

**Petition for
Aggregate Revenue Requirement (ARR) and Tariff
For FY 2017-18
For
Suratgarh Super Thermal Power Station (STPS)
Unit (1 to 6)**

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 Suratgarh 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 (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 2015-16
FY – 17	Financial Year 2016-17
FY – 18	Financial Year 2017-18
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
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 2014 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 STPS Unit 1 to 6 (1500MW).
- 1.3 RVUN have to file its petition for determination of Tariff and ARR Petition for 2017-18 in accordance with provision of RERC Tariff Regulation 2014. Accordingly this petition is being submitted for STPS (unit 1 to 6) for FY 2017-18 before RERC for Tariff and ARR determination.

A2: GENERATION FORECAST

- 2.1 The installed capacity of STPS (Unit-1 to 6) is 1500 MW. The estimated figures of Gross generation, PLF & net energy sale to three Discoms from STPS 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 STPS Station

Particular	FY 15-16	FY 16-17	FY 17-18
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Capacity (MW)	1500	1500	1500.00
PLF (%)	44.00%	68.11%	82.00%
Gross generation (MU)	5,902.98	7,955.79	10,774.80
Aux Cons. (%)	10.63%	9.37%	9.00%
Net Generation (MU)	5,275.55	7,210.06	9,805.07

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

FIXED CHARGES

A3: STPS (UNIT 1 TO 6) ANNUAL CAPACITY (FIXED) CHARGES FOR 2017-18

Depreciation:-

- 3.1 Unit 1-5: For the purpose of Computation of depreciation, the capital cost as claimed in true up petition of FY 2014-15 as on 1.04.2015 considered is Rs. 4228.15Crore.
- 3.2 Similarly, as per true up petition of FY 2014-15, the approved capital cost of STPS Unit 6 as on 01.04.2015 has been considered as Rs. 1104.84 Crore.
- 3.3 Further during FY 2015-16 RVUN has incurred the additional capitalization of Rs. 2.78 crore under unit 1-5 as per Regulation 19 of RERC Tariff Regulation 2009, the major work is covered under RERC approved scheme.
- 3.4 The additional capitalization for FY 2014-15 has been incurred as per RERC Tariff Regulation 2009. Regulation 19 of RERC Tariff Regulations 2009 on additional capitalization is reproduce below:

19 Additional capitalization

(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:

- The details of additions for unit 1-5 are as under:

Additional Capitalization during FY 2014-15

(Rs. in Crore)

Particular	Claim in the Petition	Justification
Hydraulic works	2.135	Approved RERC Work of Blow down system of cooling towers of Unit 2,3,4 & 5(Ref. Petition No. RERC/283/11, Date of Order 31.10.2012) Awarded to M/s JR Construction Company, Suratgarh vide order No. RVUN/STPS/Civil-O&M/F./D 388, dt 01.10.14
Other Civil works	1.732	Approved RERC Work of Construction of road on the inside along the boundary of the power station & pedestrian over bridge crossing across railway tracks on road to Gate # 3(Ref. Petition No. RERC/283/11, Date of Order 31.10.2012), Awarded to M/S Baghla Trading company, Suratgarh, vide order No. RVUN/STPS/Civil-O&M/F./D 396, dt 09.10.14
Total	3.867	

- Also is to mentioned that Rs 86.657 Cr. for FY 14-15 is inclusive of Rs. 4.73 crore, which is wrongly booked in assets of STPS which pertain to Suratgarh Super Critical Thermal Power Station, which is withdraw from accounts in the FY 2016-17 and Rs. 78.06 crore as additional capitalization of Unit 6 details are as below:

Additional Capitalization during FY 2014-15 for Unit # 6 (Rs. in Crore)

Particular	Claim in the Petition	Justification
Building & Civil works of Power plant	2.63	Pertains to original scope work of U#6 and was already booked in previous years but transfer in Fixed assets after received of work completion report.
Plant & machinery	75.43	
Total	78.06	

Further, package wise details for capitalization of unit #6 is as below:

Particulars	FY 14-15	Detailed Reasons for delay of payments and PO orders of the Work
BTG	35.99	Pertains to original scope work of U#6 and was already booked in previous years but transfer in Fixed assets after received of work completion report.
BOP	34.97	
Initial Spares	2.96	
Misc. Mechanical Equipments (i) Bull Dozer – BHEL (ii) Locomotives	1.51	ORIGINAL PO PLACED TO M/S BHEL AND INDURE PVT LTD, BHEL PO No. 2724 &2725, dt. 10.08.2006 placed by SE (TD- III) & BOP Package awarded to M/s Indure vide PO. NO. 3381 & 3382 dt. 03.10.2006 by SE(TD-II), RVUN Jaipur. Work Order Detail of Balance Civil Works which is Capitalised in F.Y. 2014-15 :- (1) M/s Lahoti Buildcon Ltd. Vide Order No. RVUN/CE (Civil-jaipur)/D.798 Dated 03.02.11
Township	2.63	(2) M/S J.R. Construction Co. Vide Oredor No. D.554 Dated 25.01.11
Total	78.06	(3) M/s Rishab Telelinks Vide order No. 653 Dated 13.11.09

Break up of Capital cost as approved by BOD and Commission is enclosed as **Annexure A:**

Additional Capitalization during FY 2015-16 for U # 1 to 5 (Rs. in Crore)

Particulars	FY 15-16	justification
Hydraulic works	0.46	Approved RERC balance Work of Blow down system of cooling towers of Unit 2,3,4 & 5(Ref. Petition No. RERC/283/11, Date of Order 31.10.2012) Awarded to M/s JR Construction Company, Suratgarh vide order No. RVUN/STPS/Civil-O&M/F./D 388, dt. 01.10.14.

Other civil work	2.09	Approved RERC Balance Work of Construction of road on the inside along the boundary of the power station & pedestrian over bridge crossing across railway tracks on road to Gate # 3(Ref. Petition No. RERC/283/11, Date of Order 31.10.2012) , Awarded to M/S Baghla Trading company , Suratgarh , vide order No. RVUN/STPS/Civil-O&M/F./D 396, dt 09.10.14.
Furniture and fixture	0.12	PO NO. D .253 Dated 10.03.15 and PO No. 283 dt. 31.03.15
Office Equipments	0.11	PO NO. d. 83 dt. 01.07.15 and d. 06 dt. 08.04.15
Total	2.78	

3.5 Based on the above, estimated figures of depreciation for FY 2015-16, FY 2016-17 and FY 2017-18 as computed under format 6.1 are summarised in table below:

Table 2: Depreciation (Rs. in Crore)

Station	FY 15-16	FY 16-17	FY 17-18
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Depreciation	154.21	154.21	154.21

Interest on Loans:-

3.6 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 along with finance charges as per regulation 21 of RERC tariff regulations 2014. The loan repayment amount for term loans and transitional loans combined has been taken equal to the depreciation figure envisaged for FY 2015-16, FY 2016-17 and FY 2017-18.

3.7 Estimated figures for interest on term loan, transitional 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Interest (Term Loan + Transitional Loan) and finance charges	107.90	83.65	64.38
Total	107.90	83.65	64.38

Interest on working Capital

3.8 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 figure 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Interest on Working Capital	129.13	93.53	116.06

Operation & Maintenance Expenses

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

3.10 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Operation and Maintenance	222.60	253.02	286.23

Recovery of ARR & Tariff Petition Fees

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

3.12 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Petition Fee	0.75	0.75	0.75

Insurance Charges

3.13 RVUN is claiming the insurance charges for STPS 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Insurance Charges	2.60	2.73	2.87

Return on Equity

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

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

Table 8: ROE (Rs. in Crore)

Station	FY 15-16	FY 16-17	FY 17-18
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Return on Equity (ROE)	59.96	185.93	185.93
Tax on ROE	0.00	0.00	0.00

Non-Tariff Income

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

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

3.17 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
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Non Tariff Income	8.47	8.50	8.93

A4: STPS ESTIMATED CAPACITY CHARGES (FIXED)

4.1 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 STPS (Rs. in Crore)

Station	FY 15-16	FY 16-17	FY 17-18
STPS	Unit 1-6	Unit 1-6	Unit 1-6
Prior Period Exp.	0.00	0	0
Depreciation	154.21	154.21	154.21
Interest on term Loan & Transitional Loan	107.90	83.65	64.38
Return on Equity	59.96	185.93	185.93
Interest on Working Capital	129.13	93.53	116.06
O & M Expenses	222.60	253.02	286.23
Insurance Charges	2.60	2.73	2.87
Tax on ROE	0.00	0.00	0.00
Recovery of ARR and Tariff Petition Fee	0.75	0.75	0.75
Less: Non-Tariff income	8.47	8.50	8.93
Net Fixed Charge	668.67	765.31	801.50

A5: VARIABLE CHARGES

Coal and Oil GCV, Price and cost

- 5.1 For FY 2017-18, the average Gross calorific value and the average rate of coal and oil supply have been calculated on the basis of receipts of previous three months during April, May and June of 2016 as per Commission's formats.
- 5.2 The GCV of indigenous coal has been considered as 4062.37 kCal/kg, GCV of secondary fuel (OIL) been considered as 9782.79 kCal/ltr. for HFO and 9739.33 kCal/ltr for LDO. Price of the indigenous coal, HFO and LDO has been taken as Rs. 4870.50 per MT, 24612.50/kl and 43346.10/kl respectively for the FY 2017-18.
- 5.3 The use of imported coal is considered as NIL for FY 2016-17 and FY 2017-18 .
- 5.4 The overall estimated figures of variable Cost for the period under consideration, are summarised in Table below.

Table 11 : Variable Cost

Particular	FY 15-16	FY 16-17	FY 17-18
	Unit 1-6	Unit 1-6	Unit 1-6
Capacity (MW)	1500.00	1500.00	1500.00
Availability %	81.70%	81.29%	82%
PLF (%)	44.00%	68.11%	82%
Gross Generation (MU)	5902.98	7955.79	10774.80
Aux Cons. (%)	10.63%	9.37%	9%
Net Generation (MU)	5275.55	7210.06	9805.07
SHR (Kcal/ KWh)	2686.05	2481.38	2476.28
GCV of Indigeneous Coal (kCal/ Kg)	4034.00	4062.37	4062.37
GCV of HFO (kCal/ Ltr)	9782.32	9782.79	9782.79
GCV of LDO (kCal/ Ltr)	9782.32	9739.33	9739.33
GCV of Imported Coal (kCal/ Kg)	6329.00	0.00	0.00
Sp. Indigeneous Coal consumption (Kg/ kWh)	0.61	0.61	0.61
Sp. HFO consumption (ml/kWh)	0.08	0.84	0.45
Sp. LDO consumption (ml/kWh)	1.24	0.08	0.05
Sp. Imported Coal consumption (Kg/kWh)	0.03	0.00	0.00
Price of Indegeneous (Rs/MT)	5347.25	4870.50	4870.50
Price of HFO (Rs./kl)	31163.90	24612.50	24612.50
Price of LDO (Rs./kl)	47018.90	43346.10	43346.10
Price of Imported (Rs/MT)	7631.00	0.00	0.00
Cost of Indegeneous Coal (Rs.in Crore)	1939.39	2359.78	3192.60
Cost of HFO (Rs. In crores)	22.85	16.50	11.93
Cost of LDO (Rs. In crores)	2.35	2.60	2.34
Cost of Imported Coal (Rs.in Crore)	139.03	0.00	0.00

Fuel cost (Total Variable Cost) (Rs. In Crore)	2113.41	2378.88	3206.87
Variable Cost (Rs/KWh sent out)	4.01	3.30	3.27

A6: ESTIMATED ARR FOR STPS

6.1 The recovery of ARR proposed for STPS is summarised in table below

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

Particular	FY 15-16	FY 16-17	FY 17-18
Station	Unit 1-6	Unit 1-6	Unit 1-6
STPS			
Capacity (Fixed Charges)	668.67	765.31	801.50
Variable Cost	2113.41	2378.88	3206.87
Aggregate Revenue Requirement	2782.08	3144.20	4008.37

A7: STPS ESTIMATED TARIFF

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

Table 13: STPS ESTIMATED TARIFF

Particular	FY 15-16	FY 16-17	FY 17-18
	Unit 1-6	Unit 1-6	Unit 1-6
Ex-Bus Generation (MU)	5275.55	7210.06	9805.07
Capacity(fixed) Charges	668.67	765.31	801.50
Variable Cost	2113.41	2378.88	3206.87
Rate of Fixed Charge(Rs/kWh)	1.27	1.06	0.82
Rate of Variable Charge(Rs/kWh)	4.01	3.30	3.27
Rate of Sale of Energy (Rs/kWh)	5.274	4.361	4.088

A8: FUEL COST ADJUSTMENT

8.1 As per RERC Tariff Regulation 2014, 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. RVUN request the Hon'ble Commission to consider the fuel cost adjustment with a drop down in GCV of 150 kCal/kWh.

A9: RESPONDENTS:-

9.1 All the three Discom's (i.e JVNL/AVNL/ 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 provisional Tariff w.e.f. 01.04.17 for FY 2017-18 till final tariff order is issued as proposed in the petition
- ◆ To consider the deviations as proposed while determining the ARR and Tariff
- ◆ 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 (Comml.)
RVUN, Jaipur.

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

Summary of Tariff Proposal

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station /Unit :

Suratgarh Super Thermal Power Station

(Rs. Crore)

S.No.	Particulars	Ref.of Form No	2015-16	2016-17			2017-18	Remark
			Actual/Audited	Approved by the Commission	Apr-Sep (Actual)	Oct-Mar(Estimated for the Year)	Anticipated	
1	2	3	4	5	6	7	9	10
1	Capacity (Fixed) Charge							
1.1	Depreciation	6.1	154.21		77.10	77.10	154.21	
1.2	Interest on term Loan & Transitional Loan	6.2	107.90		41.83	41.83	64.38	
1.3	Return on Equity	6.9	59.96		92.96	92.96	185.93	
1.4	Interest on Working Capital	6.11	129.13		33.58	59.94	116.06	
1.5	O & M Expenses	4.1	222.60		117.81	135.21	286.23	
1.6	Insurance Charges	6.12	2.60		1.37	1.37	2.87	
1.7	Tax on ROE	6.13	0.00		0.00	0.00	0.00	
1.9	Recovery of ARR and Tariff Petition Fee		0.75		0.38	0.38	0.75	
2.0	Prior Period Expense		0.00		0.00	0.00	0.00	
2.1	Less: Non-Tariff income	3.2	8.47		4.25	4.25	8.93	
	Total (1)- Capacity (Fixed Charges)		668.67		360.78	404.53	801.50	
2	Total- Energy (variable) charges		2113.41		779.84	1599.04	3206.87	
3	Units sold to Discoms (MU)		5275.55		2320.96	4889.10	9805.07	
4	Rate of Fixed Charges. (1/3)		1.267		1.554	0.827	0.817	
5	Rate of Variable Charges.							
5.1	Rate of Energy Charge from Primary Fuel (R	5.1						
	(i) Coal/ Lignite		3.676		3.308	3.256	3.256	
	(ii) Imported Coal		0.264		0.000	0.000	0.000	
	(iii) Any Other fuel							
	Total 2.1							
5.2	Rate of Energy Charge from Secondary Fuel	5.1	0.048		0.052	0.015	0.015	
5.3	Total-(2) Rate of Energy Charge ex-bus(REC	5.1	5.255		4.914	4.098	4.088	

Form G 1.2

Aggregate Revenue Requirement

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Suratgarh Super Thermal Power Station

(Rs. Crore)

S.No.	Particulars	Reference Form	FY 2015-16	FY 2016-17		FY 2017-18	Remarks	
			Actual/Audited	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated)		Anticipated
1	2	3	4	5	6	7	9	10
A	Receipts							
1	Revenue from Sale of Power (Tariff income)	3.1	2606.26	0.00	1140.62	2003.58	4008.37	
2	Non Tariff income		8.47	0.00	4.25	4.25	8.93	
3	Revenue Subsidies, Grants & Subvention from State Govt.							
	Total- (A)		2790.55	0.00	1144.87	2007.83	4017.30	
B	Expenditure							
1	Variable Costs, including Fuel Cost	5.1	2113.41	0.00	779.84	1599.04	3206.87	
2	Depreciation	6.1	154.21	0.00	77.10	77.10	154.21	
3	Interest on term Loan & Finance charges	6.2	107.90	0.00	41.83	41.83	64.38	
4	Return on Equity	6.9	59.96	0.00	92.96	92.96	185.93	
5	Tax on ROE	6.15	0.00	0.00	0.00	0.00	0.00	
6	Interest on Working Capital	6.11	129.13	0.00	33.58	59.94	116.06	
7	O & M Expenses	4.1	222.60	0.00	117.81	135.21	286.23	
8	Insurance Charges	6.14	2.60	0.00	1.37	1.37	2.87	
9	Recovery of ARR and Tariff Petition Fee		0.75	0.00	0.38	0.38	0.75	
10	Prior Period Expenses		0.00	0.00	0.00	0.00	0.00	
C	Total- (B) Expenditure		2790.55	0.00	1144.87	2007.83	4017.30	
D	A.R.R. (C-A.2)		2782.08	0.00	1140.62	2003.58	4008.37	

Form G 2.1

Plant Characteristics

Name of the Petitioner	Rajasthan Rajya Vidut Utpadan Nigam Limited,Jaipur (Raj.)
Name of the Power Station/Unit:	Suratgarh Super Thermal Power Station

Basic characteristics of the plant¹	Coal Based Thermal Power Plant (Conventional Steam Generator)						
Special Features of the Plant							
Site Specific Features²	Intake water system from IGNP						
Special Technological Features³							
Environmental Regulation related features⁴	ESPs of 99.886% efficiency installed fr regulation of SPM						
Any other special features							
Fuel Details⁵	Primary Fuel		Secondary Fuel		Alternate Fuels		
	Coal		HFO & LDO				
Details	Unit number						
	1	2	3	4	5	6	& so on
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	
Installed Capacity (IC)	250	250	250	250	250	250	
Date of Commercial Operation (COD)	01-Feb-99	01-Oct-00	15-Jan-02	31-Jul-02	19-Aug-03	30-Dec-09	
Type of cooling system ⁶	Closed Circuit System						
Type of Boiler Feed Pump ⁷	Electric Motor Driven						
Pressure (kg/cm2)	154.1 Kg/Cm2 (Super Heater Outlet)						
Temperature 0C							
-At Superheater Outlet	540 Deg C						
-At Reheater Outlet	540 Deg C						
Turbine Cycle heat Rate(Kcal/ Kwh)							
Boiler Efficiency (%)						87.76%	
Guaranteed Design Heat rate (kCal/kWh)⁸	2343 (2260 (Design Heat Rate) + 83 (Acceptable tolerance of 2.5% for Turbine Heat Rate & 1% for Boiler Efficiency)					1980	
Conditions on which guaranteed							
% MCR	250 MW						
% Makeup	0% Make up						
Design Fuel	Coal (FC 27%, VM 18%, Moisture 10%, Ash 45%, HHV 3500 Kcal/Kg)						
Design cooling water Temperature	33 Deg C						
Back Pressure	76 mm/Hg						

¹ Describe the basic characteristics of the plant, e.g., in the case of a coal based plant whehter it is a conventional steam generator or circulating fluidized bed combustion generator or sub-critical once through steam generator etc.

² Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all such features.

³ Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc.

⁴ Environmental regulation related features like FGD, ESP etc.

⁵ Coal or natural gas or naptha or lignite etc.

⁶ Closed circuit cooling, once through cooling, sea cooling etc.

⁷ Motor driven, Steam turbine driven etc.

⁸ In case guaranteed unit heat rate is not available then furnish the guaranteed turbine cycle heat rate and guaranteed boiler efficiency separately along with condition of guarantee.

Form G 2.2

Operational Parameters - Generation

Name of Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Station/Unit:

Suratgarh Super Thermal Power Station

S. No.	Particulars	Units	FY 2015-16	FY 2016-17			FY 2017-18	Remarks
			Audited/Actual	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated for the Year)	Anticipated	
1	2	3	4	5	6	7	9	10
1	Operational Parameters - Hydel							
1.1	Total Capacity	MW	NA	NA	NA	NA	NA	
1.2	Capacity Index	%	NA	NA	NA	NA	NA	
1.3	Design Energy	MU	NA	NA	NA	NA	NA	
1.4	Gross Generation	MU	NA	NA	NA	NA	NA	
1.5	Auxiliary Energy Consumption	%	NA	NA	NA	NA	NA	
1.6	Auxiliary Energy Consumption	MU	NA	NA	NA	NA	NA	
1.7	Net Generation	MU	NA	NA	NA	NA	NA	
2	Operational Parameters - Thermal							
2.1	Total Capacity	MW	MW		1500	1500	1500	
2.2	Availability	%	81.70%		79.83%	82.00%	82.00%	
2.3	Plant Load Factor	%	44.00%		39.21%	82.00%	82.00%	
2.4	Gross Generation	MU	5902.980		2583.150	5372.640	10774.800	
2.5	Auxiliary Energy Consumption	%	10.63%		10.15%	9.00%	9.00%	
2.6	Auxiliary Energy Consumption	MU	627.430		262.190	483.538	969.732	
2.7	Net Generation	MU	5275.550		2320.960	4889.102	9805.068	
2.6	Heat Rate	Kcal/Kwh	2686.053042		2492	2476.28	2476.28	

Revenue from Sale of Power

Name of the Company
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

Year 2015-16

Rs. Crore

S.No.	Particulars	Allocation (in %) /contract demand	Unit Sold (M.U.)	% of total Unit Sold	Demand/fix ed 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		2110.22	40.0%	267.4695509	845.4		1112.83	527.35	
(b)	AVVNL		1477.15	28.0%	187.2286856	591.8		778.98	527.35	
(c)	JDVVNL		1688.18	32.0%	213.9756407	676.3		890.27	527.35	
2	Other recoveries									
3	Gross Revenue From Sale of Power				668.6738773	2113.41				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		5275.55		668.67	2113.41		2782.08		

Year 2016-17

Rs. Crore

S.No.	Particulars	Allocation (in %) /contract demand	Unit Sold (M.U.)	% of total Unit Sold	Demand/fix ed 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		2884.03	40.0%	306.1255124	951.6		1257.68	436.08	
(b)	AVVNL		2018.82	28.0%	214.2878587	666.1		880.37	436.08	
(c)	JDVVNL		2307.22	32.0%	244.9004099	761.2		1006.14	436.08	
2	Other recoveries									
3	Gross Revenue From Sale of Power				765.3137809	2378.88				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		7210.06		765.31	2378.88		3144.20		

Year 2017-18

Rs. Crore

S.No.	Particulars	Allocation (in %) /contract demand	Unit Sold (M.U.)	% of total Unit Sold	Demand/fix ed 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		3922.03	40.0%	320.6010071	951.6		1272.15	324.36	
(b)	AVVNL		2745.42	28.0%	224.420705	666.1		890.51	324.36	
(c)	JDVVNL		3137.62	32.0%	256.4808057	761.2		1017.72	324.36	
2	Other recoveries									
3	Gross Revenue From Sale of Power				801.5025177	2378.88				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	Net revenue		9805.07		801.50	3206.87		4008.37		

Form G 3.2

NON-TARIFF INCOME

Name of the Petitioner **Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.**
Name of the Power Station/ Unit: **Suratgarh Super Thermal Power Station**

Rs. Crore

S.No	Particulars	2015-16	2016-17		2017-18	Remarks	
		(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated)		(Anticipated)
1	2	3	4	5	6	8	9
	Non-tariff income						
i.	Intt on Govt. Subsidy	0		0	0	0	
ii.	Conveyance Advance	0		0	0	0	
iii.	House Building Advance	0		0	0	0	
iv.	Income from F.D.R. with Banks	0		0	0	0	
v.	Sale of scrap	0.00		0.00	0.00	0.00	
vi.	MISCELLANEOUS RECEIPTS	8.47		4.25	4.25	8.93	
	Total non-tariff income	8.47		4.25	4.25	8.93	

REVENUE SUBSIDIES & GRANTS

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Suratgarh Super Thermal Power Station

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

Suratgarh Super Thermal Power Station

Rs. Crore

S. No.	Particulars	Previous year	Current Year			Ensuing Year (Anticipated)	Remarks
		(Actuals / audited)	Approved by the Commission	Apr-Sep (Actual)	Estimated for the year	(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						

O&M Expenses

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

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

(Rs. Crore)

S.No.	Particulars	2015-16	2016-17			2017-18
		(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	oct-March (Estimated)	(Anticipated)
1	2	3	4	5	6	8
1	O&M Expense norms (Rs. per MW)	0.148399031		0.079	0.180	0.191
2	Total Capacity in MW	1500		1500	1500	1500.00
3	O&M expense	222.60		117.81	135.21	286.23
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	222.60		117.81	135.21	286.23

FORM 5.1/genco											
Details / Information to be submitted in respect of fuel for computation of Energy charges* for FPA											
Name of the Company : RVUN											
Name of the Power Station : Suratgarh TPS (Information regarding Bituminous Coal)											
S. No.	Month	Unit	(Apr-16)		(May-16)		(Jun-16)		Quarterly (Apr-16 to Jun-16)		
			Domestic coal	Imported coal	Domestic coal	Imported coal	Domestic coal	Imported coal	Domestic coal	Imported coal	Gross
1	Quantity of coal/Lignite in stock at the beginning of the month	(MT)	546098.00	0.00	337956.76	0.00	175783.64	0.00	546098.00	0.00	546098.00
2	Quantity of coal/Lignite supplied by coal / Lignite company	(MT)	35612.18	0.00	213261.09	0.00	406083.24	0.00	654956.51	0.00	654956.51
3	Adjustment (+/-) in quantity supplied made by Coalcompany for diversion of wagons etc.	(MT)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Coal supplied by Coal / Lignite Company (2+3)	(MT)	35612.18	0.00	213261.09	0.00	406083.24	0.00	654956.51	0.00	654956.51
5	Normative Transit & Handling Losses (For Coal / Lignite based Projects)	(MT)	492.42	0.00	328.21	0.00	376.35	0.00	1196.98	0.00	1196.98
6	Net coal / Lignite Supplied (4-5)	(MT)	35119.76	0.00	212932.88	0.00	405706.89	0.00	653759.53	0.00	653759.53
7	Total coal (Receipts & Opening Stock) (1)+(6)	(MT)	581217.76	0.00	550889.64	0.00	581490.53	0.00	1199857.53	0.00	1199857.53
8	Coal / Lignite burnt /consumed	(MT)	243261.00	0.00	375106.00	0.00	368806.00	0.00	987173.00	0.00	987173.00
9	Coal / Lignite in stock at the end of the month (7-8)	(MT)	337956.76	0.00	175783.64	0.00	212684.53	0.00	212684.53	0.00	212684.53
				0.00		0.00		0.00	0.00	0.00	0.00
10	Value of Coal in stock (at the start of month including freight)	(Rs.)	2635287663.00	0.00	1637562591.94	0.00	861004553.25	0.00	2635287663.00	0.00	2635287663.00
11	Amount charged by the Coal / Lignite company	(Rs.)	81643931.00	0.00	436212513.00	0.00	804903642.00	0.00	1322760086.00	0.00	1322760086.00
12	Adjustment (+/-) in amount charged made by Coal company	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Total amount charged (11+12)	(Rs.)	81643931.00	0.00	436212513.00	0.00	804903642.00	0.00	1322760086.00	0.00	1322760086.00
14	Transportation charges by Rail /Ship/Road transport	(Rs.)	99347215.00	0.00	624434400.00	0.00	1161852186.00	0.00	1885633801.00	0.00	1885633801.00
15	Adjustment (+/-) in amount charged made by Railways	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Demurrage, Coal agent, Railway staff and siding charges, if any	(Rs.)	0.00	0.00	98986.00	0.00	126497.00	0.00	225483.00	0.00	225483.00
17	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Total transportation charges (14+15-16+17)	(Rs.)	99347215.00	0.00	624533386.00	0.00	1161978683.00	0.00	1885859284.00	0.00	1885859284.00
19	Total amount charged for Coal / Lignite supplied including transportation (10+13+18)	(Rs.)	2816278809.00	0.00	2698308490.94	0.00	2827886878.25	0.00	5843907033.00	0.00	5843907033.00
20	Average cost of coal /lignite (Opening Stock + Receipts) (19/7)	(Rs./M	4845.48	0.00	4898.09	0.00	4863.17	0.00	4870.50	0.00	4870.50
21	Cost of coal in stock at the end of the month (20)x(9)	(Rs.)	1637562591.94	0.00	861004553.25	0.00	1034320871.22	0.00	1034320871.22	0.00	1034320871.22
22	Weighted average GCV of coal/ Lignite as received	(Kcal/K	4025.17	0.00	4054.11	0.00	4095.30	0.00	4062.37	0.00	4062.37

FORM 5.1/genco											
Details / Information to be submitted in respect of fuel for computation of Energy charges* for FPA											
Name of the Company : RVUN											
Name of the Power Station : Suratgarh TPS (Information regarding HFO & HSI)											
S. No.	Month	Unit	(Apr-16)		(May-16)		(Jun-16)		Quarterly (Apr-16 to Jun-16)		
			HFO	LDO	HFO	LDO	HFO	LDO	HFO	LDO	Gross
1	Quantity of oil in stock at the beginning of the month	(KL)	2057.97	146.69	1086.68	113.52	3224.03	115.06	2057.97	146.69	2204.66
2	Quantity of oil supplied by oil company	(KL)	0.00	20.00	0.00	40.00	0.00	40.00	0.00	100.00	100.00
3	Adjustment (+/-) in quantity supplied made by oil company for diversion of wagons etc.	(KL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Oil supplied by oil company (2+3)	(KL)	0.00	20.00	2643.47	40.00	0.00	40.00	2643.47	100.00	2743.47
5	Normative Transit & Handling Losses	(KL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Net oil Supplied (4-5)	(KL)	0.00	20.00	2643.47	40.00	0.00	40.00	2643.47	100.00	2743.47
7	Total oil (Receipts & Opening Stock) (1)+(6)	(KL)	2057.97	166.69	3730.15	153.52	3224.03	155.06	4701.44	246.69	4948.13
8	Oil consumed	(KL)	971.29	53.17	506.12	38.47	951.90	38.69	2429.31	130.33	2559.64
9	Oil in stock at the end of the month (7-8)	(KL)	1086.68	113.52	3224.03	115.06	2272.13	116.36	2272.13	116.36	2388.49
10	Value of oil in stock at the beginning of the month	(Rs.)	53002204.31	6120824.97	27987014.09	4739428.01	78392638.49	4903785.64	53002204.31	6120824.97	59123029.28
11	Amount charged by the oil company	(Rs.)	0.00	838416.00	56005695.00	1803769.00	0.00	1930083.00	56005695.00	4572268.00	60577963.00
12	Adjustment (+/-) in amount charged made by oil company	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Total amount charged (11+12)	(Rs.)	0.00	838416.00	56005695.00	1803769.00	0.00	1930083.00	56005695.00	4572268.00	60577963.00
14	Transportation charges by Rail /Ship/Road transport	(Rs.)	0.00	0.00	6682438.00	0.00	0.00	0.00	6682438.00	0.00	6682438.00
15	Adjustment (+/-) in amount charged made by Railways/Transport	(Rs.)	0.00	0.00	23854.00	0.00	0.00	0.00	23854.00	0.00	23854.00
16	Demurrage charges, if any	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Total transportation charges (14+/-15-16+17)	(Rs.)	0.00	0.00	6706292.00	0.00	0.00	0.00	6706292.00	0.00	6706292.00
19	Total amount charged for oil supplied including transportation (10+13+18)	(Rs.)	53002204.31	6959240.97	90699001.09	6543197.01	78392638.49	6833868.64	115714191.31	10693092.97	126407284.28
20	Average cost of oil (Opening Stock + Receipts) (19/7)	(Rs./K)	25754.60	41749.35	24315.11	42620.86	24315.11	44073.55	24612.50	43346.10	25546.47
21	Cost of oil in stock at the end of the Month/Qtr	(Rs.)	27987014.09	4739428.01	78392638.49	4903785.64	55247086.94	5128574.77	55247086.94	5128574.77	60375661.71
22	Weighted average GCV of oil as received	(kcal/Lt)	9811.00	9729.00	9764.00	9762.00	9764.00	9731.00	9782.79	9739.33	9780.58

Form G 5.3

Energy Charges for Thermal Generation

Name of the Petitioner:

Rajasthan Raja Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Suratgarh Super Thermal Power Station

S.No.	Particulars	Units	2015-16	2016-17			FY 2017-18	Remarks
			April-March (Audited)	Approved by the Commission	Apr-Sep (Actual)	Oct-Mar (Estimated)	Anticipated	
1	2	3	4	5	6	7	8	9
1	Operational Parameters							
1.1	Total Capacity	MW	MW		1500	1500	1500.00	
1.2	Availability	%	81.70%		79.83%	82.00%	82.00%	
1.3	PLF	%	44.00%		39.21%	82.00%	82.00%	
1.4	Gross Generation	MU	5902.98		2583.15	5372.64	10774.80	
1.5	Auxiliary Energy Consumption	%	10.63%		10.15%	9.00%	9.00%	
1.6	Auxiliary Energy Consumption	MU	627.43		262.19	483.54	969.73	
1.7	Net Generation	MU	5275.55		2320.96	4889.10	9805.07	
1.8	Heat Rate	kcal/kWh	2686.05		2492	2476.28	2476.28	
2	Fuel Parameters (for each primary and secondary fuel)							
2.1	Gross Calorific Value							
2.1.1	Fuel - 1 (Indegineous Coal)	kcal/Kg	4034		4062.37	4062.37	4062.37	
2.1.2	Fuel - 2 (HFO)	kcal/Ltr.	9782.32		9782.79	9782.79	9782.79	
2.1.3	Fuel - 3 (LDO)	kcal/Ltr.	9782.32		9739.33	9739.33	9739.33	
2.1.4	Fuel - 4 (Imported Coal)	kcal/Kg	6329		0	0	0.00	
2.2	Landed Fuel Price per unit (Please specify the fuel)							
2.2.1	Fuel - 1 (Indegineous Coal)	Rs/MT	5347.25		4870.5	4870.5	4870.50	
2.2.2	Fuel - 2 (HFO)	Rs/KL	31163.9		24612.5	24612.5	24612.50	
2.2.3	Fuel - 3 (LDO)	Rs/KL	47018.9		43346.1	43346.1	43346.10	
2.2.4	Fuel - 4 (Imported Coal)	Rs/MT	7631		0	0	0.00	
3	Fuel Consumption and Heat Contribution (for each fuel separately)							
3.1	Specific Fuel Consumption							
3.1.1	Fuel - 1 (Indegineous Coal)	Kg/ kWh	0.61		0.61	0.61	0.61	
3.1.2	Fuel - 2 (HFO)	MI/ kWh	0.08		1.66	0.45	0.45	
3.1.3	Fuel - 3 (LDO)	MI/ kWh	1.24		0.13	0.05	0.05	
3.1.4	Fuel - 4 (Imported Coal)	Kg/ kWh	0.03		0.00	0.00	0.00	

3.2	Total Fuel Consumption							
3.2.1	Fuel - 1 (Indegineous Coal)	MT	3626894		1576541.00	3268509.01	6554976.86	
3.2.2	Fuel - 2 (HFO)	KL	7332.36		4288.04	2417.69	4848.66	
3.2.3	Fuel - 3 (LDO)	KL	499.82		330.11	268.63	538.74	
3.2.4	Fuel - 4 (Imported Coal)	MT	182193.00		0.00	0.00	0.00	
3.3	Heat Content (each fuel separately)							
3.3.1	Fuel 1 (2.1.1 x 3.1.1)	Million kcal	14630890.40		6404488.23	13277892.95	26628741.35	
3.3.2	Fuel 2 (2.1.2 x 3.1.2)	Million kcal	1153099.50		41949.00	23651.73	47433.42	
3.3.3	Fuel 3 (2.1.3 x 3.1.3)	Million kcal	71727.49		3215.04	2616.30	5246.97	
3.3.4	Fuel 4 (2.1.4 x 3.1.4)	Million kcal			0.00	0.00	0.00	
	Total Heat Content		15855717.38		6449652.27	13304160.98	26681421.74	
4	Total Fuel Cost							
4.1.1	Fuel 1 (Indegineous Coal) (2.2.1 x 3.2.1)	Rs Crore	1939.39		767.85	1591.93	3192.60	
4.1.2	Fuel 2 (HFO) (2.2.2 x 3.2.2)	Rs Crore	22.85		10.55	5.95	11.93	
4.1.3	Fuel 3 (LDO) (2.2.3 x 3.2.3)	Rs Crore	2.35		1.43	1.16	2.34	
4.1.4	Fuel 4 (Imported Coal) (2.2.4 x 3.2.4)	Rs Crore	139.03		0.00	0.00	0.00	
	Total Fuel Cost	Rs Crore	2103.62		779.84	1599.04	3206.87	
5	Details of limestone consumption (Applicable for Lignite based generating stations)							
6	Other Charges and Adjustments		9.79					
7	Total Cost (4+5+6)	Rs Crore	2113.41		779.84	1599.04	3206.87	
8	Cost of Generation per unit (at Generation Terminal) (7/1.4)	Rs/kWh	3.580		3.019	2.976	2.976	
9	Energy Charge per unit (ex-bus) (7/1.7)							
9.1.1	Fuel - 1 (Indegineous Coal)	Rs/kWh	0.000		3.308	3.256	3.256	
9.1.2	Fuel - 2 (HFO)	Rs/kWh	0.000		0.045	0.012	0.012	
9.1.3	Fuel - 3 (LDO)	Rs/kWh	0.000		0.006	0.002	0.002	
9.1.4	Fuel - 4 (Imported Coal)	Rs/kWh	0.000		0.000	0.000	0.000	
	Total---(9)	Rs/kWh	4.006		3.360	3.271	3.271	

Form G 6.1

Fixed assets & provisions for depreciation

Name of the Petitioner **Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.**
 Name of the Power Station : **Suratgarh Super Thermal Power Station**

Unit 1 to 5

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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.80	0.00	0.00	9.80	0.00	0.00	0.00	0.00	9.80	9.80
1A	Building & Civil works of Power plant	3.34	174.05	0.00	0.00	174.05	84.08	4.62	0.00	88.91	89.96	85.14
2	Hydraulic works	5.28	103.83	0.46	0.00	104.29	63.00	3.01	0.00	68.30	40.83	35.99
3	Other Civil works	3.34	71.41	2.09	0.00	73.50	24.63	1.87	0.00	27.06	46.78	46.44
4	Plant & machinery	5.28	3820.89	0.00	0.00	3820.89	2366.14	88.47	0.00	2492.83	1454.75	1328.07
5	Lines and Cable Networks	5.28	46.42	0.00	0.00	46.42	21.00	1.89	0.00	23.45	25.43	22.97
6	Vehicles	9.5	0.85	0.00	0.00	0.85	0.72	0.00	0.00	0.72	0.13	0.13
7	Furniture & fixtures	6.33	0.50	0.12	0.00	0.62	0.30	0.00	0.00	0.30	0.20	0.32
8	Office Equipments	6.33	0.39	0.11	0.00	0.50	0.21	0.00	0.00	0.21	0.17	0.28
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 (11)		4228.15	2.78	0.00	4230.93	2560.10	99.86	0.00	2701.78	1668.06	1529.15

Unit -6 FY 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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.00	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	207.39	0.00	0.00	207.39	39.63	6.93	0.00	46.55	167.76	160.83
2	Hydraulic works	5.28	14.55	0.00	0.00	14.55	2.78	0.77	0.00	3.55	11.77	11.00
3	Other Civil works	3.34	1.59	0.00	0.00	1.59	0.30	0.05	0.00	0.36	1.29	1.24
4	Plant & machinery	5.28	853.09	0.00	0.00	853.09	163.00	45.04	0.00	208.05	690.08	645.04
5	Lines and Cable Networks	5.28	2.02	0.00	0.00	2.02	0.39	0.11	0.00	0.49	1.64	1.53
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	0.34	0.00	0.00	0.34	0.06	0.02	0.00	0.09	0.27	0.25
8	Office Equipments	6.33	5.71	0.00	0.00	5.71	1.09	0.36	0.00	1.45	4.62	4.26
9	Capital spares	5.28	20.14	0.00	0.00	20.14	3.85	1.06	0.00	4.91	16.29	15.23
	Total (1) to (11)		1104.84	0.00	0.00	1104.84	211.11	54.34	0.00	265.45	893.73	839.39

Unit 1 to 5

Year 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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.00	10	11	12	13
1	Land & land rights	0	9.80	0.00	0.00	9.802	0.000	0.00	0.00	0.000	9.80	9.80
1A	Building & Civil works of Power plant	3.34	174.05	0.00	0.00	174.047	88.907	4.62	0.00	93.528	85.14	80.52
2	Hydraulic works	5.28	104.29	0.00	0.00	104.290	68.302	3.01	0.00	71.309	35.99	32.98
3	Other Civil works	3.34	73.50	0.00	0.00	73.505	27.060	1.87	0.00	28.925	46.44	44.58
4	Plant & machinery	5.28	3820.89	0.00	0.00	3820.893	2492.825	88.47	0.00	2581.298	1328.07	1239.60
5	Lines and Cable Networks	5.28	46.42	0.00	0.00	46.423	23.449	1.89	0.00	25.343	22.97	21.08
6	Vehicles	9.5	0.85	0.00	0.00	0.851	0.722	0.00	0.00	0.722	0.13	0.13
7	Furniture & fixtures	6.33	0.62	0.00	0.00	0.623	0.301	0.00	0.00	0.301	0.32	0.32
8	Office Equipments	6.33	0.50	0.00	0.00	0.499	0.215	0.00	0.00	0.215	0.28	0.28
9	Capital spares	5.28	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.000	0.00	0.00
	Total (1) to (11)		4230.93	0.00	0.00	4230.93	2701.78	99.86	0.00	2801.64	1529.15	1429.29

Unit -6

Year 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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.00	10	11	12	13
1	Land & land rights	Nil	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.000	0.00	0.00
1A	Building & Civil works of Power plant	3.34	207.39	0.00	0.00	207.388	46.554	6.93	0.00	53.480	160.83	153.91
2	Hydraulic works	5.28	14.55	0.00	0.00	14.551	3.549	0.77	0.00	4.317	11.00	10.23
3	Other Civil works	3.34	1.59	0.00	0.00	1.593	0.358	0.05	0.00	0.411	1.24	1.18
4	Plant & machinery	5.28	853.09	0.00	0.00	853.086	208.047	45.04	0.00	253.090	645.04	600.00
5	Lines and Cable Networks	5.28	2.02	0.00	0.00	2.022	0.493	0.11	0.00	0.600	1.53	1.42
6	Vehicles	9.5	0.00	0.00	0.00	0.001	0.000	0.00	0.00	0.000	0.00	0.00
7	Furniture & fixtures	6.33	0.34	0.00	0.00	0.339	0.086	0.02	0.00	0.108	0.25	0.23
8	Office Equipments	6.33	5.71	0.00	0.00	5.714	1.454	0.36	0.00	1.815	4.26	3.90
9	Capital spares	5.28	20.14	0.00	0.00	20.144	4.913	1.06	0.00	5.976	15.23	14.17
	Total (1) to (11)		1104.84	0.00	0.00	1104.84	265.45	54.34	0.00	319.80	839.39	785.04

Unit 1 to 5

Year 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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.00	10	11	12	13
1	Land & land rights	0	9.80	0.00	0.00	9.802	0.000	0.00	0.00	0.000	9.80	9.80
1A	Building & Civil works of Power plant	3.34	174.05	0.00	0.00	174.047	93.528	4.62	0.00	98.150	80.52	75.90
2	Hydraulic works	5.28	104.29	0.00	0.00	104.290	71.309	3.01	0.00	74.317	32.98	29.97
3	Other Civil works	3.34	73.50	0.00	0.00	73.505	28.925	1.87	0.00	30.791	44.58	42.71
4	Plant & machinery	5.28	3820.89	0.00	0.00	3820.893	2581.298	88.47	0.00	2669.771	1239.60	1151.12
5	Lines and Cable Networks	5.28	46.42	0.00	0.00	46.423	25.343	1.89	0.00	27.237	21.08	19.19
6	Vehicles	9.5	0.85	0.00	0.00	0.851	0.722	0.00	0.00	0.722	0.13	0.13
7	Furniture & fixtures	6.33	0.62	0.00	0.00	0.623	0.301	0.00	0.00	0.301	0.32	0.32
8	Office Equipments	6.33	0.50	0.00	0.00	0.499	0.215	0.00	0.00	0.215	0.28	0.28
9	Capital spares	5.28	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.000	0.00	0.00
	Total (1) to (11)		4230.93	0.00	0.00	4230.93	2801.64	99.86	0.00	2901.50	1429.29	1329.43

Unit -6

Year 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 & deducitons	At the end of the year	Cumulative upto the begining 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	9.00	10	11	12	13
1	Land & land rights	0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.000	0.00	0.00
1A	Building & Civil works of Power plant	3.34	207.39	0.00	0.00	207.388	53.480	6.93	0.00	60.407	153.91	146.98
2	Hydraulic works	5.28	14.55	0.00	0.00	14.551	4.317	0.77	0.00	5.085	10.23	9.47
3	Other Civil works	3.34	1.59	0.00	0.00	1.593	0.411	0.05	0.00	0.464	1.18	1.13
4	Plant & machinery	5.28	853.09	0.00	0.00	853.086	253.090	45.04	0.00	298.133	600.00	554.95
5	Lines and Cable Networks	5.28	2.02	0.00	0.00	2.022	0.600	0.11	0.00	0.707	1.42	1.32
6	Vehicles	9.5	0.00	0.00	0.00	0.001	0.000	0.00	0.00	0.001	0.00	0.00
7	Furniture & fixtures	6.33	0.34	0.00	0.00	0.339	0.108	0.02	0.00	0.129	0.23	0.21
8	Office Equipments	6.33	5.71	0.00	0.00	5.714	1.815	0.36	0.00	2.177	3.90	3.54
9	Capital spares	5.28	20.14	0.00	0.00	20.144	5.976	1.06	0.00	7.040	14.17	13.10
	Total (1) to (11)		1104.84	0.00	0.00	1104.84	319.80	54.34	0.00	374.14	785.04	730.70

Form G

LOAN REPAYMENT & INTREST LIABILITY

Name of the Petitioner
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

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	Rs. Crore			
						Year (2015-16)	Rs. Crore											
							Fixed								Floating	Domestic loan	Foreign loan	old Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Term Loan + Transitional Loan Unit 1 to 6	Indian	916.72	14.65	185.43	12.90%		745.93	12.50%	106.95	0.95	107.90	0.00	107.90	Nil	Nil	Nil	Nil
	Total (for Station)		916.72	14.65	185.43			745.93		106.95	0.95	107.90	0.00	107.90	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	Rs. Crore			
						Year (2016-17)	Rs. Crore											
							Fixed								Floating	Domestic loan	Foreign loan	old Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Term Loan + Transitional Loan Unit 1 to 6	Indian	745.93	0.00	154.21	12.50%		591.73	12.50%	83.60	0.05	83.65	0.00	83.65	Nil	Nil	Nil	Nil
	Total (for Station)		745.93	0.00	154.21			591.73		83.60	0.05	83.65	0.00	83.65	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	Rs. Crore			
						Year (2017-18)	Rs. Crore											
							Fixed								Floating	Domestic loan	Foreign loan	old Interest rate
1	2	2A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Term Loan + Transitional Loan Unit 1 to 6	Indian	591.73	0.00	154.21	12.50%		437.52	12.50%	64.33	0.05	64.38	0.00	64.38	Nil	Nil	Nil	Nil
	Total (for Station)		591.73	0.00	154.21			437.52		64.33	0.05	64.38	0.00	64.38	Nil	Nil	Nil	Nil

**Form G 6.3
Details of Project Specific Loans**

Name of the Petitioner
Name of the Power Station
Commercial Operation Date

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

Particulars	Year (n-1)*						Rs. Crore
	Package1	Package2	Package3	Package4	Package5	Package6	Package6
1	2	3	4	5	6	7	7
Source of Loan ¹	LIC, PFC, Govt loan etc						
Currency ²	Indian						
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	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							

¹ Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

² Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

³ Details are to be submitted as at the end of previous year for existing assets and as on COD for the remaining assets.

⁴ Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

⁵ If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in the same form.

⁶ Interest type means whether the interest is fixed or floating.

⁷ Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

⁸ Margin means the points over and above the floating rate.

⁹ At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

¹⁰ Moratorium period refers to the period during which loan servicing liability is not required.

¹¹ Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

¹² Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

¹³ Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given separately

¹⁴ If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished separately.

¹⁵ In case of Foreign loan date of each drawal & repayment alongwith exchange rate at that date may be given.

¹⁶ Base exchange rate means the exchange rate prevailing at the end of previous year for existing assets and as on COD for the remaining assets.

Name of the Power Station :

Suratgarh Super Thermal Power Station

(Rs. in crores)

S.No.	Asset Description	Asset Code	FY 15-16							FY 16-17							FY 17-18							Current Year (n+2)						
			(Actuals/audited)							(Actuals & Anticipated)							(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	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	11	12	13	14	15	16	17
1	Land & land rights		0.00							0							0													
	Building & Civil works of Power plant		0.00							0							0													
	Hydraulic works		0.46							0							0													
	Other Civil works		2.09							0							0													
	Plant & machinery		0.00							0							0													
	Lines and Cable Networks		0.00							0							0													
	Vehicles		0.00							0							0													
	Furniture & fixtures		0.12							0							0													
	Office Equipments		0.11							0							0													
	Capital spares		0.00							0							0													
	Total		2.78							0							0													

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

Name of the Petitioner :	Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.						
Name of the Power Station :	Suratgarh Super Thermal Power Station						
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	NA	NA	NA	NA	NA	NA	NA
Capital Cost excluding IDC & FC	NA	NA	NA	NA	NA	NA	NA
Foreign Component, if any (In Million US \$ or the relevant Currency)	NA	NA	NA	NA	NA	NA	NA
Domestic Component (Rs. Cr.)	NA	NA	NA	NA	NA	NA	NA
Capital cost excluding IDC & FC (Rs. Cr)	NA	NA	NA	NA	NA	NA	NA
IDC & FC	NA	NA	NA	NA	NA	NA	NA
Foreign Component, if any (In Million US \$ or the relevant Currency)	NA	NA	NA	NA	NA	NA	NA
Domestic Component (Rs. Cr.)	NA	NA	NA	NA	NA	NA	NA
Total IDC & FC (Rs.Cr.)	NA	NA	NA	NA	NA	NA	NA
Rate of taxes & duties considered	NA	NA	NA	NA	NA	NA	NA
Capital cost Including IDC & FC	NA	NA	NA	NA	NA	NA	NA
Foreign Component, if any (In Million US \$ or the relevant Currency)	NA	NA	NA	NA	NA	NA	NA
Domestic Component (Rs. Cr.)	NA	NA	NA	NA	NA	NA	NA
Capital cost Including IDC & FC (Rs. Cr)	NA	NA	NA	NA	NA	NA	NA
Schedule of Commissioning	NA	NA	NA	NA	NA	NA	NA
COD of Unit-I/Block-I	NA	NA	NA	NA	NA	NA	NA
COD of Unit-II/Block-II	NA	NA	NA	NA	NA	NA	NA
-----	NA	NA	NA	NA	NA	NA	NA
-----	NA	NA	NA	NA	NA	NA	NA
COD of last Unit/Block	NA	NA	NA	NA	NA	NA	NA

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

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station : Suratgarh Super Thermal Power Station

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	NA						
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,							
9.0	Balance of Plant							
9.1	Mechanical BOP							
9.1.1	Coal handling system / fuel handling system and							
9.1.2	Ash handling system							
9.1.3	CW System							
9.1.4	DM Plant							NA
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							
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	NA
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 Intem 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	

Break-up of Construction / Supply / Service packages

Name of the Petitioner : Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station : Suratgarh Super Thermal Power Station

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/ Deptamentally/ 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	NA																
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	

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

Name of the Petitioner:
Name of the Power Station

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

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	Total Foreign Loans												
	Draw down Amount												
	IDC												
	Financing charges												
1.2	Indian Loans												
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												

Note: Drawal of debt and equity shall be on paripassu basis to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible.

Form G 6.9

RETURN ON EQUITY

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station : Suratgarh Super Thermal Power Station

Rs. Crore

S.No.	Particulars	Reference	FY 2015-16	FY 2016-17			FY 2017-18	Remarks
			(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	Estimated for the year (Oct-Mar)	(Anticipated)	
1	2	3	4	5	6	7	8	9
1	Equity at the beginning of the year		1198.71		1199.54	1199.54	1199.54	
2	Capitalisation		2.78		0.00	0.00	0.00	
3	Equity portion of capitalisation		0.83		0.00	0.00	0.00	
4	Equity at the end of the year		1199.54		1199.54	1199.54	1199.54	
	Return Computation							
5	Return on Equity at the beginning of the year	ROI For 2016-17 is 15.50% & 5.00% for 2015-16	59.94		92.96	92.96	185.93	
6	Return on Equity portion of capitalisation (on pro-rata basis)	ROI For 2016-17 is 15.50% & 5.00% for 2015-16	0.02		0.00	0.00	0.00	
7	Total Return on Equity	(5)+(6)	59.96		92.96	92.96	185.93	

Statement of Additional Capitalisation after COD and Details for Financing

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
 Name of the Power Station: Suratgarh Super Thermal Power Station
 COD: _____

(Rs. Crore)

S.No.	Work/Equipment added after COD up to Cut off Date / Beyond Cut off Date	Amount Capitalised / Proposed to be capitalised FY 2015-16	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								
2	Building & Civil works o	0.00								
3	Hydraulic works	0.46								
4	Other Civil works	2.09								
5	Plant & machinery	0.00								
6	Lines and Cable Networ	0.00								
7	Vehicles	0.00								
8	Furniture & fixtures	0.12								
9	Office Equipments	0.11								
10	Capital spares	0.00								
	Total	2.78								

¹ In case the project has been completed and any tariff notification(s) has already been issued in the past by GOI, give the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)

Form G 6.11

Interest on Working Capital

Name of the Petitioner
Name of the Power Station

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

Rs. Crore

S. No.	Particulars		FY 2015-16	FY 2016-17			FY 2017-18	Remarks
			(Actuals / audited)	Approved by the Commission	Apr-Sep (Actual)	OCT-MAR (Estimated for the Year)	(Anticipated)	
1	2		3	4	5	6	8	9
1	Coal Cost (Non pit head)	1½ Month	259.80		95.98	198.99	399.08	
2	Coal Cost (Pit head)	Half month	NA		NA	NA	NA	
3	Cost of Gas	Half month	NA		NA	NA	NA	
4	Sec.Fuel Oil	Two month	4.20		2.00	1.19	2.38	
5	Liquid Fuel Stock	Half month	NA		NA	NA	NA	
6	O & M expenses	One month	18.55		9.82	11.27	23.85	
7	Maintenance Spares	20% of O&M	44.52		23.56	27.04	57.25	
8	Recievables	1½ Month	347.76		142.58	250.45	501.05	
	Total Working Capital		674.84		273.94	488.93	983.60	
	Rate of Interest (as per norms)		12.50%		12.26%	12.26%	11.80%	
	Interest on Working Capital		84.35		33.58	59.94	116.06	

Insurance Expenses

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Suratgarh Super Thermal Power Station

S. No.	Particulars	Previous Year	Current Year (n)		Ensuring Year	Remarks	
		2015-16	2016-17		2017-18		
		(Actuals/audited)	ved by the Comm	Apr-Sep (Actual)	Oct-March (Estimated)		(Anticipated)
1	2	3	4	5	6	7	8
	Insurance Expenses	2.60		1.37	1.37	2.87	
a)	Provision made/ proposed for the year						
b)	Acual insurance expenses incurred	2.60		1.37	1.37	2.87	
c)	Average Net Fixed Assets	2465.16		1145.72	1145.72	2137.23	

* **Note:** Licensee to furnish the details of insurance expenses

Tax on R.O.E.

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Suratgarh Super Thermal Power Station

Rs.

S. No.	Particulars	2015-16	2016-17	2017-18	Remarks
		(Actuals/audited)	Actual/ Estimated	Proposed to be recovered	
1	2	3	4	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
B)	Deffered tax liability before 01.04.2009				

Note:- Tax calculated should be only for the generation business and should not include income from any other income stream like efficiency gain & incentive etc.

Form G 7.1

Name of the Petitioner
Name of the Power Station :

Proposed improvement in performance
Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.
Suratgarh Super Thermal Power Station

Rs. Crore

S.No.	Particulars	Previous year	Current year						Remarks
		FY 2015-16 (Actuals/ audited)	FY 2016-17		FY 2017-18	n+3	n+4	n+5	
			Apr-Sep (Actual)	Oct-Mar (Estimated)					
1	2	3	4	5	8	9	10	11	12
1	Plant load factor	44.00%	39.21%	82.00%	82.00%				
2	Auxiliary consumption	10.63%	10.15%	9.00%	9.00%				
3	Specific fuel consumption								
(I)	coal, kg / kWh	0.64	0.61	0.61	0.61				
ii)	gas, SCM / kWh								
(iii)	oil, ml / kWh	1.32	1.79	0.50	0.50				
(iv)	Limestone kg / kWh								
(v)	any other fuel								
4	Station heat rate, kcal / kWh	2686.053042	2492	2476.28	2476.28				
5	Annual Maintenance 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%				
8	Other bye product utilisation(give list)								
9	Outstanding dues, days of receivables								
10	Availability	81.70%	79.83%	82.00%	82.00%				