unaudited)	Anticipated	
1	2	3	4	5	6	7	8
1	Operational Parameters						
1.1	Total Capacity	MW	140.00	140	140	140	
1.2	Availability	%	93.05	85.00	85.22	85	
1.3	PLF	%	14.73	12.23	9.54	12.20	
1.4	Gross Generation	MU	180.16	150.00	117.06	150.00	
1.5	Auxiliary Energy Consumption	%	0.72	1.00	1.00	1.00	
1.6	Auxiliary Energy Consumption	MU	1.30	1.50	1.17	1.50	
1.7	Net Generation	MU	178.86	148.50	115.89	148.50	
1.8	Heat Rate	kcal/kWh	0.00	0.00	0.00	0.00	
2	Fuel Parameters (for each primary and secondary fuel)						
2.1	Gross Calorific Value						
2.1.1	Indian Coal	kcal/kg	0	0	0	0	
2.1.2	Imported Coal	kcal/kg	0	0	0	0	
2.1.3	HFO	kcal/Ltr	0.00	0.00	0.00	0.00	
2.1.4	LDO	kcal/Ltr					
2.2	Landed Fuel Price per unit (Please specify the fuel)						
2.2.1	Indian Coal	Rs/MT	0.00	0.00	0.00	0.00	
2.2.2	Imported Coal	Rs/MT	0.00	0.00	0.00	0.00	
2.2.3	HFO	Rs/KL					
2.2.4	LDO	Rs/KL	0.00	0.00	0.00	0.00	
3	Fuel Consumption and Heat Contribution (for each fuel separately)						
3.1	Specific Fuel Consumption						
3.1.1	Indian Coal	Kg/kWh	0.00	0.00	0.00	0.00	
3.1.2	Imported Coal	Kg/kWh	0.00	0.00	0.00	0.00	
3.1.3	HFO	ml/kWh					
3.1.4	LDO	ml/kWh	0.00	0.00	0.00	0.00	
3.2	Total Fuel Consumption						
3.2.1	Indian Coal	MT	0	0	0	0	
3.2.2	Imported Coal	MT	0	0	0	0	
3.2.3	HFO	KL					
3.2.4	LDO	KL	0	0	0	0	
3.3	Heat Content (each fuel separately)						
3.3.1	Indian Coal	Million kcal	0.00	0.00	0.00	0.00	
3.3.2	Imported Coal	Million kcal	0.00	0.00	0.00	0.00	
3.3.3	HFO	Million kcal	0.00	0.00	0.00	0.00	
3.3.4	LDO	Million kcal	0.00	0.00	0.00	0.00	
	Total Heat Content		0.00	0.00	0.00	0.00	
4	Total Fuel Cost						
4.1.1	Indian Coal	Rs Crore	0.00	0.00	0.00	0.00	
4.1.2	Imported Coal	Rs Crore	0.00	0.00	0.00	0.00	
4.1.3	HFO	Rs Crore					
4.1.4	LDO	Rs Crore	0.00	0.00	0.00	0.00	
	Total Fuel Cost	Rs Crore	0.00	0.00	0.00	0.00	
6	Other Charges and Adjustments						
6.1.1	Other Charges (pl. specify details)	Rs Crore	0.00	0.00	0.00	0.00	
6.1.2	Other Adjustments (Pl. specify details)	Rs Crore					
	Total Other Charges and Adjustments	Rs Crore	0.00	0.00	0.00	0.00	
7	Total Cost (4+5+6)	Rs Crore	0.00	0.00	0.00	0.00	
8	Cost of Generation per unit (at Generation Terminal) (7/L.4)	Rs/kWh	0.00	0.00	0.00	0.00	
9	Energy Charge per unit (ex-bus) (7/L.7)	Rs/kWh	0.00	0.00	0.00	0.00	

Form G 6.1
Fixed assets & provisions for depreciation

Name of the Company
Name of the Power Station :
FY 17-18

RVUN
Mahi Hydel

S.NO.	ASSETS GROUP	RATE OF DEPRICIATION	Gross Fixed Assets				Provisions for Depreciation				Net Fixed Assets	
			At the beginning of the year	Additions during the year	Adjust. & Deductions	At the end of the year	Cummulative up to the beginning of the year	Additions during the year	Adjust. During the Year	Cummulative at the end of the year	At the Beginning of the Year	At the End of the Year
1	Land & land rights	0	0.87	0.00	0.00	0.87						
2	Building & Civil Works of power plant	3.34	38.16	0.00	0.00	38.16						
3	Hydraulic Works	5.28	121.29	0.00	0.00	121.29						
4	Other Civil Works	3.34	1.13	0.00	0.00	1.13						
5	Plant & Machinery	5.28	70.46	0.00	0.00	70.46						
6	lines & Cable Net Work	5.28	26.38	0.00	0.00	26.38						
7	Veehicles	6.33	0.48	0.00	0.00	0.48						
8	Furniture & fixtures	6.33	0.15	0.00	0.00	0.15						
9	Office Equipments	6.33	0.08	0.02095	0.00	0.10						
10	Capital spares	5.28	0.00	0.00	0.00	0.00						
11	IT Equipments	15.00										
12	IT/ SCADA Software	9.00										
13	Any other items	5.28										
	TOTAL		259.02	0.02	0.00	259.04	204.61	6.41	0.00	211.02	54.41	48.01

Mahi
FY 18-19

S.NO.	ASSETS GROUP	RATE OF DEPRICIATION	Gross Fixed Assets				Provisions for Depreciation				Net Fixed Assets	
			At the beginning of the year	Additions during the year	Adjust. & Deductions	At the end of the year	Cummulative up to the beginning of the year	Additions during the year	Adjust. During the Year	Cummulative at the end of the year	At the Beginning of the Year	At the End of the Year
1	Land & land rights	0	0.87	0.00	0.00	0.87						
2	Building & Civil Works of power plant	3.34	38.16	0.00	0.00	38.16						
3	Hydraulic Works	5.28	121.29	0.00	0.00	121.29						
4	Other Civil Works	3.34	1.13	0.00	0.00	1.13						
5	Plant & Machinery	5.28	70.46	0.00	0.00	70.46						
6	lines & Cable Net Work	5.28	26.38	0.00	0.00	26.38						
7	Veehicles	6.33	0.48	0.00	0.00	0.48						
8	Furniture & fixtures	6.33	0.15	0.00	0.00	0.15						
9	Office Equipments	6.33	0.10	0.00	0.00	0.10						
10	Capital spares	5.28	0.00	0.00	0.00	0.00						
11	IT Equipments	15.00										
12	IT/ SCADA Software	9.00										
13	Any other items	5.28										
	TOTAL		259.04	0.00	0.00	259.04	211.02	6.41	0.0000	217.44	48.01	41.60

Mahi
FY 19-20

S.NO.	ASSETS GROUP	RATE OF DEPRICIATION	Gross Fixed Assets				Provisions for Depreciation				Net Fixed Assets	
			At the beginning of the year	Additions during the year	Adjust. & Deductions	At the end of the year	Cummulative up to the beginning of the year	Additions during the year	Adjust. During the Year	Cummulative at the end of the year	At the Beginning of the Year	At the End of the Year
1	Land & land rights	0	0.87	0.00	0.00	0.87						
2	Building & Civil Works of power plant	3.34	38.16	0.00	0.00	38.16						
3	Hydraulic Works	5.28	121.29	0.00	0.00	121.29						
4	Other Civil Works	3.34	1.13	0.00	0.00	1.13						
5	Plant & Machinery	5.28	70.46	0.00	0.00	70.46						
6	lines & Cable Net Work	5.28	26.38	0.00	0.00	26.38						
7	Veehicles	6.33	0.48	0.00	0.00	0.48						
8	Furniture & fixtures	6.33	0.15	0.00	0.00	0.15						
9	Office Equipments	6.33	0.10	0.00	0.00	0.10						
10	Capital spares	5.28	0.00	0.00	0.00	0.00						
11	IT Equipments	15.00										
12	IT/ SCADA Software	9.00										
13	Any other items	5.28				0.00						
	TOTAL		259.04	0.00	0.00	259.04	217.44	6.41	0.0000	223.85	41.60	35.18

Form G 6.2a

Calculation of Interest on Normative Loan

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

Region

District

(Rs. Crore)

S. No.	Particular	FY 17-18		FY 18-19		FY 19-20		Remarks	
		Actual/Audited		Approved By Commission	April - March (Unaudited)		Anticipated		
		Term Loan	Transitional Loan		Term Loan	Transitional Loan	Term Loan		Transitional Loan
1	2	3		4		5		6	7
1	Gross Normative loan - Opening								
2	Cumulative repayment of Normative Loan upto previous year								
3	Net Normative loan - Opening	0.00	0.00		0.00	0.00	0	0	
4	Increase/Decrease due to ACE/de-capitalization during the Year	0.02	0.00		0.00	0.00	0.00	0	
5	Repayments of Normative Loan during the year	6.41	0.00		6.41	0	6.41	0	
6	Net Normative loan - Closing	0.00	0.00		0.00	0.00	0.00	0.00	
7	Gross Normative loan - Closing								
8	Average Net Normative Loan	0.00	0.00		0.00	0.00	0.00	0.00	
9	Weighted average Rate of Interest of actual Loans (Form 6.2b)	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	
10	Interest on Normative loan	0.00	0.00		0.00	0.00	0.00	0.00	
11	Finance Charges	0.01	0.00		0.00	0.00	0.00	0.00	
12	Total	0.01		0	0.00		0.00		

Form G 6.2b

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

(Rs. Crore)

S. No.	Particular	FY 17-18	FY 18-19	FY 19-20	Remarks
		Actual / Audited	Total	n+1	
1	2	3	4	5	6
1	Loan 1				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis			NA	
ix.	Interest on loan				
x.	Loan repayment effective from (date to be indicated)				
2	Loan 2				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis				
ix.	Interest on loan				
x.	Loan repayment effective from (date to be indicated)				
3	Loan 3				
..	...				
..	...				
4	Total Loan				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Interest on Loan				
ix.	Weighted average Rate of Interest on Loans				

Form G 6.3

Consolidated report on additions to Fixed Assets during the year

Name of the Company : RVUN
 Name of the Power Station : Mahi Hydel

Rs. Crore

S.No.	Asset Description	Asset Code	FY 17-18							FY 18-19							FY 19-20							
			(Actuals/audited)							(Actuals & Anticipated)							(Anticipated)							
			Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	11	12	13	14	15	16	17	
1	Land & land rights							0.00							0.00									0.00
2	Building & Civil Works of power plant							0.00							0.00									0.00
3	Hydraulic Works							0.00							0.00									0.00
4	Other Civil Works							0.00							0.00									0.00
5	Plant & Machinery							0.00							0.00									0.00
6	lines & Cable Net Work							0.00							0.00									0.00
7	Vehicles							0.00							0.00									0.00
8	Furniture & fixtures							0.00							0.00									0.00
9	Office Equipments							0.02							0.00									0.00
10	Capital spares							0.00							0.00									0.00
11	IT Equipments																							
12	IT/ SCADA Software																							
13	Any other items																							
	Total							0.02							0.00									0.00

Form G 6.4

RETURN ON EQUITY

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

Rs. Crore

S.No.	Particulars	Reference	FY 17-18	FY 18-19		FY 19-20	Remarks
			(Actuals/audited)	Approved By Commission	April - March	(Anticipated)	
1	2	3	4		7 = 5+6	8	9
1	Equity at the beginning of the year		170.38		170.38	170.38	
2	Capitalisation		0.02		0	0	
3	Equity portion of capitalisation		0.00		0	0	
4	Equity at the end of the year		170.38		170.38	170.38	
	Return Computation						
5	Return on Equity at the beginning of the year	15%*(1)	26.41		26.41	25.56	
6	Return on Equity portion of capitalisation (on pro-rata basis)	15%*(3)/(n/12)	0.00		0.00	0.00	
7	Total Return on Equity	(5)+(6)	26.41	26.41	26.41	25.56	

Form G 6.5

Statement of Additional Capitalisation after COD and Details for Financing

Name of the Petitioner: RVUN
 Name of the Power Station: Mahi Hydel

(Rs. Crore)

S.No.	Work/Equipment added after COD up to Cut off Date / Beyond Cut off Date	Amount Capitalised / Proposed to be capitalised	Justification	Regulations under which such additional capitalisation has been claimed	Source of Finance					Admitted Cost ¹
					Loan 1	Loan 2 and so on	Total Loan	Equity	Internal Sources or Others (mention details)	
1	Land & land rights	0.00			0.00	0.00	0.00	0.00		
2	Building & Civil Works	0.00			0.00	0.00	0.00	0.00		
3	Hydraulic Works	0.00			0.00	0.00	0.00	0.00		
4	Other Civil Works	0.00			0.00	0.00	0.00	0.00		
5	Plant & Machinery	0.00			0.00	0.00	0.00	0.00		
6	lines & Cable Net Work	0.00			0.00	0.00	0.00	0.00		
7	Vehicles	0.00			0.00	0.00	0.00	0.00		
8	Furniture & fixtures	0.00			0.00	0.00	0.00	0.00		
9	Office Equipments	0.02	Necessary for efficient and successful operation of a generating station	Clause No. 17 (2) (iv) RERC Regulation, 2014	0.02	0.00	0.02	0.00		
10	Capital spares	0.00			0.00	0.00	0.00	0.00		
11	IT Equipments	0.00			0.00	0.00	0.00	0.00		
12	IT/ SCADA Software	0.00			0.00	0.00	0.00	0.00		
13	Any other items	0.00			0.00	0.00	0.00	0.00		
	Total	0.02			0.02	0.00	0.02	0.004		

Form G 6.6

Interest on Working Capital

Name of the Company

RVUN

Name of the Power Station

Mahi Hydel

Rs. Crore

S. No.	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		(Actuals / audited)	Approved By Commission	April - March	(Anticipated)	
1	2	3		6 = 4+5	7	8
1	Coal Stock (as per norms)	0.00		0.00	0.00	
2	Secondary fuel stock (as per norms)	0.00		0.00	0.00	
3	O & M expenses (as per norms)	1.37		1.45	1.45	
4	Maintenance Spares (as per norms)	2.47		2.62	2.61	
5	Receivables (as per norms)	7.50		6.43	6.70	
6	limestone, if applicable (as per norms)					
	Total Working Capital	11.34		10.50	10.77	
	Rate of Interest	11.55%		11.55	11.25	
	Interest on Working Capital	1.31	1.18	1.21	1.21	

Form G 6.7

Insurance Expenses

Name of the Company

RVUN

Name of the Power Station :

Mahi Hydel

Rs. Crore

S. No.	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		Actual/Audited	Approved By Commission	April - March (Unaudited)	Anticipated	
1	2	4		7=6+5	8	9
	Insurance Expenses					
a)	Provision made/ proposed for the year					
b)	Actual insurance expenses incurred	0.00	0.00	0.00	0.08	
c)	Average Net Fixed Assets	51.21		44.81	38.39	
d)	Normative Insurance charges	0.10	0.00	0.09	0.08	

Tax on R.O.E.

Name of the Petitioner:

RVUN

Name of the Power Station :

Mahi Hydel

Rs. Crore

S. No.	Particulars	FY 17-18	FY 18-19		FY 19-20	Remarks
		(Actuals/audited)	Approved By Commission	Actual/ Estimated	Proposed to be recovered	
1	2	3		4	5	6
A)	Advance Tax assessed & deposited on----					
a)	for Quarter I & deposited on 15 th June.					
b)	for Quarter II & deposited on 15 th Sept.					
c)	for Quarter III & deposited on 15 th Dec.					
d)	for Quarter IV & deposited on 15 th March.					
	Total---(A)	0	0	0	0	
B)	Deffered tax liability before 01.04.2009					

Form G 7.1

Proposed improvement in performance

Name of the Company
Name of the Power Station :

RVUN
Mahi Hydel

Rs. Crore

S.No.	Particulars	FY 17-18	FY 18-19	FY 19-20	Remarks
		Actual/Audited	April - March (Unaudited)	Anticipated	
1	2	3	6 = 4+5	7	12
1	Plant load factor %	14.73	117.06	12.20	
2	Auxiliary consumption %	0.72	1.00	1.00	
3	Specific fuel consumption				
(I)	coal, kg / kWh	0.00	0.00	0.00	
ii)	gas, SCM / kWh				
(iii)	oil, ml / kwh	0.00	0.00	0.00	
(iv)	Limestone kg / kWh				
(v)	any other fuel				
4	Station heat rate, kcal / kwh	0.00	0.00	0.00	
5	Annual Maitenance shut down days				
6	Forced / planned shut down except annual shut down				
(I)	number / year				
(ii)	cumulative duration, hours / year				
7	Fly ash utilisation, %				
8	Other bye product utilisation(give list)				
9	Outstanding dues, days of receivables				
10	Availability	93.05	85.22	85.00	

Form G 8.1

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects

Name of the Company :	RVUN						
Name of the Power Station :	Mahi Hydel						
New Projects							
Capital Cost Estimates							
Board of Director/ Agency approving the Capital cost estimates:							
Date of approval of the Capital cost estimates:							
	Present Day Cost			Completed Cost			
Price level of approved estimates	As of End of _____ Qtr. Of the year _____			As on Scheduled COD of the Station			
Foreign Exchange rate considered for the Capital cost estimates							
Capital Cost excluding IDC & FC							
Foreign Component, if any (In Million US \$ or the relevant Currency)			N/A				
Domestic Component (Rs. Cr.)							
Capital cost excluding IDC & FC (Rs. Cr)							
IDC & FC							
Foreign Component, if any (In Million US \$ or the relevant Currency)							
Domestic Component (Rs. Cr.)							
Total IDC & FC (Rs.Cr.)							
Rate of taxes & duties considered							
Capital cost Including IDC & FC							
Foreign Component, if any (In Million US \$ or the relevant Currency)							
Domestic Component (Rs. Cr.)							
Capital cost Including IDC & FC (Rs. Cr)							
Schedule of Commissioning							
COD of Unit-I/Block-I							
COD of Unit-II/Block-II							

COD of last Unit/Block							

Form G 8.2

Break-up of Capital Cost for Coal/Lignite / gas/ liquid fuel based projects

Name of the Company : RVUN

Name of the Power Station : Mahi Hydel

S.No.	Break Down	Cost in Rs. Crores			Variation (Rs. Cr.)	Reasons for Variation	Rs. Crore. Admitted Cost (Rs. Cr.)
		As per original Estimates	Actual Expenditure as on COD	Liabilities/Provisions			
1	2	3	4	5	6	7	8
1.0	Land & Site Development						
2.0	Access road						
3.0	Temporary construction and enabling works						
4	Water storage system						
5.0	Water transportation system						
6.0	Railway system						
7.0	Steam generator / Boiler Island						
8.0	Steam Turbine Generator island including taxes, duties etc.						
9.0	Balance of Plant						
9.1	Mechanical BOP						
9.1.1	Coal handling system / fuel handling system and storage						
9.1.2	Ash handling system						
9.1.3	CW System						
9.1.4	DM Plant						
9.1.5	Raw water system		N/A				
9.1.6	Effluent treatment Plant						
9.1.7	Station Piping System						
9.1.8	Fire Fighting System						
9.1.9	Compressed Air System						
9.1.10	Air Conditioning and Ventilation System						
9.1.11	Misc. items including EOT cranes, hoist and elevators etc.						
9.1.12	Tax, Duties, F&I						
9.1.13	Spares						
9.2	Electrical BOP						
9.2.1	Power Transformers						
9.2.2	Switchyard						
9.2.3	Bus Duct						
9.2.4	HT Switchgear						
9.2.5	LT Switchgear						
9.2.6	DC Power System						
9.2.7	Power and Control Cables						
9.2.8	Control and Relay Panels						
9.2.9	Station Lighting						
9.2.10	DC Set						
9.2.11	Electrical equipment erection, cabling and grounding						
9.2.12	Other Misc. items						
9.2.13	Taxes, Duties and F&I						
9.2.14	ETC and spares						
9.3	Total BOP Civil Works						
9.3.1	Main Power house building						
9.3.2	Plant water system						
9.3.3	Chimney						
9.3.4	Permanent Township						
9.3.5	Ash dyke						
9.3.6	Misc. plant buildings						
9.3.7	Temp. sheds						
10.0	Control and Instrumentation						
11.0	Operator Training						
12.0	Start up fuel						
13.0	Construction insurance						
14.0	Special T&P						
15.0	Total Cost of Works (sum of items 1 to 15 above)						
16.0	Overheads						
16.1	Development Expenses						
16.2	Legal Expenses						
16.3	Establishment/Construction supervision						
16.4	Consultancy and Engineering						
16.5	Audit and Account						
16.6	Contingency						
16.7	Sub-total of Item 16						
17.0	Capital cost excluding IDC & FC						
18	Interest During Construction (IDC)						
19	Financing Charges (FC)						
20.0	Capital cost including IDC & FC						
21	Cost per MW						

Form G 8.3

Break-up of Construction / Supply / Service packages

Name of the Company :

RVUN

Name of the Power Station :

Mahi Hydel

S.No.	Name/No. of Construction / Supply / Service Package	Scope of works ¹ (in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Award ² in (Rs. Cr.)	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier(Rs.Cr.)	Taxes & Duties and Pre-operative Expenses	IDC, FC, FERV & Hedging cost	Variation (Rs.Cr.)	Variation on account of change in Price (Rs. Cr.)	Reason for change in Price	Variation on account of change in Scope of Work (Rs. Cr.)	Reason for Change in Scope of Work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13						N/A											
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	

Form G 8.4

Details of Project Specific Loans

Name of the Company

RVUN

Name of the Power Station

Mahi Hydel

Commercial Operation Date

Year (n-1)*

Rs. Crore

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto previous year/during current/ensuing year/COD ^{3,4,5,13,15}						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor ⁹						
If above is yes,specify caps/floor			N/A			
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						

Form G 8.5

Draw Down Schedule for Calculation of IDC & Financing Charges (year wise from commencement of works to COD)

Name of the Company
Name of the Power Station

RVUN
Mahi Hydel

Rs. Crore

S.No.	Draw Down Particulars	Quarter 1			Quarter 2			Quarter 3			Quarter 4		
		Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Loans												
1.1	Foreign Loans												
1.1.1	Foreign Loan 1												
	Draw down Amount												
	IDC												
	Financing charges												
1.1.2	Foreign Loan 2												
	Draw down Amount				N/A								
	IDC												
	Financing charges												
1.1.3	Foreign Loan 3												
	Draw down Amount												
	IDC												
	Financing charges												
1.1.4	--												
	--												
	--												
1.1	Total Foreign Loans												
	Draw down Amount												
	IDC												
	Financing charges												
1.2	Indian Loans												
1.2.1	Indian Loan 1												
	Draw down Amount	--	--		--	--		--	--		--	--	
	IDC	--	--		--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--		--	--	
1.2.2	Indian Loan 2												
	Draw down Amount	--	--		--	--		--	--		--	--	
	IDC	--	--		--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--		--	--	
1.2.3	Indian Loan 3												
	Draw down Amount	--	--		--	--		--	--		--	--	
	IDC	--	--		--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--		--	--	
1.2.4	--	--	--		--	--		--	--		--	--	
	--	--	--		--	--		--	--		--	--	
	--	--	--		--	--		--	--		--	--	
1.2	Total Indian Loans												
	Draw down Amount	--	--		--	--		--	--		--	--	
	IDC	--	--		--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--		--	--	
1	Total of Loans drawn												
	IDC												
	Financing charges												
2	Equity												
2.1	Foreign equity drawn												
2.2	Indian equity drawn	--	--		--	--		--	--		--	--	
	Total equity deployed												