

JODHPUR VIDYUT VITRAN NIGAM LIMITED

Corporate Identity Number (CIN) - U40109RJ2000SG016483
Regd. Office : New Power House, Jodhpur - 342 003
Phone No : 0291-2742227 : Fax No: 0291-5106366
E-mail: seracomml@gmail.com web site: www.jdvvnl.com

No. JdVVNL/MD/ACE(HQ)/SE(RA&C)/Ju/S./2k17-18/D. 157 Dt. 02.05.17

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

Sub.: Submission of reply of deficiency in the JdVVNL petition for determination of ARR and Tariff for FY 2016-17 & FY 2017-18.

Ref. : Your letter No. 1662 dt. 08.03.2017.

Sir,

On the subject cited above and letter under reference, kindly find enclosed herewith reply of deficiency in the JdVVNL Petition for determination of ARR and Tariff for FY 2016-17 & FY 2017-18, in six copies, for kind consideration. The reply shall be considered as integral part of this petition.

Encl. Reply in six sets along with soft copy.

meena
02/5/17

(M. R. MEENA)

**ADDL. CHIEF ENGINEER(HQ)
JODHPUR DISCOM, JODHPUR**

BEFORE THE RAJSTHAN ELECTRICITY REGULATORY COMMISSION

Petition No.
Case No.

IN THE MATTER OF

Reply of Data gaps of petition for determination of ARR and Tariff for FY 2016-17 & 2017-18 in respect of Jodhpur Discom.

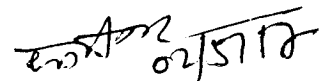
IN THE MATTER OF

JODHPUR VIDYUT VITRAN NIGAM LIMITED

Affidavit verifying the petition:

I, M. R. Meena S/O Sh. Veera Rsam Meena, Age 53, years residing at 8A/71, Kudi Bhagtasni Housing Board, Jodhpur do solemnly confirm and say as below:

1. I Addl. Chief Engineer(HQ) of Jodhpur Vidhyut Vitran Nigam Limited, Jodhpur, the applicant in the above matter, I am duly authorised by said applicant to make this affidavit on its behalf and fully conversant with the facts and circumstances of the matter and competent to swear this affidavit.
2. The statement made in reply to data gaps are true to my knowledge.



(M. R. MEENA)
Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur
Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

JdVVNL- Data gaps on ARR and Tariff Petition for FY 2016-17 and FY 2017-18

Commission's Observation:

1. Regulation 11(5) (f) of RERC Tariff Regulations, 2014 provides that distribution licensee, shall provide detailed calculations of voltage-wise cost of supply, exclusive of external subsidies and cross subsidies in respect of each category of consumer. Voltage wise cost of supply is required to be furnished as per orders of Hon'ble APTEL in Appeal no 102 of 2010.

Petitioner's Reply:

The Discom submits that as per the Commission's directive, Discom is required to furnish details of Voltage wise Cost of Supply in accordance to Hon'ble APTEL judgment in Appeal No 102 of 2010.


In the judgment referred above, the Tribunal had recognized the difficulty in determination of cost of supply to different categories of consumers. However, instead of waiting indefinitely for availability of the entire data, the Tribunal had suggested a simple method which would take into account the major cost element. The Tribunal had suggested determination of voltage-wise cost of supply taking into account the major cost element which would be applicable to all the consumers connected at a particular voltage level.

According to the said judgment, in the absence of segregated network costs, it would be prudent to work out voltage-wise cost of supply taking into account the distribution losses at different voltage levels. As power purchase cost is a major component of tariff, the power purchase cost can be apportioned at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system.

The system study to determine voltage wise technical losses is under process and hence voltage wise technical losses are not available at the moment.

In the absence of voltage wise technical losses, the petitioner has considered the technical distribution losses in the distribution network approved by the Hon'ble Commission for 2006-07 in the order on determination of wheeling charges and cross subsidy surcharge for the year 2006-07 dated 19th September 2006 to work out voltage wise power purchase cost for 2006-07. For commercial losses, the APTEL judgement has suggested apportionment of difference of total and technical losses i.e. commercial losses across all voltage levels in proportion to the sales plus technical losses at the respective voltage levels. In this manner the total losses have been apportioned at different voltage levels.

The following table gives the details of apportionment of total losses for FY 2006-07


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

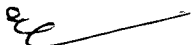
Voltage wise Energy Input for FY 2006-07								
Voltage Level	Sales (MU)	Voltage wise Tech Loss (%)	Transmission Loss	Sales + Tech Loss (MU)	Tech. Losses (MU)	Comm Losses (MU)	Total Loss (MU)	Energy Input (MU)
132 KV	126.77	0%	5.45%	134.08	7.31	15.17	22.48	149.26
33 KV	303.67	3.80%	5.45%	333.86	30.19	37.78	67.97	371.64
11 KV	316.21	8.80%	5.45%	381.19	64.98	43.14	108.12	424.33
LT	5,331.02	16.55%	5.45%	7,701.09	2,370.07	871.53	3,241.60	8,572.62
Total	6,077.67			8,550.22	2,472.55	967.63	3,440.18	9,517.85

As the sales mix has not changed significantly over the years, results of FY 2006-07 have been used to estimate voltage wise cost of supply for FY17 & FY18. It is important to mention that the Discom has taken a number of steps to reduce AT&C losses at each voltage level. As such in order to arrive at voltage wise input energy, the total loss of FY17& FY18 has been apportioned between the different voltage levels in the same ratio as the voltage wise losses in FY 2006-07. Accordingly input energy has been computed for different voltage levels for FY17 & FY18 and the total power purchase cost has been apportioned between different voltages on the basis of energy input required as shown below:

Voltage Wise Power Purchase Cost per Unit for FY 2016-17					
Voltage Level	Sales (MU)	Total Losses (MU)	Energy Input Required (MU)	Total Power Purchase Cost (Excluding Transmission Cost) (Rs Cr)	Cost per unit sold
	A	B	C = A+B	D	E=D/A*10
132 KV	355.77	38.74	394.51	141.02	3.96
33 KV	852.20	117.13	969.34	346.48	4.07
11 KV	887.41	186.32	1073.73	383.80	4.32
LT	15904.16	5586.10	21490.26	7681.56	4.83
Total	17999.54	5928.30	23927.84	8552.86	4.75

Voltage Wise Power Purchase Cost per Unit for FY 2017-18					
Voltage Level	Sales (MU)	Total Losses (MU)	Energy Input Required (MU)	Total Power Purchase Cost (Excluding Transmission Cost) (Rs Cr)	Cost per unit sold
	A	B	C = A+B	D	E=D/A*10
132 KV	371.62	38.54	410.16	150.96	4.06
33 KV	890.17	116.53	1,006.70	370.50	4.16
11 KV	926.94	185.35	1,112.30	409.36	4.42
LT	18178.49	5,557.06	23,735.55	8,735.53	4.81
Total	20,367.23	5,897.48	26,264.70	9,666.35	4.75

According to the Hon'ble Tribunal's Judgment, in absence of segregated network costs, all the other costs such as Return on Equity, Interest on loan, Depreciation, interest on working


 Asst. Chief Engineer (T.O.)
 Jodhpur Discom, Jodhpur

capital and O&M costs can be pooled and apportioned equitably to all categories to determine the cost of supply.

Various elements and computation of network cost per unit has been presented in the table below

Elements		FY 2017-18	FY 2017-18
O&M Cost	Rs. Cr.	1,158.56	1,299.84
Depreciation	Rs. Cr.	521.84	614.05
Interest and Finance Charges	Rs. Cr.	2,732.68	2,826.75
Interest on Working Capital	Rs. Cr.		
RoE	Rs. Cr.	0.00	0.00
Transmission Cost	Rs. Cr.	1,178.48	1,332.23
Other Expenses	Rs. Cr.	0.00	0.00
Less: NTI	Rs. Cr.	385.63	405.92
Less: Income from wheeling charges	Rs. Cr.	68.38	115.09
Less: Income from Trading Activity	Rs. Cr.	15.13	115.97
Total Cost	Rs. Cr.	5,122.42	5,435.89
Units Sold	MU	17,999.54	20,367.23
Network Cost per Unit	Rs./kWh	2.85	2.67

Based on the methodology suggested by the Hon'ble Tribunal and details provided above, the voltage wise cost of supply for FY 2016-17 and 2017-18 has been computed and shown in the following tables

Voltage Wise Cost of Supply for FY 2016-17			
Voltage Level	Cost per unit sold E	Network Cost per unit of sale F	Cost of Supply per Unit G=E+F
132 KV	3.96	2.85	6.81
33 KV	4.07	2.85	6.91
11 KV	4.32	2.85	7.17
LT	4.83	2.85	7.68
Total	4.75	2.85	7.60

Voltage wise Cost of Supply for FY 2017-18			
Voltage Level	Cost per unit sold E	Network Cost per unit of sale F	Cost of Supply per Unit G=E+F
132 KV	4.06	2.67	6.73
33 KV	4.16	2.67	6.83
11 KV	4.42	2.67	7.09
LT	4.81	2.67	7.47
Total	4.75	2.67	7.41

Commission's Observation:

- As per Regulation 11(5) (g) of RERC Tariff Regulations, 2014 please provide that statement showing calculations of the amount of cross subsidy in the existing tariff.

Petitioner's Reply:

The Discom submits that the statement showing calculations of the amount of cross subsidy in the existing tariff is as below:-


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

Table: Amount of Cross Subsidy in Existing Tariff:

Category of Consumers	FY 17	FY 18
Domestic	-13.91%	-8.03%
Non-Domestic	14.20%	24.71%
Public Street Light	-15.40%	-9.24%
Agriculture (Metered)	-37.36%	-34.54%
Agriculture (Flat)	-56.68%	-27.93%
Small Industry	-7.24%	-0.63%
Medium Industry	3.79%	10.81%
Large Industry	20.95%	33.13%
Public Water Works (S)	-18.27%	-12.24%
Public Water Works (M)	-4.64%	1.80%
Public Water Works (L)	2.40%	9.09%
Mixed Load / Bulk Supply	-6.69%	-0.23%
Electric Traction	N/A	N/A
Total	-22.6%	-16.7%

Commission's Observation:

3. Please furnish the basis of considering the availability shown in respect of RVUN, NTPC, NHPC, IPP/UMPP & other sources as mentioned in format 3.1. Reasons for showing lower availability from various plants as compared to previous year may also be indicated.

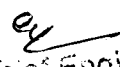
Petitioner's Reply:

It is submitted that the Discom would be in a power surplus scenario in the upcoming years. Considering the power market scenario and prevailing conditions it would not be economically viable to sell off the surplus power at the rates discovered in the exchange. These rates are found to be at a lower side and the average rate at which power is sold off in the exchange tends to be around 2.50 Rs/unit in the previous years. This is even less than the rate of 4.00 Rs/unit as approved by the Hon'ble Commission in its previous tariff order for sale of surplus power through exchange. Thus in order to minimize the financial impact of the same and optimize the power purchase cost, the Petitioner has taken a prudent call and accordingly proposed to scheduled power from the various sources as mentioned in Form 3.1.

The Discom would also like to submit that the normative generation based on availability and auxiliary consumption for the various sources mentioned in Format 3.1 attached as **Annexure 1** for the kind consideration of Hon'ble Commission.

Commission's Observation:

4. Furnish the plant wise power purchase in terms of energy and cost for 10 months of FY 2016-17.


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

Petitioner's Reply:

The Discom submits the plant wise power purchase in terms of energy and cost from April-December 2016 as **Annexure 2** attached along with this reply for the kind consideration of Hon'ble Commission.

Commission's Observation:

5. Furnish the energy sales for different categories for 10 months of FY 2016-17 and details of new connection released during first 10 months under domestic category and number of domestic connections expected to be released in remaining period of FY 2016-17 and FY 2017-18.

Petitioner's Reply:

The Discom would like to submit that the energy sales for different categories for FY 2016-17 are attached as **Annexure 3** for the kind consideration of Hon'ble Commission. Under Domestic category 1,57,173 numbers of connections was released during FY 2016-17 and approximately same number of connections is expected to be released during FY 2017-18.

Commission's Observation:

6. Please furnish the detailed information of loans/debts takeover under UDAY, effective rate of interest after takeover of loans/debts and also furnish the measures taken by the Discom for restructuring of remaining loans/debts after takeover to reduce the interest burden if any.

Petitioner's Reply:

The Discom would like to submit that under the UDAY scheme 75% of debt was to be taken over by GoR. The GoR has taken over the 75% debt/loans, the detailed information on which is submitted as **Annexure 4 (I) & (II)** for the kind consideration of Hon'ble Commission. For the remaining 25% debt a merchant banker has been appointed by the Discom for restructuring of remaining loans after takeover and conversion into bonds to reduce the interest burden.

Also, as per clause 21 (5) of Regulation 2014:

"The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the regulated business of the Generating Company or Licensee as the case may be:

Provided that the weighted average interest rate allowed by the Commission for normative loans shall continue to be applicable to the outstanding normative loans:

Provided further that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the regulated business of the Generating Company or Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the Generating Company or Licensee as a whole shall be considered."


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

Thus, in lieu of the above the average rate of interest is taken as 12.91% for FY16-17 and FY17-18

Commission's Observation:

7. It has been observed that there is difference between Loss targets stated in UDAY MoU and distribution loss targets submitted by the Discom in their ARR petition for FY 2016-17. Reasons for same may be explained.

Petitioner's Reply:

The Discom would like to submit that the loss targets under UDAY for FY 2015-16 and FY 2016-17 was 22.4% and 18% respectively. However, the actual distribution loss achieved in FY 2015-16 was 23.32%. Thus, to keep a realistic trajectory, the Discom has revised the target in their taskforce meeting to 19% for FY 16-17.

In order to achieve envisaged operational efficiency and bring around improvements, various measures are being taken. These steps include restricting power supply in areas with high AT&C losses, performance monitoring and management system, 100% feeder and DT metering, AMR metering for high value consumers, energy audit & accounting at feeder level, feeder segregation, Mukhyamantri Vidhyut Sudhar Yojana, etc. Loss reduction targets have been prepared at the division/circle/zonal level and concerned officials have been made responsible for achieving the loss reduction targets. At the same time, efforts are also being made to reduce theft and other illegal activities by undertaking name and shame campaign and aggressive vigilance drives. Further, the capital investment plans are also on-going to achieve the distribution loss trajectory set forth by the Commission.

Also, as per the MoU signed between Jodhpur Discom, GoR and MoP, the Discom shall strive to achieve the target of 15% by FY18-19. The respective clause of the MoU has been reproduced again for the kind consideration of Hon'ble Commission.


"The DISCOM shall endeavor to reduce AT&C losses from 25% in FY 2014-15 to 15% by FY 2018-19 as per the following trajectory:

Year	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
AT&C loss	22.4%	18%	16.5%	15%

However, if the target in a particular year is not met, then the DISCOM shall strive to achieve the targets in the subsequent years so as to achieve the desired target of 15% AT&C losses by FY 2018-19."

Commission's Observation:

8. In format 2.1, Basis of calculation of fixed charges in cases of HT consumers may be furnished.


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

Petitioner's Reply:

The Discom would like to submit that in order to arrive at the revenue from fixed charges in HT category, a power factor of 0.85 has been considered to convert the connected load into kVA and then multiplied by the fixed charges approved by the Commission.

However the average load factor tends to below 75% and it may be a more practical approach to consider the minimum billing demand of 75% to compute the revenue from fixed charges.

Commission's Observation:

9. In Format 3.1 please furnish the variable cost per unit and annual fixed charges.

Petitioner's Reply:

The Discom submits that the variable cost per unit and annual fixed charges have been furnished and is being resubmitted as **Annexure 5 (I) & (II)** attached along with this reply for the kind consideration of Hon'ble Commission.

Commission's Observation:

10. In Format 3.4 and 3.5 please indicate contracted capacity and tariff details.

Petitioner's Reply:

The Discom would like to submit that the Format 3.4 and 3.5 has been completed and is submitted as **Annexure 6** for the kind consideration of Hon'ble Commission.

Commission's Observation:

11. Depreciation rates stated in Format 3.6 are not matching with the rates prescribed. Provide the reason for same.

Petitioner's Reply:

The Discom would like to submit that the rates prescribed are applicable for assets life up to 12 years whereas the composition of assets considered while calculating the depreciation in Format 3.6 consists of assets which are older than 12 years, thus the depreciation rate reduces for those assets in subsequent years. That is why, there is a difference between rates mentioned in Format 3.6 as compared to those prescribed. The clause from the Regulations 2014 is reproduced again for the kind reference of the Hon'ble Commission:

"Depreciation shall be calculated annually based on Straight Line Method (SLM) and at rates specified in Annexure-I to these Regulations for the assets of the generating station, transmission system and distribution system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets."



Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur

Commission's Observation:

12. Information in form 6.1 may be submitted based on Commission's observation on the submission of voltage wise cost of supply.

Petitioner's Reply:

Owing to the difficulties pointed earlier in these replies under reply to point no. 1 of data gaps in respect of ARR and Tariff petition for FY 2016-17 and FY 2017-18 – JdVVNL, Discom requests the Hon'ble Commission to consider the submission made in reply to point number 1.

Commission's Observation:

13. In format 6.2, complete information for FY 2016-17 and 2017-18 be furnished.

Petitioner's Reply:


The Discom submits that the revised format 6.2 has been attached as **Annexure 7** along with the replies and the required information has been filled to the best possible extent. The Discom requests to the Hon'ble Commission to kindly consider the details as submitted in the revised format.

Commission's Observation:

14. Information in Form 6.3 may be furnished on the basis of billing data/feeder metering data.

Petitioner's Reply:

The Discom requests the Hon'ble Commission to consider the details pertaining to voltage wise cost of supply as submitted in the reply to point number 1 for Form 6.3 also.


Addl. Chief Engineer (HQ)
Jodhpur Discom, Jodhpur