

**Petition for Determination of Pooled Cost of Power Purchase
for FY 2016-17**

Submitted to

Rajasthan Electricity Regulatory Commission

By

Jaipur Vidyut Vitran Nigam Limited

Jaipur

February 2017



OFFICE OF THE SUPERINTENDING ENGINEER (RA)

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From,

The Superintending Engineer (RA),
JVVNL, Jaipur

To,

The Secretary,
Rajasthan Electricity Regulatory Commission,
Vidhyut Viniyamak Bhawan, Sahakar Marg,
Near State Motor Garage, Jaipur

Memo No.:

Dated:

Subject: Petition for determination of pooled cost of power purchase for FY 2016-17 based on the audited accounts for FY 2015-16

Please find enclosed herewith a petition filed on behalf of JVVNL for determination of pooled cost of power purchase for FY 2016-17 based on the audited accounts for FY 2015-16 as per the Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010.

Signed/-

Superintending Engineer (RA),
JVVNL, Jaipur

BEFORE THE RAJASTHAN ELECTRICITY REGULATORY COMMISSION

JAIPUR, RAJASTHAN

Filing No.:

Case No.:

In the Matter of:

Filing a Petition for determination of pooled cost of power purchase for FY 2016-17 based on the audited accounts for FY 2015-16 as per the Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010.

The Petitioner respectfully submits its petition in the matter as follows:

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Definitions

1. **Distribution Licensee'** means a licensee authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply as defined in the Act
2. **Floor Price:** The minimum price as determined by the Central Electricity Regulatory Commission in accordance with its (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 as amended from time to time, at and above which the certificate can be dealt in the power exchange;
3. **Forbearance Price:** The ceiling price as determined by the Central Electricity Regulatory Commission.
4. **Pooled Cost of Power Purchase:** The weighted average price at which the distribution licensee has purchased the electricity including cost of self-generation, if any, in the previous year from all the energy suppliers, excluding short term power purchases and those based on renewable energy.
5. **Preferential Tariff:** The tariff fixed / approved by the Hon'ble Commission for sale of energy to a distribution licensee from a generating station based on renewable energy sources.
6. **Renewable Energy Sources:** Includes non-conventional renewable generation sources such as mini and micro hydel, wind and solar including its integration with combined cycle, bio-mass, bio-fuel cogeneration, urban or municipal waste and other such sources as approved by MNRE, excluding the nuclear power stations and hydel power stations of capacity above 25 MW.

Introduction

1. In exercise of powers conferred under sections 61, 66, 86(1)(e) and 181 of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Rajasthan Electricity Regulatory Commission framed Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010.
2. As per RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010, and RERC (Power Purchase and Procurement Process of Distribution Licensee) (3rd Amendment) Regulations 2014, a Distribution Licensee including deemed licensee shall procure electricity generated from renewable energy sources as provided in following table:

Table 1: RPO expressed as percentage of energy consumption (%)

Sl. No.	Financial Year	Wind	Biomass	Solar	Total *
1.	2014-15	6.8	0.70	1.50	9.00
2.	2015-16	7.3	0.90	2.00	10.20
3.	2016-17	7.8	1.10	2.50	11.40

*Note: * As per RERC (Power Purchase and Procurement Process of Distribution Licensee) (3rd Amendment) Regulations 2014 dated 20th February 2014*

3. As per the RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010, the effective electricity component price during the operating period for a distribution licensee(s) shall be equal to the Pooled cost of Power Purchase, which is the weighted average price at which the distribution licensee has purchased the electricity including cost of self-generation, if any, in the previous year from all the energy suppliers, excluding short term power purchases and those based on renewable energy.
4. JVVNL is submitting this petition to the Hon'ble Commission for determination of Pooled Cost of Power Purchase for FY 2016-17 based on the audited accounts for FY 2015-16.

Pooled Cost

1. As per Clause 11 of the RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010, the tariff rate, tariff structure and other conditions for existing renewable energy projects for which long term PPA for purchase of renewable energy are already put in place, may participate in REC scheme after the expiry of the period of their existing PPA.
2. Provided further that such a generating company having entered into a power purchase agreement for sale of renewable energy at a preferential tariff shall not, in case of pre-mature termination of the agreement, be eligible for participating in the REC scheme for a period of three years from the date of termination of such agreement or till the scheduled date of expiry of PPA whichever is earlier.
3. All the new renewable energy projects commissioned during the Multiyear Control Period, after coming into force of RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010 and which do not have PPA prior to coming into effect of these Regulations for purchase of Renewable Energy shall have the option of either following the tariff structure and other conditions as stipulated in the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, subject to agreement of licensee or adopt pricing of the REC mechanism.
4. In case REC mechanism is repealed / expires or RE generator on his own opts out of the REC mechanism, RE generator can switch over to preferential tariff mechanism subject to scope to accommodate the same in the RPO target of the licensee at a tariff to be determined by the Commission and/or sell renewable energy at mutually agreed price to other obligated entities.

Determination of Pooled cost of Power Purchase for JVVNL for FY 2016-17

1. The RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010 requires the Distribution licensee to purchase renewable energy and/ or renewable energy certificates (RECs) for discharge of the above specific mandatory obligation.
2. The Distribution licensee can purchase the renewable energy and/ or certificate as per REC Mechanism as follows:
 - a. The effective electricity component price shall be equal to the Pooled Cost of Power Purchase.
 - b. The Certificate could be purchased at price discovered in the Power Exchanges.
3. For the determination of Pooled cost of Power Purchase for FY 2016-17, the Discom has considered the power purchase cost and quantum as per the audited accounts for FY 2015-16.
4. Further, while determining the Final Pooled cost of Power Purchase, the Discom has not considered the short-term power purchase and renewable energy, while the power purchased from nuclear power stations, hydel power stations of capacity above 25 MW and thermal component of bundled power purchased through NVVN has been considered.
5. On the basis of power purchase cost and quantum available for FY 2015-16, Pooled cost for FY 2016-17 works out to **Rs. 3.4345 per unit**.
6. The detailed computation of Pooled cost of Power Purchase for FY 2016-17 is as follows:

Pooled Power Purchase Cost for JVVNL for FY 2016-17 based on Actual Accounts of FY 2015-16							
S.No.	Power Purchase Station (Source Wise)	Energy Purchased (in MU's)	Power Purchase Cost (Rs. Cr)				Weighted Avg Cost per unit (Rs/kWh)
			Fixed Charges	Energy Charges	Total Cost	Rate (Rs/kWh)	
A	NTPC						
1	ANTA GTPS	67.0158	16.0654	23.8101	39.8754	5.9502	0.0160
2	AURIYA GTPS	46.1935	9.3418	18.3742	27.7159	6.0000	0.0111
3	DADRI GTPS	86.4679	11.9022	31.0237	42.9259	4.9644	0.0172
4	FGUTTPS -I	22.7444	3.6113	6.1792	9.7906	4.3046	0.0039
5	FGUTTPS -II	55.5730	7.1312	14.9756	22.1068	3.9780	0.0089
6	FGUTPP III	31.7103	7.0678	9.9482	17.0160	5.3661	0.0068
7	F.S.T.P.S	18.2418	2.3190	4.9336	7.2526	3.9758	0.0029
8	K.H.S.T.P.S. I	33.1403	6.3104	7.6797	13.9901	4.2215	0.0056
9	K.H.S.T.P.S. & II	179.5980	33.8380	43.1101	76.9481	4.2845	0.0308
10	RHIND STPS	203.4729	18.7498	35.2382	53.9879	2.6533	0.0216
11	RIHAND II	213.3657	23.0061	34.2675	57.2736	2.6843	0.0229
12	RIHAND III	249.9474	45.1810	41.4729	86.6538	3.4669	0.0347
13	SINGUARLI	894.7947	43.4764	123.8070	167.2834	1.8695	0.0670
14	TALCHAR STPS	0.0000	0.0000	0.0000	0.0000		0.0000

Pooled Power Purchase Cost for JVNVL for FY 2016-17 based on Actual Accounts of FY 2015-16							
S.No.	Power Purchase Station (Source Wise)	Energy Purchased (in MU's)	Power Purchase Cost (Rs. Cr)				Weighted Avg Cost per unit (Rs/kWh)
			Fixed Charges	Energy Charges	Total Cost	Rate (Rs/kWh)	
15	KHPS-I	75.2542	22.3797	20.4883	42.8680	5.6964	0.0172
16	NCTPS 1	0.0000	0.0000	0.0000	0.0000		
17	NCTPS 2	8.9620	0.8181	3.1743	3.9924	4.4548	0.0016
	TOTAL	2186.4817	251.1982	418.4825	669.6808	3.0628	0.2681
	Prior Period Expenses	0.0000	16.6794	-9.1612	7.5182		
	Total (with Adjustment)	2186.4817	267.8777	409.3213	677.1990	3.0972	0.2711
B	NHPC						
1	TANAKPUR HEP	14.9777	3.0260	2.4142	5.4402	3.6322	0.0022
2	SALAL HEP	40.4084	2.2393	6.6565	8.8958	2.2015	0.0036
3	CHAMERA-I	200.4577	14.3377	19.9391	34.2768	1.7099	0.0137
4	CHAMERA-II	60.7413	8.4182	8.5045	16.9227	2.7860	0.0068
5	CHAMERA-III	46.1085	11.7175	12.7494	24.4669	5.3064	0.0098
6	URI HEP	114.3523	9.0820	14.4596	23.5417	2.0587	0.0094
7	URI HEP II	53.1818	14.3226	13.4261	27.7486	5.2177	0.0111
8	DHOLIGANGA	41.5440	6.4151	8.7317	15.1468	3.6460	0.0061
9	DULHASTI	104.2288	28.5917	31.9355	60.5272	5.8071	0.0242
10	PARBATI III	28.4217	5.4629	7.8263	13.2892	4.6757	0.0053
11	SEWA II	25.3149	6.0756	5.7722	11.8478	4.6802	0.0047
	TOTAL	729.7370	109.6886	132.4150	242.1036	3.3177	0.0969
	Prior Period Expenses	0.0000	4.1884	10.7867	14.9751		
	Total (with Adjustment)	729.7370	113.8770	143.2017	257.0787	3.5229	0.1029
C	NEYVELI LIGNITE CORPORATION LTD	441.1253	106.9249	53.7566	160.6815	3.6425	0.0643
D	SJVNL-NATHPA-JHAKRI	224.4627	34.7431	31.0637	65.8068	2.9317	0.0263
	Rampur	61.7198	11.8458	9.9935	21.8392	3.5385	0.0087
	Total	286.1825	46.5889	41.0572	87.6461	3.0626	0.0351
	Prior Period Expenses	0.0000	0.0000	0.0000	0.0000		
	Total (with Adjustment)	286.1825	46.5889	41.0572	87.6461	3.0626	0.0351
E	NPCL						
	NAPP	131.4829	0.0000	32.9637	32.9637	2.5071	0.0132
	Prior Period Expenses	0.0000	0.0000	-0.0091	-0.0091		
	Total (with Adjustment)	131.4829	0.0000	32.9546	32.9546	2.5064	0.0132
	RAPP-I & II	381.6522	0.0000	106.5250	106.5250	2.7912	0.0426
	RAPP-III&IV	437.5156	0.0000	122.5992	122.5992	2.8022	0.0491
	RAPP-V & VI	276.6206	0.0000	95.6456	95.6456	3.4576	0.0383
	RAPP-V	0.0000	0.0000	0.0000	0.0000		
	TOTAL (RAPP)	1095.7884	0.0000	324.7698	324.7698	2.9638	0.1300
	Prior Period Expenses	0.0000	0.0000	-0.0473	-0.0473		

Pooled Power Purchase Cost for JVVNL for FY 2016-17 based on Actual Accounts of FY 2015-16							
S.No.	Power Purchase Station (Source Wise)	Energy Purchased (in MU's)	Power Purchase Cost (Rs. Cr)				Weighted Avg Cost per unit (Rs/kWh)
			Fixed Charges	Energy Charges	Total Cost	Rate (Rs/kWh)	
	Total (with Adjustment)	1095.7884	0.0000	324.7225	324.7225	2.9634	0.1300
F	State Generation & Others						
	KTPS(1 to 7)	2784.9288	188.8840	777.0020	965.8860	3.4683	0.3867
	STPS(1 to 6)	2110.2198	277.4298	765.0758	1042.5056	4.9403	0.4174
	DCCPP	113.0808	32.8350	37.3779	70.2129	6.2091	0.0281
	CTPP (1&2))	591.4974	85.9822	117.3702	203.3524	3.4379	0.0814
	CTPP (4)	530.5537	85.0094	110.7879	195.7973	3.6904	0.0784
	CTPP (3)	474.5538	91.5903	98.6032	190.1935	4.0078	0.0761
	GLTTP 2	0.0000	19.8741	-1.3750	18.4991		
	RGTP(1&2)	191.0519	6.0689	64.7585	70.8274	3.7072	0.0284
	KaTTP#1	1328.9600	292.1317	315.3052	607.4369	4.5708	0.2432
	KaTTP#2	980.9396	134.4949	253.2099	387.7048	3.9524	0.1552
	RGTP 3	392.7079	58.0565	129.2116	187.2681	4.7686	0.0750
	MAHI	66.9336	6.1727	5.3744	11.5472	1.7252	0.0046
	GPTTP	77.7911	25.4173	10.4372	35.8544	4.6091	0.0144
	RAJWEST POWER LIMITED	2558.5870	581.7435	464.0628	1045.8063	4.0874	0.4187
	Total	12201.8055	1885.6903	3147.2016	5032.8919	4.1247	2.0150
G	Coastal Gujarat	1004.5169	104.2652	134.8383	239.1035	2.3803	0.0957
H	Total Shared Projects/Others						
	Tehri	96.3023	28.5825	26.0240	54.6065	5.6703	0.0219
	Koteshwar	43.1881	8.4696	7.9333	16.4029	3.7980	0.0066
	Total	139.4904	37.0521	33.9573	71.0094	5.0906	0.0284
	Prior Period Expenses	0.0000	0.0000	0.9276	0.9276		
	Total THDC (with Adjustment)	139.4904	37.0521	34.8849	71.9370	5.1571	0.0288
	TALA THROUGH PTC (BHUTAN)	19.2533	0.0000	3.8892	3.8892	2.0200	0.0016
	Prior Period Expenses	0.0000	0.0000	0.0000	0.0000		
	Total (with Adjustment)	19.2533	0.0000	3.8892	3.8892	2.0200	0.0016
	BBMB(BHAKRA,DEHAR&PONG)	1025.7793	0.0000	47.6520	47.6520	0.4645	0.0191
	CHAMBAL/SATPURA	345.7860	0.0000	0.0000	0.0000	0.0000	0.0000
	Total	1530.3090	37.0521	86.4261	123.4782	0.8069	0.0494
I	NVVN Bundled Power (Thermal)	734.3005	75.3829	142.5379	217.9207	2.9677	0.0872
J	Aravali Power Limited	3.2840	2.6726	0.0486	2.7213	8.2865	0.0011
K	ADANI Power Rajasthan	3293.0027	505.3260	664.1319	1169.4578	3.5513	0.4682

Pooled Power Purchase Cost for JVVNL for FY 2016-17 based on Actual Accounts of FY 2015-16

S.No.	Power Purchase Station (Source Wise)	Energy Purchased (in MU's)	Power Purchase Cost (Rs. Cr)				Weighted Avg Cost per unit (Rs/kWh)
			Fixed Charges	Energy Charges	Total Cost	Rate (Rs/kWh)	
L	Sasan Power Ltd	1161.3270	17.0762	175.0041	192.0802	1.6540	0.0769
M	Karcham Wangtoo	177.3841	0.0000	60.3106	60.3106	3.4000	0.0241
	Grand Total	24976.7273	3162.7337	5415.5129	8578.2466	3.4345	3.4345

Prayer

In view of the above submission, the Discom prays as under:

1. The Hon'ble Commission to accept this petition as submitted by the Discom
2. The Hon'ble Commission may kindly determine the Pooled cost of Power Purchase for FY 2016-17 as per the Discom's submission and allow Discom to recover pooled cost of power purchase at Rs. **3.4345** per unit.
3. The Hon'ble Commission may kindly condone any inadvertent omission/ errors/ shortcomings and permit the Discom to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date
4. The Hon'ble Commission pass such further and other orders, as it may deem fit and proper keeping in view the facts and circumstances of the case.