

**Petition for
Aggregate Revenue Requirement (ARR) and Tariff
for FY 2017-18 For
Ramgarh Gas & Thermal Power Plant (RGTPP)**

Submitted to

Rajasthan Electricity Regulatory Commission

Jaipur

by

Rajasthan Rajya Vidyut Utpadan Nigam Limited

Vidyut Bhavan, Janpath, Jaipur

January-2017

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Definitions

Act	The Electricity Act, 2003
Application	This ARR and Tariff Petition for FY 2017-18 for Ramgarh Gas and Thermal Power Station 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 2014.
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 (The Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2014 notified by RERC on March- 27, 2014
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 – 16	Financial Year 2015-2016
FY – 17	Financial Year 2016-2017
FY – 18	Financial Year 2017-2018
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
NRLDC	Northern Regional Load Despatch Centre
PLF	Plant Load Factor
PPA	Power Purchase Agreement
R&M	Repairs and Maintenance
RERC/ Commission	Rajasthan Electricity Regulatory Commission
RVUN	Rajasthan Rajya Vidyut Utpadan Nigam Limited
RVPN	Rajasthan Rajya 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 39:29:32 from October 2011, 40:28:32 from June 2015 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 RGTPP (110.50 MW).
- 1.3 RGTPS 110.5 MW stage 1 & 2 has achieved COD in three phases (GT 1 (35.5 MW) dated 12/01/1996, GT 2 (37.5 MW) dated 07/08/2002 and STG (37.5 MW) dated 31/03/2003 and RGTPS 160 MW stage 3 has achieved COD in two phases (GT (110 MW) dated 06/12/2013 and STG (50 MW) dated 07/06/2014).
- 1.4 RVUN have to file its petition for determination of ARR and Tariff Petition for 2016-17 in accordance with provision of RERC tariff regulation 2014. Accordingly this petition is being submitted for RGTPP 110.50 MW and 160 MW for FY 2016-17 before RERC for ARR and Tariff determination.

A2: GENERATION FORECAST

- 2.1 The installed capacity of RGTPP is 110.50 MW (Stage I&II) and 160 MW (Stage III). The estimated figures of Gross generation, PLF & net energy sale to three Discoms from RGTPP station of RVUN for the period FY 2015-16, FY 2016-17 and FY 2017-18 are as shown in table below:

Table 1: Gross generation, PLF & Ex-bus energy sale from RGTPP Station

Particulars	FY 2015-16		FY 2016-17		FY 2017-18	
Capacity (MW)	110.50	160.00	110.5	160.00	110.5	160
PLF (%)	50.38%	71.51%	60.04%	68.43%	70.00%	70.00%
Gross generation (MU)	501.55	1,021.03	586.68	965.90	677.59	981.12
Aux Cons. (%)	4.77%	3.85%	3.32%	3.08%	2.40%	2.40%
Net Generation (MU)	477.63	981.77	567.20	936.16	661.33	957.57

- 2.2 The fixed cost elements as detailed hereunder for RGTPP for the FY 2015-16, FY 2016-17 and FY 2017-18 are as below.

A3: CAPITAL COST

- 3.1 For the purpose of Computation of depreciation, RVUN has considered approved capital cost as per RERC order dated 17.10.2016. Accordingly the capital cost of RGTPP Stage 1&2 (110.5 MW) has been considered as Rs.311.08 Crore. Further, the RVUN has claimed the additional capitalization of Rs. 0.20 crore and Rs. 0.05 Crore during FY 2014-15 and FY 2015-16 respectively, which is incurred for furniture and office equipments during FY 2014-15 and 2015-16 respectively as per the regulation 19 (1) (f) of RERC tariff Regulation 2009.
- 3.2 Accordingly, the closing balance of gross fixed assets as on 31.03.2016 of RGTPS 110.5 Stage I & II MW was Rs. 311.33 crore.
- 3.3 It is submitted that RGTPP Stage – III (160 MW) had achieved the date of commercial operation 07.06.2014 subsequently on 14.05.2014 RVUN has filed the petition for determination of provisional Tariff under regulation 42(4) of RERC tariff Regulation 2014 before the Hon'ble Commission. The Hon'ble Commission in its order dated 18.06.2015 has finalized the provisional capital cost of RGTPP Stage-III of Rs 684.88 Cr. against the RVUN Claim of Rs. 806.66 Cr.
- 3.4 For RGTPP Stage- III (160 MW) the opening balance of capital cost for the FY 2015-16 is considered as Rs. 713.92Cr with additional capitalisation of Rs. 29.04 Cr during FY 2014-15 i.e. after the COD till 31st March 15. Further, during FY 2015-16 the RVUN has claimed the additional capitalisation of Rs. 29.72 Cr and further, RVUN have to incur additional capitalization of Rs. 55.57 crore during FY 2016-17 against the original scope of work as per regulation 17 (1)(a)&(b) of RERC Tariff Regulation 2014. Therefore RVUN is claiming capital cost of RGTPP Stage- III (160 MW) as Rs. 799.21 crore.
- 3.5 Regulation 19 of RERC Tariff Regulations 2009 and regulation 17 of RERC Tariff Regulations 2014 on additional capitalization are reproduce below:

19 Additional capitalization

- 3.6 (1) *The following capital expenditure, actually incurred after the date of commercial operation and duly audited, may be considered by the Commission, subject to prudent check*
- (a) Due to deferred liabilities within the original scope of work,*
 - (b) On works within the original scope of work, deferred for execution*
 - (c) To meet award of arbitration or satisfaction of order or decree of a court arising out of original scope of works,*
 - (d) On account of change in law,*
 - (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 18,*
 - (f) Any additional works/ services, which have become necessary for efficient and successful operation of a generating station or a transmission or a distribution system but not included in the original capital cost:*

17 Additional capitalization

- (1) The following capital expenditure, actually incurred 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;
 - (b) On works deferred for execution;
 - (c) To meet award of arbitration or satisfaction of order or decree of a court;
 - (d) On account of change in law;
 - (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in regulation 16.
- (2) The capital expenditure incurred on the following counts after the cut-off date may, at its discretion, be admitted by the Commission, subject to prudence check:
- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
 - (ii) Change in law;
 - (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
 - (iv) Any additional works/ services, which have become necessary for efficient and successful operation of a generating station or transmission system but not included in the original capital cost.

FIXED CHARGES

A4: RGTPP (110.5 MW AND 160 MW) ANNUAL CAPACITY (FIXED) CHARGES FOR 2016-17

Depreciation:-

- 4.1 The depreciation has been computed after considering the above capital cost and additions to the fixed assets as follows:

Table 2 Depreciation (Rs. in Crore)

Station	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Depreciation	14.93	37.45	14.93	39.53	14.93	40.95

Interest on Loans:-

- 4.2 The loan-wise interest expenses which include term loans as well as transitional loans have been worked-out and taken as part of fixed cost along with finance charges as per regulation 21 of RERC tariff regulations 2014. The loan repayment amount for term loans and other loans combined has been taken equal to the depreciation figure envisaged for FY 2015-16, FY 2016-17 and FY 2017-18.
- 4.3 Estimated figures for interest on term loan, other loan and finance charges as computed under format 6.2 are summarised in table below:

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

Station	FY 15-16		FY 16-17		FY 17-18	
Particular	110.5	160	110.5	160	110.5	160
Interest (Term Loan + Transitional Loan) and finance charges	0.00	70.59	0.00	74.72	0.00	77.41
Total	0.00	70.59	0.00	74.72	0.00	77.41

Interest on working Capital

4.4 The interest on working capital loan for FY 2015-16, FY 2016-17 and FY 2017-18 has been computed as per the norms defined under clause No.27 of RERC Tariff regulation 2014. For FY 2015-16, FY 2016-17 and FY 2017-18, the rate of interest on WLC has 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.

Estimated figures of Interest on Working Capital Loan as computed under format 6.11 is summarised as below:

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

Station	FY 15-16		FY 16-17		FY 17-18	
RGTPS	110.5	160	110.5	160	110.5	160
Interest on Working Capital	10.54	10.88	5.40	10.86	4.96	9.38

Operation & Maintenance Expenses

4.5 The Operation & Maintenance Expenses have been computed as per the norms prescribed under Regulation 47 of RERC Tariff Regulation 2014.

4.6 Estimated Figures for the period FY 2015-16, FY 2016-17 and FY 2017-18 as computed under format 4.1 are summarised in table below:

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

Station	FY 15-16		FY 16-17		FY 17-18	
RGTPS	110.5	160	110.5	160	110.5	160
Operation and Maintenec	23.05	34.78	24.40	36.81	19.18	22.88

Recovery of ARR & Tariff Petition Fees

4.7 The Hon'ble Commission vide order dated 10.03.08 has allowed to pass through the fees levied for filling up of ARR & Tariff Petition, as expenses in the ARR. Accordingly, RVUN has claim the fee as under. The Commission may consider and allow the same.

4.8 The ARR & Tariff Petition Fees for FY 2015-16, FY 2016-17 and FY 2017-18 are summarised in table below:

Table 6: Recovery of ARR & Tariff Petition Fees (Rs. in Crore)

Station	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Petition Fee	0.06	0.08	0.06	0.08	0.06	0.08

Insurance Charges

- 4.1 RVUN is claiming the insurance charges for RGTPP for the year 2017-18 based on the estimates of actual insurance charges paid in preceding year with an increment of 5% YoY (year on year). The details are shown in the table below:

Table 7: Insurance Charges (Rs. in Crore)

Station	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Insurance Charges	0.29	0.38	0.30	0.40	0.32	0.42

Return on Equity (ROE)

- 4.2 The Return on Equity has been computed as per the norms prescribed under Regulation 20 of RERC Tariff Regulation 2014.

- 4.3 The Return on Equity (ROE) for FY 2015-16, FY 2016-17 and FY 2017-18 are summarised in Table below:

Table 8: Return on Equity (Rs. in Crore)

Station	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Return on Equity	6.01	7.44	18.63	24.78	18.63	24.78
Tax on Return on Equity	0.00	0.00	0.00	0.00	0.00	0.00

Non-Tariff Income

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

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

- 4.5 Estimated figures of Non Tariff Income for FY 2015-16, FY 2016-17 and FY 2017-18 are summarised in table below:

Table 9: Non Tariff Income (Rs. in Crore)

Station	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Non Tariff Income	0.52	0.76	0.55	0.80	0.57	0.84

A5: NET FIXED CHARGES

5.1 The net fixed charges is computed for FY 2015-16, FY 2016-17 and FY 2017-18 in the table below:

Table 10: Net Capacity Charges for RGTPS (Rs. in Crore)

Particulars	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
Prior Period Exp.	-1.22	0	0	0	0	0
Depreciation	14.93	37.45	14.93	39.53	14.93	40.95
Interest on term Loan & Transitional Loan	0.00	70.59	0.00	74.72	0.00	77.41
Return on Equity	6.01	7.44	18.63	24.78	18.63	24.78
Interest on Working Capital	10.66	10.88	5.40	10.86	4.96	9.38
O & M Expenses	23.05	34.78	24.40	36.81	19.18	22.88
Insurance Charges	0.29	0.38	0.30	0.40	0.32	0.42
Tax on ROE	0.00	0.00	0.00	0.00	0.00	0.00
Recovery of ARR and Tariff Petition Fee	0.06	0.08	0.06	0.08	0.06	0.08
Less: Non-Tariff income	0.52	0.76	0.55	0.80	0.57	0.84
Net Fixed Charges	53.26	160.84	63.18	186.39	57.51	175.07

A6: VARIABLE CHARGES

- 6.1 RVUN has computed the SHR of 2214.00 kCal/ kWh (2830X30%+1950X70%) and 2156.23 kCal/ kWh (2798.25X30%+1881.08X70%) considering the operation hours of 30% for open cycle and 70 % for combined cycle for RGTPS 110.50 MW and 160 MW respectively. Auxiliary consumption has been taken 2.40% as considering the ratio of 30% for open cycle and 70 % for combined cycle.
- 6.2 The Gross calorific value of the gas/oil and the average rate of gas/oil supply have been calculated on the basis of receipts of previous three months during April 16-June 16 of 2015 as per Commission's formats. For FY 2017-18, GCV of Natural Gas has been considered as 5141.52 KCal/SCM for 110.50 MW and 8855.38 kCal/SCM for RGTPS stage - 3 (160 MW) and the price of Natural Gas has been taken as Rs. 5558.39/- per Th. Scm. and Rs. 12237.53/- per Th. Scm for 110.50 MW and 160 MW respectively. The GCV of secondary fuel (OIL) been considered as 9300 KCal/ltr. for HSD for 110.5 MW. Price of HSD has been taken as Rs. 42978.89 Rs./kl for 110.50 MW.
- 6.3 The overall estimated figures of variable Cost for the period under consideration, are summarised in Table below:

Table 11: Variable Cost (Rs. in Crores)

Particulars	Units	FY 2015-16		FY 2016-17		FY 2017-18	
Operational Parameters							
Total Capacity	MW	110.50	160.00	110.50	160.00	110.50	160.00
Availability	%						
PLF	%	50%	72%	60%	68%	70%	70%
Gross Generation	MU	501.55	1021.03	586.68	965.90	677.59	981.12
Auxiliary Energy Consumption	%	4.77%	3.85%	3.32%	3.08%	2.40%	2.40%
Auxiliary Energy Consumption	MU	23.92	39.26	19.49	29.74	16.26	23.55
Net Generation	MU	477.63	981.77	567.20	936.16	661.33	957.57
Heat Rate	kcal/kWh	2533.38	2324.21	2508.71	2297.39	2214.00	2156.23
Gross Calorific Value							
Fuel - 1 (Natural Gas)	kcal/SCM	5113.90	9022.88	5141.52	8855.38	5141.52	8855.38
Fuel - 2 (HSD)	kcal/Ltr.	9300.00	0.00	9300.00	0.00	9300.00	0.00
Landed Fuel Price per unit (Please specify the fuel)							
Fuel - 1 (Natural Gas)	Rs/Th. SCM	7002.30	12211.58	5558.39	12237.53	5558.39	12237.53
Fuel - 2 (HSD)	Rs/KL	35807.18	0.00	42978.89	0.00	42978.89	0.00
Specific Fuel Consumption							
Fuel - 1 (Natural Gas)	SCM/ kWh	0.50	0.26	0.50	0.27	0.43	0.24
Fuel - 2 (HSD)	ML/ kWh	0.02	0.00	0.29	0.00	0.50	0.00
Total Fuel Consumption							
Fuel - 1 (Natural Gas)	SCM	248446334.40	263007862.00	285949988.54	250587399.7	291165790.9	238896632.7
Fuel - 2 (HSD)	KL	8.34	0.00	171.16	0.00	338.80	0.00
Heat Content (each fuel separately)							
Fuel - 1 (Natural Gas)	Million kcal	1270528.5	2373088.7	1470216.3	2219046.6	1497033.5	2115520.4
Fuel - 2 (HSD)	Million kcal	77.52	0.00	1591.76	0.00	3150.79	0.00
Fuel Cost							
Fuel - 1 (Natural Gas)	Rs Crore	173.97	321.17	158.94	306.66	161.84	292.35
Fuel - 2 (HSD)	Rs Crore	0.03	0.00	0.74	0.00	1.46	0.00
Total Fuel Cost	Rs Crore	174.00	321.17	159.68	306.66	163.30	292.35
Cost of Generation per unit	Rs/kWh	3.47	3.15	2.72	3.17	2.41	2.98
Energy Rate per unit sent out	Rs/kWh	3.64	3.27	2.82	3.28	2.47	3.05

A7: ESTIMATED ARR FOR RGTPP

7.1 The recovery of ARR proposed for RGTPP is summarised in table below

Table 12: RGTPP ARR for RGTPP (Rs. in Crores)

Particulars	FY 15-16		FY 16-17		FY 17-18	
RGTPS	110.5	160	110.5	160	110.5	160
Capacity (Fixed Charges)	53.26	160.84	63.18	186.39	57.51	175.07
Variable Cost	174.00	321.17	159.68	306.66	163.30	292.35
Aggregate Revenue Requirement	227.26	482.01	222.86	493.05	220.81	467.42

A8: RGTPP ESTIMATED TARIFF

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

Table 13 RGTPP ESTIMATED TARIFF

Particulars	FY 15-16		FY 16-17		FY 17-18	
	110.5	160	110.5	160	110.5	160
RGTPS						
Ex-Bus Generation (MU)	477.63	981.77	567.19	936.16	661.33	957.57
Capacity(fixed) Charges	53.26	160.84	63.18	186.39	57.51	175.07
Variable Cost	174.00	321.17	159.68	306.66	163.30	292.35
Rate of Fixed Charge(Rs/kWh)	1.12	1.64	1.11	1.99	0.87	1.83
Rate of Variable Charge(Rs/kWh)	3.64	3.27	2.82	3.28	2.47	3.05
Rate of Sale of Energy (Rs/kWh)	4.758	4.910	3.929	5.267	3.339	4.881

A9: RESPONDENTS:-

9.1 All the three Discom's (i.e JVVNL/AVVNL/ JdVVNL) Jaipur/ Ajmer/ Jodhpur are respondents for the above petition.

A10: PRAYER

10.1 RVUN humbly requests the Hon'ble Commission to:

- ◆ Approval of ARR & Tariff for FY-2017-18.
- ◆ To allow adhoc tariff w.e.f. 1.4.17 for FY 2017-18 till final tariff order is issued as proposed in the petition.
- ◆ To condone 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
- ◆ And pass such other further orders as are deemed fit and proper in the facts and circumstances of the case

(Y.K.Upadhyay)
Chief Accounts Officer (IA&C)
RVUN, Jaipur.

(A.K.Saxena)
Addl. Chief Engineer (PPMC &IT)
RVUN, Jaipur.

Form G 1.1

Summary of Tariff Proposal

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Ramgarh Gas & Thermal Power Plant

(Rs. Crore)

S.No.	Particulars	Ref.of Form No	FY 2015-16		Approved by the Commission on Stage I & II	FY 2016-17				FY 2017-18		Remark	
			Actual/Audited			Apr-Sep (Actual)	Oct - Mar	Apr-Sep (Actual)	Oct - Mar	Anticipated			
			110.5 MW	160 MW		110.5 MW	110.5 MW	160 MW	160 MW	110.5 MW	160 MW		
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Capacity (Fixed) Charge												
1.1	Depreciation	6.1	14.93	37.45		7.47	7.47	19.76	19.76	14.93	40.95		
1.2	Interest on term Loan & Transitional Loan	6.2	0.00	70.59		0.00	0.00	37.36	37.36	0.00	77.41		
1.3	Return on Equity	6.9	6.01	7.44		9.32	9.32	12.39	12.39	18.63	24.78		
1.4	Interest on Working Capital	6.11	10.66	10.88		2.69	2.71	5.47	5.39	4.96	9.38		
1.5	O & M Expenses	4.1	23.05	34.78		12.20	12.20	18.41	18.41	19.18	22.88		
1.6	Insurance Charges	6.12	0.29	0.38		0.15	0.15	0.20	0.20	0.32	0.42		
1.7	Tax on ROE	6.13	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		
1.9	Recovery of ARR and Tariff Petition Fee		0.06	0.08		0.03	0.03	0.04	0.04	0.06	0.08		
	Prior Period Expenses		1.29	0.00		0.00	0.00	0.00	0.00	0.00	0.00		
2.1	Less: Non-Tariff income	3.2	0.52	0.76		0.27	0.27	0.40	0.40	0.57	0.84		
	Total (1)- Capacity (Fixed Charges)		55.78	160.84		31.58	31.60	93.23	93.16	57.51	175.07		
2	Total- Energy (variable) charges		174.00	321.17		78.25	81.42	160.88	145.77	163.30	292.35		
3	Units sold to Discoms (MU)		477.63	981.77		237.43	329.76	458.69	477.47	661.33	957.57		
4	Rate of Fixed Charges. (1/3)		1.168	1.638		1.330	0.958	2.033	1.951	0.870	1.828		
5	Rate of Variable Charges.												
5.1	Rate of Energy Charge from Primary Fuel (REC) _p	5.1											
	(i) Natural Gas		3.642	3.271		3.295	2.447	3.507	3.053	2.447	3.053		
	(ii) Imported Coal		0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000		
	(iii) Any Other fuel(HSD)												
	Total 2.1												
5.2	Rate of Energy Charge from Secondary Fuel (REC) _s	5.1	0.001	0.000		0.000	0.022	0.000	0.000	0.022	0.000		
5.3	Total-(2) Rate of Energy Charge ex-bus(REC) ^{3A,3B,3C}	5.1	4.811	4.910		4.626	3.428	5.540	5.004	3.339	4.881		

Form G 1.2

Aggregate Revenue Requirement

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Ramgarh Gas & Thermal Power Plant

(Rs. Crore)

S.No.	Particulars	Reference Form	FY 2015-16		FY 2016-17			FY 2017-18		Remarks	
			Actual/Audited		Approved by the Commission		APR- MAR	APR-MAR	Anticipated		
					Stage I & II	Stage-III	110.5 MW	160 MW	110.5 MW		160 MW
1	2	3	110.5 MW	160 MW	Stage I & II	Stage-III	110.5 MW	160 MW	110.5 MW	160 MW	
A	Receipts										
1	Revenue from Sale of Power (Tariff income)	3.1	181.46	482.01	0.00	0.00	222.86	493.05	220.81	467.42	
2	Non Tariff income		0.52	0.76	0.00	0.00	0.55	0.80	0.57	0.84	
3	Revenue Subsidies, Grants & Subvention from State Govt.										
	Total- (A)		227.78	482.77	0.00	0.00	223.40	493.85	221.38	468.25	
B	Expenditure										
1	Variable Costs, including Fuel Cost	5.1	174.00	321.17	0.00	0.00	159.68	306.66	163.30	292.35	
2	Depreciation	6.1	14.93	37.45	0.00	0.00	14.93	39.53	14.93	40.95	
3	Interest on term Loan & Finance charges	6.2	0.00	70.59	0.00	0.00	0.00	74.72	0.00	77.41	
4	Return on Equity	6.9	6.01	7.44	0.00	0.00	18.63	24.78	18.63	24.78	
5	Tax on ROE	6.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	Interest on Working Capital	6.11	10.66	10.88	0.00	0.00	5.40	10.86	4.96	9.38	
7	O & M Expenses	4.1	23.05	34.78	0.00	0.00	24.40	36.81	19.18	22.88	
8	Insurance Charges	6.14	0.29	0.38	0.00	0.00	0.30	0.40	0.32	0.42	
9	Recovery of ARR and Tariff Petition Fee		0.06	0.08	0.00	0.00	0.06	0.08	0.06	0.08	
10	Prior Period Expenses		-1.22								
C	Total- (B) Expenditure		227.78	482.77	0.00	0.00	223.40	493.85	221.38	468.25	
D	A.R.R. (C-A.2)		227.26	482.01	0.00	0.00	222.86	493.05	220.81	467.42	

Plant Characteristics

Name of the Petitioner
Name of the Power Station/Unit:

Rajasthan Rajya Vidut Utpadan Nigam Limited,Jaipur (Raj.)
Ramgarh Gas & Thermal Power Plant

Basic characteristics of the plant ¹							
<u>Special Features of the Plant</u>							
Site Specific Features ²							
Special Technological Features ³							
Environmental Regulation related features ⁴							
Any other special features							
Fuel Details ⁵	Primary Fuel			Secondary Fuel		Alternate Fuels	
	Natural Gas			HSD			
Details				Unit number			
	1	2	3				
	GT 1	GT 2	STG	STG	STG		
Installed Capacity (IC)	35.5	37.5	37.5	110	50		
Date of Commercial Operation (COD)	12-Jan-96	07-Aug-02	31-Mar-03	06-Dec-13	07-Jun-14		
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							

Operational Parameters - Generation

Name of Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Station/Unit:

Ramgarh Gas & Thermal Power Plant

S. No.	Particulars	Units	FY 2015-16		FY 2016-17					FY 2017-18		Remarks
			Audited/Actual		Approved by the Commission	Apr-Sep (Actual)	Oct - Mar (Anticipated)	Apr-Sep (Actual)	Oct - Mar (Anticipated)	Anticipated		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Operational Parameters - Hydel											
1.1	Total Capacity	MW	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.2	Capacity Index	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.3	Design Energy	MU	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.4	Gross Generation	MU	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.5	Auxiliary Energy Consumption	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.6	Auxiliary Energy Consumption	MU	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1.7	Net Generation	MU	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2	Operational Parameters - Thermal											
2.1	Total Capacity	MW	110.5	160	110.5 & 160	110.5	110.5	160	160	110.5	160	
2.2	Availability	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
2.3	Plant Load Factor	%	50.38%	71.51%	0.00%	50.13%	70.00%	67.25%	70.00%	70.00%	70.00%	
2.4	Gross Generation	MU	501.545	1021.029	0.000	248.820	337.860	476.688	489.216	677.590	981.120	
2.5	Auxiliary Energy Consumption	%	4.77%	3.85%	0.00%	4.57%	2.40%	3.78%	2.40%	2.40%	2.40%	
2.6	Auxiliary Energy Consumption	MU	23.920	39.259	0.000	11.390	8.110	18.000	11.740	16.262	23.547	
2.7	Net Generation	MU	477.625	981.769	0.000	237.430	329.760	458.688	477.470	661.328	957.573	
2.6	Heat Rate	Kcal/Kwh	2533.38	2324.213287	0	2908.874107	2214	2442.23547	2156.23	2214	2156.23	

Revenue from Sale of Power

Name of the Company
Name of the Power Station :

Year 2015-16 FOR 160 MW

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 (paisa/kWh)	Existing Tariff
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		392.71	40.0%	64.33477709	128.5		192.80	490.96	0.000
(b)	AVVNL		274.90	28.0%	45.03434397	89.9		134.96	490.96	0.000
(c)	JDVVNL		314.17	32.0%	51.46782168	102.8		154.24	490.96	0.000
(d)										
2	Other recoveries									
3	Gross Revenue From Sale of Power		981.77		160.8369427	321.17				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		981.77		160.84	321.17		482.01		0.000

Year 2016-17 FOR 160 MW

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 (paisa/kWh)	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		374.46	40.0%	74.55684196	122.7		197.22	526.67	
(b)	AVVNL		262.12	28.0%	52.18978937	85.9		138.05	526.67	
(c)	JDVVNL		299.57	32.0%	59.64547357	98.1		157.78	526.67	
2	Other recoveries									
3	Gross Revenue From Sale of Power		936.16		186.39	306.66				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		936.16		186.39	306.66		493.05		

Year 2017-18 160 MW

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 (paisa/kWh)	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	Revenue from sale of Electricity(as per approved tariff)									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		383.03	40.0%	70.0262023	116.9		186.97	488.13	
(b)	AVVNL		268.12	28.0%	49.01834161	81.9		130.88	488.13	
(c)	JDVVNL		306.42	32.0%	56.02096184	93.6		149.57	488.13	
2	Other recoveries									
3	Gross Revenue From Sale of Power		957.57		175.07	292.35				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		957.57		175.07	292.35		467.42		

NON-TARIFF INCOME

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/ Unit:

Ramgarh Gas & Thermal Power Plant

Rs. Crore

S.No	Particulars	FY 2015-16		FY 2016-17		FY 2017-18		Remarks
		(Actuals/audited)		ESTIMATED		(Anticipated)		
1	2	110.5 MW	160 MW	110.5 MW	160 MW	110.5 MW	160 MW	9
	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	0.52	0.76	0.55	0.80	0.57	0.84	
	Total non-tariff income	0.52	0.76	0.55	0.80	0.57	0.84	

REVENUE SUBSIDIES & GRANTS

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station/Unit : Ramgarh Gas & Thermal Power Plant

S. No.	Particulars	Previous year (n-1)	Current Year (n)			Ensuing Year (n+1)	Remarks
		(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	Oct - Dec (Actual)	(Anticipated)	
1	2	3	4	5	6	7	8
A)	Revenue Subsidies & Grants						
1	Subvention from State Government towards sale of electricity						
2	State Govt. Grant against addl. Intt. Liability on Company				N.A.		
3	Any Other item						
	Total						

Capital Subsidies and Grants

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Ramgarh Gas & Thermal Power Plant

Rs. Crore

S. No.	Particulars	Previous year	Current Year			Ensuing Year (Anticipated)	Remarks
		(Actuals / audited)	Approved by the Commission	Apr-Sep (Actual)	Oct - Dec (Actual)	(Anticipated)	
1	2	3	4	5	6	7	8
A	Capital Cost						
	Subsidy towards cost of Capitals Asset						
	Grant towards cost of Capitals Assets				N.A		
	Receipts from State Govt. under any scheme as grant/subsidy						
	Total						

Form G 4.1

O&M Expenses

Name of the Petitioner:
Name of the Station/Unit:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

(Rs. Crore)

S.No.	Particulars	FY 2015-16		Approved by the Commission	FY 2016-17			FY 2017-18		
		(Actuals/audited)			Apr-Sep (Actual)	Oct- Mar	Apr-Sep (Actual)	Oct- Mar	(Anticipated)	
1	2	110.5 MW	160 MW	Stage I to III	110.5 MW	110.5 MW	160 MW	160 MW	110.5 MW	160 MW
1	O&M Expense norms (Rs. per MW)	0.209	0.217		0.11	0.11	0.12	0.12	0.17	0.14
2	Total Capacity in MW	110.5	160		110.5	110.5	160	160	110.5	160
3	O&M expense	23.05	34.78		12.20	12.20	18.41	18.41	19.18	22.88
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	Pumping Station No.1 :-									
b.1	Power consumption Cost									
b.2	Repair / Maintenance / Employee / other Cost									
b.3	Sub total (b)									
c	Pumping Station No.2 :-									
	and so on									
d	Total (4) Special O&M Expenses									
5	Totsl O&M expenses	23.05	34.78		12.20	12.20	18.41	18.41	19.18	22.88

Form G 5.1

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

Name of the Company

RVUNL

Name of the Power Station

RGTPP, Ramgarh (110.5MW)

S.No	Year	Unit	April '2016	May'2016	June'2016	1st Quarter
			Natural Gas	Natural Gas	Natural Gas	Natural Gas
1	2	3	4	5	6	7
1	Quantity of GAS instock at the beginning	(SCM)	0	0	0	0
2	Quantity of GAS supplied by GAIL	(SCM)	27475268	26305600	25149168	78930036
3	Adjustment (+/-) in quantity supplied made by GAIL for diversion of	(SCM)	0	0	0	0
4	GAS supplied by GAIL (2+3)	(SCM)	27475268.4	26305599.61	25149168	78930036
5	Normative Transit & Handling Losses (For coal/Lignite based Projects)	(SCM)	0	0	0	0
6	Net GAS Supplied (4-5)	(SCM)	27475268.4	26305599.61	25149168	78930036
7	Total GAS (Receipts & Opening Stock) (1)+(6)	(SCM)	27475268.4	26305599.61	25149168	78930036
8	GAS burnt/consumed	(SCM)	27475268.4	26305599.61	25149168	78930036
9	GAS in stock at the end of the Month	(SCM)	0	0	0	0
10	Value of GAS in stock	(Rs.)	0	0	0	0
11	Amount charged by the GAIL	(Rs.)	152506895	135346169.1	128983439.2	416836503
12	Adjustment (+/-) in amount charged made by GAIL	(Rs.)	0	0	0	0
13	Total amount Charged (11+12)	(Rs.)	152506895	135346169.1	128983439.2	416836503
14	Transportation charges by GAIL	(Rs.)	7525289.4	7114185.3	7247832.7	21887307.3
15	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)	0	0	0	0.0
16	Demurrage Charges, if any	(Rs.)	0	0	0	0.0
17	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	0	0	0	0.0
18	Total Transportation Charges (14+/-15-16-17)	(Rs.)	7525289.38	7114185.301	7247832.7	21887307.3
19	Total amount Charged for GAS supplied including Transportation (13+18)	(Rs.)	160032184	142460354	136231272	438723810
20	Average cost of GAS (Opening stock + receipts) (19/7*1000)	(Rs/ Th.SCM)	5824.59	5415.59	5416.93	5558.39
21	Cost of GAS in stock at the end of the Month (20)x(9)	(Rs.)	0	0	0	0
22	Weighted average GCV of GAS as fired	(kCal/SCM)	5291.49	5069.17	5053.34	5141.52

Form G 5.1

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

Name of the Company

RVUNL

Name of the Power Station

RGTPP, Ramgarh (160MW)

Year	Unit	April'2016	May'2016	June'2016	1st Quarter
2	3	Natural Gas	Natural Gas	Natural Gas	Natural Gas
		4	5	6	7
Quantity of GAS instock at the beginning	(SCM)	0	0	0	0
Quantity of GAS supplied by GAIL	(SCM)	22162370	21631534	17872195	61666099
Adjustment (+/-) in quantity supplied made by GAIL for diversion of GAS supplied by GAIL (2+3)	(SCM)	0	0	0	0
Normative Transit & Handling Losses (For coal/Lignit based Projects)	(SCM)	0	0	0	0
Net GAS Supplied (4-5)	(SCM)	22162370	21631534	17872195	61666099
Total GAS (Receipts & Opening Stock) (1)+(6)	(SCM)	22162370	21631534	17872195	61666099
GAS burnt/consumed	(SCM)	22162370	21631534	17872195	61666099
GAS in stock at the end of the Month	(SCM)	0	0	0	0
Value of GAS in stock	(Rs.)	0	0	0	0
Amount charged by the GAIL	(Rs.)	262192740	246251491	211750685	720194915
Adjustment (+/-) in amount charged made by GAIL	(Rs.)	0	0	0	0
Total amount Charged (11+12)	(Rs.)	262192740	246251491	211750685	720194915
Transportation charges by GAIL	(Rs.)	11252354	11663458	11529811	34445622
Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)	0	0	0	0
Demurrage Charges, if any	(Rs.)	0	0	0	0
Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	0	0	0	0
Total Transportation Charges (14+/-15-16+17)	(Rs.)	11252353.9	11663458.0	11529810.6	34445622.5
Total amount Charged for GAS supplied including Transportation (13+18)	(Rs.)	273445093.8	257914948.6	223280495.1	754640537.5
Average cost of GAS (Opening stock + receipts) (19/7*1000)	(Rs/ Th.SCM)	12338.26	11923.10	12493.18	12237.53
Cost of GAS in stock at the end of the Month (20)x(9)	(Rs.)	0	0	0	0
Weighted average GCV of GAS as fired	(kCal/SCM)	8891.66	8707.71	8989.13	8855.38

Form G 5.1

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

Name of the Company
Name of the Power Station

RVUNL
RGTPP, Ramgarh

S.No	Year	Unit	April.'2016	May'2016	June'2016	1st Quarter
			HSD	HSD	HSD	HSD
1	2	3	4	5	6	7
1	Quantity of HSD instock at the beginning of the Month	KL	169.505	168.784	168.784	169.505
2	Quantity of HSD supplied by Company	KL	0.00	0.00	0.00	0.00
3	Adjustment (+/-) in quantity supplied made by Company for diversion of wagons etc.	KL	0.00	0.00	0.00	0.00
4	HSD supplied by Company (2+3)	KL	0.00	0.00	0.00	0.00
5	Normative Transit & Handling Losses (For coal/Lignit based Projects)	KL	0.00	0.00	0.00	0.00
6	Net HSD Supplied (4-5)	KL	0.00	0.00	0.00	0.00
7	Total HSD (Receipts & Opening Stock) (1)+(6)	KL	169.505	168.784	168.784	169.505
8	HSD burnt/consumed for generation purpose	KL	0.301	0.00	0.195	0.496
9	HSD burnt/consumed for other than generation purpose*	KL	0.420	0.00	1.680	2.10
10	HSD in stock at the end of the Month	KL	168.784	168.784	166.909	166.909
11	Value of HSD in stock	(Rs.)	7285136.7	7254149	7254149	7285136.75
12	Amount charged by the Company	(Rs.)	0.00	0.00	0.00	0.00
13	Adjustment (+/-) in amount charged made by Company	(Rs.)	0.00	0.00	0.00	0.00
14	Total amount Charged (12+13)	(Rs.)	0.00	0.00	0.00	0.00
15	Transportation charges by Company	(Rs.)	-	-	-	-
15	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)	-	-	-	-
16	Demurrage Charges, if any	(Rs.)	-	-	-	-
17	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	-	-	-	-
18	Total Transportation Charges (14+/-15-16+17)	(Rs.)	0.00	0.00	0.00	0.00
19	Total amount Charged for HSD supplied including Transportation (14+18)	(Rs.)	0.00	0.00	0.00	0.00
20	Average cost of HSD (Opening stock + receipts)	(Rs./Kl)	42978.89	42978.89	42978.89	42978.89
21	Cost of HSD in stock at the end of the Month (20)x(10)	(Rs.)	7254149	7254149	7173564	7285136.75
22	Weighted average GCV of HSD as fired	(kCal/Kl)	9300	9300	9300	9300

Energy Charges for Thermal Generation

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Ramgarh Gas & Thermal Power Plant

S.No.	Particulars	Units	FY 2015-16		FY 2016-17				FY 2017-18		Remarks		
			April-March	(Audited)	Approved by the Commission		Apr-Sept (Actual)	Oct- March (Anticipated)	Apr-Sept (Actual)	Oct- March (Anticipated)		Anticipated	
1	2	3	110.5 MW	160 MW	Stage - I & II	Stage-III	110.5 MW	110.5 MW	160 MW	160 MW	110.5 MW	160 MW	10
1	Operational Parameters												
1.1	Total Capacity	MW	110.50	160.00	110.5	160	110.5	110.5	160	160	110.50	160.00	ACTUAL A
1.2	Availability	%	82.16%	77.45%			70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	ACTUAL C
1.3	PLF	%	50.38%	71.51%			50.13%	70.00%	67.25%	70.00%	70.00%	70.00%	
1.4	Gross Generation	MU	501.545	1021.029			248.82	337.86	476.69	489.22	677.59	981.12	W.AVG A
1.5	Auxiliary Energy Consumption	%	4.77%	3.85%			4.57%	2.40%	3.78%	2.40%	2.40%	2.40%	
1.6	Auxiliary Energy Consumption	MU	23.92	39.26			11.39	8.11	18.00	11.74	16.26	23.55	
1.7	Net Generation	MU	477.63	981.77			237.43	329.76	458.69	477.47	661.33	957.57	
1.8	Heat Rate	kcal/kWh	2533.38	2324.21			2908.87	2214.00	2442.24	2156.23	2214.00	2156.23	
2	Fuel Parameters (for each primary and secondary fuel)												
2.1	Gross Calorific Value												
2.1.1	Fuel - 1 (Natural Gas)	kcal/SCM	5113.90	9022.88			5141.52	5141.52	8855.38	8855.38	5141.52	8855.380	
2.1.2	Fuel - 2 (HSD)	kcal/Ltr.	9300.00	0.00			9300.00	9300.00	0.00	0.00	9300.00	0.00	
2.2	Landed Fuel Price per unit (Please specify the fuel)												
2.2.1	Fuel - 1 (Natural Gas)	Rs/Th. SCM	7002.30	12211.58			5558.39	5558.39	12237.53	12237.53	5558.39	12237.53	
2.2.2	Fuel - 2 (HSD)	Rs/KL	35807.18	0.00			42978.89	42978.89	0.00	0.00	42978.89	0.00	
3	Fuel Consumption and Heat Contribution (for each fuel separately)												
3.1	Specific Fuel Consumption												
3.1.1	Fuel - 1 (Natural Gas)	SCM/ kWh	0.50	0.26			0.57	0.43	0.28	0.24	0.43	0.24	
3.1.2	Fuel - 2 (HSD)	MI/ kWh	0.02	0.0000			0.01	0.50	0.00	0.00	0.50	0.00	
3.2	Total Fuel Consumption												
3.2.1	Fuel - 1 (Natural Gas)	SCM	248446334.4	263007862.0			140768870.0	145181118.5	131466339.0	119121060.7	291165790.9	238896632.7	
3.2.2	Fuel - 2 (HSD)	KL	8.34	0.00			2.23	168.93	0.00	0.00	338.80	0.00	
3.3	Heat Content (each fuel separately)												
3.3.1	Fuel 1 (2.1.1 x 3.1.1)	Million kcal	1270528.51	2373088.70			723765.35	746450.99	1164184.34	1054862.22	1497033.47	2115520.38	
3.3.2	Fuel 2 (2.1.2 x 3.1.2)	Million kcal	77.52	0.00			20.71	1571.05	0.00	0.00	3150.79	0.00	
4	Fuel Cost												
4.1.1	Fuel 1 (Natural Gas) (2.2.1 x 3.2.1)	Rs Crore	173.97	321.17			78.24	80.70	160.88	145.77	161.84	292.35	
4.1.2	Fuel 2 (HSD) (2.2.2 x 3.2.2)	Rs Crore	0.03	0.00			0.01	0.73	0.00	0.00	1.46	0.00	
	Total Fuel Cost	Rs Crore	174.00	321.17			78.25	81.42	160.88	145.77	163.30	292.35	
7	Total Cost (4+5+6)	Rs Crore	174.00	321.17		0.00	78.25	81.42	160.88	145.77	163.30	292.35	
8	Cost of Generation per unit (at Generation Terminal) (7/1.4)	Rs/kWh	3.469	3.146		#DIV/0!	3.145	2.410	3.375	2.980	2.410	2.980	
9	Energy Charge per unit (ex-bus) (7/1.7)	Rs/kWh	3.643	3.271		#DIV/0!	3.296	2.469	3.507	3.053	2.469	3.053	
9.1.1	Fuel - 1 (Natural Gas)	Rs/kWh	3.642	3.271		#DIV/0!	3.295	2.447	3.507	3.053	2.447	3.053	
9.1.2	Fuel - 2 (HSD)	Rs/kWh	0.00	0.000			0.000	0.022	0.000	0.000	0.022	0.000	
	Total---(9)	Rs/kWh	3.643	3.271		#DIV/0!	3.296	2.469	3.507	3.053	2.469	3.053	

Fixed assets & provisions for depreciation

Name of the Petitioner **Rajasthan Raja Vidhyut Utpadan Nigam Ltd.**
Name of the Power Station : **Ramgarh Gas & Thermal Power Plant**

110.50 MW			Year (n) (2015-16)								(Figures in Rs Crore)	
S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.15	0.00	0.00	0.15	0.13	0.00	0.00	0.13	0.02	0.02
1A	Building & Civil works of Power plant	3.34	31.81	0.00	0.00	31.81	27.46	1.24	0.00	28.69	4.36	3.12
2	Hydraulic works	5.28	16.86	0.00	0.00	16.86	14.55	0.79	0.00	15.34	2.31	1.52
3	Other Civil works	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Plant & machinery	5.28	261.10	0.00	0.00	261.10	225.35	12.87	0.00	238.22	35.75	22.88
5	Lines and Cable Networks	5.28	0.05	0.00	0.00	0.05	0.04	0.00	0.00	0.04	0.01	0.00
6	Vehicles	9.5	0.73	0.00	0.00	0.73	0.63	0.00	0.00	0.63	0.10	0.10
7	Furniture & fixtures	6.33	0.47	0.00	0.00	0.47	0.41	0.02	0.00	0.43	0.06	0.04
8	Office Equipments	6.33	0.11	0.05	0.00	0.16	0.14	0.00	0.00	0.14	-0.03	0.02
9	Capital spares	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		311.28	0.05	0.00	311.33	268.70	14.93	0.00	283.64	42.58	27.69

110.50 MW			Year (n+1) (2016-17)								(Figures in Rs Crore)	
S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.15	0.00	0.00	0.15	0.13	0.00	0.00	0.14	0.02	0.01
1A	Building & Civil works of Power plant	3.34	31.81	0.00	0.00	31.81	28.69	1.24	0.00	29.93	3.12	1.88
2	Hydraulic works	5.28	16.86	0.00	0.00	16.86	15.34	0.79	0.00	16.14	1.52	0.72
3	Other Civil works	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Plant & machinery	5.28	261.10	0.00	0.00	261.10	238.22	12.87	0.00	251.09	22.88	10.01
5	Lines and Cable Networks	5.28	0.05	0.00	0.00	0.05	0.04	0.00	0.00	0.04	0.00	0.00
6	Vehicles	9.5	0.73	0.00	0.00	0.73	0.63	0.00	0.00	0.63	0.10	0.09
7	Furniture & fixtures	6.33	0.47	0.00	0.00	0.47	0.43	0.02	0.00	0.45	0.04	0.02
8	Office Equipments	6.33	0.16	0.00	0.00	0.16	0.14	0.00	0.00	0.14	0.02	0.02
9	Capital spares	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		311.33	0.00	0.00	311.33	283.64	14.93	0.00	298.57	27.69	12.76

110.50 MW

Year (n+2) (2017-18)

(Figures in Rs Crore)

S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.15	0.00	0.00	0.15	0.14	0.00	0.00	0.14	0.01	0.01
1A	Building & Civil works of Power plant	3.34	31.81	0.00	0.00	31.81	29.93	1.24	0.00	31.17	1.88	0.64
2	Hydraulic works	5.28	16.86	0.00	0.00	16.86	16.14	0.79	0.00	16.93	0.72	-0.07
3	Other Civil works	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Plant & machinery	5.28	261.10	0.00	0.00	261.10	251.09	12.87	0.00	263.96	10.01	-2.86
5	Lines and Cable Networks	5.28	0.05	0.00	0.00	0.05	0.04	0.00	0.00	0.05	0.00	0.00
6	Vehicles	9.5	0.73	0.00	0.00	0.73	0.63	0.00	0.00	0.64	0.09	0.09
7	Furniture & fixtures	6.33	0.47	0.00	0.00	0.47	0.45	0.02	0.00	0.47	0.02	0.00
8	Office Equipments	6.33	0.16	0.00	0.00	0.16	0.14	0.00	0.00	0.15	0.02	0.02
9	Capital spares	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		311.33	0.00	0.00	311.33	298.57	14.93	0.00	313.50	12.76	-2.18

160 MW

Year (n) (2015-16)

(Figures in Rs Crore)

S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1A	Building & Civil works of Power plant	3.34	47.24	12.37	0.00	59.61	2.10	1.78	0.00	3.88	45.14	55.73
2	Hydraulic works	5.28	28.53	0.00	0.00	28.53	1.92	1.51	0.00	3.43	26.61	25.10
3	Other Civil works	3.34	0.10	0.00	0.00	0.10	0.00	0.01	0.00	0.01	0.10	0.09
4	Plant & machinery	5.28	638.05	17.35	0.00	655.40	44.33	34.15	0.00	78.48	593.72	576.92
5	Lines and Cable Networks	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Vehicles	9.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Furniture & fixtures	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Office Equipments	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		713.92	29.72	0.00	743.64	48.35	37.45	0.00	85.80	665.57	657.84

Year (n+1) (2016-17)

160MW

(Figures in Rs Crore)

S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1A	Building & Civil works of Power plant	3.34	59.61	4.45	0.00	64.06	3.88	2.07	0.00	5.95	55.73	58.11
2	Hydraulic works	5.28	28.53	2.13	0.00	30.66	3.43	1.56	0.00	4.99	25.10	25.67
3	Other Civil works	3.34	0.10	0.01	0.00	0.11	0.01	0.00	0.00	0.01	0.09	0.09
4	Plant & machinery	5.28	655.40	48.99	0.00	704.39	78.48	35.90	0.00	114.38	576.92	590.01
5	Lines and Cable Networks	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Vehicles	9.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Furniture & fixtures	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Office Equipments	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		743.64	55.57	0.00	799.21	85.80	39.53	0.00	125.33	657.84	673.89

Year (n+2) (2017-18)

160 MW

(Figures in Rs Crore)

S. No.	Particular	Rate of depreciation %	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Adjustment & deductions	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1A	Building & Civil works of Power plant	3.34	64.06	0.00	0.00	64.06	5.95	2.14	0.00	8.08	58.11	55.98
2	Hydraulic works	5.28	30.66	0.00	0.00	30.66	4.99	1.62	0.00	6.61	25.67	24.05
3	Other Civil works	3.34	0.11	0.00	0.00	0.11	0.01	0.00	0.00	0.02	0.09	0.09
4	Plant & machinery	5.28	704.39	0.00	0.00	704.39	114.38	37.19	0.00	151.57	590.01	552.82
5	Lines and Cable Networks	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Vehicles	9.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Furniture & fixtures	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Office Equipments	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (1) to (9)		799.21	0.00	0.00	799.21	125.33	40.95	0.00	166.28	673.89	632.93

Form G 6.2

LOAN REPAYMENT & INTREST LIABILITY

Form G 6.2
LOAN REPAYMENT & INTREST LIABILITY

Name of the Petitioner
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

Name of the Petitioner
Name of the Power Station :

S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
						6	7											
1	Term Loan + Transitional Loan	Indian	0.00		0.00	12.50%		0.00	12.50%	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil
	Total (for Station)		0.00	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil

S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
						6	7											
1	Term Loan + Transitional Loan	Indian	0.00	0.00	0.00	12.50%		0.00	12.50%	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil
	Total (for Station)		0.00	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil

S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
						6	7											
1	Term Loan + Transitional Loan	Indian	0.00	0.00	0.00	12.50%		0.00	12.50%	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil
	Total (for Station)		0.00	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil

		Year (2015-16)						Rs. Crore				For 160 MW		Rs. Crore				
S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Term Loan + Transitional Loan	Indian	571.14	23.78	37.45	12.50%		557.47	12.50%	70.54	0.05	70.59	0.00	70.59	Nil	Nil	Nil	Nil
	Total (for Station)		571.14	23.78	37.45			557.47		70.54	0.05	70.59	0.00	70.59	Nil	Nil	Nil	Nil

		Year (2016-17)						Rs. Crore				For 160 MW		Rs. Crore				
S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Term Loan + Transitional Loan	Indian	594.91	44.46	39.53	12.50%		599.84	12.50%	74.67	0.05	74.72	0.00	74.72	Nil	Nil	Nil	Nil
	Total (for Station)		594.91	44.46	39.53			599.84		74.67	0.05	74.72	0.00	74.72	Nil	Nil	Nil	Nil

		Year (2017-18)						Rs. Crore				For 160 MW		Rs. Crore				
S. No.	Source (loan)	Currency	Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability of Interest during the year	Financial charges	Total interest & finance charges	Less: Interest charges capitalised	Net interest & finance charges	Loan swapped during the Year			
						Fixed	Floating								Domestic loan	Foreign loan	old Interest rate	New Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Term Loan + Transitional Loan	Indian	639.37	0.00	40.95	12.50%		598.42	12.50%	77.36	0.05	77.41	0.00	77.41	Nil	Nil	Nil	Nil
	Total (for Station)		639.37	0.00	40.95			598.42		77.36	0.05	77.41	0.00	77.41	Nil	Nil	Nil	Nil

Details of Project Specific Loans

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station

Ramgarh Gas & Thermal Power Plant

Commercial Operation Date

Particulars	Year (n-1)*					Rs. Crore
	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 previos 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						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						

Consolidated report on additions to Fixed Assets during the year

Name of the Petitioner
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

(Rs. in crores)

S.No.	Asset Description	Asset Code	Previous year (2015-16)								Current Year (2016-17)								Current Year (2017-18)							
			(Actuals/audited)								(Actuals & Anticipated)								(Anticipated)							
			110.50 MW Cost	160 MW Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	110.50 MW Cost	160 MW Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	110.50 MW Cost	160 MW 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	0.00						0	0								
1A	Building & Civil works of Power plant		0.00	12.37						0	4.45						0	0								
2	Hydraulic works		0.00	0.00						0	2.13						0	0								
3	Other Civil works		0.00	0.00						0	0.01						0	0								
4	Plant & machinery		0.00	17.35						0	48.99						0	0								
5	Lines and Cable Networks		0.00	0.00						0	0.00						0	0								
6	Vehicles		0.00	0.00						0	0.00						0	0								
7	Furniture & fixtures		0.00	0.00						0	0.00						0	0								
8	Office Equipments		0.05	0.00						0	0.00						0	0								
9	Capital spares		0.00	0.00						0	0.00						0	0								
	Total (1) to (9)		0.05	29.72						0	55.57						0	0								

Form 6.5

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

Name of the Petitioner :	Rajasthan Raja Vidhyut Utpadan Nigam Ltd.						
Name of the Power Station :	Ramgarh Gas & Thermal Power Plant						
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 theCapital cost estimates							
<u>Capital Cost excluding IDC & FC</u>							
Foreign Component, if any (In Million US \$ or the relevant Currency)							
Domestic Component (Rs. Cr.)							
Capital cost excluding IDC & FC (Rs. Cr)							
<u>IDC & FC</u>							
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)							
<u>Schedule of Commissioning</u>							
COD of Unit-I/Block-I							
COD of Unit-II/Block-II							

COD of last Unit/Block							

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

Name of the Petitioner:
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

Rs. Crore.

S.No.	Break Down	Cost in Rs. Crores			Variation (Rs. Cr.)	Reasons for Variation	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						
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	DG 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 6.7
Break-up of Construction / Supply / Service packages

Name of the Petitioner :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Ramgarh Gas & Thermal Power Plant

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																	
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30																	
31																	
32																	

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

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Name of the Power Station: Ramgarh Gas & Thermal Power Plant

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												
	IDC												
	Financing charges												
1.1.3	Foreign Loan 3												
	Draw down Amount												
	IDC												
	Financing charges												
1.1.4	--												
	--												

--												
Total Foreign Loans												
Draw down Amount												
IDC												
Financing charges												
Indian Loans												
Indian Loan 1												
Draw down Amount	--	--	--	--	--	--	--	--	--	--	--	--
IDC	--	--	--	--	--	--	--	--	--	--	--	--
Financing charges	--	--	--	--	--	--	--	--	--	--	--	--
Indian Loan 2												
Draw down Amount	--	--	--	--	--	--	--	--	--	--	--	--
IDC	--	--	--	--	--	--	--	--	--	--	--	--
Financing charges	--	--	--	--	--	--	--	--	--	--	--	--
Indian Loan 3												
Draw down Amount	--	--	--	--	--	--	--	--	--	--	--	--
IDC	--	--	--	--	--	--	--	--	--	--	--	--
Financing charges	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
Total Indian Loans												
Draw down Amount	--	--	--	--	--	--	--	--	--	--	--	--
IDC	--	--	--	--	--	--	--	--	--	--	--	--
Financing charges	--	--	--	--	--	--	--	--	--	--	--	--
Total of Loans drawn												
IDC												
Financing charges												
Equity												
Foreign equity drawn												
Indian equity drawn	--	--	--	--	--	--	--	--	--	--	--	--
Total equity deployed												

RETURN ON EQUITY

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Name of the Power Station : Ramgarh Gas & Thermal Power Plant

Rs. Crore

S.No.	Particulars	Reference	FY 2015-16		Current Year 2016-17		Ensuing Year 2017-18		Ensuing Year (n+2)		Remarks
			110.5 MW	160 MW	Approved by the Commission	110.5 MW	160 MW	110.5 MW	160 MW	(Anticipated)	
1	2	3	4	5	6	7	8	9	10	8	9
1	Equity at the beginning of the year		120.19	142.78		120.20	148.73	120.20	159.84		
2	Capitalisation		0.05	29.72		0.00	55.57	0.00	0.00		
3	Equity portion of capitalisation		0.01	5.94		0.00	11.11	0.00	0.00		
4	Equity at the end of the year		120.20	148.73		120.20	159.84	120.20	159.84		
	Return Computation										
5	Return on Equity at the beginning of the year	ROI For 2016-17 is 15.50% & 15.50.% for 2015-16	6.01	7.14		18.63	23.05	18.63	24.78		
6	Return on Equity portion of capitalisation (on pro-rata basis)	ROI For 2016-17 is 15.50% & 15.50.% for 2015-16	0.00	0.30		0.00	1.72	0.00	0.00		
7	Total Return on Equity	(5)+(6)	6.01	7.44		18.63	24.78	18.63	24.78		

Form G 6.11

Interest on Working Capital

Name of the Petitioner
Name of the Power Station

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

Rs. Crore

S. No.	Particulars		FY 2015-16		Approved by the Commission	FY 2016-17				FY 2017-18		Remarks
			(Actuals / audited)			Apr-Sep (Actual)	Oct - Mar	Apr-Sep (Actual)	Oct - Mar	(Anticipated)		
1	2		110.5 MW	160 MW		110.5 MW	110.5 MW	160 MW	160 MW	110.5 MW	160 MW	8
1	Coal Cost (Non pit head)	1½ Month	NA	NA		NA	NA	NA	NA	NA	NA	
2	Coal Cost (Pit head)	Half month	NA	NA		NA	NA	NA	NA	NA	NA	
3	Cost of Gas	Half month	7.25	13.38		3.26	3.36	6.70	6.07	6.74	12.18	
4	Sec.Fuel Oil	Two month	0.00	0.00		0.00	0.12	0.00	0.00	0.24	0.00	
5	Liquid Fuel Stock	Half month	NA	NA		NA	NA	NA	NA	NA	NA	
6	O & M expenses	One month	1.92	2.90		1.02	1.02	1.53	1.53	1.60	1.91	
	Maintenance Spares	30% of O&M	6.91	10.43		3.66	3.66	5.52	5.52	5.75	6.86	
	Recievables	1½ Month	28.38	60.35		13.96	13.96	30.87	30.87	27.67	58.53	
	Total Working Capital		44.47	87.06		21.90	22.12	44.63	44.00	42.01	79.48	
	Rate of Interest (as per norms)		12.50%	12.50%		12.26%	12.26%	12.26%	12.26%	11.80%	11.80%	
	Interest on Working Capital		5.56	10.88		2.69	2.71	5.47	5.39	4.96	9.38	

Insurance Expenses

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station : Ramgarh Gas & Thermal Power Plant

S. No.	Particulars	Previous Year		Current Year (n)				Ensuing Year		Remarks	
		2015-16		2016-17				2017-18			
		(Actuals/audited)		Approved by the Commission	Apr-Sep	Oct-Mar(Anticipated)	Apr-Sep	Oct-Mar(Anticipated)	(Anticipated)		
1	2	110.5 MW	160 MW	5	110.5 MW	110.50 MW	160 MW	160 MW	110.5 MW	160 MW	10
	Insurance Expenses	0.29	0.38		0.15	0.15	0.20	0.20	0.32	0.42	
a)	Provision made/ proposed for the year										
b)	Actual insurance expenses incurred	0.29	0.38		0.15	0.15	0.20	0.20	0.32	0.42	
c)	Average Net Fixed Assets	35.13	661.71		10.11	10.11	332.93	332.93	5.29	653.41	

Tax on R.O.E.

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Name of the Power Station : Ramgarh Gas & Thermal Power Plant

Rs.

S. No.	Particulars	FY 2015-16		FY 2016-17		FY 2017-18		Ensuring Year (n+2)		Remarks
		(Actuals/audited)		Actual/ Estimated		Proposed to be recovered		Proposed to be recovered		
1	2	110.5	160	110.5	160	110.5 MW	160 MW	6		7
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)	0.00	0.00	0.00	0.00	0.00	0.00			
B)	Deffered tax liability before 01.04.2009									

Form G 7.1

Proposed improvement in performance

Name of the Petitioner
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Ramgarh Gas & Thermal Power Plant

Rs. Crore

S.No.	Particulars	Previous year	Previous year	Current year				MYT Control Period					Remarks
		FY 2015-16 (Actuals/ audited)	FY 2015-16 (Actuals/ audited)	FY 2016-17				FY 2017-18	n+3	n+4	n+5		
				APR-SEP.	OCT-MAR	APR-SEP.	OCT-MAR	(Anticipated)					
1	2	110.5 MW	160 MW	110.5 MW	110.5 MW	160 MW	160 MW	110.5 MW	160 MW	9	10	11	12
1	Plant load factor	50.38%	71.51%	50.13%	70.00%	67.25%	70.00%	70.00%	70.00%				
2	Auxiliary consumption	4.77%	3.85%	4.57%	2.40%	3.78%	2.40%	2.40%	2.40%				
3	Specific fuel consumption												
(I)	coal, kg / kWh												
ii)	gas, SCM / kWh	0.4954	0.2576	0.566	0.430	0.276	0.243	0.430	0.243				
(iii)	oil, ml / kwh	0.0166	0.0000	0.009	0.500	0.000	0.000	0.500	0.000				
(iv)	Limestone kg / kWh												
(v)	any other fuel												
4	Station heat rate, kcal / kwh	2533.383904	2324.21	2908.874107	2214	2442.24	2156.23	2214	2156.23				
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, %	100%	100%	100%	100%	100%	100%	100%	100%				
8	Other bye product utilisation(give list)												
9	Outstanding dues, days of receivables												
10	Availability	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%				