

**Petition For**  
**Aggregate Revenue Requirement (ARR) and Tariff**  
**For FY 2017-18**  
**For**  
**Dholpur Combined Cycle Thermal Power Project (DCCPP)**

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

<b>Act</b>	The Electricity Act, 2003
<b>Application</b>	This ARR and Tariff Petition for FY 2017-18 for Dholpur Combined Cycle Thermal Power Station of Rajasthan Rajya Vidyut Utpadan Nigam Limited, Jaipur
<b>Auxiliary Consumption (Aux. Con.)</b>	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
<b>Availability</b>	Availability shall have the same meaning as defined in Section 2(7) of the RERC Tariff Regulations 2014.
<b>Distribution Company / Discoms</b>	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).
<b>Gross Calorific Value (GCV)</b>	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.
<b>Regulation</b>	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
<b>State</b>	The State of Rajasthan.
<b>Gross Station Heat Rate</b>	Heat energy input in kCal required to generate one unit (kWh) of electrical energy at generator terminals.
<b>Unit</b>	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
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 1<sup>st</sup> 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 DCCPP 330 MW.
- 1.3 RVUN have to file its petition for determination of ARR and Tariff Petition for 2017-18 in accordance with provision of RERC tariff regulations 2014. Accordingly this petition is being submitted for DCCPP (330 MW) for FY 2017-18 before RERC for ARR and tariff determination.

## A2: GENERATION FORECAST

- 2.1 The installed capacity of DCCPP is 330 MW. The estimated figures of Gross generation, PLF & net energy sale to three Discoms from DCCPP 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 DCCPP Station**

Particular	FY 15-16	FY 16-17	FY 17-18
Capacity (MW)	330	330.00	330.00
PLF (%)	10.05%	20.69	80.00%
Gross generation (MU)	330.03	598.04	2,312.64
Aux Cons. (%)	14.34%	5.89%	2.90%
Net Generation (MU)	282.70	562.84	2,245.57

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

### FIXED CHARGES

### A3: DCCPP ANNUAL CAPACITY (FIXED) CHARGES FOR 2017-18

#### Depreciation:-

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 DCCPP has been considered as Rs.1115 Crore. Therefore, in the instant petition the opening balance of capital cost considered is Rs. 1115 Crore. Further, RVUN has claimed the additional capitalization of Rs. 0.39 Crore and Rs. 3.99 crore during FY 2014-15 and FY 2015-16 respectively.

#### Additional capitalization for FY 2014-15

S.No.	Particulars	Amount	Justification/Remark
1	Furniture & Fixtures	143834	1 no. sony LED against Order no. 3453/16.02.15 for Rs. 67800, remaining Rs. 76034, 71 no's tube light fixture(D-2841/07.11.07),22 no's Exhaust fan ((D-2934/16.11.07),41 no's ceiling fan with regulator(2583/24.10.07)
2	Office Equipments	297400	2 no's hp printer for rs. 24800,1 no. PC, 1 Laser let printer for Rs. 64500(order no. d-(1499/20.10.14) &3 pc's, & 5 no's printer for rs. 208100(d-1499/20.10.14). Total rs. 297400
3	Capital (initial ) Spares	3458684	It is also the part of Original scope of work (Initial spares) done by BHEL Against order no. D-4072/05.11.2008
	Total	3899918	

#### Additional capitalization for FY 2015-16

S.No.	Particulars	Amount	Justification/Remark
1	Building & Civil Works	36846608.16	This is the conversion of wip (buildings) into fixed assets (buildings) after receiving the completion certificate from civil department. It is original scope of works done by M/s Rawassa Constructions.
2	Furniture & Fixtures	194280	Rs. 34500 (D. 4111/11.01.16), 56280/- (D. 1796/14.07.15), 34500/- (D. 128/12.06.15), 69000/- (d. 557/17.03.15)
3	Office Equipments	67200	7 TFT monitor purchased for Rs. 67200/- from M/s kota computers . work order no. D-2409 dt. 25.3.14)
4	Capital (initial ) Spares	2808552	It is a part of original scope of work (initial spares) done by BHEL against order no.

			3311 & 4072.
	Total	39916640.16	

3.2 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:*

3.3 The additional capitalization FY 2014-15 and FY 2015-16 has been incurred as per regulation 19 of RERC Tariff Regulation 2009.

3.4 Depreciation have been computed using the approved capital cost and the above additions as follows:

**Table 2: Depreciation (Rs. in Crore)**

Station	FY 15-16	FY 16-17	FY 17-18
DCCPP			
Depreciation	57.14	58.08	58.08

**Interest on Loans:-**

3.5 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 transitional loans combined has been taken equal to the depreciation figure envisaged for FY 2015-16, FY 2016-17 and 2017-18.

3.6 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
DCCPP			
Interest (Term Loan + Transitional Loan) and finance charges	33.30	24.98	17.60

## Interest on working Capital

3.7 The interest on working capital loan for FY 2015-16, FY 2016-17 & FY 2017-18 has been computed as per the norms defined under clause No. 27 of RERC Tariff Regulations 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.

3.8 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
DCCPP			
Interest on Working Capital	13.31	9.23	20.20

## Operation & Maintenance Expenses

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

3.10 Estimated Figures for the period FY 2015-16, FY 2016-17 and 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
DCCPP			
Operation and Maintenance	43.39	45.93	47.20

## 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 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.

3.12 The ARR & Tariff Petition Fees for FY 2015-16, FY 2016-17 and 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
DCCPP			
Petition Fee	0.17	0.17	0.17

## Insurance Charges

3.13RVUN is claiming the insurance charges for DCCPP 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
DCCPP			
Insurance Charges	0.84	0.88	0.93

## Return on Equity (ROE)

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

3.15The 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
DCCPP			
ROE	17.39	53.99	53.99
Tax on ROE	0.00	0.00	0.00

## NON-TARIFF INCOME

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

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

3.17Estimated 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
DCCPP			
Non Tariff Income	1.47	1.55	1.63

## A4: DCCPP 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 DCCPP (Rs. in Crore)**

Particulars	FY 15-16	FY 16-17	FY 17-18
Prior Period Expenses	-7.18	0.00	0.00
O & M Expenses	43.39	45.93	47.20
Depreciation	57.14	58.08	58.08
Interest on Term Loans & Fin. Charges + Interest on Transitional Loan	33.30	24.98	17.60
Interest on Working Capital Loans	13.31	9.23	20.20
Recovery of ARR & Tariff Petition Fees	0.17	0.17	0.17
ROE	17.39	53.99	53.99
Tax on ROE	0.00	0.00	0.00
Insurance Charges	0.84	0.88	0.93
Total Fixed Charge	158.36	193.26	198.17
Less: Non-Tariff Income	1.47	1.55	1.63
Net Fixed Charge	156.88	191.71	196.54

**A5: VARIABLE CHARGES**

- 5.1. The Gross calorific value and average rate of the gas 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. For FY 2017-18, GCV of Natural Gas has been considered as 9194.43 KCal/SCM and the price of Natural Gas has been taken as Rs. 15.35 per SCM.
- 5.2. The SHR of DCCPP plant has been considered on the basis that plant will run 95% on combined cycle and 5% in open cycle.  $(1950*0.95+2830*0.05)$
- 5.3. 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	UNIT	FY 15-16	FY 16-17	FY 17-18
Total Capacity	MW	330	330	330.00
Availability	%	66.58%	23.64%	80.00%

PLF	%	10.05%	20.69	80.00%
Gross Generation	MU	330.03	598.04	2312.64
Auxiliary Energy Consumption	%	14.34%	5.89%	2.90%
Auxiliary Energy Consumption	MU	47.32	35.20	67.07
Net Generation	MU	282.70	562.84	2245.57
Heat Rate	kcal/kWh	2420.79	2016.56	1994.00
Fuel Parameters (for each primary and secondary fuel)				
<b>Gross Calorific Value</b>				
Fuel - 1 (Natural Gas)	kCal/SCM	9177.00	9202.00	9194.43
<b>Landed Fuel Price per unit)</b>				
Fuel - 1 (Natural Gas)	Rs/ SCM	15.12	15.35	15.35
<b>Specific Fuel Consumption</b>				
Fuel - 1 (Natural Gas)	SCM/kwh	0.26	0.22	0.22
Total Fuel Consumption				
Fuel - 1 (Natural Gas)	SCM	87059429.00	131055901.00	501543234.33
Heat Content (each fuel separately)				
Fuel - 1 (Natural Gas)	Million kcal	798944.38	1205976.00	4611404.16
Total Fuel Cost				
Fuel 1 (Natural Gas) (2.2.1 x 3.2.1)	Rs Crore	131.61	201.17	769.87
Total Cost	Rs Crore	129.82	201.17	769.87
Rs. Per unit /Sent Out	Per unit	4.592	3.574	3.428

#### A6: ESTIMATED ARR FOR DCCPP

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

**Table 12: ESTIMATED ARR for DCCPP (Rs. in Crores)**

Particulars	FY 15-16	FY 16-17	FY 17-18
Capacity (Fixed Charges)	156.88	191.71	196.54

Variable Cost	129.82	201.17	769.87
Aggregate Revenue Requirement	286.71	392.88	966.41

**A7: DCCPP ESTIMATED TARIFF**

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

**Table 13: DCCPP ESTIMATED TARIFF**

Particulars	FY 15-16	FY 16-17	FY 17-18
Ex-Bus Generation (MU)	282.70	562.84	2245.57
Capacity(fixed) Charges	156.88	191.71	196.54
Variable Cost	129.82	201.17	769.87
Rate of Fixed Charge(Rs/kWh)	5.550	3.406	0.875
Rate of Variable Charge(Rs/kWh)	4.592	3.574	3.428
Rate of Sale of Energy (Rs/kWh)	10.142	6.980	4.304

**A8: FUEL COST ADJUSTMENT**

8.1 As per RERC Tariff Regulations 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. The fuel cost adjustment will be made accordingly.

**A9: RESPONDENTS:-**

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

**A10: PRAYER**

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 (Comml.)

(Ajay Kumar Saxena)  
Addl. Chief Engineer (PPMC&IT)

## Summary of Tariff Proposal

Form G 1.1

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Dholpur Combined Cycle Power Project

(Rs. Crore)

S.No.	Particulars	Ref.of Form No	FY 2015-16	FY 2016-17			FY 2017-18	Remark
			Actual/Audited	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated)	Anticipated	
1	2	3	4	5	6	7	8	9
1	<b>Capacity (Fixed) Charge</b>							
1.1	Depreciation	6.1	57.14	57.92	29.04	29.04	58.08	
1.2	Interest on term Loan & Transitional Loan	6.2	33.30	33.85	12.49	12.49	17.60	
1.3	Return on Equity	6.9	17.39	53.79	27.00	27.00	53.99	
1.4	Interest on Working Capital	6.11	13.31	21.75	3.54	5.69	20.20	
1.5	O & M Expenses	4.1	43.39	44.59	22.97	22.97	47.20	
1.6	Insurance Charges	6.12	0.84	0.92	0.44	0.44	0.93	
1.7	Tax on ROE	6.13	0.00	0.00	0.00	0.00	0.00	
	Recovery of ARR and Tariff Petition Fee		0.17	0.17	0.08	0.08	0.17	
	Prior Period Expenses		-7.18	0.00	0.00	0.00	0.00	
1.6	Less: Non-Tariff income	3.2	1.47	0.17	0.77	0.77	1.63	
	<b>Total (1)- Capacity (Fixed Charges)</b>		<b>156.88</b>	<b>212.82</b>	<b>94.78</b>	<b>96.94</b>	<b>196.54</b>	
2	<b>Total- Energy (variable ) charges</b>		<b>129.82</b>	<b>801.90</b>	<b>48.63</b>	<b>152.54</b>	<b>769.87</b>	
3	<b>Units sold to Discoms (MU)</b>		<b>282.70</b>	<b>2245.57</b>	<b>107.30</b>	<b>455.53</b>	<b>2245.57</b>	
4	<b>Rate of Fixed Charges. ( 1/3)</b>		<b>5.550</b>	<b>0.948</b>	<b>8.833</b>	<b>2.128</b>	<b>0.875</b>	
5	<b>Rate of Variable Charges.</b>							
5.1	Rate of Energy Charge from Primary Fuel (REC) <sub>p</sub>	5.1						
	(i) Natural Gas		4.592	3.571	4.532	3.349	3.428	
	(ii) Imported Coal		0.000	0.000	0.000	0.000	0.000	
	(iii) Any Other fuel							
	Total 2.1							
5.2	Rate of Energy Charge from Secondary Fuel (REC) <sub>s</sub>	5.1	0.000	0.000	0.000	0.000	0.000	
5.3	Total-(2) Rate of Energy Charge ex-bus(REC) <sup>3A,3B,3C</sup>	5.1	10.142	4.519	13.365	5.476	4.304	

<sup>1</sup> Details of calculations to be furnished.

Form G 1.2

Aggregate Revenue Requirement

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Dholpur Combined Cycle Power Project

(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	8	9
<b>A</b>	<b>Receipts</b>							
1	Revenue from Sale of Power (Tariff income)	3.1	168.36	1014.72	143.41	249.47	966.41	
2	Non Tariff income	3.2	1.47	0.17	0.77	0.77	1.63	
3	Revenue Subsidies, Grants & Subvention from State Govt.							
	<b>Total- (A)</b>		<b>288.18</b>	<b>1014.89</b>	<b>144.19</b>	<b>250.25</b>	<b>968.04</b>	
<b>B</b>	<b>Expenditure</b>							
1	Variable Costs, including Fuel Cost	5.1	129.82	801.90	48.63	152.54	769.87	
2	Depreciation	6.1	57.14	57.92	29.04	29.04	58.08	
3	Interest on term Loan & Finance charges	6.2	33.30	33.85	12.49	12.49	17.60	
4	Return on Equity	6.9	17.39	53.79	27.00	27.00	53.99	
5	Tax on ROE	6.13	0.00	0.00	0.00	0.00	0.00	
6	Interest on Working Capital	6.11	13.31	21.75	3.54	5.69	20.20	
7	O & M Expenses	4.1	43.39	44.59	22.97	22.97	47.20	
8	Insurance Charges	6.12	0.84	0.92	0.44	0.44	0.93	
9	Recovery of ARR and Tariff Petition Fee		0.17	0.17	0.08	0.08	0.17	
10	Prior Period Expenses		-7.18	0.00	0.00	0.00	0.00	
<b>C</b>	<b>Total- (B) Expenditure</b>		<b>288.18</b>	<b>1014.89</b>	<b>144.19</b>	<b>250.25</b>	<b>968.04</b>	
<b>D</b>	<b>A.R.R. (C-A.2)</b>		<b>286.71</b>	<b>1014.72</b>	<b>143.41</b>	<b>249.47</b>	<b>966.41</b>	

## Plant Characteristics

Name of the Petitioner	Rajasthan Rajya Vidut Utpadan Nigam Limited,Jaipur (Raj.)
Name of the Power Station/Unit:	Dholpur Combined Cycle Power Project, Dholpur

Basic characteristics of the plant <sup>1</sup>	Two gas turbine generator, One Steam Station						
Special Features of the Plant	Intake Well system at Chambal River about 10 KM from Plant						
Site Specific Features <sup>2</sup>							
Special Technological Features <sup>3</sup>	Frame 9E GT, Mark - VI control of GT						
Environmental Regulation related features <sup>4</sup>	SO x / NO x control at exhaust of GT # 1 & 2						
	Chemical treatment of water before drain out of the plant						
Any other special features							
Fuel Details <sup>5</sup>	Primary Fuel			Secondary Fuel		Alternate Fuels	
	Gas					Neptha/ HSD/ Lignite	
Details	Unit number						
	1	2	3	4	5	6	& so on
	GT # 1	GT # 2	STG				
Installed Capacity (IC)	110 MW	110 MW	110 MW				
Date of Commercial Operation (COD)		01.03.2008					
Type of cooling system <sup>6</sup>	Closed Circuit System						
Type of Boiler Feed Pump <sup>7</sup>	NA	NA	Motor Driven				
Pressure (kg/cm2)	NA	NA	75.25				
Temperature 0C							
-At Superheater Outlet	NA	NA	514+/- 5				
-At Reheater Outlet	NA	NA	NA				
Turbine Cycle heat Rate(Kcal/ Kwh)							
Boiler Efficiency (%)							
Guaranteed Design Heat rate (kCal/kWh) <sub>s</sub>							
Conditions on which guaranteed							
% MCR							
% Makeup	NA	NA	0				
Design Fuel	Gas (RLNG)	Gas (RLNG)	Exhaust of GT # 1 & 2				
Design cooling water Temperature			33 Deg C				
Back Pressure			0.104 ata				

## Form G 2.2

### Operational Parameters - Generation

Name of Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Station/Unit:

Dholpur Combined Cycle Power Project

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)	Anticipated	
1	2	3	4	5	6	7	8	9
2	<b>Operational Parameters - Thermal</b>							
2.1	Total Capacity	MW	330	330.00	330	330	330	
2.2	Availability	%	66.58%		23.64%	0.00%	80.00%	
2.3	Plant Load Factor	%	10.05%	80.00%	8.61%	32.83%	80.00%	
2.4	Gross Generation	MU	330.030	2312.640	124.853	473.184	2312.640	
2.5	Auxiliary Energy Consumption	%	14.34%	2.90%	14.06%	3.73%	2.90%	
2.6	Auxiliary Energy Consumption	MU	47.32	67.07	17.55	17.65	67.07	
2.7	Net Generation	MU	282.70	2245.57	107.30	455.53	2245.57	
2.6	Heat Rate	Kcal/Kwh	2420.79	1994.00	2335.00	1932.00	1994.00	

## Revenue from Sale of Power

Name of the Company  
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

Year 2015-16

Rs. Crore										
S.No.	Particulars	Allocatio	Unit Sold	% of	Demand/f	Energy	Others	Total	Average'	Existing
1	2	3	4	5	6	7	8	9	10	11
A)	<b>Revenue from sale of Electricity(as per approved tariff)</b>									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		113.08	40.0%	65.761592	51.9		117.69	1040.77	451.876361
(b)	AVVNL		79.16	28.0%	46.033115	36.3		82.38	1040.77	94.7732647
(c)	JDVVNL		90.46	32.0%	52.609274	41.5		94.15	1040.77	94.7732647
2	Other recoveries									
3	<b>Gross Revenue From Sale of Power</b>				<b>164.40398</b>	<b>129.82</b>				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	<b>Net revenue</b>		<b>282.70</b>		<b>164.40</b>	<b>129.82</b>		<b>294.22</b>		<b>94.7732647</b>

Year 2016-17

Rs. Crore										
S.No.	Particulars	Allocatio	Unit Sold	% of	Demand/f	Energy	Others	Total	Average'	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	<b>Revenue from sale of Electricity(as per approved tariff)</b>									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		225.13	40.0%	76.685638	80.5		157.15	698.04	
(b)	AVVNL		157.59	28.0%	53.679947	56.3		110.01	698.04	
(c)	JDVVNL		180.11	32.0%	61.348511	64.4		125.72	698.04	
2	Other recoveries									
3	<b>Gross Revenue From Sale of Power</b>				<b>191.7141</b>	<b>201.17</b>				
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	<b>Net revenue</b>		<b>562.84</b>		<b>191.71</b>	<b>201.17</b>		<b>392.88</b>		

Year 2017-18

Rs. Crore										
S.No.	Particulars	Allocatio	Unit Sold	% of	Demand/f	Energy	Others	Total	Average'	Remarks
1	2	3	4	5	6	7	8	9	10	11
A)	<b>Revenue from sale of Electricity(as per approved tariff)</b>									
1	Dist.Licensee/trader/ consumers									
(a)	JVVNL		898.23	40.0%	78.62	307.95		386.56	430.36	
(b)	AVVNL		628.76	28.0%	55.03	215.56		270.59	430.36	
(c)	JDVVNL		718.58	32.0%	62.89	246.36		309.25	430.36	
(d)										
(e)										
(f)										
2	Other recoveries									
3	<b>Gross Revenue From Sale of Power</b>									
4	less: i) State Levies Payable to Govt.									
5	Less. : ii) Revenue during trial runs (capitalised)									
6	<b>Net revenue</b>		<b>2245.57</b>		<b>196.54</b>	<b>769.87</b>	<b>0.00</b>			

**Form G 3.2**  
**NON-TARIFF INCOME**

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/ Unit:

Dholpur Combined Cycle Power Project

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-March (Estimated)	(Anticipated)	
1	2	3	4	5	6	7	8
	<b>Non-tariff income</b>						
i.	Intt on Govt. Subsidy	0.00		0.00	0.00	0.00	
ii.	Conveyance Advance	0.00		0.00	0.00	0.00	
iii.	House Building Advance	0.00		0.00	0.00	0.00	
iv.	Income from F.D.R. with Banks	0.00		0.00	0.00	0.00	
v.	Sale of scrap	0.00		0.00	0.00	0.00	
vi.	MISCELLANEOUS RECEIPTS	1.47	0.17	0.77	0.77	1.62	
	<b>Total non-tariff income</b>	<b>1.47</b>	<b>0.17</b>	<b>0.77</b>	<b>0.77</b>	<b>1.63</b>	

## REVENUE SUBSIDIES &amp; GRANTS

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Dholpur Combined Cycle Power Project

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)	<b>Revenue Subsidies &amp; Grants</b>						
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						
	<b>Total</b>						

## Capital Subsidies and Grants

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit :

Dholpur Combined Cycle Power Project

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						
	<b>Total</b>						

**Form G 4.1**

**O&M Expenses**

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

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

(Rs. Crore)

S.No.	Particulars	FY 15-16	FY 16-17			FY 17-18
		(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated)	(Anticipated)
1	2	3	5	6	7	8
1	O&M Expense norms (Rs. per MW)	0.131	0.135121212	0.069595151	0.069595151	0.1430
2	Total Capacity in MW	330	330	330	330	330
3	O&M expense	43.39	44.59	22.97	22.97	47.20
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	<b><u>Pumping Station No.1 :-</u></b>					
b.1	Power consumption Cost					
b.2	Repair / Maintenance / Employee / other Cost					
b.3	Sub total (b)					
c	<b><u>Pumping Station No.2 :-</u></b>					
	and so on .....					
d	Total (4) Special O&M Expenses					
5	<b>Totsl O&amp;M expenses</b>	<b>43.39</b>	<b>44.59</b>	<b>22.97</b>	<b>22.97</b>	<b>47.20</b>

**Form G 5.1**

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

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/ Unit: Dholpur Combined Cycle Power Project

S.No	Month (F.Y. 16-17)	Unit	Apr-16	May-16	Jun-16	Total (Apr.- June)
			Natural GAS	Natural GAS	Natural GAS	Natural GAS
1	2	3	4	5	6	7
1	Quantity of GAS in stock at the beginning of the month	(SCM)	0	0	0	0
2	Quantity of Gas supplied by M/s GAIL & RIL	(SCM)	22102529	20608541	16980400	19897157
3	Adjustment (+/-) in quantity supplied made by Gas Company	(SCM)	NIL	NIL	NIL	NIL
4	Gas supplied by M/s GAIL & RIL (2+3)	(SCM)	22102529	20608541	16980400	19897157
5	Normative Transit & Handling Losses (For coal based Projects)	(SCM)	NIL	NIL	NIL	NIL
6	Net GAS Supplied (4-5)	(SCM)	22102529	20608541	16980400	19897157
7	<b>Total Gas(Receipts &amp; Opening Stock) (1)+(6)</b>	(SCM)	22102529	20608541	16980400	19897157
8	<b>GAS burnt/consumed</b>	(SCM)	1174171	19790857	6731548	9232192
9	<b>GAS in stock at the end of the month</b>	(SCM)	NIL	NIL	NIL	NIL
10	<b>Value of GAS in stock</b>	(Rs.)	0			
11	Amount charged by M/s GAIL & RIL	(Rs.)	16617253	282048633	96798680	131821522
12	Adjustment (+/-) in amount charged made by Gas Company	(Rs.)	NIL	NIL	NIL	NIL
13	<b>Total amount Charged (11+12)</b>	(Rs.)	16617253	282048633	96798680	131821522
14	Transportation charges by M/s GAIL & RIL	( Rs.)	1249049	21111730	7170531	9843770
15	Adjustment (+/-) in amount charged made by Railways/Transport Company	( Rs.)	NIL	NIL	NIL	NIL
16	Demurrage Charges, if any	( Rs.)	NIL	NIL	NIL	NIL
17	Cost of diesel in transporting coal through MGR system, if applicable (For coal based Projects)	( Rs.)	NIL	NIL	NIL	NIL
18	<b>Total Transportation Charges (14+/-15+16+17)</b>	( Rs.)	1249049	21111730	7170531	9843770
19	<b>Total amount Charged for GAS supplied including Transportation (13+18)</b>	( Rs.)	17866302	303160363	103969211	141665292
20	<b>Average cost of GAS (Opening stock + receipts) (19/7)</b>	(Rs./SCM)	15.22	15.32	15.45	15.34
21	<b>Cost of GAS in stock at the end of the month (20)x(9)</b>	(Rs.)	NIL	NIL	NIL	NIL
22	<b>Weighted average GCV of GAS as fired</b>	(kCal/SCM)	9173.1071	9198.7226	9185.5408	9194.4329

## Form G 5.3

## Energy Charges for Thermal Generation

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station/Unit:

Dholpur Combined Cycle Power Project

S.No.	Particulars	Units	FY 2015-16	FY 2016-17			FY 2017-18	Remarks
			April-March (Audited)	Approved by the Commission	Apr-Sep (Actual)	Oct-March (Estimated)	Anticipated	
1	2	3	4	6	7	8	9	10
<b>1</b>	<b>Operational Parameters</b>							
1.1	Total Capacity	MW	330	330.00	330	330	330.00	
1.2	Availability	%	66.58%		23.64%	0.00%	80.00%	
1.3	PLF	%	10.05%	80.00%	8.61%	32.83%	80.00%	
<b>1.4</b>	<b>Gross Generation</b>	<b>MU</b>	<b>330.03</b>	<b>2312.64</b>	<b>124.85</b>	<b>473.18</b>	<b>2312.64</b>	
1.5	Auxiliary Energy Consumption	%	14.34%	2.90%	14.06%	3.73%	2.90%	
1.6	Auxiliary Energy Consumption	MU	47.32	67.07	17.55	17.65	67.07	
<b>1.7</b>	<b>Net Generation</b>	<b>MU</b>	<b>282.70</b>	<b>2245.57</b>	<b>107.30</b>	<b>455.53</b>	<b>2245.57</b>	
1.8	Heat Rate	kcal/kWh	2420.79	1994	2335.000	1932.000	1994.00	
<b>2</b>	<b>Fuel Parameters (for each primary and secondary fuel)</b>							
<b>2.1</b>	<b>Gross Calorific Value</b>							
2.1.1	Fuel - 1 (Indegeinous Coal)	kCal/ SCM	9177	9196.45	9202	9202	9194.43	
<b>2.2</b>	<b>Landed Fuel Price per unit (Please specify the fuel)</b>							
2.2.1	Fuel - 1 (Natural Gas)	Rs/ SCM	15.12	15.99	15.35	15.35	15.35	
<b>3</b>	<b>Fuel Consumption and Heat Contribution (for each fuel separately)</b>							
3.1	Specific Fuel Consumption							
3.1.1	Fuel - 1 (Natural Gas)	SCM/ kwh	0.26	0.22	0.25	0.21	0.22	
<b>3.2</b>	<b>Total Fuel Consumption</b>							
3.2.1	Fuel - 1 (Natural Gas)	SCM	87059429.00		31683901.00	99372000.00	501543234.33	
<b>3.3</b>	<b>Heat Content (each fuel separately)</b>							
3.3.1	Fuel 1 (2.1.1 x 3.1.1)	Million kcal	798944.38		291555.00	914421.00	4611404.16	
	Total Heat Content							
<b>4</b>	<b>Total Fuel Cost</b>							
4.1.1	Fuel 1 (Natural Gas) (2.2.1 x 3.2.1)	Rs Crore	131.61	0.00	48.63	152.54	769.87	
	<b>Total Fuel Cost</b>	<b>Rs Crore</b>	<b>131.61</b>	<b>0.00</b>	<b>48.63</b>	<b>152.54</b>	<b>769.87</b>	
<b>5</b>	<b>Details of limestone consumption (Applicable for Lignite based generating stations)</b>							
<b>6</b>	<b>Other Charges and Adjustments</b>		-1.79					
<b>7</b>	<b>Total Cost (4+5+6)</b>	<b>Rs Crore</b>	<b>129.82</b>	<b>0.00</b>	<b>48.63</b>	<b>152.54</b>	<b>769.87</b>	
<b>8</b>	<b>Cost of Generation per unit (at Generation Terminal) (7/1.4)</b>	<b>Rs/kWh</b>	<b>3.934</b>	<b>0.000</b>	<b>3.895</b>	<b>3.224</b>	<b>3.329</b>	
<b>9</b>	<b>Energy Charge per unit (ex-bus) (7/1.7)</b>							
<b>9.1.1</b>	Fuel - 1 (Natural Gas)	Rs/kWh	4.592	0.000	4.532	3.349	3.428	
	<b>Total---(9)</b>	<b>Rs/kWh</b>	<b>4.592</b>	<b>0.000</b>	<b>4.532</b>	<b>3.349</b>	<b>3.428</b>	

**Form 6.1**  
**Fixed Assets & Provisions for Depreciation**

Name of the Petitioner **Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.**  
Name of the Power Station : **Dholpur Combined Cycle Power Project**

Year (n+1) (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	Nil	2.86	0.00	0.00	2.865	0.000	0.00	0.00	0.000	2.86	2.86
1A	Building & Civil works of Power plant	3.34	39.11	3.68	0.00	42.794	11.335	1.74	0.00	13.079	27.78	29.71
2	Hydraulic works	5.28	14.95	0.00	0.00	14.954	5.174	0.77	0.00	5.946	9.78	9.01
3	Other Civil works	3.34	2.87	0.00	0.00	2.870	0.598	0.09	0.00	0.692	2.27	2.18
4	Plant & machinery	5.28	1011.06	0.00	0.00	1011.063	378.028	54.33	0.00	432.358	633.04	578.71
5	Lines and Cable Networks	5.28	2.46	0.00	0.00	2.462	0.777	0.13	0.00	0.905	1.68	1.56
6	Vehicles	9.5	0.13	0.00	0.00	0.127	0.094	0.01	0.00	0.102	0.03	0.03
7	Furniture & fixtures	6.33	0.83	0.02	0.00	0.852	0.280	0.05	0.00	0.331	0.55	0.52
8	Office Equipments	6.33	0.14	0.01	0.00	0.152	0.044	0.01	0.00	0.053	0.10	0.10
9	Capital spares	5.28	40.96	0.28	0.00	41.241	0.000	0.00	0.00	0.000	40.96	41.24
	<b>Total (1) to (11)</b>		<b>1115.39</b>	<b>3.99</b>	<b>0.00</b>	<b>1119.38</b>	<b>396.33</b>	<b>57.14</b>	<b>0.00</b>	<b>453.47</b>	<b>719.06</b>	<b>665.92</b>

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	2.86	0.00	0.00	2.865	0.000	0.00	0.00	0.000	2.86	2.86
1A	Building & Civil works of Power plant	3.34	42.79	0.00	0.00	42.794	13.079	1.43	0.00	14.509	29.71	28.29
2	Hydraulic works	5.28	14.95	0.00	0.00	14.954	5.946	0.79	0.00	6.736	9.01	8.22
3	Other Civil works	3.34	2.87	0.00	0.00	2.870	0.692	0.10	0.00	0.788	2.18	2.08
4	Plant & machinery	5.28	1011.06	0.00	0.00	1011.063	432.358	53.38	0.00	485.742	578.71	525.32
5	Lines and Cable Networks	5.28	2.46	0.00	0.00	2.462	0.905	0.13	0.00	1.035	1.56	1.43
6	Vehicles	9.5	0.13	0.00	0.00	0.127	0.102	0.01	0.00	0.114	0.03	0.01
7	Furniture & fixtures	6.33	0.85	0.00	0.00	0.852	0.331	0.05	0.00	0.385	0.52	0.47
8	Office Equipments	6.33	0.15	0.00	0.00	0.152	0.053	0.01	0.00	0.063	0.10	0.09
9	Capital spares	5.28	41.24	0.00	0.00	41.241	0.000	2.18	0.00	2.178	41.24	39.06
	<b>Total (1) to (11)</b>		<b>1119.38</b>	<b>0.00</b>	<b>0.00</b>	<b>1119.38</b>	<b>453.47</b>	<b>58.08</b>	<b>0.00</b>	<b>511.55</b>	<b>665.92</b>	<b>607.83</b>

Year (n+1) (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	2.86	0.00	0.00	2.865	0.000	0.00	0.00	0.000	2.86	2.86
1A	Building & Civil works of Power plant	3.34	42.79	0.00	0.00	42.794	14.509	1.43	0.00	15.938	28.29	26.86
2	Hydraulic works	5.28	14.95	0.00	0.00	14.954	6.736	0.79	0.00	7.525	8.22	7.43
3	Other Civil works	3.34	2.87	0.00	0.00	2.870	0.788	0.10	0.00	0.883	2.08	1.99
4	Plant & machinery	5.28	1011.06	0.00	0.00	1011.063	485.742	53.38	0.00	539.126	525.32	471.94
5	Lines and Cable Networks	5.28	2.46	0.00	0.00	2.462	1.035	0.13	0.00	1.165	1.43	1.30
6	Vehicles	9.5	0.13	0.00	0.00	0.127	0.114	0.01	0.00	0.126	0.01	0.00
7	Furniture & fixtures	6.33	0.85	0.00	0.00	0.852	0.385	0.05	0.00	0.439	0.47	0.41
8	Office Equipments	6.33	0.15	0.00	0.00	0.152	0.063	0.01	0.00	0.073	0.09	0.08
9	Capital spares	5.28	41.24	0.00	0.00	41.241	2.178	2.18	0.00	4.355	39.06	36.89
	<b>Total (1) to (11)</b>		<b>1119.38</b>	<b>0.00</b>	<b>0.00</b>	<b>1119.38</b>	<b>511.55</b>	<b>58.08</b>	<b>0.00</b>	<b>569.63</b>	<b>607.83</b>	<b>549.75</b>

**Form G 6.2**  
**LOAN REPAYMENT & INTREST LIABILITY**

Name of the Petitioner  
Name of the Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

Name of the Petitioner  
Name of the Power Station :

S. No.	Source (loan)	Currency	Year (2015-16) Rs. Crore										Rs. Crore					
			Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability on Interest during the year	Financial charges	Total interest & finance	Less: Interest charges	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	299.04	0.00	73.68	12.50%		225.36	12.70%	33.29	0.01	33.30	0.00	33.30	Nil	Nil	Nil	Nil
<b>Total (for Station)</b>			<b>299.04</b>	<b>0.00</b>	<b>73.68</b>			<b>225.36</b>		<b>33.29</b>	<b>0.01</b>	<b>33.30</b>	<b>0.00</b>	<b>33.30</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>

S. No.	Source (loan)	Currency	Year (2016-17) Rs. Crore										Rs. Crore					
			Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability on Interest during the year	Financial charges	Total interest & finance	Less: Interest charges	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	225.36	0.00	58.08	12.50%		167.28	12.70%	24.93	0.05	24.98	0.00	24.98	Nil	Nil	Nil	Nil
<b>Total (for Station)</b>			<b>225.36</b>	<b>0.00</b>	<b>58.08</b>			<b>167.28</b>		<b>24.93</b>	<b>0.05</b>	<b>24.98</b>	<b>0.00</b>	<b>24.98</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>

S. No.	Source (loan)	Currency	Year (2017-18) Rs. Crore										Rs. Crore					
			Opening Balance	Anticipated Receipts	Anticipated Repayment	Interest rate		Closing Balance	Average Rate of Interest#	Liability on Interest during the year	Financial charges	Total interest & finance	Less: Interest charges	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	167.28	0.00	58.08	12.50%		109.19	12.70%	17.55	0.05	17.60	0.00	17.60	Nil	Nil	Nil	Nil
<b>Total (for Station)</b>			<b>167.28</b>	<b>0.00</b>	<b>58.08</b>			<b>109.19</b>		<b>17.55</b>	<b>0.05</b>	<b>17.60</b>	<b>0.00</b>	<b>17.60</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>

## Details of Project Specific Loans

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

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

Particulars	Year (n-1)*					Rs. Crore
	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan <sup>1</sup>	PFC					
Currency <sup>2</sup>	Indian					
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto previos year/during current/ensuing year/COD <sup>3,4,5,13,15</sup>						
Interest Type <sup>6</sup>						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest <sup>7</sup>						
Margin, if Floating Interest <sup>8</sup>	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor <sup>9</sup>						
If above is yes,specify caps/floor						
Moratorium Period <sup>10</sup>						
Moratorium effective from						
Repayment Period <sup>11</sup>						
Repayment effective from						
Repayment Frequency <sup>12</sup>						
Repayment Instalment <sup>13,14</sup>						
Base Exchange Rate <sup>16</sup>						

## Consolidated report on additions to Fixed Assets during the year

f the Petitioner  
he Power Station :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

(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)						
			Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	11	12	13	14	15	16	17
1	Land & land rights	10.1 XX	0.000							0							0						
2	Building & Civil works of Power plant	10.2 XX	3.680							0							0						
3	Hydraulic works	10.3 XX	0.000							0							0						
4	Other Civil works	10.4 XX	0.000							0							0						
5	Plant & machinery	10.5 XX	0.000							0							0						
6	Lines and Cable Networks	10.6 XX	0.000							0							0						
7	Vehicles	10.7 XX	0.000							0							0						
8	Furniture & fixtures	10.8 XX	0.020							0							0						
9	Office Equipments	10.9 XX	0.010							0							0						
10	Capital spares	10.10 XX	0.280							0							0						
	Total		3.990							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 :	Dholpur Combined Cycle Power Project					
New Projects						
Capital Cost Estimates						
Board of Director/ Agency approving the Capital cost estimates:						
Date of approval of the Capital cost estimates:						
	<b>Present Day Cost</b>			<b>Completed Cost</b>		
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	NA					
<b>Capital Cost excluding IDC &amp; FC</b>						
Foreign Component, if any (In Million US \$ or the relevant Currency)						
Domestic Component (Rs. Cr.)						
<b>Capital cost excluding IDC &amp; FC (Rs. Cr)</b>						
<b>IDC &amp; FC</b>						
Foreign Component, if any (In Million US \$ or the relevant Currency)						
Domestic Component (Rs. Cr.)						
<b>Total IDC &amp; FC (Rs.Cr.)</b>						
Rate of taxes & duties considered						
<b>Capital cost Including IDC &amp; FC</b>						
Foreign Component, if any (In Million US \$ or the relevant Currency)						
Domestic Component (Rs. Cr.)						
<b>Capital cost Including IDC &amp; FC (Rs. Cr)</b>						
<b>Schedule of Commissioning</b>						
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: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
 Name of the Power Station: Dholpur Combined Cycle Power Project

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.						
<b>9.0</b>	<b>Balance of Plant</b>						
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						
<b>9.2</b>	<b>Electrical BOP</b>						
9.2.1	Power Transformers						
9.2.2	Switchyard						
9.2.3	Bus Duct						
9.2.4	HT Switchgear						
9.2.5	LT Switchgear						
9.2.6	DC Power System						
9.2.7	Power and Control Cables						
9.2.8	Control and Relay Panels						
9.2.9	Station Lighting						
9.2.10	DC Set						
9.2.11	Electrical equipment erection, cabling and grounding						
9.2.12	Other Misc. items						
9.2.13	Taxes, Duties and F&I						
9.2.14	ETC and spares						
<b>9.3</b>	<b>Total BOP Civil Works</b>						
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)						
<b>16.0</b>	<b>Overheads</b>						
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						
<b>17.0</b>	<b>Capital cost excluding IDC &amp; FC</b>						
18	Interest During Construction (IDC)						
19	Financing Charges (FC)						
<b>20.0</b>	<b>Capital cost including IDC &amp; FC</b>						
21	Cost per MW						

NA

Break-up of Construction / Supply / Service packages

Name of the Petitioner :

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Dholpur Combined Cycle Power Project

S.No.	Name/No. of Construction / Supply / Service Package	Scope of works <sup>1</sup> (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 <sup>2</sup> 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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32																	

NA

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.  
Dholpur Combined Cycle Power Project

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 --												
	--												
	--												
	1.1 Total Foreign Loans												
	Draw down Amount												
	IDC												
	Financing charges												
	1.2 Indian Loans												
	1.2.1 Indian Loan 1												
	Draw down Amount												
	IDC												
	Financing charges												
	1.2.2 Indian Loan 2												
	Draw down Amount												
	IDC												
	Financing charges												
	1.2.3 Indian Loan 3												
	Draw down Amount												
	IDC												
	Financing charges												
	1.2.4 --												
	--												
	--												
	1.2 Total Indian Loans												
	Draw down Amount												
	IDC												
	Financing charges												
	1 Total of Loans drawn												
	IDC												
	Financing charges												
	2 Equity												
	2.1 Foreign equity drawn												
	2.2 Indian equity drawn												
	Total equity deployed												

NA

**Form G 6.9**  
**RETURN ON EQUITY**

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Name of the Power Station : Dholpur Combined Cycle Power Project

Rs. Crore

S.No.	Particulars	Reference	Previous year 2015-16	Current Year FY 2016-17			Ensuing Year FY 2017-18	Remarks
			(Actuals/audited)	Approved by the Commission	Apr-Sep (Actual)	Estimated for (Oct-Mar)	(Anticipated)	
1	2	3		5	6		8	9
1	Equity at the beginning of the year		347.15		348.35	348.35	348.35	
2	Capitalisation		3.99		0.00	0.00	0.00	
3	Equity portion of capitalisation		1.20		0.00	0.00	0.00	
4	Equity at the end of the year		348.35		348.35	348.35	348.35	
	<b>Return Computation</b>							
5	Return on Equity at the beginning of the year	15.50%*for 16-17 & 15.50.% for 15-16	17.36		27.00	27.00	53.99	
6	Return on Equity portion of capitalisation (on pro-rata basis)	15.50%*for 16-17 & 15.50.% for 15-16	0.03		0.00	0.00	0.00	
7	<b>Total Return on Equity</b>	(5)+(6)	<b>17.39</b>	<b>53.79</b>	<b>27.00</b>	<b>27.00</b>	<b>53.99</b>	



Form G 6.11

Interest on Working Capital

Name of the Petitioner  
Name of the Power Station

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
Dholpur Combined Cycle Power Project

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-M arch (Estimated)		(Anticipated)
1	2		3	4	5	6 = 4+5	7	8
1	Coal Cost ( Non pit head)	1½ Month	NA	NA	NA	NA	NA	
2	Coal Cost ( Pit head)	Half month	NA	NA	NA	NA	NA	
3	Cost of Gas	Half month	5.48		2.03	6.36	32.08	
4	Sec.Fuel Oil	Two month	NA	NA	NA	NA	NA	
5	Liquid Fuel Stock	Half month	NA	NA	NA	NA	NA	
6	O & M expenses	One month	3.62		1.91	1.91	3.93	
	Maintenance Spares	30% of O&M	13.02		6.89	6.89	14.16	
	Recievables	1½ Month	35.84		18.02	31.28	121.00	
	<b>Total Working Capital</b>		<b>57.96</b>		<b>28.85</b>	<b>46.44</b>	<b>171.18</b>	
	Rate of Interest (as per norms)		12.50%		12.26%	12.26%	11.80%	
	<b>Interest on Working Capital</b>		<b>7.24</b>	<b>21.75</b>	<b>3.54</b>	<b>5.69</b>	<b>20.20</b>	

## Insurance Expenses

Name of the Petitioner: Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.  
 Name of the Power Station : Dholpur Combined Cycle Power Project

Rs. Crore

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 (Actual)	Oct-March (Estimated)	(Anticipated)	
1	2	4	5	6	7	8	9
	<b>Insurance Expenses</b>	0.84	0.92	0.44	0.44	0.93	
a)	Provision made/ proposed for the year						
b)	Actual insurance expenses incurred						
c)	Average Net Fixed Assets	1052.02		817.88	817.88	882.72	

## Tax on R.O.E.

Name of the Petitioner:

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Dholpur Combined Cycle Power Project

Rs.

S. No.	Particulars	Previous Year 2015-16	Current Year 2016-17	Ensuing Year 2017-18	Remarks
		(Actuals/audited)	Actual/ Estimated	Proposed to be recovered	
1	2	3	4	5	6
A)	Advance Tax assessed & deposited on---				
a)	for Quarter I & deposited on 15 th June.				
b)	for Quarter II & deposited on 15 th Sept.				
c)	for Quarter III & deposited on 15 th Dec.				
d)	for Quarter IV & deposited on 15 th March.				
	Total--(A)	0.00	0.00	0.00	
B)	Deffered tax liability before 01.04.2009				

Form G 7.1

Proposed improvement in performance

Name of the Petitioner

Rajasthan Rajya Vidhyut Utpadan Nigam Ltd.

Name of the Power Station :

Dholpur Combined Cycle Power Project

Rs. Crore

S.No.	Particulars	Previous year	Current year			MYT Control Period					Remarks
		FY 2015-16	FY 2016-17			FY 2017-18	n+2	n+3	n+4	n+5	
		(Actuals / audited)	Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	(Anticipated)					
1	2	3	4	5	6 = 4+5	7	8	9	10	11	12
1	Plant load factor	10.05%	8.61%	32.83%		80.00%					
2	Auxiliary consumption	14.34%	14.06%	3.73%		2.90%					
3	Specific fuel consumption										
(I)	coal, kg / kWh										
ii)	gas, SCM / kWh	0.26	0.25	0.21		0.22					
(iii)	oil, ml / kwh	0.00	0.00	0.00		0.00					
(iv)	Limestone kg / kWh										
(v)	any other fuel										
4	Station heat rate, kcal / kwh	2420.79	2335.00	1932.00		1994.00					
5	Annual Maitenance shut down days										
6	Forced / planned shut down except annual shut down										
(I)	number / year										
(ii)	cumulative duration, hours / year										
7	Fly ash utilisation, %	100%	100%	100%		100%					
8	Other bye product utilisation(give list)										
9	Outstanding dues, days of receivables										
10	Availability	66.58%	23.64%	0.00%		80.00%					