

Before
The Hon'ble Jharkhand State Electricity
Regulatory Commission, Ranchi



Petition
for
Annual Performance Review for FY 16-17
and Revised Aggregate Revenue
Requirement and Tariff Determination for
FY 17-18 and FY 18-19



Submitted By

Jharkhand Bijli Vitran Nigam Limited
(JBVNL)
Dhurwa, HEC, Ranchi

**Before the Hon'ble Jharkhand State Electricity Regulatory
Commission, Ranchi**

Filing Number: _____

Case Number: _____

IN THE MATTER OF: Filing of Petition for approval of Annual Performance Review for FY 2016-17 and Revised Aggregate Revenue Requirement and Tariff Determination for FY 2017-18 and FY 2018-19 under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and as per the regulations of Jharkhand State Electricity Regulatory Commission (JSERC) Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015

AND IN THE MATTER OF: Jharkhand Bijli Vitran Nigam Limited (hereinafter referred to as "JBVNL", or "erstwhile JSEB -Distribution function" which shall mean for the purpose of this Petition the "Licensee" or "Petitioner") having its registered office at HEC, Dhurwa, Ranchi

The Petitioner respectfully submits hereunder:

1. The erstwhile Jharkhand State Electricity Board ("Board" or "JSEB") was a statutory body constituted under Section 5 of the Electricity (Supply) Act, 1948 and was engaged in electricity generation, transmission, distribution and related activities in the State of Jharkhand.
2. Jharkhand Urja Vikas Nigam Ltd. (herein after to be referred to as "JUVNL" or "the Holding company") has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile Jharkhand State Electricity Board (herein after referred to as "JSEB"). The Petitioner submits that the said reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII – Reorganization of Board" read with section 131 of the Electricity Act 2003. The Holding company has been incorporated on 16th September 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 12th November 2013.
3. Jharkhand Bijli Vitran Nigam Ltd. (herein after to be referred to as "JBVNL" or "the Petitioner" or erstwhile "JSEB-Distribution function" has been

incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 28th November 2013. The Petitioner is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014. The Distribution Company - Jharkhand Bijli Vitran Nigam Ltd. is duly registered with the Registrar of Companies, Ranchi on 23rd October 2013

4. Pursuant to the enactment of the Electricity Act, 2003, every utility is required to submit its Revised Aggregate Revenue Requirement (ARR) for control period and Tariff Petitions as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the governing regulations thereof.
5. The present Petition is being filed by JBVNL before the Hon'ble Commission for approval of **Tariff for JBVNL** for FY 17-18 and FY 18-19 as per the Electricity Act, 2003 and as per the provisions of the regulations issued by the Hon'ble Jharkhand State Electricity Regulatory Commission (JSERC) (Terms and Conditions For Determination of Distribution Tariff) Regulations, 2015.

Jharkhand Bijli Vitran Nigam Limited
Petitioner

Ranchi

Dated:

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1. Introduction and Background

Introduction

- 1.1 Jharkhand Bijli Vitran Nigam Ltd. (herein after to be referred to as "JBVNL" or "the Petitioner" or "erstwhile JSEB-Distribution function) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile Jharkhand State Electricity Board (herein after referred to as "JSEB").
- 1.2 The Petitioner submits that the said reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII – Reorganization of Board" read with section 131 of The Electricity Act 2003. The Petitioner is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014. The distribution company, Jharkhand Bijli Vitran Nigam Ltd has been incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 28th November 2013.
- 1.3 The Petitioner is a Distribution Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having license to supply electricity in the State of Jharkhand. The Petitioner is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 and is engaged, within the framework of the Electricity Act, 2003, in the business of Distribution of Electricity to its consumers situated over the entire State of Jharkhand.
- 1.4 Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Commission for determination of tariff. In addition, as per the regulations issued by the Hon'ble Commission, JBVNL is required to file for all reasonable expenses it believes it would incur over the next financial year and seek the approval of the Hon'ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs, which should be arrived at by a reasonable methodology adopted by the Petitioner.

Background

- 1.5 The current Petition for Annual Performance Review for FY 16-17 and Aggregate Revenue Requirement and Tariff Determination for FY 17-18 and FY 18-19 has

been prepared in accordance with the following acts/policies/regulations:

- a) Electricity Act 2003
- b) Provisions of National Electricity Policy;
- c) Provisions of National Tariff Policy;
- d) JSERC (Terms And Conditions For Distribution Tariff) Regulation, 2015;

- 1.6 It is submitted that the Petitioner is committed towards improving the electricity availability in the State, while achieving the operational turnaround for a sustained business model in future and reduced dependence on the State Government finances. A slew of measures are being undertaken and activities are being carried out a considerable level to achieve the greater goal of becoming a sustainable power utility.
- 1.7 The present Petition presents the projections of various operational and financial parameters and emphasizes on the requirement of rationalizing the tariff in the State to make it reflective of actual cost of supply.
- 1.8 The petition is prepared in line with the letter sent by Energy Dept., Govt of Jharkhand vide letter no 8743 dated 23.10.17 to Hon'ble Commission which specifies that RGF shall not be provided to JBVNL and upcoming Tariff fixation shall be done without considering the impact of Resource Gap funding.
- 1.9 The following sections of the Petition presents the details of projections of Aggregate Revenue Requirement, underlying approach & methodology and rationale for proposed ARR and Tariff.
- 1.10 Hence, it is requested that the Hon'ble Commission may admit the Petition and provide opportunity to JBVNL to supply any deficient information, for expeditious disposal of this Petition.

2. Annual Performance Review for FY 16-17

2.1 This chapter summarizes the components of ARR approved by the Hon'ble Commission in its Tariff Order dated 21st June 2017. The Annual Performance Review for FY 16-17 has been carried out on basis of provisional annual accounts with consideration of

- Clause 9.1 "Review during the Control Period" of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
- Methodology adopted by the Hon'ble Commission in previous Tariff Orders

2.2 The Petitioner hereby submits the provisional account for FY 16-17 based on the figures compiled from field offices of JBVNL. It is important to bring to the notice of Hon'ble Commission that the Annual accounts for FY 16-17 is under Board approval and Statutory Auditing process. The Board approved and Audited accounts shall be submitted to the Hon'ble Commission subsequently. Further, it is mentioned in the aforementioned regulation that the Petitioner has to provide statements of its performance as pronounced below-

9.2) This shall include annual statements of its performance and accounts including audited/authenticated accounts and the tariff worked out in accordance with these Regulations;

2.3 The Hon'ble Commission in its Tariff order for Aggregate Revenue Requirement (ARR) for MYT Period FY 16-17 to FY 20-21 for JBVNL has directed Petitioner to file True-up for FY 13-14 (from 6th January 2014 to 31st March 2014), FY 14-15 and FY 15-16. It is submitted that JBVNL with its commitment to streamline the regulatory filing process has already filled True-up for FY 11-12 to FY 15-16 along with the submissions of Audited Annual Accounts for respective years and the Aggregate Performance Review for FY 16-17 is hereby submitted for being the base year in approving the Tariff for FY 17-18 and FY 18-19.

Energy Sales

2.4 The energy sales of JBVNL for FY 16-17 based on the provisional accounts is provided for the kind consideration of Hon'ble Commission. It is noteworthy that

on overall basis, the provisional energy sales for FY 16-17 are in line with the energy sales approved by the Hon'ble Commission in its tariff order dated 21st June 2017.

2.5 The following table summarizes the consumer category-wise sales for FY 16-17 for kind consideration of the Hon'ble Commission.

Table 1: Energy Sales (MUs) for JBVNL

Particulars	Approved (MUs)	Actuals (MUs)
Domestic	4972.2	5,037.30
Commercial/Non Domestic	496.5	569.04
Public Lighting / SS	146.7	239.33
Irrigation / IAS	247.5	148.27
MES	15.7	15.92
Industrial LT / LTIS	181.9	193.83
Industrial HT / HTS / S/ EHT	2368.0	2,347.37
Railway / RTS	222.0	170.00
Total	8650.5	8,721.07

Power Purchase

2.6 JBVNL has firm allocations of power from central allocations like NTPC, NHPC and other sources such as DVC, TVNL, WBSEB, etc. In addition to these, JBVNL has also purchased power from private stations like APNRL, Inland power with certain purchase from renewable sources during FY 16-17.

2.7 The petitioner has adjusted the access cost on account non achievement of T&D losses in the final ARR table. The calculation of access cost is provided in the section Disallowance on account of AT&C losses. The following table provides for station wise Power Purchase for FY 16-17 based on the provisional accounts for FY 16-17 of JBVNL.

Table 2: Power purchase quantum, rate and cost for JBVNL for FY 16-17

Particulars	Power Purchase Quantum		Power Purchase Cost	
	Approved (MUs)	Actuals (MUs)	Approved (Rs Cr.)	Actuals (Rs Cr.)
NTPC	2,156.6	2,840.4	787.7	996.9
NHPC	375.5	374.0	93.9	94.7
PTC	609.4	599.8	121.2	122.9
Total Central Sector	3,141.4	3,814.1	1,002.8	1,214.5
DVC	4,764.9	4,877.9	2,335.1	2,402.6
State Sector				
PTPS	460.4	325.0	208.5	119.6
SHPS	55.2	31.2	22.6	3.5
TVNL	2,266.8	1,216.5	806.4	465.2
Total State Sector	2,782.3	1,572.8	1,037.5	588.3

Particulars	Power Purchase Quantum		Power Purchase Cost	
	Approved (MUs)	Actuals (MUs)	Approved (Rs Cr.)	Actuals (Rs Cr.)
Private				
Inland Power	422.9	364.3	157.9	133.0
APNRL	954.0	953.9	346.5	383.0
APNRL (additional 66 MW)		330.2		112.0
Total Private Sector	1,376.9	1,648.4	504.5	628.0
Other RE				
Solar IPPs	16.9	19.7	30.3	35.3
Solar REC	13.1		4.6	
JREDA	163.1		103.8	
SECI (Solar)		19.1		11.4
RE Others	444.6		66.7	
Total Other RE	637.8	38.8	205.3	46.7
PGCIL			116.0	162.0
Posoco (ERLDC)			1.4	1.4
UI Payable		399.5		120.8
UI Receivable		103.6		
Rungta Mines		42.3		14.0
ABCIL		45.2		17.4
NVVNL(Korba III & Farrakka III)		153.9		57.4
ERLDC(APNRL)				
GBI/ Rebate				-30.3
Additional REC purchase			12.4	
Revenue from Surplus power (3)			585.6	
Grand Total	12,703.4	12,489.3	4,629.5	5,222.7

2.8 In Tariff Order dated 21st June 2017, the Hon'ble Commission has approved the sale of power purchase at average power purchase cost. However, as evident from the above table, no such surplus power has been sold. Hence, there is an increase in power purchase cost on account of surplus power not sold. Further, it can be seen that there is a small difference in the power purchase rate approved and actual in the above table leading to increase in actual power purchase cost.

2.9 JBVNL prays to the Hon'ble Commission to approve the power purchase as per the annual accounts as summarized in the table above and approve the power purchase cost accordingly.

Energy Balance

2.10 It is submitted that energy availability for FY 16-17 has been computed based on the actual Power purchase and sales.

2.11 JBVNL would like to submit that power purchase from various sources are segregated into different heads, while calculating the energy balance for the control period.

- Power Purchase from Outside JSEB Boundary- NTPC, NHPC, PTC, APNRL, part of TVNL, NVVNL, SECI
- Energy Input Directly to State Transmission System- Input of power from TVNL directly to State Transmission System
- State-owned Generation- PTPS, SHPS, Rungta Mines, ABCIL, Inland Power
- Direct Input of Energy to Distribution System- DVC and Solar IPPs.

2.12 It is submitted that the Hon'ble Commission has erred while estimating the energy requirement for FY 16-17 to FY 20-21, i.e. entire MYT control period by directly applying distribution loss on sales for computation of energy requirement. However, the energy requirement should be calculated by the below mentioned formulae:

$$\text{Energy requirement} = \text{sales} / (1 - \text{Distribution loss})$$

2.13 Based on the information provided above, Energy Balance of JBVNL for FY 16-17 is provided in the table below.

Table 3: Energy balance for JBVNL

Particulars	Approved	Actuals
Power Purchase from Outside JSEB Boundary	4,934.1	5,721.4
Loss in External System (%)	3.00%	3.00%
Loss in External System	148.0	171.6
Net Outside Power Available	4,786.1	5,549.8
Energy Input Directly to State Transmission System	1,428.1	766.4
State-owned Generation	938.5	808.0
Energy Input through Renewables sources	478.3	
Payable	-	399.5
UI Sale / Receivable	-	103.6
Energy Available for Onward Transmission	7,631.0	7,420.1
Transmission Loss (%)	5%	5%
Transmission Loss	381.5	371.0
Net Energy Sent to Distribution System	7,249.4	7,049.1
Direct Input of Energy to Distribution System	4,924.4	4,897.6
Total Energy Available for Sales	12,173.8	11,946.6

Intra-State Transmission Charges

2.14 It is submitted that transmission charges payable to Jharkhand Urja Sanchar Nigam Limited been computed based on the provisionally approved rate in Tariff Order of JBVNL dated 21st June 2017.

2.15 The energy wheeled through transmission network as per the Energy Balance

estimated above, has been considered for calculating the Intra-State transmission charges payable to JUSNL and no transmission charges are applied on direct input of energy to distribution system.

2.16 The actual Intra-state transmission charges payable to JUSNL for FY 16-17 is provided in the table below for kind consideration of Hon'ble Commission.

Table 4: Intra-state transmission charges for JBVNL

Particulars	Approved	Actuals
Transmission Charges (Rs Cr.)	141.2	185.4

Employee Cost

2.17 Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses.

2.18 The employee cost for FY 16-17 based on the provisional accounts is provided in the table below for kind consideration of Hon'ble Commission.

Table 5: Employee cost for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Employee Cost	218.2	213.2

Administrative and General Expenses

2.19 The revised A&G expenses for FY 16-17 as per the provisional accounts for FY 16-17 is provided in the table below for kind consideration of Hon'ble Commission.

2.20 It can be noted that there has been a slight increase in the A&G expense, which is majorly due to various steps being undertaken by the Petitioner in terms of outsourcing the tasks and utilizing consultancy services for capacity building of the entity

Table 6: A&G expense for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
A&G cost	50.5	56.9

Repair & Maintenance Expenses

2.21 The revised R&M expenses for FY 16-17 as per the provisional annual accounts

for FY 16-17 is provided in the table below for kind consideration of Hon'ble Commission.

- 2.22 It is noteworthy that R&M expense for FY 16-17 has been limited and is lower than that of approved by the Hon'ble Commission. However, as the focus of JBVNL is on reliable and quality power, the R&M expenses is expected to be higher in FY17-18 and FY18-19.

Table 7: Repair and Maintenance expense for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
R&M Cost	65.9	54.0

- 2.23 Therefore, it is prayed that the Hon'ble Commission may kindly approve the actual R&M expenses, as per the provisional accounts.

Capital Expenditure Schedule

- 2.24 The actual capex schedule for FY 16-17 as per provisional annual account is detailed in the table below.

- 2.25 The Hon'ble Commission in its Tariff order dated 21st June 2017 has approved Rs. 1411.3 Cr as GFA and Rs. 3528.2 Cr as Capex for FY 16-17. However, it can be noted that actual GFA created and capex incurred during FY 16-17 is only Rs. 73.4 Cr and Rs. 636.9 Cr respectively. The difference in capex and GFA is due to delay in selection of vendors and disbursement of sanctioned amount under various scheme.

Table 8: Actual Capital work in progress for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Opening CWIP	1,556.7	2,077.8
Capex during the year	3,528.2	636.9
Transfer to GFA	1,411.3	73.4
Closing CWIP	3,673.6	2,641.2

- 2.26 The Consumer contribution and Grants of JBVNL, based on the provisional accounts vis-à-vis as approved by the Hon'ble Commission is provided in the table below.

Table 9: Consumer contribution and grants for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Opening	1,861.0	3,490.2
Addition	472.1	-472.5
Closing	2,333.1	3,017.7

Depreciation

2.27 The depreciation of JBVNL, estimated based on the provisional accounts and Hon'ble Commissions approach vis-à-vis as approved by the Hon'ble Commission is provided in the table below.

Table 10: Depreciation cost for JBVNL

Particulars	Approved	As per provisional Accounts (Rs Cr.)	As per Hon'ble Commissions approach
GFA Considered for Dep - Excl. GFA out of CC and Grants (Rs. Cr.)			3,417.9
Depreciation Rate	5.94%		5.94%
Depreciation Cost (Rs. Cr.)	93.6	328.70	203.0

2.28 Since the segregation of the depreciation pertaining to GFA created out of grant and consumer contribution is not provided in the accounts of JBVNL, the Petitioner has followed the similar approach adopted by the Hon'ble Commission in its Tariff orders dated 21st June 2017 and 14th Dec 2015.

2.29 The Petitioner has first arrived at the GFA created out of debt and equity by deducting the consumer contribution and grants portion deployed towards GFA. Based on this GFA created out of debt and equity, the Petitioner has applied the depreciation rate as approved by the Hon'ble Commission to arrive at the total depreciation.

Interest & Finance Charges

2.30 The actual Interest and finance charges of JBVNL, based on the provisional accounts and Hon'ble Commissions approach vis-à-vis as approved by the Hon'ble Commission is provided in the table below.

Table 11: Interest & finance charges for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Opening Balance	294.6	1,256.7
Deemed Addition during the year	537.4	508.6
Deemed Repayments during the year	93.7	203.0
Closing Balance	738.3	1,562.2
Average balance during the Year	516.5	1,409.5
Interest Rate	11.30%	11.30%
Interest Expense	58.4	159.3

2.31 The Petitioner has adopted the similar approach of Hon'ble Commission in estimating the normative closing loan for the JBVNL by deducting the normative equity, consumer contribution and grants pertaining to GFA from the Net Fixed

Assets (NFA).

2.32 In line with the JSERC Tariff Regulation 2015 and Hon'ble Commission's approach in previous Tariff orders dated 21st June 2017 and 14th Dec 2015, the repayment of debt has been considered to be equal to the depreciation applicable to GFA created out of debt and equity.

2.33 The interest expenses has been computed in line with the clause 6.31 of JSERC Tariff regulations 2015. Therefore, the rate of interest equal to SBI base rate, which is prevailing at 9.5% as on 1st April 2016, plus 200 basis points, thus totaling to 11.5% is applied on the normative loan estimated for JBVNL.

2.34 It is requested that the Hon'ble Commission may approve the interest and finance charges as submitted by the Petitioner.

Interest on Consumer Security Deposit

2.35 The Interest on consumer deposit for FY 16-17 has been computed based on the actual interest on consumer deposit as per provisional annual accounts for FY 16-17. It can be noted that provisional interest on consumer security deposit is lower than that approved in Tariff order dated 21st June 2017 due to low consumer additions in FY 16-17 than that of approved, thus, resulting in less accumulation of security deposit.

Table 12: Interest on consumer deposit for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Consumer Deposit	599.0	452.9
Interest on Consumer Security Deposit	55.7	49.1

Interest on Working Capital

2.36 The Petitioner has estimated the working capital requirement in line with the Regulation 6.29 of the JSERC Tariff Regulations 2015.

2.37 It is submitted that the Hon'ble Commission has not allowed any working capital requirement in its Tariff Order dated 21st June 2017, however, based on the submissions for true up the Petitioner has estimated the working capital requirement and interest thereof, as provided in the Table below.

Table 13: Interest on working capital for JBVNL

Particulars	Approved (Rs Cr.)	Actuals
1 month O&M	27.9	27.0

Particulars	Approved (Rs Cr.)	Actuals
Maintenance Spares	28.2	0.5
Receivables	874.1	1,033.2
Less: 1 month cost of power purchase	(599.0)	(418.8)
Less: Security Deposit from Customers	(397.6)	(452.9)
Total Working Capital requirement	-66.4	189.1
Interest rate on WC	12.80%	12.80%
Interest on Working Capital	0.00	24.20

Return on Equity

2.38 In order to estimate the equity balance, the Petitioner has considered the approach adopted by the Hon'ble Commission in its Tariff Order dated 21 June 2017, whereby normative equity is arrived at by assuming the equity to be 30% of the GFA created out of debt and equity.

2.39 The return on equity is provided in the table below for kind consideration of Hon'ble Commission

Table 14: Return on equity for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Opening Balance of Normative Equity	286.1	830.8
Deemed Additions	281.8	194.5
Closing Balance of Normative Equity	567.9	1,025.4
Average Equity	427.0	928.1
Return on Equity (%)	15.5%	15.5%
Return on Equity	66.2	143.9

Non- Tariff Income

2.40 The Non-Tariff Income (Other Income) of JBVNL for FY 16-17, based on the provisional accounts has been provided for the kind consideration of Hon'ble Commission.

2.41 However, while computing the actual the Non-Tariff income Non-Tariff Income (Other Income) of JBVNL for FY 16-17 financing cost for corresponding receivables, as accrued DPS is considered to be form of NTI. It is pertinent to mention that the Petitioner has already incurred power purchase costs on such outstanding receivables and DPS is levied as financing cost of such receivables, however, as the Petitioner is allowed only 2 months of receivables in allowance of working capital. For the receivables beyond the period DPS is applicable and as DPS is considered to be additional income for the Petitioner financing cost of such receivables are allowed in line with the judgement of Hon'ble APTEL dated 12.07.2011 in case No. 142 & 147 of 2009.

2.42 The Hon'ble Commission in its Tariff order for Aggregate Revenue Requirement

for MYT Period FY 16-17 to FY 20-21 for JBVNL has also considered the above approach in line with the judgement of Hon'ble APTEL in Appeal no.48 of 2016 and Appeal no.316 of 2016 & IA no.656 of 2016 dated 31st May, 2017, while approving the Non-Tariff income.

2.43 The Petitioner humbly prays to the Hon'ble Commission to approve the Non-tariff income as outlined below.

Table 15: Non-tariff income for JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Interest on Staff Loan & Advance		
Income from Investment (F.D)		11.7
Interest on loans and advances to licensee		-
D.P.S from Consumer		321.3
Interest on advance to Supplier/Contractor		0.0
Interest from Bank (Other than F.D)		4.4
Income from trading		-
Income from staff Welfare Activities		0.0
Miscellaneous Receipt.		-
Meter Rent		-
Miscellaneous Charges from Consumers		3.5
Total		341.0
Interest rate for Receivables financing		12.80%
Corresponding Receivables against DPS		1,785.1
Interest on Receivables against DPS		228.5
Net NTI to be considered	134.3	112.5

Disallowance on account of AT&C losses

2.44 JBVNL has undertaken several administrative measures to curb the AT&C losses along with the technical measures such as metering of un-metered consumers, focusing on billing efficiency and collection efficiency improvement through appointment of dedicated agencies.

2.45 The target of 100% of collection efficiency set by Hon'ble Commission is highly impracticable and even the most efficient utilities in the Country are not able to achieve the 100% collection efficiency. Further, it is mentioned that collection efficiency being approved under UDAY scheme is also 93% in comparison to 100% set by Hon'ble Commission. The Petitioner humbly submits that Petitioner has introduced several avenues for payment of bills by the consumers, to enhance the collections.

2.46 The Petitioner prays to Hon'ble Commission that the amount of revenue which JBVNL has not been able to collect, may be allowed to be considered again RGF. The calculation for disallowance is done by considering the difference between the Commissions approved collection efficiency i.e. 100% and the collection efficiency of 93% (As envisaged under UDAY scheme) as provided in the table below. The

Petitioner humbly submits that the disallowance on account of high AT&C losses shall be considered while adjusting RGF from ARR.

Table 16: Disallowance on account of Collection efficiency

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Revenue from sale of power		2,813.5
Collection efficiency		93%
Uncollected revenue – to be adjusted against RGF	0.00	196.9

Further, the Hon'ble Commission has approved Distribution loss target of 24% for FY 16-17. The Distribution loss of JBVNL for FY 16-17 as per input energy at distribution system and sales in 26%. The Petitioner has estimated the disincentive for non-achievement of loss targets, considering the methodology adopted by Hon'ble Commission previously. The excess cost to be disallowed is the 'Disincentive for non-achievement of T&D loss targets', which needs to be appropriately adjusted against the Resource Gap Funding (RGF) as per the communication from the Energy Department, Govt. of Jharkhand, provided in Annexure 2.

Table 17: Disallowance on account of Distribution loss

Particulars	Approved
Total Energy Sales to Intrastate consumers	8,721.1
Overall T&D loss (%) for intra-state consumers	24%
Total Energy requirement	11,475.1
Energy Available for Distribution	11,946.6
Disallowed Units due to Excess Loss	-471.5
Average Power Purchase Cost	4.2
Disallowed Cost due to Excess Loss	197.1

2.47 It is also submitted that the utility like JBVNL is prone to difficulties of T&D losses and collection inefficiencies due to difficult terrains and large rural consumers in overall consumer mix. Withal, JBVNL also has Universal Supply Obligation (USO) so it cannot stop/reduce the power supply in areas with poor collection efficiencies.

2.48 Therefore, it is prayed to the Hon'ble Commission to approve for provisioning of adjustment of disallowance while deducting RGF from ARR taking cognizance of difficulties and ground realities faced by JBVNL in collection.

Resource Gap Funding

2.49 The Petitioner would like to submit that resource gap funding is being provided by Government of Jharkhand to meet the disallowances and slashes made by the Hon'ble Commission during tariff determination process for various parameters

such as higher T&D Loss, normative interest computation, normative generation cost etc.

2.50 A communication from the Energy department, Government of Jharkhand was also submitted (annexed for reference) vide letter dated 14 July 2014 stating that

"Amount released towards resource gap may be utilized to meet the slashes/disallowances worked out by the Hon'ble commission while fixing the tariff".

2.51 In line with the above communication by the GOJ, the Petitioner prays that the Hon'ble Commission should consider adjusting the complete RGF towards disallowance/slashes and remaining amount of RGF may be considered to meet the revenue gap. The resource gap funding available to meet revenue gap is provided below-

Table 18: Resource gap funding received by JBVNL

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Resource Gap Funding Received	1,200.0	1,200.0
Disallowances – on account of AT&C losses	-	394.1
Net Resource Gap Funding available to meet revenue gap	1,200.0	805.9

Summary Of ARR for FY 16-17

2.52 Based on the components of the ARR discussed in the above sections, the final ARR for FY 16-17 has been provided in the table below for kind consideration of Hon'ble Commission.

Table 19: Summary of revised ARR for FY 16-17

Particulars	Approved (Rs Cr.)	Actuals (Rs Cr.)
Power Purchase cost with disallowance	4,629.5	5,025.5
Transmission charges	141.2	185.4
O&M expenses	334.5	324.1
Depreciation	93.7	203.0
Interest on Loan	58.4	159.3
Return on Equity	66.2	143.9
Interest on Working Capital	-	24.2
Interest on security deposit	55.7	49.1
Provision for doubtful debts		196.9
Less: Non-tariff Income	-134.3	-112.5
Gross ARR	5,244.9	6,199.0

2.53 It is prayed to the Hon'ble Commission that the above ARR may be allowed and impact shall be passed on to JBVNL, while approving the tariff for FY 17-18 and FY 18-19.

3. Revised ARR for FY 17-18 and FY 18-19

- 3.1 The present section of this Tariff Petition provides the details of elements of revised ARR for FY 17-18 and FY 18-19, projected based on the provisions of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations 2015.
- 3.2 The Petitioner has taken special cognizance of the approved figures in Tariff Order for MYT control period from FY 16-17 to FY 20-21 and principles adopted by Hon'ble Commission in previous Tariff orders. Moreover, the Petitioner has delve deep to project the revised estimate of expenditure requirements to arrive at the most realistic projections.

Energy Sales

- 3.3 The Petitioner has projected the sales for FY 17-18 and FY 18-19 based on the addition of consumers, consumption pattern and past trend of growth rate. It is noteworthy, that JBVNL has witnessed a significant growth in the total Sales across all categories in the last few years. This is majorly due to increase in the availability of power, reduced load shedding, consumer addition across all category and uninterrupted supply of power. Further, JBVNL aims to provide 24X7 power to all consumers in the State, which shall be the key reason for increase in the energy sales in coming years.
- 3.4 The Petitioner has projected the total consumer addition in FY 17-18 and FY 18-19 by adopting a practical approach, to arrive at the total sales of JBVNL. The projection of domestic consumers has been done taking into view the large scale electrification being planned under various ongoing schemes of Central and State Government. The Petitioner in its earlier Petition had projected an addition of 30 lacs new consumer by FY 18-19. However, considering the current pace of electrification, the Petitioner has projected an addition of 14 lacs new consumer by FY 18-19.
- 3.5 Further, the Petitioner had also planned to electrify 100,000 agriculture consumers every year over the next 3 years period under the "Tilka Manji" scheme. However, only ~50,000 consumers has been identified so far to be electrified, which is spilled over in FY 17-18 and FY 18-19. The consumers in other category has been

projected based on their previous growth trend for FY 17-18 and FY 18-19.

3.6 The category wise approved figures of consumer, sales and connected load of all categories for FY 17-18 and FY 18-19 by Hon'ble Commission in its Tariff order dated 21st June 2017 are detailed below-

Table 20: Approved consumer sales, consumer & connected load for FY 17-18 and FY 18-19

Particulars	Sales (Mus)		Consumers		Connected Load (kW)	
	FY 17-18	FY 18-19	FY 17-18	FY 18-19	FY 17-18	FY 18-19
Domestic	7,204.5	10,078.5	40,55,121	56,16,621	47,15,756	65,96,962
Commercial/Non Domestic	535.6	562.4	2,08,517	2,28,191	5,53,384	6,05,599
Public Lighting / SS	149.9	153.2	546	548	15,708	15,775
Irrigation / IAS	399.0	550.5	2,44,518	3,44,518	3,84,712	5,42,047
MES	15.9	16.0	8	8	5,680	5,680
Industrial LT / LTIS	185.5	189.2	14,245	14,468	2,95,779	3,03,522
Industrial HT / HTS / S/ EHT	2,398.4	2,429.1	1,694	1,721	9,52,467	9,71,021
Railway / RTS	222.0	222.0	3	3	1,142	1,142
Total	11,110.7	14,200.8	45,24,652	62,06,079	69,24,628	90,41,747

3.7 The category wise Projection of consumer of all categories for FY 17-18 and FY 18-19 are detailed below.

Table 21: Projected Consumers for FY 17-18 and FY 18-19

Particulars	FY 17-18	FY 18-19
Domestic	31,67,775	41,18,275
Commercial	2,46,032	2,95,886
Irrigation and Agriculture	52,261	63,420
Industrial	16,823	17,340
Institutional	582	687
Total	34,83,473	44,95,608

3.8 Based on the above projection of consumer, the energy sales have been projected, keeping in view the average energy consumption per consumer in past especially for domestic and irrigation consumer categories. Whereas, a natural increase in energy sales for others has been considered for other consumer categories. The category-wise sales for FY 17-18 and FY 18-19 has been summarized in the table below for kind consideration of Hon'ble Commission.

Table 22: Energy Sales (MUs) for JBVNL

Particulars	FY 17-18	FY 18-19
Domestic	5,590.2	6,459
Commercial	792.7	991
Irrigation and Agriculture	153.7	262

Particulars	FY 17-18	FY 18-19
Industrial	2,652.0	2,772
Institutional	309.9	312
Total	9,498.5	10,796.9

3.9 Based on the year on year growth of consumers and their energy sales, connected load is forecasted for FY 17-18 and FY 18-19 as detailed in the table below.

Table 23: Connected Load for FY 17-18 and FY 18-19

Particulars	FY 17-18	FY 18-19
Domestic	46,53,508	62,88,397
Commercial	5,41,794	5,14,584
Irrigation and Agriculture	1,04,521	1,26,841
Industrial	11,41,512	11,80,896
Institutional	77,820	68,385
Total	65,19,155	81,79,102

Power Purchase

3.10 JBVNL has projected the power purchase for FY 17-18 and FY 18-19 based on the total energy required during the respective year. The projections of power purchase has been made considering the current status of upcoming stations and present sources. Following facts are being dealt while projecting the Power purchase for FY 17-18 and FY 18-19:

- Delay of expected COD of upcoming stations like NTPC Darlipalli, NTPC, Nabinagar, NTPC North Karanpura, PTPS phase-I, etc.
- Additional Power Purchase from NTPC Korba (50 MW) and NTPC Farrakka (50 MW) through NVVNL in replacement to PUVNL existing plant allocation of 100 MW.
- Procurement of 200 MW of Wind Energy- JBVNL has entered into an PPA with PTC under the MNRE's scheme for setting up of 1000 MW ISTS-connected Wind Power projects (Tranche-II). The total Tariff at Jharkhand state periphery is discovered to Rs. 3.53 per Unit under competitive bidding process.
- The petitioner has further planned to sign a PPA with SECI to purchase 100 MW of wind power at Rs. 2.72 per unit in order to be 100% compliant in RPO.
- JREDA being the nodal agency for development of solar power plants in the state has invited bids for 1200 MW project of solar PV project. As a result and post negotiations, JREDA has been able to finalize revised allocation of 684.5 MW with tariff ranging from Rs. 4.95 per unit to Rs. 5.16 per unit. Considering the RPO obligations, JBVNL has planned to procure solar power

from IPPs selected through JREDA.

- Letter sent to SECI for allocation of solar energy from solar parks at competitive price.

3.11 The station wise Power Purchase projected for FY 17-18 is showcased in the table below-

Table 24: Power purchase quantum, rate and cost for JBVNL for FY 17-18

Particulars	Power Purchase Quantum		Power Purchase Rate		Power Purchase Cost	
	Approved (MUs)	RE (MUs)	Approved (Rs/kWh)	RE (Rs/kWh)	Approved (Rs Cr.)	RE (Rs Cr.)
NTPC						
Farrakka	825.4	900.0	3.74	3.87	308.6	348.3
Farrakka III	188.9	477.6	4.96	4.96	93.6	236.8
Khalagaon I	184.9	233.6	3.53	3.53	65.4	82.5
Talcher	498.2	646.9	2.23	2.54	111.2	164.0
Khalagaon II	190.1	302.7	3.33	3.39	63.3	102.6
Barh	237.1	560.1	6.09	6.09	144.3	340.9
NTPC Darlipalli STPS	585.0			-		-
NTPC Nabinagar	367.2		2.54		93.3	-
NTPC North Karanpura				-		-
KBUNL Kanti TPS	73.4		2.57		18.9	-
Korba		252.0		2.78		70.0
Total	3,150.2	3,120.9			898.5	1,345.2
NHPC						
Rangit	45.8	45.8	3.16	3.74	14.5	17.1
Teesta	329.7	329.7	2.48	2.48	81.8	81.8
Total	375.5	375.5			96.2	98.9
PTC						
Chukha	203.8	203.8	1.87	2.29	38.1	46.7
Punatsangchhu-II HEP	488.1		3.31		161.6	-
Tala	405.6	405.6	2.12	2.16	86.1	87.6
Total	1,097.5	609.4			285.8	134.3
Total Central Sector	4,623.2	4,105.8			1,280.5	1,578.4
DVC	4,951.7	4,951.7	4.92	4.93	2,436.9	2,438.0
State Sector						
PUVNL (Existing)	460.4		4.56	4.56	209.9	-
(PVUNL) Phase-1	478.0		2.54	2.54	121.4	-
SHPS	55.2	55.2	4.20	4.20	23.2	23.2
TVNL	2,266.8	1,563.0	3.60	3.82	816.2	597.7
Total State Sector	3,260.3	1,618.2			1,170.7	620.9
Private						
Inland Power	422.9	422.9	3.76	4.36	159.0	184.4
APNRL	954.0	954.0	3.67	3.82	349.7	364.4

Particulars	Power Purchase Quantum		Power Purchase Rate		Power Purchase Cost	
	Approved (MUs)	RE (MUs)	Approved (Rs/kWh)	RE (Rs/kWh)	Approved (Rs Cr.)	RE (Rs Cr.)
APNRL (Add. 66 MW)		330.2		3.39		112.0
Total Private Sector	1,376.9	1,707.2			508.7	660.9
Other RE						
Solar IPPs	16.9	19.7	17.96	17.96	30.3	35.3
Solar REC	13.1		3.50		4.6	-
JREDA	315.0		6.36	6.36	200.3	-
SECI		19.1		5.97		11.4
RE (Wind)	606.6	100.0		3.53	91.0	35.3
Total Other RE	951.5	138.8			326.2	82.0
PGCIL					118.9	118.9
Posoco (ERLDC)					1.5	1.5
Rungta Mines		42.3		3.30		13.9
ABCIL		45.2		3.82		17.2
Additional REC					78.3	
Revenue due to sale of Surplus power (3)					425.8	
Grand Total	15,163.7	12,609.1	3.62	4.39	5,495.9	5,531.8

3.12 The station wise Power Purchase projected for FY 18-19 is showcased in the table below-

Table 25: Power purchase quantum, rate and cost for JBVNL for FY 18-19

Particulars	Power Purchase Quantum		Power Purchase Rate		Power Purchase Cost	
	Approved (MUs)	RE (MUs)	Approved (Rs/kWh)	RE (Rs/kWh)	Approved (Rs Cr.)	RE (Rs Cr.)
NTPC						
Farrakka	825.4	825.4	3.76	4.06	310.7	335.4
Farrakka III	188.9	477.6	5.01	5.01	94.7	239.4
Khalagaon I	184.9	184.9	3.56	3.56	65.9	65.9
Talcher	498.2	498.2	2.25	2.66	112.3	132.6
Khalagaon II	190.1	190.1	3.35	3.56	63.7	67.7
Barh	237.1	237.1	6.16	6.16	146.0	146.0
NTPC Darlipalli STPS	742.5		2.54		188.6	-
NTPC Nabinagar	367.2		2.57		94.5	-
NTPC North Karanpura	867.1		2.54		220.2	-
KBUNL Kanti TPS	73.4		2.61		19.2	-
Korba		252.0		2.78		70.0
Total	4,174.8	2,413.3			1,315.7	1,057.0
NHPC						
Rangit	45.8	45.8	3.24	3.93	14.8	18.0
Teesta	329.7	329.7	2.54	2.54	83.8	83.8

Particulars	Power Purchase Quantum		Power Purchase Rate		Power Purchase Cost	
	Approved (MUs)	RE (MUs)	Approved (Rs/kWh)	RE (Rs/kWh)	Approved (Rs Cr.)	RE (Rs Cr.)
Total	375.5	375.5			98.6	101.8
PTC						
Chukha	203.8	203.8	1.92	2.40	39.1	49.0
Punatsangchhu-II HEP	533.4		3.39		181.0	-
Tala	405.6	405.6	2.18	2.18	88.2	88.2
Total	1,142.8	609.4			308.3	137.2
Total Central Sector	5,693.2	3,398.2			1,722.6	1,296.0
DVC	4,951.7	4,951.7	4.94	4.94	2,447.5	2,447.5
State Sector						
PUVNL (Existing)	460.4	-	4.59		211.3	-
(PVUNL) Phase-1	1,782.0		2.57		458.8	-
SHPS	55.2	55.2	4.31	4.31	23.8	23.8
TVNL	2,266.8	2,266.8	3.65	4.02	826.3	910.2
Total State Sector	4,564.3	2,321.9			1,520.2	934.0
Private						
Inland Power	422.9	422.9	3.78	4.36	160.1	184.4
APNRL	954.0	954.0	3.70	4.01	352.9	382.6
APNRL (Add. 66 MW)		330.2		3.39		112.0
Total Private Sector	1,376.9	1,707.2			513.0	679.1
Other RE						
Solar IPPs	16.9	19.7	17.96	17.96	30.3	35.3
Solar REC	13.1	-	3.50		4.6	-
JREDA	562.0	312.0	6.36	6.68	357.4	208.4
SECI		19.1		5.97		11.4
RE (Wind)	809.4	400.0	1.50	3.53	121.4	141.2
Total Other RE	1,401.4	750.8			513.7	396.3
PGCIL					121.9	121.9
Posoco (ERLDC)					1.5	1.5
Rungta Mines		42.3		3.46		14.6
ABCIL		45.2		4.01		18.1
Additional REC purchase					139.1	
Revenue due to sale of Surplus power (3)					331.3	
Grand Total	17,987.5	13,217.2	3.70	4.47	6,648.1	5,909.0

3.13 JBVNL prays to the Hon'ble Commission to approve the power purchase quantum as summarized in the table above and approve the power purchase cost accordingly.

Energy Balance

3.14 It is submitted that the energy availability for FY 17-18 and 18-19 has been computed based on the actual Power purchase and sales.

3.15 JBVNL would like to submit that power purchase from various sources are segregated into different heads, while calculating the energy balance for the control period.

- Power Purchase from Outside JSEB Boundary- NTPC, NHPC, PTC, APNRL, part of TVNL, NVVNL, SECI and RE (Wind)
- Energy Input Directly to State Transmission System- Input of power from TVNL directly to State Transmission System
- Energy Input through Renewables sources- Input from Solar IPPs selected through JREDA
- State-owned Generation- PTPS, SHPS, Rungta Mines, ABCIL and Inland Power
- Direct Input of Energy to Distribution System- DVC and Solar IPPs.

3.16 Based on the information provided above, Energy Balance of JBVNL for FY 17-18 and 18-19 is provided in the table below.

Table 26: Energy balance for JBVNL

Particulars	FY 17-18		FY 18-19	
	Approved	RE	Approved	RE
Power Purchase from Outside JSEB Boundary	6,415.9	6,087.5	7,485.9	5,940.2
Loss in External System (%)	3.00%	3.00%	3.00%	3.00%
Loss in External System	192.5	182.6	224.6	178.2
Net Outside Power Available	6,223.4	5,904.8	7,261.3	5,762.0
Energy Input Directly to State Transmission System	1,428.1	984.7	1,428.1	1,428.1
State-owned Generation	1,416.5	565.6	2,720.5	565.6
Energy Input through Renewables sources	713.7		1,051.1	312.0
Payable	-	-	-	-
UI Sale / Receivable	-	-	-	-
Energy Available for Onward Transmission	9,781.6	7,455.1	12,460.9	8,067.6
Transmission Loss (%)	5%	5%	4.5%	4.5%
Transmission Loss	489.1	372.8	560.7	363.0
Net Energy Sent to Distribution System	9,292.6	7,082.4	11,900.1	7,704.6
Direct Input of Energy to Distribution System	5,189.6	4,971.4	5,302.1	4,971.4
Total Energy Available for Sales	14,482.2	12,053.7	17,202.2	12,676.0

Intra-State Transmission Charges

- 3.17 It is submitted that transmission charges payable to Jharkhand Urja Sanchar Nigam Limited been computed based on the approved rate in Tariff Order of JBVNL dated 21st June 2017.
- 3.18 The energy wheeled through transmission network in the above section of Energy Balance has been considered for calculating the Intra-State transmission charges payable to JUSNL and no transmission charges are applied on direct input of energy to distribution system. The projected Intra-state transmission charges payable to JUSNL for FY 17-18 and FY 18-19 is provided in the table below.

Table 27: Intra-state transmission charges for JBVNL

Particulars	FY 17-18		FY 18-19	
	Approved	RE	Approved	RE
Energy Wheeled at Transmission Level (MU)	9,781.6	7,637.7	12,460.9	8,245.8
Transmission Rate (Rs/unit)	0.21	0.21	0.22	0.22
Transmission Charges (Rs Cr.)	185.5	160.4	243.5	181.4

Employee Cost

- 3.19 The Petitioner has projected the employee cost for FY 17-18 and FY 18-19 by escalating the employee cost of FY 16-17 by the inflation factor of 4.36% and the methodology provided under Regulation 6.6 of JSERC MYT Regulations 2015. The escalation factor of 4.36% has been approved by the Hon'ble Commission in Tariff Order dated 21st June 2017.
- 3.20 Further, the Petitioner has considered an additional escalation for FY 18-19, owing to the expected impact of 7th Pay Commission. Thus, an escalation of 14.36% has been considered for FY 18-19.
- 3.21 The projected employee cost for FY 17-18 and FY 18-19 is provided in the table below for kind consideration of Hon'ble Commission.

Table 28: Employee cost for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Employee cost	226.3	222.5	234.8	254.4

Administrative and General Expenses

- 3.22 In line with the Regulation 6.6 (b) and (c), the A&G expenses have been projected for FY 17-18 and FY 18-19. The A&G expense of FY 16-17 has been escalated by the inflation factor of 4.36%, as approved by the Hon'ble Commission in Tariff

Order dated 21st June 2017.

- 3.23 The projected A&G expenses for FY 17-18 and FY 18-19 is provided in the table below for kind consideration of Hon'ble Commission.

Table 29: A&G expense for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
A&G cost	52.7	59.3	55.0	61.9

Repair & Maintenance Expenses

- 3.24 The R&M expenses for FY 17-18 and FY 18-19 have been projected by escalating the R&M expense of FY 16-17 by K-factor of 2.34% as approved by the Hon'ble Commission in Tariff Order dated 21st June 2017.
- 3.25 The projected R&M expenses for FY 17-18 and FY 18-19 is provided in the table below for kind consideration of Hon'ble Commission.

Table 30: Repair and Maintenance expense for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
R&M cost	98.9	127.5	164.9	204.2

Capital Expenditure Schedule

- 3.26 The Capital expenditure schedule for FY 17-18 and FY 18-19 has been revised considering the provisional Capex incurred in FY 16-17, as detailed in the previous section of this Petition. It is submitted that capex of only Rs. 636.9 Cr. has been done against approved Capex of Rs. 3528.2 Cr in FY 16-17. The remaining capex not incurred in FY 16-17 has been spilled over in FY 17-18 and FY 18-19 as detailed in the table below.
- 3.27 It can be noted that in scheme wise capital expenditure schedule that a new State Govt. scheme named Jharkhand Sampurna Bijli Achchadan Yojna (JASBAY) has been introduced. It is a state sponsored scheme, which aims to cover the several left over work required to ensure 24x7 power supply to all villages/Habitations and achievement of objectives of UDAY Yojana for reduction of AT&C losses. Under the JASBAY scheme, an approval of Rs. 5,127.56 Crore which is inclusive of Rs. 100.54 Crore for PMC has been accorded from Govt. of Jharkhand. A detail information of JASBAY scheme is provided in the annexure-3.

Table 31: Capex schedule for FY 17-18 and FY 18-19

Scheme Name	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	Projected
DDUGJY	1,500.0	1,960.8	1,196.0	965.6
IPDS	315.5	370.4	306.5	279.1
RAPDRP – A	40.3	104.3	20.0	-
RAPDRP – B	352.0	799.6	-	-
12th Plan RGGVY	720.9	990.9	-	-
ADP + Misc.	500.0	437.7	600.0	631.1
Tilka Manjhi & AGJY	100.0	147.6	57.4	33.6
RE State Plan	-	-	-	-
JSBAY	-	1,000.0	-	900.0
RGGVY (10th & 11th Plan)	-	196.9	-	-
Total	3,528.7	5,811.4	2,179.9	2,809.4

3.28 Considering the above capital expenditure schedule for FY 17-18 and FY 18-19, the Petitioner has projected revised CWIP and creation of GFA. Considering the past experience, JBVNL has proposed a capitalization period of 3 years in the ratio of 20:40:40 for all the proposed works and capital expenditure of schemes in the respective years. Further, opening CWIP has been proposed to be capitalized in the proportion of 80:20 in first and second year.

Table 32: Actual Capital work in progress for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Opening CWIP	3,673.6	2,641.2	4,379.6	5,177.4
Capex during the year	3,528.7	5,811.4	2,179.9	2,809.4
Transfer to GFA	2,822.7	3,275.2	2,989.1	3,414.7
Closing CWIP	4,379.6	5,177.4	3,570.4	4,572.1

3.29 The Consumer contribution and Grants of JBVNL for FY 17-18 and FY 18-19, based on the closing CWIP of FY 16-17 is provided in the table below.

Table 33: Consumer contribution and grants for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Opening	2,333.1	3,017.7	4,138.0	7,356.5
Addition	1,804.8	4,338.8	2,252.1	1,825.7
Closing	4,138.0	7,356.5	6,390.0	9,182.2

Depreciation

3.30 The Petitioner has proposed the revised depreciation for FY 17-18 and FY 18-19 in line with the approach adopted by the Hon'ble Commission in its Tariff orders dated 21st June 2017 and 14th Dec 2015.

3.31 The Petitioner has first arrived at the GFA created out of debt and equity by deducting the consumer contribution and grants portion deployed towards GFA. Based on this GFA created out of debt and equity, the Petitioner has applied the depreciation rate as approved by the Hon'ble Commission to arrive at the total depreciation.

3.32 The depreciation expense for FY 17-18 and FY 18-19 is provided below for kind consideration of Hon'ble Commission.

Table 34: Depreciation cost for JBVNL

Particulars	FY 17-18		FY 18-19	
	App.	RE	App.	RE
GFA Considered for Dep - Excl. GFA out of CC and Grants (Rs. Cr.)		4,108.8		5,470.3
Depreciation Rate (Rs. Cr.)	5.94%	5.94%	5.94%	5.94%
Depreciation Cost	138.3	244.1	184.4	324.9

Interest & Finance Charges

3.33 The interest expenses has been computed in line with the clause 6.31 of JSERC Tariff regulations 2015. Therefore, the rate of interest equal to SBI base rate, which is prevailing at 9.0% as on 1st April 2017, plus 200 basis points, thus totaling to 11.0% is applied on the normative loan estimated for JBVNL.

3.34 The Petitioner has adopted the approach similar to that of Hon'ble Commission in estimating the normative closing loan for the JBVNL by deducting the normative equity, consumer contribution and grants pertaining to GFA from the Net Fixed Assets (NFA). Further, the repayment of debt has been considered to be equal to the depreciation applicable to GFA created out of debt and equity.

3.35 The total Interest and finance charges of JBVNL for FY 17-18 and FY 18-19 is provided in the table below.

Table 35: Interest & finance charges for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Opening Balance	738.3	1,562.2	1,358.4	2,054.4

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Deemed Addition during the year	758.3	736.2	597.4	1,034.2
Deemed Repayments during the year	138.3	244.1	184.4	324.9
Closing Balance	1,358.4	2,054.4	1,771.3	2,763.6
Average balance during the Year	1,048.3	1,808.3	1,564.8	2,409.0
Interest Rate	11.30%	11.00%	11.30%	11.00%
Interest Expense	118.5	198.9	176.8	265.0

3.36 It is requested that the Hon'ble Commission may approve the interest and finance charges as submitted by the Petitioner.

Interest on Consumer Security Deposit

3.37 The Interest on consumer deposit for FY 17-18 and 18-19 has been computed in line the approach followed by Hon'ble Commission in Tariff order dated 21st June 2017. The Petitioner has considered the average security deposit per consumer as Rs.1,485 to arrive at the total security deposit of respective years, based on the actual number of consumers in FY 16-17 and actual consumer security deposit as per the annual accounts

3.38 Further, the applicable interest rate as per JSERC Supply code Regulations, 2015 has been applied to project the Interest on consumer deposit for FY 17-18 and 18-19. The interest rate considered is the SBI Base rate prevailing on 1st April 2017 i.e. 9.0% p.a.

Table 36: Interest on consumer deposit for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Consumer Deposit	852.8	517.3	1,169.8	672.7
Interest Rate	9.0%	9.0%	9.0%	9.0%
Interest on Consumer Security Deposit	79.3	46.6	108.8	60.5

Interest on Working Capital

3.39 The Petitioner has estimated the working capital requirement in line with the Regulation 6.29 of the JSERC Tariff Regulations, 2015.

3.40 It is submitted that the Hon'ble Commission has not allowed any working capital requirement in its Tariff Order dated 21st June 2017, however, based on the

submissions of revised projections of expenditure for FY 17-18 and FY 18-19, the Petitioner has estimated the working capital requirement and interest thereof, as provided in the Table below.

Table 37: Interest on working capital for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
1 month O&M		34.1		43.4
Maintenance Spares		1.3		2.0
Receivables		1,110.0		1,226.6
Less: 1 month cost of power purchase		(461.0)		(492.4)
Less: Security Deposit from Customers		(517.3)		(672.7)
Total Working Capital requirement		167.1		106.8
Interest rate on WC		12.50%		12.50%
Interest on Working Capital	0.00	20.89	0.00	13.35

Return on Equity

3.41 The Petitioner has projected the equity balance considering the approach adopted by the Hon'ble Commission, whereby normative equity is arrived at by assuming the equity to be 30% of the GFA created out of debt and equity.

3.42 The return on equity for FY 17-18 and FY 18-19 is provided in the table below for kind consideration of Hon'ble Commission

Table 38: Return on equity for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Opening Balance of Normative Equity	567.9	1,025.4	873.3	1,232.6
Deemed Additions	305.4	207.3	221.1	408.4
Closing Balance of Normative Equity	873.3	1,232.6	1,094.4	1,641.1
Average Equity	720.6	1,129.0	983.8	1,436.9
Return on Equity (%)	15.5%	15.5%	15.5%	15.5%
Return on Equity	111.7	175.0	152.5	222.7

Non- Tariff Income

3.43 The Non-Tariff Income (Other Income) of JBVNL for FY 17-18 and FY 18-19 has been projected based on the growth trend of historical figures as provided in the

table below for the kind consideration of Hon'ble Commission.

- 3.44 However, while computing the actual the Non-Tariff income Non-Tariff Income (Other Income) of JBVNL for FY 16-17 financing cost for corresponding receivables, as accrued DPS is considered to be form of NTI. It is pertinent to mention that the Petitioner has already incurred power purchase costs on such outstanding receivables and DPS is levied as financing cost of such receivables, however, as the Petitioner is allowed only 2 months of receivables in allowance of working capital. For the receivables beyond the period DPS is applicable and as DPS is considered to be additional income for the Petitioner financing cost of such receivables are allowed in line with the judgment of Hon'ble APTEL dated 12.07.2011 in case No. 142 & 147 of 2009.
- 3.45 The Hon'ble Commission in its Tariff order for Aggregate Revenue Requirement for MYT Period FY 16-17 to FY 20-21 for JBVNL has also considered the above approach in line with the judgment of Hon'ble APTEL in Appeal no.48 of 2016 and Appeal no.316 of 2016 & IA no.656 of 2016 dated 31st May, 2017, while approving the Non-Tariff income.
- 3.46 The Petitioner humbly prays to the Hon'ble Commission to approve the Non-tariff income as outlined below.

Table 39: Non-tariff income for JBVNL

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
D.P.S from Consumer		350.0		370.0
Total NTI		370.0		395.0
Interest rate for Receivables financing		12.50%		12.50%
Corresponding Receivables against DPS		1,944.4		2,055.6
Interest on Receivables against DPS		243.1		256.9
Net NTI to be considered	141.0	126.9	148.1	138.1

Disallowance on account of AT&C losses

- 3.47 The Petitioner would like to further reiterate that several administrative measures has been undertaken to curb the AT&C losses along with the technical measures such as increasing the metering, focusing on billing efficiency and collection efficiency improvement.
- 3.48 It is submitted that Hon'ble Commission has approved 100% collection efficiency

for FY 17-18 and FY 18-19, which is on extremely higher side and even the most efficient utilities in the Country are not able to achieve the 100% collection efficiency. Further, it is mentioned that collection efficiency being approved under UDAY scheme is also 97% for FY 17-18 in comparison to 100% set by Hon'ble Commission. The Petitioner humbly submits that despite creating several avenues for payment of bills by the consumers, the collections remained lower than the targets.

3.49 It is pertinent to mention that JBVNL is in the process of revision of UDAY targets for AT&C loss and a letter in this regard has been already been sent to Jharkhand Govt. and Ministry of Power. The Petitioner hereby prays to Hon'ble Commission to consider the revised target of AT&C while approving the ARR for FY 17-18.

3.50 The Petitioner also prays to Hon'ble Commission that a reasonable amount of revenue which JBVNL has not been able to collect, may be allowed to be considered again RGF. The Petitioner humbly submits that the disallowance on account of high AT&C losses shall be considered while adjusting RGF from ARR.

3.51 The calculation for disallowance is done by considering the difference between the Commissions approved collection efficiency i.e. 100% and the revised target of 95% for FY 17-18 as provided in the table below.

Table 40: Provision for bad & doubtful debt of JBVNL

Particulars	FY 17-18	FY 18-19
Receivables	3,572.2	8,040.1
Collection efficiency	95%	97%
Total disallowance (Bad debt)	178.6	241.2

3.52 Therefore, it is prayed to the Hon'ble Commission to approve for provisioning of adjustment of disallowance while deducting RGF from ARR taking cognizance of difficulties and ground realities faced by JBVNL in collection.

Resource Gap Funding

3.53 The Petitioner would like to submit that resource gap funding is being provided by Government of Jharkhand to meet the disallowances and slashes made by the Hon'ble Commission during tariff determination process.

3.54 In line with the above communication by the GOJ, the Petitioner prays that the Hon'ble Commission should consider adjusting the complete RGF towards disallowance/slashes and remaining amount of RGF may be considered to meet the revenue gap.

3.55 It is submitted that the resource gap funding proposed for FY 17-18 by GoJ is Rs 2,500 Cr. However, it is pertinent to mention that the Petitioner has not proposed

any Resource Gap Funding for FY 18-19 as detailed in the following chapter of this Petition.

Table 41: Resource gap funding received by JBVNL

Particulars	FY 17-18	
	App. (Rs Cr.)	RE (Rs Cr.)
Resource Gap Funding Received		2,500.0
Disallowances – on account of AT&C losses		178.6
Net Resource Gap Funding available to meet revenue gap	-	2,321.4

Summary Of revised ARR for FY 17-18 and FY 18-19

3.56 Based on the components of the ARR discussed in the above sections, the final ARR for FY 17-18 and FY 18-19 has been provided in the table below for kind consideration of Hon'ble Commission.

Table 42: Summary of revised ARR for JBVNL for FY 17-18 and FY 18-19

Particulars	FY 17-18		FY 18-19	
	App. (Rs Cr.)	RE (Rs Cr.)	App. (Rs Cr.)	RE (Rs Cr.)
Power Purchase cost	5,495.9	5,531.8	6,648.1	5,909.0
Transmission charges	185.5	160.4	243.5	181.4
O&M expenses	377.9	409.4	454.7	520.5
Depreciation	138.3	244.1	184.4	324.9
Interest on Loan	118.5	198.9	176.8	265.0
Return on Equity	111.7	175.0	152.5	222.7
Interest on Working Capital	-	20.9	-	13.4
Interest on security deposit	79.3	46.6	108.8	60.5
Less: Non-Tariff Income	-141.0	-126.9	-148.1	-138.1
Gross ARR	6,366.1	6,660.0	7,820.8	7,359.4

3.57 It is prayed to the Hon'ble Commission that the above revenue gap may be allowed and impact shall be passed on to JBVNL.

4. Revenue Gap and Treatment of Revenue Gap for JBVNL

Revenue gap for JBVNL

4.1 The year wise estimated revenue gap based on the estimated ARR and revenue at existing tariff is provided in the table below for the kind consideration of Hon'ble Commission. The Petitioner has considered the impact of Resource Gap Funding being provided to JBVNL for respective year to arrive at the final revenue gap. The proposed revenue gap for FY 16-17 and FY 17-18 is provided in the table below.

Table 43: Estimated revenue gap for JBVNL for FY 16-17 and FY 17-18

Particulars	FY 16-17	FY 17-18
Gross ARR	6,199.0	6,660.0
Less: RGF Considered	805.9	2,321.4
Revenue Realized from sale	2,813.5	3,572.2
Gap	2,579.5	766.34

4.2 It is submitted that the Petitioner has also filed the True-up Petition for FY 13-14 (6th Jan – 31st Mar) to FY 15-16 before Hon'ble Commission on 20th Sep 2017, where a cumulative revenue gap of Rs 3,479.79 has been submitted along with carrying cost. The details of revenue gap for FY 13-14 (6th Jan – 31st Mar) to FY 15-16 is provided in the detailed below.

Table 44: Revenue gap for FY 13-14 (6th Jan – 31st Mar) to FY 15-16

Particular	FY 13-14 (6th Jan – 31st Mar) (Cr.)	FY 14-15 (Cr.)	FY 15-16 (Cr.)
Opening Revenue Gap as on 1st April	-	657.12	1,468.39
Revenue Gap / (Surplus) created during the Year	612.84	665.28	1,671.53
Closing Gap at end of the Year	612.84	1,322.40	3,139.92
Rate of Interest (As per prevailing SBI PLR rate)	14.45%	14.75%	14.8%
Carrying Cost on Additional Gap Created	44.28	145.99	339.86
Total Gap including carrying cost	657.12	1,468.39	3,479.79

4.3 Based on the above submissions of revenue gap for FY 16-17 to FY 17-18 and for FY 13-14 (6th Jan – 31st Mar) to FY 15-16, the Petitioner has computed the cumulative revenue gap till FY 17-18.

Table 45: Cumulative revenue gap of JBVNL till FY 18-19

Particular	FY 13-14 (6th Jan – 31st Mar) (Cr.)	FY 14-15 (Cr.)	FY 15-16 (Cr.)	FY 16-17 (Cr.)	FY 17-18 (Cr.)
Opening Revenue Gap as on 1st April	-	657.12	1,468.39	3,479.8	6,669.8
Revenue Gap / (Surplus) created during the Year	612.84	665.28	1,671.53	2,579.5	766.3
Closing Gap at end of the Year	612.84	1,322.40	3,139.92	6,059.3	7,436.1
Rate of Interest (As per prevailing SBI PLR rate)	14.45%	14.75%	14.8%	12.8%	12.5%
Carrying Cost on Additional Gap Created	44.28	145.99	339.86	610.5	881.6
Total Gap including carrying cost	657.12	1,468.39	3,479.79	6,669.8	8,317.8

4.4 The Petitioner thus humbly prays to the Hon'ble Commission to approve the cumulative revenue gap till FY 17-18 as proposed by the Petitioner.

Treatment of Revenue gap and Creation of Regulatory Asset

4.5 Considering the above cumulative revenue gap till FY 17-18, it can be seen that the revenue from proposed tariff will only provide a partial relief to the Petitioner in recovering its revenue gap. The Petitioner would like submit that given the significant amount of revenue gap, the whole impact may be not be plausible to be passed on to consumers, by way of revision in retail tariffs, as it may lead to an inexorable tariff shock. Therefore, the Petitioner would like to propose creation of Regulatory Asset which is as per the clause 10 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations 2015. The related clause is reproduced below-

10.3 Provided that if such variations are large, and it is not feasible to recover in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in clause 8.2.2 of the National Tariff Policy;

4.6 The Petitioner proposes and prays to the Hon'ble Commission for creation of regulatory assets of such uncovered revenue gap, as discussed in the following paragraphs.

Creation of Regulatory Asset

- 4.7 It is pertinent to mention that there are cost component in JBVNL's past Annual Revenue Requirement filing, which have been recognized but deferred for future by the Hon'ble Commission. Since such gap is now accumulated to become significantly high, it is now inevitable to be passed in the subsequent tariff revisions.
- 4.8 As discussed a revenue gap of Rs. 8,317.8 Cr. till FY 17-18 including the True-up for FY 13-14 (6th Jan – 31st Mar) to FY 15-16 has been estimated, which the Petitioner proposes to be met through creation of Regulatory Asset.
- 4.9 The Hon'ble Commission is most humbly requested to approve the above Regulatory assets worth Rs. 8,317.8 Cr. and also provide an appropriate recovery mechanism to recover the Regulatory Assets as per the provisions of Tariff Regulations 2010 and guidelines of National Tariff Policy 2016.
- 4.10 A proposed period of 5 years may be considered by the Hon'ble Commission to amortize the regulatory assets and passed on to the consumers over the same period in equal tranches. During the period, the Petitioner also prays for providing return on such regulatory asset to the tune of weighted average cost of capital i.e. 12.5%
- 4.11 The creation of regulatory assets has been a common practice amongst other States of the country. The same has been allowed by the DERC in order on True-up for FY 13-14, ARR and Distribution Tariff for FY 15-16 for BSES Rajdhani Power Limited dated September 2015. Few clauses from Tariff Order is reproduced below.

2.280 - Recovery of accumulated revenue gap, Regulatory Asset as envisaged in clause 8.2.2 of Tariff policy is as under:

- a. Carrying cost of Regulatory Assets should be allowed to the utilities.*
- b. Recovery of Regulatory Assets to be time bound and within a period not exceeding three years at the most, preferably within the control period.*
- c. The use of the facility of Regulatory Assets should not be retrospective.*
- d. In case when Regulatory Asset is proposed to be adopted, it should be ensured that the ROE should not become unreasonably low in any year so that the capability of licensee to borrow is not adversely affected.*

2.282 - The Commission is guided by the National Tariff Policy and in accordance with the Hon'ble APTEL judgment has allowed carrying cost to DISCOMs. For liquidation of the past accumulated revenue gap, the Commission introduced a surcharge of 8% over the revised Tariff, in tariff order dated July 13, 2012, and has been revising tariffs every year to a reasonable level to provide additional

revenue to DISCOMs and also to reduce the burden of carrying cost on the consumers of Delhi.

2.283 - Therefore, while the tariff increase from FY 2011-12 onwards has to some extent offset the incremental increase in revenue gap, however cumulative revenue gap along with applicable carrying costs still remained uncovered. Thus, the formula evolved by the Commission i.e., including carrying costs in the ARR every year, for tariff determination and using 8% surcharge for liquidating the principal over a time is expected to liquidate the Regulatory Assets in a reasonable period of 6 to 8 years.

4.12 Another case for allowance of regulatory assets can be seen in Maharashtra where Maharashtra Electricity Regulatory Commission (MERC) allowed R-Infra to recover its regulatory assets for FY 2008-09 and FY 2009-10 of 178 Cr. and 554 Cr. respectively through tariff.

4.13 The Hon'ble Commission is humbly prayed to approve the aforementioned Regulatory Assets through the recovery mechanism suggested by the Petitioner as per the provisions of Tariff Regulations 2010 and guidelines of National Tariff Policy 2016.

Revenue Gap for FY 18-19 and its Treatment

4.14 The Petitioner has computed the expected revenue for FY 2018-19 from sale of power by considering the fixed charges per unit and variable charges per unit. Further, to arrive at the final gap for FY 18-19, the Petitioner has adjusted the impact of recovery of previous cumulative revenue gap till FY 17-18. The Petitioner has proposed to amortize the Regulatory Asset in 5 Year period starting from FY 18-19, the effect of 1st year is considered in FY 18-19 as detailed in the table below:

Table 46: Treatment of revenue Gap for FY 18-19

Particulars	FY 18-19
Gross ARR	7,359.4
Add: Previous Gap treatment	2,336.1
Less: Revenue from proposed Tariff	8,045.4
Gap during the year	1,650.1

4.15 It can be seen from the above table that after adjusting the revenue and ARR for FY 18-19, the Petitioner is still left with the revenue gap uncovered to the tune of Rs. 1,650.1 Cr. The Petitioner thus humbly prays to the Hon'ble Commission to approve the revenue gap for FY 18-19 as proposed by the Petitioner and to be allowed in subsequent tariff orders.

5. Segregation into Wheeling and Retail Supply business

5.1 The Regulation 5.7 of the JSERC Tariff Regulations 2015, requires the distribution licensee to segregate its ARR into wheeling and retail supply business, as reproduced hereunder:

"5.7 The Business Plan shall be filed separately for the Retail Supply and Wheeling Business. As specified in clause 5.5 of these regulations, in absence of segregated accounts for the two businesses, the Licensee shall prepare an allocation statement and submit the same with the business plan;"

5.2 In line with the above, the Petitioner has segregated the ARR into retail supply and wheeling business. It is pertinent to mention that at present the Petitioner is not maintaining separate accounting for wheeling and retail supply business. However, considering the nature of expenditure and its attribution to the different businesses the ARR has been segregated.

5.3 The summary of segregation of various components of ARR into wheeling and retail supply business is provided in the table below.

Table 47: ARR Components into Wheeling and retail business

Particulars (Rs. Cr.)	Share of Retail Supply %age	Share of Wheeling Business %age
O&M Cost		
<i>Employee cost</i>	50%	50%
<i>A&G Expense</i>	25%	75%
<i>R&M Cost</i>	5%	95%
Power purchase (Inc. PGCIL & RLDC)	100%	0%
Interest Cost	100%	0%
Interest on working capital	10%	90%
Depreciation	2%	98%
Return on Equity	10%	90%
Provision for bad debts	10%	90%
Less: Other income	10%	90%

5.4 Considering the general principles of segregation of above heads into wheeling and retail supply business, JBVNL has considered different ratio to Wheeling Business and retail supply business based on the nature of heads. The detailing of head wise segregation is provided in the above chapter of this petition. Based on above, the

segregated ARR of Retail supply business and wheeling business has been provided below:

Table 48: ARR Components into Retail business

Particulars	FY 17-18(Rs. Cr.)	FY 18-19(Rs. Cr.)
O&M Cost		
<i>Employee cost</i>	111.2	127.2
<i>A&G Expense</i>	14.8	15.5
<i>R&M Cost</i>	6.4	10.2
Power purchase (Inc. PGCIL & RLDC)	5,692.2	6,090.4
Interest Cost	245.5	325.5
Interest on working capital	2.1	1.3
Depreciation	4.9	6.5
Return on Equity	17.5	22.3
Less: Other income	-12.7	-13.8
Total ARR required	6,081.9	6,585.1

Table 49: ARR Components into Wheeling business

Particulars	FY 17-18(Rs. Cr.)	FY 18-19(Rs. Cr.)
O&M Cost		
<i>Employee cost</i>	111.2	127.2
<i>A&G Expense</i>	44.5	46.4
<i>R&M Cost</i>	121.2	194.0
Power purchase (Inc. PGCIL & RLDC)	-	-
Interest Cost	-	-
Interest on working capital	18.8	12.0
Depreciation	239.2	318.4
Return on Equity	157.5	200.4
Less: Other income	-114.3	-124.3
Total ARR required	578.1	774.3

6. Tariff Rationalisation and Direct subsidy to consumers

Tariff Rationalization and Removal of cross subsidy

- 6.1 Cross Subsidy in power distribution sector is one of the practice of providing electricity at subsidized rates to agricultural and domestic consumers by cross subsidizing high paying consumers like industrial and commercial consumers. Requirement of cross subsidization by utility is to remain financially sustainable and limit the burden on the State Government. JSERC in its Tariff order for MYT control Period for JBVNL dated 21st June 2017 has stated that existing tariff structure in Jharkhand is not based on the consumer category-wise cost of supply and the commercial and industrial consumers have been cross subsidizing other consumers like domestic and agricultural to a great extent.
- 6.2 It is pertinent to mention that JBVNL has one the lowest Tariff across country as compared with its neighbouring state especially in domestic categories as evident from the table below. Irrational tariff across all consumer categories, especially domestic and Agriculture which account for nearly 55% of total energy sales (FY 15-16), has deteriorate the financial situation of JBVNL.

Table 50: Comparison of ABR of JBVNL with different State Discoms

Particulars	Jharkhand	Bihar	Chhattisgarh	Madhya Pradesh	Uttar Pradesh
Year of Tariff Order	2016-17	2017-18	2016-17	2017-18	2017-18
Domestic	2.40	6.39	4.81	5.97	3.92
Non-Domestic	7.68	7.92	8.19	8.39	7.76
Public-Lighting	2.38	8.42	5.29	6.14	8.84
IAS	1.05	7.02	4.51	5.88	8.74
LTIS	8.82	8.62	5.72	7.81	7.99
HTS	8.01	8.71	7.97	7.69	7.47
HTSS	6.13	7.90	6.87		
RTS	6.02	7.96	6.48	-	7.86
Average Total	4.33	6.84	6.23	6.25	5.55

- 6.3 It is evident from the above table that there is wide gap between the Average

realization from Domestic & Agriculture consumers and Industrial consumers. JBVNL strictly believes that Cross-Subsidy has huge impact on industrial consumer as higher cost of electricity reduces industrial growth in the country and also makes them less competitive in the global market. Further, Cross Subsidy increases manufacturing cost and is a constraint towards development of competitive market.

6.4 The only way out for reducing Cross subsidy is introduction of "cost reflective tariff" where tariff should be set in such a manner that it reflects the cost of supply or falls nearby. Even "*Subsection (g) of Section 61 of EA 2003*" stipulates that the tariff should progressively reflect cost of supply of electricity and also reduces cross subsidies in the manner specified by the Appropriate Commission. As per National Tariff Policy 2016, following principles have to be followed while linking Tariff to cost reflective tariff.

- *BPL consumers having consumption below a specified level may receive special support through cross subsidy with Tariff at least 50% of the Average cost of supply.*
- *Appropriate Commission to notify a roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply by gradual reduction of cross subsidy.*
- *A higher level of subsidy could be considered to support poorer farmers of the region where adverse ground water table condition requires larger quantity of electricity for irrigation purposes.*
- *Extent of subsidy for different categories of consumers can be decided by the State Government keeping in view various relevant aspects. But provision of free electricity is not desirable as it encourages wasteful consumption of electricity.*
- *Use of smart meters may be encouraged as a cost effective option for metering in cases of "limited use consumers" who are eligible for subsidized electricity.*

6.5 The Hon'ble Commission has also stated in its Tariff order of JBVNL dated 21st June 2017 that cost based tariff structure promotes efficiency, economic investment and rational consumption. Following are the cross subsidy calculation generation/reduction approved by Commission for different categories in last few years.

Table 51: Cross subsidy details

Consumer Category	2012-13			2015-16			2016-17		
	Avg CoS	Avg. Approved Tariff	Subsidy Generated/ Utilised	Avg CoS	Avg Approved Tariff	Subsidy Generated/ Utilised	Avg CoS	Avg Approved Tariff	Subsidy Generated / Utilised
Domestic	5.69	2.36	-1251.91	5.54	1.98	-1464.56	6.06	2.40	-1820.02
Non-Domestic	5.69	5.95	11.1	5.54	6.46	42.0	6.06	7.68	80.1
Public-Lighting	5.69	1.51	-84.6	5.54	1.18	-93.6	6.06	2.38	-54.0
IAS	5.69	0.74	-35.2	5.54	1.02	-39.2	6.06	1.05	-124.0
MES	5.69	5.03	-0.7	5.54	5.39	-0.2	6.06	5.93	-0.2
LTIS	5.69	6.83	19.8	5.54	9.03	60.1	6.06	8.82	50.2
HTS	5.69	6.63	164.0	5.54	7.45	331.7	6.06	8.01	369.4
HTSS	5.69	5.45	-17.2	5.54	4.79	-58.1	6.06	6.13	3.0
RTS	5.69	6.10	28.5	5.54	6.95	95.1	6.06	6.02	-1.0
Average Total	5.69		-1166.3	5.54	4.17	-1126.8	6.06	4.33	-1496.5
Cross Subsidy Generated			-1389.6			-1655.6			-1999.3
Cross Subsidy Utilized			223.3			528.9			502.8

6.6 Going forward, in order to reduce the burden of cross subsidy on the high value consumers, JBVNL has proposed the cost reflective tariff for each consumer category as a percentage of average cost of service in the band of $\pm 20\%$ of average cost of service for all categories. The detailed proposal of cost reflective tariff is provided in the subsequent chapters of this petition.

Removal of RGF

6.7 The Govt. of Jharkhand provides resource gap grants to JBVNL to meet the disallowances/ slashes. The RGF provided to JBVNL is considered as Grant while computing the overall Revenue Gap requirement and Tariff fixation.

6.8 A communication from Energy Dept., Govt of Jharkhand, vide letter no 8743 dated 23.10.17 (Provided in Annexure-2) has been sent to Hon'ble Commission which specifies that RGF shall not be provided to JBVNL and upcoming Tariff fixation shall be done without considering the impact of Resource Gap funding.

6.9 It is noteworthy that the non-consideration of RGF during tariff fixation and adoption of cost reflective tariff will give significant tariff hike to some consumer categories. Thus, in order to compensate the inexorable tariff shock to consumer, the petitioner has requested the State Government to give Resource Gap funding as a subsidy for a particular tariff categories.

6.10 Further, it is being proposed that the extent of direct subsidy for different categories of consumers may be decided by State Government which is as per National Tariff Policy, 2016 wherein it is stated that as a substitute of cross subsidies, the State Government has the option of raising resources through mechanism of giving direct subsidies to only needy consumers.

7. Tariff Proposal

Key highlights and changes in Tariff Proposals

- 7.1 **Introduction of new consumer sub-categories:** In order to provide the benefits of electricity to the under-privileged consumers and encourage them to be part of the mainstream population, the Petitioner has proposed DS-Primitive (PTG) sub-category for Primitive Tribal Groups inhabiting the State of Jharkhand. The aim is to ensure that the PTGs are provided free of cost connections under various ongoing schemes and avail electricity at nominal rates, thus to bring uplift their standard of living and provide them more economic opportunities. It is pertinent to mention that presently nearly 1,03,000 PTG Households have been identified to be inhabiting in the State as per the Govt. of Jharkhand, which are aimed to be provided electricity access by FY 18-19.
- 7.2 **Simplification of Tariff:** The existing tariff structure of JBVNL includes a total of 9 consumer categories, which is further divided into 22 sub-categories and further distributed into total 31 slabs. However, as per the Clause 8.3 of National Tariff Policy, the tariffs need to be simplified and the consumer categories and slabs need to be reduced. In this regard, the tariff simplification has been done in the proposed tariff structure with total of 5 consumer categories having maximum of 3 slabs/ sub-categories. The 5 consumer categories includes, Domestic, Commercial, Industrial, Agricultural and Institutional consumers.
- The Petitioner has also proposed to merge the HTS and HTSS sub-categories into HTIS sub-category. HTSS category was applicable for consumers having induction/ arc furnace with more than 300 kVA load. However no need was felt by the Petitioner for having separate categories for HTSS and HTS consumers. This has been done to achieve simplification of tariff structure and rationalization of tariff for HT consumers.
- 7.3 **Migration from kWh based billing to kVAh based billing:** The Petitioner has proposed to migrate to kVAh based billing from existing kWh based billing for certain consumer sub-categories in order to get the full recovery the all components of Power Generation, Transmission and Distribution like capital cost, fuel cost, system losses etc. and to ensure grid discipline and stability. Also the Petitioner has proposed the removal of power factor penalty and incentive. Below

are the proposed sub-categories:

1. Low Tension Industrial Service (LTIS)
2. High Tension Industrial Service (HTIS) (including induction furnace/ arc)
3. Railway Traction Service (RTS)
4. Military Engineering Service (MES)

7.3.1 **Introduction to kVAh billing:** Electric power has two components – active power (kWh) and reactive power (kVArh). The active and reactive power components combine to form the apparent power (kVAh). The apparent power can be calculated as a Pythagoras sum of active power (kWh) and reactive power (kVArh).

Power factor (pf) is defined as the ratio of active power to the apparent power of the system i.e. $pf = kWh/kVAh$.

The active power (kWh) is actually consumed by the electrical equipment and converted into work for creating heat, light, motion etc. However the reactive power (kVArh) is just used to provide the electromagnetic field in the inductive equipment, stored up in the windings of the equipment. Therefore while the kWh power is actually put to work, the kVArh power is just required to convert the electrical power into work.

7.3.2 **Need for reducing reactive power in the system:** The kVArh power occupies the capacity of electricity network and reduce the useful capacity of system for generation and distribution of the active power. If only active power kWh is measured, the kVArh power would constitute a part of the technical losses in the system.

The reactive kVAr becomes nil when power factor of the system is unity (1). As the power factor of the system (or any particular consumer/consumer category) falls below 1, the reactive power component increases and contributes to the increasing technical losses (copper losses) in the system. Working with poor power factor of the load leads to higher current drawn through the supply system than the current drawn with unity power factor for same kWh delivered. Since copper losses are proportional to square of current flowing ($P = I \times I \times R$), the technical losses would increase with falling pf in the ratio of $1/(pf^2)$. The table below depicts indicative calculations for increase in power purchase cost due to falling pf.

Table 52: Indicative calculations for increase in power purchase cost due to falling pf

PF	Technical Loss ¹	Energy input required for sales (MUs)	Power purchase cost (Rs. Crore) ²	Increase in power purchase cost
1.00	5.0%	12,447.6	5,277.8	-
0.95	5.5%	12,511.7	5,305.0	0.51%
0.93	5.8%	12,540.2	5,317.1	0.74%
0.91	6.0%	12,570.7	5,330.0	0.99%
0.89	6.3%	12,603.2	5,343.8	1.25%
0.87	6.6%	12,638.0	5,358.5	1.53%
0.85	6.9%	12,675.3	5,374.3	1.83%
0.83	7.3%	12,715.3	5,391.3	2.15%
0.81	7.6%	12,758.3	5,409.5	2.50%
0.79	8.0%	12,804.7	5,429.2	2.87%
0.77	8.4%	12,854.6	5,450.4	3.27%
0.75	8.9%	12,908.7	5,473.3	3.70%
0.73	9.4%	12,967.2	5,498.1	4.17%
0.71	9.9%	13,030.7	5,525.0	4.68%

7.3.3 Reason for kVAh based billing: It is a well-known fact that the industrial load consist majorly of inductive load which generates some amount of reactive power for them to function. This reactive power is compensated by the capacitor bank installed in parallel to the load. Else, these equipment tend to draw the reactive power from the grid which JBVNL has to draw from the grid. These industrial units are required to maintain their equipment well and install the capacitors to maintain the power factor, however, not all industrial units do so. This leads to reduction in power factor and system inefficiency.

If the tariff is fixed for active energy measured, the supplier has to meet the loss in the supply system due to this additional current drawn due to the poor power factor of the load maintained by the consumers. Or regulatory measures have to be initiated upon the consumers who do not maintain the power factor of the load at unity or a specified value. Imposing penalty to consumers who create this burden, by identifying them through special tasks, are not practical.

If kVAh (apparent energy) metering is employed, automatically it becomes the responsibility of the consumer to maintain the quality of the load by improving its power factor or the consumers automatically pay themselves for the additional burden due to poor power factor of the load maintained by them. In kVAh billing system as the electricity bills conceive this additional burden for

¹ Assuming 5% technical loss at unity power factor, the losses are increased with falling power factor by multiplying initial 5% loss level with $1/(pf^2)$

² The overall average power purchase cost in FY16-17 of Rs. 4.24/kWh is multiplied with energy input required

consumers who create it, no separate penalty need to be imposed.

Therefore the Petitioner feels the need to review the existing tariff structure.

7.3.4 Designing of tariff structure based on kVAh tariff: Under this method the consumer is charged on the apparent power kVAh instead of active power kWh. The tariff for kVAh based billing is set by multiplying the kWh based tariff with the ideal power factor of say 0.95. This calculation is done on the following basis–

- kVAh units can be derived from the kWh units by dividing the kWh consumption of a consumer category by its power factor
- To maintain revenue neutrality, the ARR to be recovered from the consumer category would now to be divided by the kVAh sales instead of kWh sales for calculating tariff per kVAh unit

$$\frac{\text{Revenue Requirement}}{\text{kVAh}} = \frac{\text{Revenue Requirement}}{\frac{\text{kWh}}{\text{power factor}}} = \frac{\text{Revenue Requirement}}{\text{kWh}} \times \text{power factor}$$
$$= \text{kWh tariff} \times \text{power factor}$$

- A change to kVAh based tariff would prove to be beneficial to everyone. The non-defaulting consumers would be happy that the kVAh tariff is lower than the kWh tariff whereas the distribution utility can be benefitted from the collection of more revenues from consumers having low power factor loads. Most importantly the consumers would start taking the initiatives for correcting the power factor using compensating capacitors at their own end which would also result in the overall improvement of system efficiency.
- At present the HT and other high value consumers are supposed to maintain a minimum PF of 0.85 lag. If PF falls below 85%, consumers have to pay penal charges as per the Tariff Order. However the consumer can draw reactive power at free of cost after maintaining the 0.85 PF.

Identifying consumer categories with lower power factor

It is proposed to employ kVAh based tariffs for LTIS, HTIS, RTS and MES consumer sub-categories because of the following two reasons –

- a. Lower power factor is generally caused by industrial and other high load consumers, which have higher inductive loads.
- b. Advanced tri-vector meters are required for capturing the apparent power kVAh units which are available for industrial and other high load consumers. Installing

such meters for low value consumers like DS, CS and IAS having lower connected load would not be financially feasible at the current costs of these meters. The table below showcases the additional monthly revenue collection³ for various consumers with different connected load and power factor.

Table 53: Additional monthly revenue collection for different connected load and pf

All values in INR

kW/pf	0.95	0.90	0.85	0.80	0.75
1	83	176	280	396	528
5	417	880	1,398	1,980	2,640
10	834	1,760	2,795	3,960	5,280
50	4,168	8,800	13,976	19,800	26,400
100	8,337	17,600	27,953	39,600	52,800

Assuming Rs. 5,000 to 10,000 as typical cost of an advanced meter for capturing kVAh based readings (ignoring associated costs of installing those meters), it can be observed from the table above that a typical non-industrial consumer with less than 50 kW of load would take upto 1 year time period for recovering just the capital cost even with a low power factor of 0.90

Drawbacks of present (kW based) billing:

1. Consumers drawing more reactive power causes more loss and inconvenience to the system.
2. Lower PF penalty as compared to loss and inconvenience occurred due to reactive power drawl particularly in LTIS categories
3. The power drawn by the consumer is Apparent Power comprising of both Active and Reactive Power. However the present billing is done only for Active Power
4. Need to revise the penalty % from time to time depending upon the average pf of consumers
5. In case of low PF, the harmonics that gets generated disturbs the overall health of power system

In order to overcome the drawbacks, billing needs to be done for both Active and Reactive Power. This can be achieved by Reactive Power pricing using kVAh based tariff which includes both Active and Reactive Power.

Benefits of proposed (kVAh based) billing:-

1. Lower tariff for kVAh based billing than kWh
2. Complete recovery of costs of utility for active and reactive power
3. Zero/ Minimal drawl of reactive power from consumers by use of Capacitor Banks.

³ assuming a 40% load factor and tariff of Rs. 5.50 per unit

4. Reduction in resultant power (Apparent Power) due to minimum consumption of reactive power.
5. Reduction in $(I^2) \cdot R$ loss
6. Improvement in system voltage

7.4 **Removal of Installation based tariff for LTIS consumer:** The Petitioner has proposed to remove the installation based tariff for all LTIS consumers and to completely migrate the LTIS consumers to Demand Based Tariff. This would ensure the judicial usage of energy and prevent the need for inspecting officer to regularly inspect the consumers premise for regularization of excess load. It is noteworthy that one of the key reason because of which installation based tariff was that most of the LTIS consumers were not having the MDI meters which is required to capture the Maximum Demand. However the Petitioner is committed towards the replacement of these non-MDI meters and has planned to replace all such meters in phased manner. However, till the time JBVNL process the shifting of consumers having Non-MDI meters to MDI meters, the Petitioner shall provide an option for consumers having installation based tariff to come forward and declare their own load (in KVA).

Summary of Tariff Proposals

7.5 The table below presents the existing and proposed tariff for various categories.

Table 54: Summary of Tariff Proposal

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)		
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)	
Domes tic	PTG				5.25/kWh	40/kW	
	DS- I	Metered	DS- I (a), Kutir Jyoti (0-50 units)	1.25/kWh	16/conn	6.25/kWh	60/kW
			DS- I (a), Kutir Jyoti (51-100 units)	1.25/kWh	16/conn		
			DS-I (b), (0-200 units)	1.6/kWh	30/conn		
			DS-I (b), (above 200 units)	1.7/kWh	30/conn		
	Unmetered	DS-I (a),	NIL	60/conn	NIL	700/kW	
		DS-I (b),	NIL	170/conn			
	DS- II		0-200 units	3/kWh	50/conn	7.00/kWh	80/kW
		201 & above units	3.6/kWh	80/conn			
Comm ercial	CS- I	0-100 Units	2.2/kWh	45/conn	6.50/kWh	100/kW	
		Above 100 Units	2.25/kWh	45/conn			
		Unmetered	NIL	250/kW	NIL	700/kW	

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)
	CS- II	NDS-II	6.0kWh	225/kW	6.50/kWh	225/kW
		NDS-III	6.8/kWh	200/conn		
Industrial	LTIS	Demand based	5.50/kWh	275/kVA	5.50/ kVAh	275/kVA
		Installation based	5.50 / kWh	160/HP/Month	6.50 /kWh	200/HP/Month
	HTIS	HTS - 11KV	6.25/kWh	300/kVA	6.00/ kVAh	300/kVA
		HTS - 33KV	6.25/kWh	300/kVA		
		HTS - 132KV	6.25/kWh	300/kVA		
		HTSS - 11KV	4.00/kWh	490/kVA		
		HTSS - 33KV	4.00/kWh	490/kVA		
Irrigation and Agriculture	IAS-I	IAS - I Metered	0.70/kWh	-	5.25/kWh	30/HP
		IAS - I Unmetered	-	100/HP	-	650/HP
	IAS-II	IAS - II Metered	1.20/kWh	-	6.00/kWh	100/HP
		IAS - II Unmetered	-	375/HP	-	650/HP
Institutional	Ins- I	Metered	5.25/kWh	55/conn	6.50/kWh	100/kW
		Un-metered	NIL	Rs 250 per 100 watt/month and Rs 55 for every additional 50 Watt	NIL	Rs 650 per 100 watt/month and Rs 100 for every additional 50 Watt
	Ins- II	RTS	6.00/kWh	235/kVA	4.80/kVAh	400/kVA
		MES	4.60/kWh	260/kVA		
	Ins- III	DS (HT)	3.50/kWh	110/kVA	5.25/kWh	200/kVA

7.6 Category wise tariff proposals along with explanations are provided in this chapter for consideration of the Hon'ble Commission.

7.7 The Petitioner has proposed a higher amount of fixed charges for all the unmetered consumer categories. It is submitted that higher fixed charge shall not only encourage the consumer to get their connections metered but will also be important for justifying the high existing consumption by these consumers. This is not with the intention of garnering higher revenue but it follows the objective of bringing the consumers in the metering net and ensuring every unit entering into the JBVNL network gets accounted for. It is requested to Hon'ble Commission to kindly approve the fixed charges for unmetered connection at the proposed rates only, as the existing rates do not provide any deterrent for the unmetered sales and in fact only encourage consumers to keep their connections unmetered.

Further, it is proposed that the higher tariff for un-metered consumers should be applicable till December 2018, which has been set as target by the Petitioner to achieve 100% metering of all un-metered consumers. Beyond December 2018, the higher tariff of un-metered consumer may cease to exist, which shall bound JBVNL to essentially convert the un-metered consumers to metered categories.

- 7.8 It is important to bring to the notice of Hon'ble Commission that the Petitioner is in the process of installing smart meters in town areas targeting the consumers other than of DS-1 sub-category. Since, the smart meters have the additional feature of running as a prepaid meter, it is planned that the consumer may be provided the option to migrate towards prepaid metering. Meter reading, preparation of bills its distribution and collection of payments takes away a considerable amount of time and efforts for the utility which can be eliminated by the prepayment metering system. Further, it is envisaged that that smart meter will be instrumental in improving the revenue cycle. Thus, it is prayed to Hon'ble Commission to provide a suitable tariff for consumers opting for pre-paid meters.

Domestic Services (DS)

Applicability

DS Primitive (PTG), Domestic Service-I, Domestic Service-II

- 7.9 This schedule shall apply to Primitive Tribal Groups (PTG) inhabiting in the State of Jharkhand, private residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water up to 1 BHP for domestic purposes and other household electrical appliances not covered under any other schedule.
- 7.10 Rural drinking water schemes which are managed by Panchayats and User's Co-operatives are also included under this Category and corresponding Tariff would be charged depending upon the load of Pumping motors as applicable to the DS category.

Category of Services

- a) **Domestic Service – DS Primitive:** This Schedule shall apply for Primitive Tribal Groups (PTG) inhabiting in the State of Jharkhand. If the energy consumption in a month exceeds 72 units, the billing for all the units shall be done as per DS-I.
- b) **Domestic Service – DS-I:** For rural areas not covered by area indicated under DS-II for connected load up to 2 kW, including rural drinking water schemes having motor pumps with load up to 2 kW.
- c) **Domestic Service – DS-II:** For Urban areas covered by notified Area

Committee/ municipality / Municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load up to 85.044 KW, including rural drinking water schemes having motor pumps with load exceeding 2 kW. This schedule shall also apply to commercial consumer of rural area having connected load above 2 kW.

The Petitioner also proposes a rebate of 10% in the energy charges for consumers having any 'specially-abled' member in the family. The energy charges payable by consumers shall be reduced by 10% for all such DS consumers, except for those consumers having consumption above 300 units. The necessary documents related to this needs to be submitted by the consumer, including Govt. certificate issued for disability for claiming Income Tax related benefits under Section 80U which covers the individuals suffering from disability himself or Section 80DDB which covers the individuals having any dependant family member who is suffering from disability.

Service Character

1. For DS- Primitive: AC, 50 Cycles, Single phase at 230 volts for load upto 100 Watt
2. For DS-I: AC, 50 Cycles, Single Phase at 230 Volts for load upto 2 KW.
3. For DS-II: AC, 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for installed load exceeding 2 kW and up to 85.04 KW.

Table 55: Existing and Proposed Tariff – Domestic

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)		
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)	
Domestic	PTG				5.25/kWh	40/kW	
	DS- I	Metered	DS- I (a), Kutir Jyoti (0-50 units)	1.25/kWh	16/conn	6.25/kWh	60/kW
			DS- I (a), Kutir Jyoti (51-100 units)	1.25/kWh	16/conn		
			DS-I (b), (0-200 units)	1.6/kWh	30/conn		
			DS-I (b), (above 200 units)	1.7/kWh	30/conn		
	Unmetered	DS-I (a),	NIL	60/conn	NIL	700/kW	
		DS-I (b),	NIL	170/conn			
	DS- II		0-200 units	3/kWh	50/conn	7.00/kWh	80/kW
			201 & above units	3.6/kWh	80/conn		

Delayed Payment Surcharge

For Domestic Service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed to Domestic Service (DS tariff) and Rationale for Change in Tariff

7.11 The Petitioner has introduced DS-Primitive (PTG) Sub-category for Primitive Tribal Groups inhabiting the State of Jharkhand.

7.12 The Petitioner has proposed the Fixed Charges for all categories to be calculated based on per kW basis shifting from per Connection basis.

7.13 DS-I(a) and DS-I(b) Sub-categories have been merged and renamed as DS-I

7.14 DS-II and DS-III Sub-categories have been merged and renamed as DS-II

7.15 A rebate of 10% over energy charges have been proposed for consumers having any 'Specially Abled' member in the family, except for those consuming above the highest consumption slab for DS (II) sub-category, i.e. above 300 units. The benefits shall be passed on to such consumers through Aadhar linked DBT.

7.16 Three Phase supply shall be provided only to consumers having Three Phase Meter and Three Phase wiring in their premise

Table 56: Comparison of existing domestic metered tariffs with approved tariffs in other States as per the applicable recent tariff orders

State	Applicable Fixed Charge (Domestic)	Applicable Energy Charge (Domestic)
Bihar	<p>Kutir Jyoti (Unmetered) (BPL): Rs.350/month/ connection</p> <p>Kutir Jyoti (metered) (BPL): Rs.10/month/ Connection</p> <p>DS-I Rural (Unmetered): Rs.500/month/ connection</p> <p>DS-I Rural (Metered): Rs.20/kW or part/ month</p> <p>DS-II (Urban Demand based): Rs.40/kW or part/ month</p>	<p>Kutir Jyoti (metered) (BPL): 0-50 Unit - Rs.5.75/ Unit Above 50 Units – As per DS-I metered</p> <p>DS-I Rural (Metered): 0-50 Unit - Rs.5.75/ Unit 51-100 Units – Rs.6.00/ Unit Above 100 - Rs.6.25/ Unit</p> <p>DS-II (Urban Demand based): 1-100 Unit - Rs.5.75/ Unit 101-200 Unit - Rs.6.50/ Unit 201-300 - Rs.7.25/ Unit Above 300 - Rs.8.00/ Unit</p>
Delhi	<p>Upto 2 kW - Rs.20 /kW/month</p> <p>>2kW and <5 kW - Rs.35</p>	<p>1-200 Units - Rs.4.00/ Unit</p> <p>201-400 Units - Rs.5.90/ Unit</p>

State	Applicable Fixed Charge (Domestic)	Applicable Energy Charge (Domestic)
	/kW/month >5kW and <15 kW - Rs.45	401-800 Units- Rs.7.30/ Unit 801- 1200 Unit- Rs.8.10/ Unit
	/kW/month >15kW and <25 kW - Rs.60	>1200 Units- Rs.8.75/ Unit
	/kW/month >25 kW - Rs.100 /kW/month	

Commercial Services (CS)

Applicability

This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (private), commercial establishments, cinemas, X-ray plants, schools and colleges (private), boarding/lodging houses, libraries (private), research institutes (private), railway stations, fuel-oil stations, service stations (including vehicle service stations), All India Radio/T.V. installations, printing presses, commercial trusts/societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied commercial office/buildings, Dharmshala, and such other installations not covered under any other tariff schedule. This schedule shall also applicable to electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and o ther conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes, theatres, clubs, hotels and other such entertainment/ leisure establishments.

Category of Services

- a) **Commercial-I:** For Rural Areas not covered by area indicated for NDS-II and for connected load upto 2 kW.
- b) **Commercial-II:** For Urban Areas covered by Notified Areas Committee /municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. /Industrial Area & Contiguous Sub-urban area, market place rural or urban & connected load up to 85.044 KW (100 kVA). For electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes,

theatres, clubs, hotels and other such entertainment/ leisure establishments. This schedule shall also apply to commercial consumer of rural area having connected load above 2 kW.

Service Character

1. CS-I: - AC 50 Cycles, Single phase at 230 Volts for loads up to 2 kW
2. CS-II: - AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for load exceeding 2 kW and up to 85 kW

Table 57: Existing and Proposed Tariff - Commercial

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)
Commercial	CS- I	0-100 Units	2.2/kWh	45/conn	6.50/kWh	100/kW
		Above 100 Units	2.25/kWh	45/conn		
		Unmetered	NIL	250/kW	NIL	700/kW
	CS- II	NDS-II	6.0kWh	225/kW	6.50/kWh	225/kW
		NDS-III	6.8/kWh	200/conn		

Delayed Payment Surcharge

7.17 For Commercial Service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof in accordance with the clause-IV of Terms and Conditions of supply

Installation of shunt capacitors for CS-II

7.18 All CS-II consumers having aggregate inductive load greater than 3 HP and, shall install capacitors of required KVAR rating provided in the following table:

Table 58: Ratings of Capacitors for Inductive Load

Rating of Individual Inductive Load in HP	KVAR Rating of LT capacitors
3 HP to 5 HP (2.24 kW to 3.73 kW)	1
5 HP to 7.5 HP (3.73 kW to 5.59 kW)	2
7.5 HP to 10 HP (5.59 kW to 7.46 kW)	3
10 HP to 15 HP (7.46 kW to 11.19 kW)	4
15 HP to 20 HP (11.19 kW to 14.91 kW)	6
20 HP to 30 HP (14.91 kW to 22.37 kW)	7
30 HP to 40 HP (22.37 kW to 29.82 kW)	100
40 HP to 50 HP (29.82 kW to 37.28 kW)	10 – 15
50 HP to 100 HP (37.28 kW to 74.57 kW)	20 – 30

The utility shall not release any new LT connections having aggregate inductive load

greater than 5 HP/ 4 KW unless the capacitors of suitable rating are installed.

Summary of changes proposed to Commercial tariff and Rationale for change in tariff

7.19 The tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JBVNL.

7.20 JBVNL submits below a comparison of non-domestic/ commercial category which illustrates the lower levels of tariffs in the State for the information of the Hon'ble Commission:

Table 59: Comparison of existing Non-domestic/ Commercial tariffs with approved tariffs in other States as per the applicable recent tariff orders

State	Applicable Fixed Charge (Domestic)	Applicable Energy Charge (Domestic)
Chhattisgarh	<p>Non-Domestic - Rs. 75/ kW/ month up to 3 kW and Rs. 125/ kW/ month above 3 kW</p> <p>Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW) - Demand Charges of Rs 240/kW/month on billing demand</p>	<p>Non-Domestic -</p> <p>0-100 Units - Rs.5.75/ Unit 101-500 Units - 6.75/ Unit 501 and above Units - 8.05/ Unit</p> <p>Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW) - Rs. 7.35/ Unit for all units</p>
Bihar	<p>NDS-I Rural (Unmetered) - Rs.550/ month/ connection</p> <p>NDS-I Rural (Metered) - Rs.30/kW or part/ month</p> <p>NDS-II Contract demand upto 0.5 kW - Rs.100/month/ connection</p> <p>NDS-II Contract demand above 0.5kW - Rs.180/kW or part/ month</p>	<p>NDS-I Rural (Metered) -</p> <p>1-100 Units - Rs.6.00/Unit 101-200 Units - Rs.6.50/Unit Above 200 Units - Rs.7.00/Unit</p> <p>NDS-II Contract demand upto 0.5 kW - Rs.6.00/Unit for all units</p> <p>NDS-II Contract demand above 0.5 kW -</p> <p>1-100 Units - Rs.6.00/ Unit 101-200 Units - Rs.6.50/ Unit Above 200 Units - Rs.7.00/ Unit</p>
Delhi	<ul style="list-style-type: none"> • Upto 10 kW - Rs. 115/kW/ Month • >10 kW/11 kVA & <=140 kW/150 kVA - Rs. 130/kVA/ Month • >140 kW/150 kVA (400 volts) (& <=140 kW/150 kVA - Rs. 160/kW/ 	<ul style="list-style-type: none"> • Upto 10 kW - Rs. 8.80/ Unit • >10 kW/11 kVA & <=140 kW/150 kVA - Rs. 8.50/ Unit • >140 kW/150 kVA (400 volts) (& <=140 kW/150 kVA - Rs.9.95/Unit

State	Applicable Fixed Charge (Domestic)	Applicable Energy Charge (Domestic)
	Month	

Irrigation & Agriculture Services (IAS)

Applicability

This schedule shall apply to all consumers for use of electrical energy for Agriculture purposes including tube wells and processing of the agricultural produce, confined to Chaff-Cutter, Thresher, Cane crusher and Rice-Hauler, when operated by the agriculturist in the field or farm and does not include Rice mills, Flour mills, Oil mills, Dal mills, Rice-Hauler or expellers.

Category of Services

- IAS - I - For private tube wells and private lift irrigation schemes.
- IAS - II - For State Tube-wells and State lift Irrigation schemes.

Service Character:

- AC 50 Cycles, Single Phase at 230 volts / 3 Phase at 400 volts

Table 60: Existing and Proposed Tariff - IAS

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)
Irrigation and Agriculture	IAS-I	IAS - I Metered	0.70/kWh	-	5.25/kWh	30/HP
		IAS - I Unmetered	-	100/HP	-	650/HP
	IAS-II	IAS - II Metered	1.20/kWh	-	6.00/kWh	100/HP
		IAS - II Unmetered	-	375/HP	-	650/HP

Delayed Payment Surcharge

7.21 For Irrigation and agriculture service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed to IAS tariff and rationale for change in tariff

7.22 Tariff hike has been proposed in order to move the retail tariffs for the category

closer to the Cost of Supply and for reducing the overall revenue gap for the JBVNL.

7.23 Also fixed charges of Rs. 30/ HP/ month and Rs. 100/ HP/ month for IAS-I metered and IAS-II metered category consumers respectively has been proposed in the Petition. It is requested to Hon'ble Commission to kindly approve the fixed charges for unmetered connection at the proposed rates only, as the existing rates do not provide any deterrent for the unmetered sales and in fact only encourage consumers to keep their connections unmetered. Change in Tariff will also lead to the energy efficient measures like installation of energy efficient pumps etc. from IAS consumers.

Table 61: Comparison of existing IAS tariffs with approved tariffs in other States as per the applicable recent tariff orders

State	Applicable Fixed Charge	Applicable Energy Charge
Chhattisgarh	<p>L.V. Agriculture - Rs. 80/HP/month</p> <p>L.V. Agriculture Allied Activities</p> <ul style="list-style-type: none"> • Up to 100 HP or 75 kW - Rs. 130/ HP/ month or Rs 175/ kW/ month • Demand based tariff for contract demand of 15 to 75 kW - Rs. 250/ kW/ month on billing demand 	<p>L.V. Agriculture - Rs. 4.8/Unit</p> <p>L.V. Agriculture Allied Activities</p> <ul style="list-style-type: none"> • Up to 100 HP or 75 kW - Rs. 5.7/Unit • Demand based tariff for contract demand of 15 to 75 kW - Rs. 5.6/ Unit
Bihar	<p>IAS-I (Unmetered) - Rs.800/HP or part/ month</p> <p>IAS-I (Metered) - Rs.30/HP or part/ month</p> <p>IAS-II (Unmetered) - Rs.2100/HP or part/ month</p> <p>IAS-II (Metered) - Rs.200/HP or part/ month</p>	<p>IAS-I (Metered) - Rs.5.25/Unit</p> <p>IAS-II (Metered) - Rs. 6.20/ Unit</p>

Industrial Services

The industrial service shall be applicable to all industrial units and are characterized into two sub-categories as mentioned below-

1. Low Tension Industrial Service (LTIS)
2. High Tension Industrial Service (HTIS)

Applicability

Low Tension Industrial Service (LTIS) - This schedule shall apply to all industrial units for a load of less than or equal to 100 KVA (or equivalent in terms of HP or KW). The equivalent HP for 100 KVA shall be 114 HP and the equivalent KW for 100 KVA shall be 85 KW.

High Tension Industrial Service (HTIS)- The schedule shall apply for all consumers (including induction/ arc furnace) having contract demand above 100 KVA.

Note: Any LTIS consumer who is found to have more than 100 kVA load shall be treated as HTIS consumer

Category of Services

Service Character for LTIS

AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff / Installation based tariff for sanctioned load upto 85 kW.

Service Character for HTIS

Service Character	Contract Demand
50 Cycles, 3 Phase at 6.6 KV / 11 KV	100 KVA to 1.5 MVA
50 Cycles, 3 Phase at 33 KV	1.5 MVA to 10 MVA
50 Cycles, 3 Phase at 132 KV	10 MVA to 40 MVA
50 Cycles, 3 Phase at 220 KV	15 MVA to 150 MVA
50 Cycles, 3 Phase at 400 KV	30 MVA and above

Table 62: Existing and Proposed Tariff - Industrial

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)
Industrial	LTIS	Demand based	5.50/kWh	275/kVA	5.50/ kVAh	275/kVA
		Installation based	5.50 / kWh	160/HP/Month	6.50 /kWh	200/HP/Month
	HTIS	HTS - 11KV	6.25/kWh	300/kVA	6.00/ kVAh	300/kVA
		HTS - 33KV	6.25/kWh	300/kVA		
		HTS - 132KV	6.25/kWh	300/kVA		
		HTSS - 11KV	4.00/kWh	490/kVA		
		HTSS - 33KV	4.00/kWh	490/kVA		

LTIS- The billing demand will be the maximum demand recorded during the month or 75% of the sanctioned load, whichever is higher.

HTIS- For billing demand shall be the maximum demand recorded during the month or 85% of contract demand whichever is higher.

The penalty on exceeding contract demand shall be 1.5 times the normal charges for actual demand exceeding 110% of the contracted demand; the penal charges shall be applicable on exceeded demand w.r.t. the Contract demand only.

Penalty for exceeding Billing/ Contract Demand

7.24 Penalty for exceeding Billing/ Contract Demand shall be applicable as per Clause-I of Terms and Conditions of Supply

Load factor Rebate for HTIS

7.25 Load factor rebate for the HTIS consumers shall be applicable as per Clause VI of Terms and Conditions of Supply

Voltage Rebate

7.26 Voltage rebate to the HTIS consumers shall be applicable as given below:

Consumer Category	Voltage Rebate
HTIS – 33KV	3.00%
HTIS – 132KV	5.00%

Load Factor rebate to the HT Consumers is proposed as given below:

Consumer Category	Load Factor Rebate
40-60%	Nil
60-70%	7.5%
70-100%	10%

Delayed Payment Surcharge

7.27 For LTIS, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

7.28 For HTIS, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week.

ToD Tariff for HTIS Consumers

7.29 TOD tariff proposed for HTIS Consumers is given below:

Off Peak Hours: 10:00 PM to 06:00 AM: 85% of normal rate of energy charge.

Peak Hours: 06:00 AM to 10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge.

Load factor rebate and power factor rebate shall not be allowed to consumers with outstanding arrears.

Installation of shunt capacitors for LTIS

7.30 All consumers having aggregate inductive load greater than 3 HP and above, shall install capacitors of required KVAR rating provided in the following table:

Table 63: Ratings of Capacitors for Inductive Load

Rating of Individual Inductive Load in HP	kVAR Rating of LT capacitors
3 HP to 5 HP (2.24 kW to 3.73 kW)	1
5 HP to 7.5 HP (3.73 kW to 5.59 kW)	2
7.5 HP to 10 HP (5.59 kW to 7.46 kW)	3
10 HP to 15 HP (7.46 kW to 11.19 kW)	4
15 HP to 20 HP (11.19 kW to 14.91 kW)	6
20 HP to 30 HP (14.91 kW to 22.37 kW)	7
30 HP to 40 HP (22.37 kW to 29.82 kW)	100
40 HP to 50 HP (29.82 kW to 37.28 kW)	10 – 15
50 HP to 100 HP (37.28 kW to 74.57 kW)	20 – 30

Summary of changes proposed to LTIS tariff and rationale for change in tariff

Installation based tariff structure has been proposed to be removed from the LTIS sub-category. Historically, JBVNL has the distinction of having two sub-categories in the LTIS consumers with installation based and demand based LTIS tariff. In past, the connected load for LTIS consumers use to be sanctioned on the basis of industrial equipment installed at their units, whereby regular inspection was supposed to be done by the Electrical Inspectors. The practice was followed as there were several small industrial units, with 1 to 5 HP load, where Maximum Demand Indicator (MDI) meters were not installed. With the advent of energy meters with MDI at economical rates, such installation based tariff has been abolished across all States in India including Bihar, where all LTIS units are to pay only demand based tariff. However, in Jharkhand, these small industrial units continue to enjoy the benefit of installation based tariff even now, with a significant incentive to declare lower connected load and avoidance of actual applicable fixed charges.

Thus, JBVNL now proposes to abolish the installation based tariff completely and shift all these small industrial units to MDI meters. This shall not only ensure that the consumers pay the actual fixed charges applicable as per the demand indicated by the meters but also abolish the practice of declaring lower connected load. Moreover, this shall prevent the need for inspecting officer to regularly inspect the consumers premise for regularization of excess load and avoid unnecessary hassles for both Utility and consumers.

However, till the time JBVNL process the shifting of consumers having Non-MDI meters to MDI meters, the Petitioner shall provide an option for consumers having installation based tariff to come forward and declare their own load (in KVA). In case the consumer doesn't declare its load, JBVNL shall convert the load of such installation based consumers (per HP) into demand based (per kVA) by consideration of 0.85 PF. The Petitioner prays

to the Hon'ble Commission to allow the kWh based tariff of such consumers having installation based tariff as proposed above. This would also motivate the consumers having Non-MDI meters and getting installation based tariff to shift towards kVAh based tariff.

Also billing for all LTIS consumers would be based upon kVAh consumption shifting from kWh based billing being done earlier, for enforcing power factor maintenance by the consumers, as discussed in detail under Clause above.

Summary of changes proposed to HTIS tariff and rationale for change in tariff

The Petitioner has proposed to merge HTS and HTSS categories into HTIS sub-category. HTSS category was applicable for consumers having induction/ arc furnace with more than 300 kVA load. However no need was felt by the Petitioner for having separate categories for HTSS and HTS consumers. This has been done to achieve simplification of tariff structure and rationalization of tariff for HT consumers.

The billing for HTIS consumers has been proposed to be based upon kVAh consumption shifting from kWh based billing being done earlier. This would result into reduction in consumption of reactive power and improvement of overall system voltage as discussed above.

Table 64: Comparison of existing LT Industrial tariffs with approved tariffs in other States as per the applicable recent tariff orders

State	Applicable Fixed Charge	Applicable Energy Charge
Bihar	<ul style="list-style-type: none"> LTIS-I - Rs.160/kW or part/ month LTIS-II - Rs.200/kW or part/ month 	<ul style="list-style-type: none"> LTIS-I - Rs.6.05/kVAh LTIS-II - Rs.6.05/kVAh
Orissa	<p>L.T. Industrial (S) Supply <22 KVA - Rs.80/ kW/ Month for 1st kW and Rs.35/ kW/ Month for any additional kW</p> <p>L.T. Industrial (M) Supply >=22 KVA and <110 KVA - Rs.100/ kW/ Month for 1st kW and Rs.80/ kW/ Month for any additional kW</p>	<p>L.T. Industrial (S) Supply <22 KVA - Rs.5.7/ Unit</p> <p>L.T. Industrial (M) Supply >=22 KVA and <110 KVA - Rs.5.7/ Unit</p>
Delhi	<ul style="list-style-type: none"> Upto 10 kW - Rs. 100/kW/ Month >10 kW/11 kVA & <=140 kW/150 kVA - Rs. 125/kVA/ 	<ul style="list-style-type: none"> Upto 10 kW - Rs. 8.45/Unit >10 kW/11 kVA & <=140 kW/150 kVA - Rs. 7.90/kVAh

State	Applicable Fixed Charge	Applicable Energy Charge
	Month • >140 kW/150 kVA (400 volts) (& ≤140 kW/150 kVA - Rs. 160/kW/ Month	• >140 kW/150 kVA (400 volts) (& ≤140 kW/150 kVA - Rs. 9.50/kVAh

Table 65: Comparison of existing HTIS tariffs with approved tariffs in other States as per the applicable recent tariff orders

State	Applicable Fixed Charge	Applicable Energy Charge
Bihar	HTS-I (11 kV): Rs.300/kVA/Month HTS-II (33 kV): Rs.300/kVA/Month HTS-III (Min. demand of 7.5 MVA & 132 kV): Rs.300/kVA/Month	HTS-I (11 kV): Rs.6.20/kVAh HTS-II (33 kV): Rs.6.20/kVAh HTS-III (Min. demand of 7.5 MVA & 132 kV): Rs.6.20/kVAh
Delhi	Industrial Power on 11 kV Single Point delivery for Group of SIP consumers: Rs.110/kVA/month Large Industrial Power (LIP) (Supply at 11 kV and above): Rs.130/kVA/month	Industrial Power on 11 kV Single Point delivery for Group of SIP consumers: Rs.7.10/ kVAh Large Industrial Power (LIP) (Supply at 11 kV and above): Rs.7.40/ kVAh

Institutional Services

This schedule shall apply to Street Lighting system, Railway Traction, Military Engineering Services (MES), Govt. Buildings and other Non-profit Organisation

The institutional service shall include following category of services

1. Institutional-I : Street light services, Govt. Buildings Etc. and Non-profitable organizations
2. Institutional-II : Railway and MES
3. Institutional-III : DS-HT

Institutional-I : SS & Govt. Buildings Etc. and Non-profit organizations

Applicability

This tariff schedule shall apply for use of Street Lighting system, including single system

in corporation, municipality, notified area committee, panchayats etc. and also in areas not covered by municipalities and Notified Area Committee provided the number of lamps served from a point of supply is not less than 5.

This rate shall also applicable to all Govt. departments, offices, schools and colleges, institutes, libraries, research institutes and hospitals and other recognized Non-profit organizations, where no rental or fees is charged (duly certified by the Income Tax Authorities).

Service Character

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts

Table 66: Existing and Proposed Tariff – Ins-I

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)
Institutional	Inst- I	Metered	5.25/kWh	55/conn	6.50/kWh	100/kW
		Un-metered	NIL	250 per 100 watt/month and Rs 55 for every additional 50 Watt	NIL	650* per 100 watt/month and Rs 100 for every additional 50 Watt

**unmetered tariff shall only be applicable for SS consumer*

Delayed Payment Surcharge

7.31 For Street light service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed

7.32 The Street light service has been re-categorized into Institutional services-I. Further, Govt. Buildings Etc. and Non-profitable organizations upto 10 KW has also been added into Ins-I sub category.

Table 67: Comparison of existing SS tariffs with approved tariffs in other States as per the applicable

recent tariff orders

State	Applicable Fixed Charge	Applicable Energy Charge
Bihar	<p>SS-Metered (Demand Based): Rs.50/kW or part/ month</p> <p>SS-Unmetered: Rs.375/100W or part/ month</p>	<p>SS-Metered (Demand Based): Rs.7.00/ Unit</p>
Delhi	<p>Metered- Street lighting, Signals and Blinkers: NIL</p> <p>Unmetered-Street lighting, Signals and Blinkers: NIL</p>	<p>Metered- Street lighting, Signals and Blinkers: Rs.7.30/ Unit</p> <p>Unmetered-Street lighting, Signals and Blinkers: Rs. 7.80/ Unit</p>

Institutional-II :RTS & MES

Applicability

This tariff schedule shall apply for use of railway traction and Military Engineering Services (MES) for a mixed load in defence (Army/Navy/Airforce) cantonment and related area.

Service Character

- RTS- AC, 50 cycles, single phase at 132 KV
- MES- AC, 50 cycles, three phase at 11 kV/33 kV/132 kV.

Table 68: Existing and Proposed Tariff- Ins-II

Category	Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
		Energy Charges	Fixed Charges	Energy Charges	Fixed Charges
Institutional- II	RTS	6.00 / kWh	235/kVA/Month	4.80/kVAh	400/kVA
	MES	4.60 / kWh	260/kVA/Month		

For billing demand shall be the maximum demand recorded during the month or 85% of contract demand whichever is higher.

Maximum Demand

7.33 The demand charge shall be applied on maximum demand recorded or contract demand whichever is higher at any fifteen minutes time block for which the meter installed should have 15 minutes integration time.

Delayed Payment Surcharge

7.34 For Railway Traction service category, the delayed payment surcharge shall be at the rate of 0.4% per month and part thereof. For MES, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof in accordance with the clause-IV of Terms and Conditions of supply

Summary of changes proposed

RTS and MES categories has been re-categorized into Institutional services-II. Also, the billing for RTS and MES consumers has been proposed to be based upon kVAh consumption shifting from kWh based billing being done earlier. This would result into reduction in consumption of reactive power and improvement of overall system voltage.

Institutional-III : Domestic Services – HT (DS – HT)

Applicability

This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 33KV or 11KV voltage level and load above 85.044 KW.

Service Character:

For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW.

Table 69: Existing and Proposed Tariff- Ins-III

Category	Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)	
		Energy Charges	Fixed Charges	Energy Charges	Fixed Charges
Institutional- III	DS (HT)	3.50/kWh	110/kVA	5.25/kWh	200/kVA

Delayed Payment Surcharge

7.35 For DS-HT category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed

7.36 DS-HT category has been re-categorized into Institutional services-III.

8. Schedule of Charges

Background

- 8.1 The miscellaneous charges of JBVNL have been slightly revised by Hon'ble Commission in its order dated 21st June 2017. The above revision of miscellaneous charges have been done almost after a decade. It is submitted that these charges are not in line with current inflation and labour rates. It is also submitted that the miscellaneous charges of JBVNL are still one of the lowest in the country and requires certain revision.
- 8.2 The Petitioner has proposed the Tariff structure for FY 17-18 and FY 18-19 with emphasis on simplification of tariff. In line with the same, the Petitioner simplified the schedule of charges in to seven major charges as detailed in the subsequent sub section of the present chapter.

Rationale for increase of Miscellaneous charges

a) Inflation last 5 years

- 8.3 As discussed in the above section, that there has not been much increase in miscellaneous charges in last 10 years. However, inflation in last four years (FY 12-13 to FY 15-16) has been increased with an annual rate of 4.94% considering both CPI and WPI index. Inflation calculated above is as per the provision for O&M expenses as per Tariff Regulations 2015. In line with the JSERC Tariff Regulations 2015, it is submitted that the inflation factor has been estimated based on the actual Wholesale Price Index (WPI) and Consumer Price Index (CPI) for FY 12-13 to FY 15-16. The table below provides the computation of Inflation factor:

Table 70: Inflation of last 4 Years

Index	FY 13	FY 14	FY 15	FY 16	CAGR
CPI	106.90	112.50	113.90	109.60	0.83%
WPI	232.16	246.9	261.4	274.3	5.72%

Period	WPI	CPI
Increase of FY 16 Index over FY 13	0.83%	5.72%
Weighted	45%	55%

Weighted Index	1.08%	3.86%
Combined Inflation	4.94%	

b) Labour rates

8.4 It can be noted that charges for disconnection and reconnection is just Rs 75/- for single phase as per the current schedule of miscellaneous charges. However, the labour charges for a skilled worker is Rs 290/day as per the Department of Labour, employment & Training, Government of Jharkhand. Hence, it is noteworthy that the current miscellaneous charges are not complying with the industry standards and need to be revised to bring them to a realistic level.

c) Miscellaneous charges in other neighbour states

8.5 JBVNL is the distribution utility with one of the lowest miscellaneous charges in the country. Even neighboring States like Bihar, Odisha, Chhattisgarh and West Bengal have significantly higher charges. A head wise detailed comparative analysis has been provided in the respective sections.

8.6 It is noteworthy that Jharkhand was constituted as a result of the bifurcation of the erstwhile State of Bihar on 15 November 2000. However, it is pertinent to mention that that Bihar being the neighboring state of Jharkhand has comparatively high miscellaneous charges considering the fact that both the state shares the similar demography and geography. Also, it is evident from the table below that the prevailing labour charges of Bihar is comparatively lower than Jharkhand.

Table 71: Minimum wages in Jharkhand and Bihar

Class of employee	Jharkhand	Bihar
Unskilled	210	194
Semi-skilled	220	203
Skilled	290	290
Highly-skilled	335	335

8.7 In line with the prevalent miscellaneous charges applicable in state of Bihar, JBVNL has proposed its schedule of miscellaneous charges.

Revised schedule of charges

8.8 Considering the above factors like inflation and present labour rates and in line with miscellaneous charges applicable in other neighboring states, the Petitioner has proposed the revised schedule of miscellaneous charges along with simplification of charges.

8.9 The Petitioner has proposed only seven major charges namely- New Connection application charges, Disconnection charges, Reconnection charges, Consumer service charges, Meter testing charges, Meter rent and Transformer rent.

- 8.10 The new connection application fees includes the application fees for new connection which is exclusive of other charges related to new connection (applicable as per the cost estimate). It is pertinent to mention that free of cost/ installment basis electricity connections are being provided under various Central and State sponsored schemes. Therefore, the charges shall be applicable as per the scheme guidelines for the consumers covered under any Central or State Government sponsored scheme.
- 8.11 The Petitioner has also revised the charges for Temporary and Permanent disconnection charges. It is noteworthy that significant effort is being required for permanent disconnection as the job includes removal of meter, metering units, cables & wires and other allied materials, transportation charges, labour charges, etc. Therefore, a higher amount as compared to temporary charges is being proposed for Permanent disconnection. Also, reconnection charges have been proposed which is in line with the temporary disconnection charges.
- 8.12 As part of the simplification of miscellaneous charges, the Petitioner has proposed a single charge related to consumer services which includes- re-sealing, fuse replacement, modification in connection layout/ meter shifting, meter fixing/ removal, service line replacement, name change, load modification, subsequent installation testing, Replacement of Defective or Burnt meters. It is submitted that considering the average life of 5 years of meters, the burnt meter charges shall not be applicable, if the meter gets defective after 5 years from the date of installation. It is also submitted that the consumer has to bear the actual cost of meter as the penalty in case of burnt meters and defective meters (in case of consumers' fault).
- 8.13 It is submitted that the Petitioner has not proposed any increase in the charges related to meter rent. However, the charges related to meter testing is being proposed which is inclusive of metering unit in case CT operated and Tri-vector meter. It is submitted that in case where the consumer opts for meter testing through a third party/ external agency, the charges of external agency shall be borne by the consumer itself, in addition to the above applicable service charges.
- 8.14 It is pertinent to mention that industrial consumers have to make a separate arrangement of required capacity transformer for availing electricity. However, in some special cases, JBVNL has provided a temporary arrangement of transformer to Industrial consumers or in some cases of temporary supply. Therefore, the approved charges pertaining to transformer rent is inevitable to bring clarity among consumer as well as to utility.
- 8.15 Thus, based on the above, the Petitioner has proposed the charges related to transformer rent based on the capacity of transformer required. To discourage the

consumer for opting transformer on rent and to make self-arrangement of the same, the Petitioner has proposed for slightly higher transformer rent. It is also submitted that transformer rent shall only be **applicable for maximum of 3 months**.

8.16 It can be noted that the Petitioner has also proposed for transformer rent in the previous Tariff Petitions, however the Hon'ble Commission has not approved any charges related to transformer rent on account of lack of justification.

8.17 The summary of miscellaneous charges proposed by JBVNL is detailed in the table below. It is humbly prayed to Hon'ble Commission to approved the below mentioned miscellaneous charges.

Table 72: Summary of Proposed Schedule of charges

Types of Charges		Single phase	3 Phase (whole-current)	3 Phase (CT operated)	Meter at 11kV	Meter at 33kV	132/220 kV
New Connection application fees ⁴		50	100	100	500	1000	1500
Dis-connection charges (on consumer request)	Temporary	100	200	500	1000	1500	1500
	Permanent ⁵	200	400	1000	2000	5000	5000
Re-connection charges		100	200	500	1000	1500	1500
Consumer service for each incidence (including, re-sealing, fuse replacement, modification in connection layout/ meter shifting, meter fixing/ removal, service line replacement, name change, load modification, subsequent installation testing, Replacement of Defective or Burnt meters ⁶)		100	500	700	1,000	2,000	5,000
Meter Testing (including combined metering)		100	200	1,800	6,800	6,800	9,800

⁴ Other charges related to new connection shall be applicable as per the cost estimate prepared and for consumers covered under any Central or State Government sponsored scheme, the charges will be applicable as per the scheme

⁵ Charges are inclusive of meter removal and other allied materials

⁶ The charges shall not be applicable if the meter gets defective after 5 years from the date of installation and in case of burnt meters the penalty (to the tune of actual cost of meter) shall be applicable in addition to above

Types of Charges	Single phase	3 Phase (whole-current)	3 Phase (CT operated)	Meter at 11kV	Meter at 33kV	132/220 kV
unit) ⁷						
Meter Rent/ meter/ month	20	50	250	400	2500	15,000
Transformer Rent- if provided by JBVNL on request of consumer	NA	NA	Rs. 100/kVA/month of transformer capacity			

Comparison of charges with other states

8.18 The Petitioner has provided a detailed comparison of miscellaneous charges of JBVNL with charges prevailing in other state distribution utilities.

Table 73: Charges related service connection

S No.	Particulars	Scale of Charges			
		JBVNL (Present)	Maharashtra	Bihar	Chhattisgarh
1	Application fee				
	Domestic	Rs 30 (BPL) Rs 40 (Others)			
	Commercial	1 ph- Rs. 40, (L.T) 3 Ph-Rs. 75			
	Agriculture	1 ph- Rs. 40, (L.T) 3 Ph-Rs. 75			
	Street light	1 ph- Rs. 40, (L.T) 3 Ph-Rs. 75	1 ph- Rs. 50, 3 Ph- Rs. 75, HT- Rs. 200	1 ph- Rs. 75, (L.T) 3 Ph- Rs. 200, (L.T) Industrial- Rs. 300 HT- Rs. 750	(L.T) consumers-Rs. 200, (L.T) Industrial consumers- Rs. 1000 HT- Rs. 5,000
	Other LT Supply	Rs 100			
	HT Supply	Rs 200			
	HTSS, EHTS, RTS	Rs 200			
2	Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application				
	Agriculture	Rs 40			
	Domestic	Rs 35			
	Commercial	Rs 40			
	Other LT categories	Rs 100			
	HT Supply	Rs 285		Same as Application fee	Same as Application fee

⁷ In case the consumer opts for meter testing through a third party/ external agency, the charges of external agency shall be borne by the consumer itself, in addition to the above applicable charges

S No.	Particulars	Scale of Charges			
		JBVNL (Present)	Maharashtra	Bihar	Chhattisgarh
3	Testing of consumers Installation				
	Testing / Inspection charge subsequent to the first one	Single ph- Rs 100 Three ph -Rs 200 HT Supply- Rs 500	Rs 100	Single ph - Rs 100 for Three ph - Rs 200 HT Supply - Rs 800	Rs 200
4	Disconnection/ Reconnection				
	Single phase	Dis-con: Rs. 75, Re-con- Rs. 75		Dis-con: Rs. 75, Re-con- Rs. 100	Rs. 60
	3-ph LT up to 25 HP/19 KW	Dis-con: Rs. 150, Re-con- Rs. 150		Rs. 200	Rs. 150
	3- ph LT above 25 HP/19 KW				Rs. 500
	LT Industrial Supply	Dis-con: Rs. 300, Re-con- Rs. 600		Dis-con: Rs. 300, Re-con- Rs. 900	
	HT Connection up to 5 MVA	Dis-con: Rs. 750, Re-con- Rs. 1200		Dis-con: Rs. 750, Re-con- Rs. 3,000	Rs. 1,750
	HT Connection above 5 MVA				Rs. 2,500

Table 74: Charges related to meter

S No.	Particulars	Scale of Charges			
		JBVNL (Present)	Maharashtra	Bihar	Chhattisgarh
1	Meter test when accuracy disputed by consumer				
	Single phase	Rs. 75	Rs. 100	Rs. 100	Rs. 130
	Three phase	Rs. 200	Rs. 350	Rs. 200	Rs. 200
	Tri vector/ special type meter	Rs. 1,250	Rs. 1,000	Rs. 1,800	Rs. 1,200
	33/11 kV metering equipment	Rs. 1,250		Rs 5,000	
	132/220 kV metering equipment	Rs. 1,250		Rs 8,000	
2	Removing/ Fixing / Re-fixing of meter				
	Single phase	Rs. 100		Rs.200.00	Rs. 70
	Three phase	Rs. 200		Rs.400.00	
	Tri vector/ special type meter	Rs. 550		Rs.600.00	
	Three Phase meter with CT	Rs. 550		Rs.500.00	

S No.	Particulars	Scale of Charges			
		JBVNL (Present)	Maharashtra	Bihar	Chhattisgarh
	HT metering equipment	Rs. 550		Rs. 1,200.00	
3	Changing of meter /meter equipment/fixing of sub meter on the request of the consumer/fixing of sub meter				
	Single phase	Rs. 75			Rs. 25
	Three phase	Rs. 180			
	Trivector/ special type meter	Rs. 530			
4	Resealing of meter when seals are found broken				
	Single phase	Rs. 50			
	Three phase	Rs. 80			
	Trivector/ special type meter	Rs. 200			
5	Replacement of meter card, if lost or damaged by consumer	Rs. 20			Rs. 10
6	Fuse call – Replacement				
	Board fuse due to fault of consumer	Rs. 30			Rs. 25
	Consumer fuse	Rs. 30			

Table 75: Charges related meter and transformer rent

S No.	Particulars	Scale of Charges			
		JBVNL (Existing)	Bihar	Chhattisgarh	Maharashtra
1	Meter Rent/ Month				
	DS Category except DS I- Single Phase/ Three phase	Rs. 20/ 50	Rs. 20/ 50	Rs. 10/ Rs. 25 upto 40 Amp and Rs. 50 for 40-100 Amp	Meter cost
	Single Phase/ Three phase (Other than DS)	Rs. 20/ 50	Rs. 20/ 50	Rs. 10/ Rs. 25 upto 40 Amp and Rs. 50 for 40-100 Amp	
	LT meter with CT	Rs. 250	Rs. 500		
	11 kV at low Voltage	Rs. 400	Rs. 500	Rs. 720	
	11 kV at 6.6/11 kV	Rs. 600	Rs. 700		
	33 kV HT side	Rs. 2,500	Rs. 3,000	Rs. 1,140	
	132 kV	Rs.15,000	Rs.15,000	Rs. 8,900	
	RTS or 220 KV	Rs. 15,000	Rs. 15,000	Rs 19,600	
2	Replacement of Burnt Meter	Cost of meter	Cost of meter	Cost of meter	

Impact of revision of miscellaneous charges on NTI (Non-Tariff Income)

- 8.19 In the Previous Tariff Orders for FY 2010-11, FY 2011-12 and FY 2012-13, the Hon'ble Commission had directed Petitioner to consider the impact of the proposed miscellaneous charges including the minimum guaranteed consumption charges and show separate calculations for NTI at existing miscellaneous charges and NTI at proposed miscellaneous charges with details through a separate Petition or while filing the next ARR.
- 8.20 In view of the above directives given by Hon'ble Commission, JBVNL would like to submit that exact increase in NTI can only be reflected in the respective annual account for that particular year. However, it is roughly expected that there will be an addition of approx. Rs. 2 Cr. in NTI on account of revision of miscellaneous charges. A detailed break-up of NTI of FY 16-17 is provided in the Annual Accounts of FY 16-17 (Board Approved) for the reference of Hon'ble Commission. The Petitioner humbly requests the Hon'ble Commission to consider the NTI as submitted by the Petitioner, while calculating revenue gap and any change in NTI due to revision of miscellaneous charges shall be adjusted in the True-up Petitions subsequently.
- 8.21 As directed by Hon'ble commission, Petitioner has submitted the required justification for increase in miscellaneous charges. Hence, it is respectfully submitted that the present Petition raises issues of substantial importance and facts which requires a consideration before this Hon'ble Commission, to present the analysis and rationale for the relief sought by the Petitioner.

9. Terms and Condition of Supply

9.1 The Petitioner is hereby submitting following terms and conditions of supply besides terms and conditions provided in the JSERC (Electricity Supply Code), Regulations, 2015, for kind perusal of the Hon'ble Commission.

Clause I: Penalty for exceeding Billing/ Contract Demand

9.2 In case the consumer's actual recorded demand exceeds 110% of the contract demand, then normal demand charge will be applicable up to 110% of contract demand. However, once the consumer surpasses the 110% threshold, then penal tariff shall be applicable @ 1.5% of existing charges for the demand over and above the contract demand (i.e 100%) and NOT on the demand exceeding 110%.

9.3 Further, in case any consumer exceeds the Contract Demand on more than three occasions in a calendar year, the highest demand so recorded would be treated as the revised contract demand.

9.4 In case actual demand is higher than the contract demand for three continuous months, the maximum demand of the last three months shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee within the period defined by the Licensee and communicated to the consumer failing which the consumer will be charged @ 2 times of the demand charges as long as the consumer does not enter the agreement.

9.5 Once the actual demand is recorded to be higher than contract demand for two continuous months, the licensee would serve notice to the consumer after the end of the second month for enhancement of the contract demand. The consumer would be liable to respond within 15 days of receipt of such notice and submit application for enhancement of contract demand to the licensee. The licensee would, within 15 days of receipt of response from the consumer, finalize the new agreement after making necessary changes at consumer's installations.

9.6 In case the consumer fails to respond within 15 days, the licensee would have the right to initiate enhancement of load as per the last recorded contract demand. While, in case the consumer provides an undertaking that the actual demand shall

not exceed the contract demand again for a period of at least six months from the last billing, the licensee shall continue to bill the consumer as per the existing contract demand and billing demand.

9.7 Provided that if the consumer fails to adhere to the undertaking and the actual demand exceeds the contract demand within the subsequent six months of the undertaking, the consumer shall have to pay a penal charge of 2 times the normal tariff for a period of three consecutive months and the licensee shall, after serving 7 days' notice to the consumer, enhance the contract demand of the consumer as per the last recorded actual demand.

Clause II: Power factor Penalty/Rebate

Power Factor Penalty:

Although the Petitioner has proposed kVAh based billing for LTIS, HTS, HTS, RTS and MES consumer categories and removal of power factor penalty and incentive. However in case the Hon'ble Commission disallow the kVAh based tariff for some of the consumer categories, the Petitioner request the Hon'ble Commission to allow the power factor penalty and rebate as suggested by the Petitioner.

Table 76: Comparison of various States for Power Factor Penalty

Power Factor	NBPDCL	Odisha	MSEDCL	JBVNL
1.00	0.00%	0.00%	0.00%	0.00%
0.99	0.00%	0.00%	0.00%	0.00%
0.98	0.00%	0.00%	0.00%	0.00%
0.97	0.00%	0.00%	0.00%	0.00%
0.96	0.00%	0.00%	0.00%	0.00%
0.95	0.00%	0.00%	0.00%	0.00%
0.94	0.00%	0.00%	0.00%	0.00%
0.93	0.00%	0.00%	0.00%	0.00%
0.92	0.00%	0.00%	0.00%	0.00%
0.91	0.00%	0.50%	0.00%	0.00%
0.90	0.00%	1.00%	0.00%	0.00%

Table 77: Comparison of various States for Power Factor Incentives

Power Factor	NBPDCL	Odisha	MSEDCL	JBVNL
0.90	0.50%	0.00%	0.00%	0.00%
0.91	1.00%	0.00%	0.00%	1.00%
0.92	1.50%	0.00%	0.00%	2.00%
0.93	2.00%	0.00%	0.00%	3.00%
0.94	2.50%	0.00%	0.00%	4.00%
0.95	3.00%	0.00%	0.00%	5.00%
0.96	4.00%	0.00%	1.00%	7.00%
0.97	5.00%	0.00%	2.00%	9.00%
0.98	6.00%	0.50%	3.00%	11.00%
0.99	7.00%	1.00%	5.00%	13.00%
1.00	8.00%	1.50%	7.00%	15.00%

Power Factor Penalty will be applicable in case of maximum demand meters. In case average power factor in a month for a consumer (i.e. up to 33 KV consumers) falls below 0.90, a penalty @ 2% for every 0.01 fall in power factor from 0.85 to 0.60; plus 5% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on energy charges.

Further for 132 KV consumers and above, in case average power factor in a month for a consumer falls below 0.95, a penalty @ 1% for every 0.01 fall in power factor from 0.95 to 0.85; plus a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 7% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on energy charges. Consumer with power factor of less than 0.30 must install shunt capacitors immediately, failing which their line will be disconnected with 15 days clear notice.

Power Factor Rebate:

Power Factor rebate will be applicable in case of maximum demand meters. In case average power factor as maintained by the consumer (up to 33 KV consumers) is more than 90%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on energy charges shall be applicable.

Further, for 132 KV consumers and above, in case average power factor as maintained by the consumer is more than 95%, a rebate of 2% on energy charges shall be applicable.

Clause III: Electricity Duty

9.8 The charges in this tariff schedule do not include charges on account of Electricity Duty/ Surcharge to the consumers under the Jharkhand Electricity Duty Act, 1948 and the rules framed there under and as amended from time to time and any other Statutory levy which may take effect from time to time after making corrections for the loss in the distribution system.

Clause IV: Delayed Payment Surcharge

9.9 In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 2 percent per month or part thereof on the total electricity bill (including Taxes and Duties) shall be levied on the bill amount. The due date for making payment of energy bills or other charges shall be fifteen days from the date of issuance of bill for LT Domestic, Commercial and Agricultural and twenty one days from issuance of bill for all other categories. In case, the licensee

defaults in generating and delivering bills on timely basis, DPS will not be charged for the period of default by licensee.

Clause V: Voltage Rebate

9.10 Voltage rebate will be applicable on energy charges as given below:

Table 78: Voltage Rebate

Consumer Category	Voltage Rebate
HTS - 33 KV	3.00%
HTS - 132 KV	5.00%
HTS - 220 KV	5.50%
HTS - 400 KV	6.00%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebates. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VI: Load Factor Rebate

9.11 Load Factor rebate will be applicable on energy charges as given below:

Table 79: Load Factor Rebate

Consumer Category	Load Factor Rebate
40 - 60 %	Nil
60 - 70%	7.50%
70 - 100%	10%

Note:

1. The consumers having load factor less than 30%, shall not be allowed to draw electricity during peak periods. In the event such consumers are found using energy in peak hours their line will be disconnected immediately.

2. The Load Factor rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebates. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VII: TOD Tariff

TOD tariff proposed shall be applicable as follows-

- Off Peak Hours: 10:00 PM to 06:00 AM: 85% of normal rate of energy charge.
- Normal Hours: 10:00 AM to 6:00 PM

- Peak Hours: 06:00 AM to 10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge.

Other Terms and Conditions

Point of Supply

9.12 The Power supply shall normally be provided at a single point for the entire premises. In certain categories like coal mines power may be supplied at more than one point on request of consumer subject to technical feasibility. But in such cases metering and billing shall be done separately for each point.

9.13 Further, in case of Rolling Mills and Induction Furnace, and for NDS II consumers with non-separate advertisement/hoarding/conspicuous consumption as per Section 8.3.2 the point of supply shall be separate.

Dishonored Cheques

9.14 In the event of dishonored cheque for payment against a particular bill, the Licensee shall charge a minimum of Rs. 300 or 0.5% of the billed amount, whichever is higher. The DPS shall be levied extra as per the applicable terms and conditions of DPS for the respective category.

Sale of energy

9.15 No consumer shall be allowed to sell the electricity purchased from the Licensee to any other person/ entity.

Release of new connections

9.16 No new connections shall be provided without appropriate meter. The tariff for un-metered connections shall be applicable only to the existing un-metered connections, until they are metered.

Conversion factors

9.17 The following shall be the conversion factors, as and where applicable: (PF=0.85):

1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)

1 Kilowatt (KW) = 1 / 0.746 Horse Power (HP)

1 Horse Power (1 HP) = 0.878 Kilovolt ampere (KVA)

Disputed Bills

9.18 In case of disputed bill, the consumer would be liable to pay their dues based on last 3 month's consumption pattern which will be subsequently adjusted if found erroneous against future bills.

Stopped/ defective meters

9.19 In case of existing consumers with previous consumption pattern, the provisional average bill shall be issued on the basis of average of previous three months consumption in line with JSERC supply code regulations, 2015 as pronounced below-

Provided further that in case the meter is defective or burnt or stuck and has stopped recording, the consumer shall be billed on the basis of the average consumption of the last three months immediately preceding the month in which meter was last read (including that month) for the period for which meter was stopped recording subject to maximum period of 3 months.

9.20 It is submitted that Hon'ble Commission has deviated from aforesaid regulation while issuing the Tariff order dated 21st June 2017. It is mentioned in Tariff order that provisional average bill shall be issued on the basis of average of previous twelve months consumption which is in contrary with the JSERC supply code regulations, 2015.

9.21 In case of meter being out of order from the period before which no pattern of consumption is available, the provisional average bill shall be issued on the basis of sanctioned/ contract load on following load factor applicable to respective categories, as shown below:

Table 80: Consumer wise Load Factor

Consumer Category	Load Factor
Domestic & Religious Institution	.20
Non-Domestic	.30
LTIS/ PHED LT	.30
DS-HT	.20
HTS	
11 KV	.30
33 KV	.40
132/200 KV/400 kV	.50
HTSS	.50
RTS	.30

The Consumer should furnish usage details of their continuous load/shift wise load/otherwise.

Temporary Supply

Applicability

9.22 This tariff shall apply for connections being temporary in nature for period of less than one year. The applicability shall be as given in the respective category tariff rate schedule. Temporary supply cannot be claimed by a prospective consumer as

a matter of right but will normally be arranged by JBVNL when a requisition is made giving due notice subject to technical feasibility and in accordance with electricity supply code issued by the Commission.

9.23 Temporary tariff is proposed to be equivalent to 1.5 times of the applicable fixed and energy charges for temporary connections falling in each prescribed tariff category with all other terms and conditions of tariff remaining the same.

9.24 Temporary connections shall be given prepaid meters with prepaid balance equivalent to 45 days of sale of power which shall be based on the assessment formula (LDHF) prescribed by the Commission.

9.25 Temporary connections shall initially be provided for a period of up to 45 days which can be extended on month to month basis up to six months.

Seasonal Supply (LT and HT)

Applicability

9.26 Seasonal supply shall be given to any consumer on written request to the Board subject to the following conditions.

Table 81: Tariff Structure of Seasonal Supply

Sl.	Period of Supply	Tariff Rate - LT	Tariff Rate - HT
1	Upto 3 consecutive months in a year	Appropriate tariff plus 30 percent	Appropriate tariff plus 30 percent
2	More than 3 consecutive months and upto 6 consecutive months in a year	Appropriate tariff plus 20 percent	Appropriate tariff plus 20 percent
3	More than 6 consecutive months and upto 9 consecutive months in a year	Appropriate tariff plus 15 percent	Appropriate tariff plus 15 percent

- The meter rent and other charges as provided in the appropriate tariff are applicable to seasonal loads and would be charged extra for the entire period of supply.
- The supply would be disconnected after the end of the period unless the consumer wants the supply to be continued. Any reconnection charges have to be borne by the consumer.
- Consumer proposing to avail seasonal supply shall sign an agreement with the Board to avail power supply for the maximum period provided in Supply Code.
- The consumers must avail supply in terms of whole calendar month continuously.
- The consumer is required to apply for seasonal supply and pay initial cost and

security deposit as an applicant for normal electricity supply as per provisions of supply code.

- The consumer shall ensure payment of monthly energy bills within 7 days of its receipt. The supply will be disconnected if payment is not made on due date.

Metering facility:

9.27 It is proposed that all HTS consumers should have demand recording facility @ 15 minutes time integration. This will enable utility to manage its load profile during power restrictions. This will also enable Petitioner to match the profile/ scheduling with the SLDC/ ERLDC and assist in energy accounting. It may be noted that Regional Energy Accounting (REA) and other power drawal & scheduling are done on 15 minutes time block.

NOC for Switchover to other licensee:

9.28 It is proposed by the Petitioner that any consumers switching over to the other licensee shall have to compulsorily clear off all the dues and obtain 'No Objection Certificate' (NOC) mandatorily, failing which energy bills shall be generated based on the contract demand or maximum demand during last six months, whichever is higher despite power supply being disrupted. Penalty for exceeding contract demand shall also be applicable.

Removal of Clause 13 from HT Agreement:

9.29 JBVNL earlier submitted a review Petition to the Hon'ble Commission regarding removal of clause 13 from HT Agreement. However, no decision has been arrived at so far. Therefore, the Petitioner would like to resubmit its request for removal of Clause 13 from the HT agreement.

"Clause 13" of the HT Agreement is reproduced hereunder

"If at any time the consumer is prevented from receiving or using the electric energy to be supplied under this agreement either in whole or in part due to strike, riots, fire, floods, explosion, act of God or any other case reasonable beyond control or if the Board is prevented from supplying or unable to supply such electric energy owing to any or all of the causes mentioned above than demand charge and guaranteed energy charge set out in the schedule shall be reduced in proportion to the ability of the consumers to take or the Board to supply such power and the decision of the Chief Engineer, Jharkhand State Electricity Board, in this respect shall be final."

The Petitioner requests the Commission to notice that the minimum guaranteed charges are presently not applicable to the consumers and as such the requirement to adjust or proportionately reduce such charges based on the ability of the consumer to take or the Board to supply energy as highlighted in the excerpt above doesn't reasonably fit into the agreement. As such, the Petitioner requests that the said clause be removed.

Supply to Consumers having Captive Power Generating facility

9.30 Due to rising number of captive users, JBVNL proposes to put emphasis on Captive Consumers category. JSERC captive power Regulation (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel, Regulation, 2010) has been notified for captive users. However, the tariff applicable for the CPP category is not reflected in the Tariff Order.

Definitions

"Captive generating plant" or "Captive Power plant" (CPP) means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such cooperative society or association;

A power plant shall be identified as a Captive Power Plant only if it satisfies the conditions contained in clause 3 (1) (a) and 3 (1) (b) of the Electricity Rules, 2005 notified by the Ministry of Power, Government of India, on 8th June 2005, reproduced as under:

3(1) No power plant shall qualify as a 'captive generating plant' under section 9 read with clause (8) of section 2 of the Act unless-

a) in case of a power plant-

(i). not less than twenty six percent of the ownership is held by the captive user(s), and

(ii). not less than fifty one percent of the aggregate electricity generated in such plant, determined on an annual basis, is consumed for the captive use

Provided that in case of power plant set up by registered cooperative society, the conditions mentioned under paragraphs at (i) and (ii) above shall be satisfied collectively by the members of the cooperative society:

Provided further that in case of association of persons, the captive user(s) shall hold not less than twenty six percent of the ownership of the plant in aggregate and such captive user(s) shall consume not less than fifty one percent of the electricity generated, determined on an annual basis, in proportion to their shares in ownership of the power plant within a variation

not exceeding ten percent;

- b) in case of a generating station owned by a company formed as special purpose vehicle for such generating station, a unit or units of such generating station identified for captive use and not the entire generating station identified for captive use and not the entire generating station satisfy(s) the conditions contained in paragraphs (i) and (ii) of sub-clause (a) above including-

Explanation: -

- 1) The electricity required to be consumed by captive users shall be determined with reference to such generating unit or units in aggregate identified for captive use and not with reference to generating station as a whole; and
- 2) The equity shares to be held by the captive user (s) in the generating station shall not be less than twenty six percent of the proportionate of the equity of the company related to the generating unit or units identified as the captive generating plant.
- 3) It shall be the obligation of the captive users to ensure that the consumption by the Captive Users at the percentages mentioned in sub-clauses (a) and (b) of sub-rule (1) above is maintained and in case the minimum percentage of captive use is not complied with in any year, the entire electricity generated shall be treated as if it is a supply of electricity by a generating company.

Explanation: (1) For the purpose of this rule

- a. "Annual Basis" shall be determined based on a financial year;
- b. "Captive User" shall mean the end user of the electricity generated in a Captive Generating Plant and the term "Captive Use" shall be construed accordingly;
- c. "Ownership" in relation to a generating station or power plant set up by a company or any other body corporate shall mean the equity share capital with voting rights. In other cases ownership shall mean proprietary interest and control over the generating station or power plant;
- d. "Special Purpose Vehicle" shall mean a legal entity owning, operating and maintaining a generating station and with no other business or activity to be engaged in by the legal entity.

Proposed by the Petitioner

9.31 A separate consumer category of CPP shall be reflected in the Tariff Order as detailed below:-

i) CPP Capacity same as the load required

In this regard, provisions related to Stand-by support to CPP as per the JSERC captive power regulation (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel, Regulation, 2010) shall be applicable.

ii) CPP Capacity less than the load required

- Load exceeding the CPP capacity and upto the contract demand shall be charged at corresponding HTS tariff as approved in the tariff order.
- Once the normal contract demand is exceeded, the additional demand shall be treated as stand-by demand and all terms and conditions of JSERC (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2010 shall be applicable.
- Provision related to Stand By support to CPP shall be applicable for the Captive Capacity in case of emergency power requirement.

Tariff Schedule

Table 82: Tariff Schedule for CPP consumers

Sl. No.	Period of Supply	Demand Charges (Rs/kVA)	Energy Charges (Rs/kVA)
1	CPP with Surplus Power and Supplying to Petitioner		
	- Standby Support up to 1008 hours	Pro-rated HT Industrial consumer Contract Demand tariff at corresponding voltage	1.5 times of the HT Industrial consumer Energy charges at corresponding voltage
	- Standby Support beyond 1008 hours	Tariff approved by the Commission for temporary HT consumers at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) in the Licensee's area of supply on power consumed beyond 1008 hours	Tariff approved by the Commission for temporary HT consumers at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) in the Licensee's area of supply on power consumed beyond 1008 hours
2	CPP with Partial availability and Drawing power from Petitioner		

Sl. No.	Period of Supply	Demand Charges (Rs/kVA)	Energy Charges (Rs/kVA)
	- Standby Support up to 1008 hours	Pro-rated HT Industrial consumer Contract Demand tariff at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) for Stand-by Demand contracted. The pro-rata shall be done on the basis of the usage.	1.5 times of the HT Industrial consumer Energy charges at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) for energy equivalent to Stand-by Demand.
	- Standby Support beyond 1008 hours	Tariff approved by the Commission for temporary HT consumers at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) in the Licensee's area of supply on power consumed beyond 1008 hours	Tariff approved by the Commission for temporary HT consumers at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) in the Licensee's area of supply on power consumed beyond 1008 hours

Applicability

- This shall be applied to all the Captive Power Plants who are having installed capacity of 1 MW and above and connected to the state grid and are either supplying power to the Petitioner or drawing power from the Petitioner to meet their load requirements.
- This shall also be applied to the CPPs who have signed agreements earlier and are having partial generation facility to meet its power requirement and not covered elsewhere in tariff schedule. All these consumers will have to enter into agreement for the contract demand required from the Petitioner.
- The provisions of the 'Jharkhand State Electricity Regulatory Commission (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2010' shall be applicable for the CPP having surplus capacity who are supplying power to the Petitioner and drawing power from the Petitioner as standby/ emergency requirement.
- Wherever an agreement for Stand-by support exists between the Captive User and the Licensee of his area of supply, the Captive User shall be required to pay to the Licensee a fixed charge of Rs. 35 per kVA per month, applied on the capacity contracted under Stand-by support with the

Licensee.

9.32 The demand charges shall be applied on the maximum demand at any 15 minutes time block covered under Stand-by period subject to minimum of 90% of the contract demand. The Stand-by period for this purpose shall be reckoned maximum up to 1008 hours (42 days). The energy charges shall be applied on the total energy consumed across all time-blocks covered under the Stand-by period.

Rationale for CPP category

9.33 The Petitioner would like to submit to the Hon'ble Commission that the load requirement than the capacity of their CPPs, continuously draws power from JBVNL grid. In such cases the JSERC Captive Power Regulation will not be applicable as the said Regulation speaks about the standby charges @ 1.5 times the normal HT energy charges for 1008 hrs. & temporary tariff for more than 1008 hrs.

9.34 Meaning thereby, where the industrial consumers is having two or more units in the single premises, one sourcing its power requirement from JBVNL grid and other from its CPP source. In this case, while exceeding the load above CPP capacity, rather than opting for standby power from JBVNL, consumer draws power from JBVNL grid. Petitioner would like to bring to the kind notice of the Hon'ble commission that these similar cases are not covered under JSERC (Utilization of surplus capacity of captive power plants based on conventional fuel) regulations, 2010, as these Regulations are silent for the cases where there is no surplus captive generation capacity, i.e. the contract demand is higher than the CPP capacity. The Hon'ble Commission is requested to determine the parallel operation charge for all CPP's connected to the transmission/distribution system and introduce a separate consumer category of CPP with capacity equivalent to load required and CPP with capacity lower than the load required separately in the Tariff Order. The Regulations provide for 1.5 times the energy charges for 1008 hours and beyond that temporary HT tariff is applicable. However it is submitted that there are practical difficulties in such cases as the event of shut down or partial load operation of their CPP can't be detected and power is drawn by continuously by the industrial units beyond their contracted capacity. The issue being faced by the Petitioner is further detailed in the illustration below:

9.35 For instance, Consumer X, having contract demand of 100MVA has a captive generation unit of 50MVA. In an event when captive plant is under maintenance, the consumer should be drawing from JBVNL and such drawl of power should be chargeable at 1.5 times the HT Tariff, as prescribed in the CPP Regulations. However, such consumers are not being charged at 1.5 times of HT tariff, rather the consumer pays the penalty for higher contract demand.

- 9.36 Presently a large number of HT consumer are having their own CPPs with contracted load higher than the capacity of CPP. Such consumers are covered under the agreement which was entered into before the CPP Regulations came in effect. Therefore, these consumers are being charged at a normal HT rate for drawl from JBVNL network beyond their CPP capacity.
- 9.37 Thus by creating a separate category of consumers having CPPs, all such consumers will be charged uniformly. Further, the filed officers of JBVNL will also be well-informed once a separate category of CPP is introduced.
- 9.38 It is important to mention that in Chhattisgarh, recently CSPDCL had approached State Commission for separate CPP Tariff, which has been approved by CSERC and separate tariff for CPP has been included, as reproduced below:

The standby charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draws power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per kWh weighted average tariff of HT and EHT consumers, which is Rs 8.97 per kWh (1.5 times of the average billing rate of Rs.5.98 per kWh). For drawl of power in excess of the contracted capacity of open access, the tariff for availing stand by support from the grid shall be two times of the per unit weighted average tariff of HT and EHT consumers which is Rs 11.96 per kWh (2 times of the average billing rate of Rs. 5.98 per kWh).

Thus, in line with the above submissions, the Hon'ble Commission is requested to determine the parallel operation charge for all CPP's connected to the transmission/distribution system.

10.Directives

10.1 The Petitioner humbly submits that it is committed to follow the directives of the Hon'ble Commission to become a regulatory compliant distribution utility. Following are the status on directives issued by Hon'ble Commission.

Sl.	Directive	Details	Response from Petitioner																
1.	Strengthening of Transmission and Distribution Network	<p>The Commission directs the Petitioner to take appropriate steps in order to strengthen the Transmission & Distribution network. The Petitioner is directed to submit a detailed plan with expected benefits with the next tariff petition.</p> <p>In addition, the Commission directs the Petitioner to implement safety measures in its</p>	<p>JBVNL has embarked on a mission to address the impending issues in power sector including low electricity access and providing 24X7 reliable power. In this regard, a considerable sub-transmission and distribution infrastructure is being created and the existing infrastructure is also being augmented.</p> <p>Summary details of the infrastructure created under the various schemes is shown below:</p> <table border="1"> <thead> <tr> <th>Scheme</th> <th>New PSS (Nos)</th> <th>33kV Line (cKm) / (+UG)</th> <th>11kV Lines (+UG)</th> <th>LT Lines</th> <th>DTs</th> <th>Village Electrification</th> <th>HH Electrification (lac)</th> </tr> </thead> <tbody> <tr> <td>DDUGJY</td> <td>110</td> <td>1,123</td> <td>31,745.9 (94.2)</td> <td>13,952</td> <td>68,210</td> <td>145</td> <td>4.90</td> </tr> </tbody> </table>	Scheme	New PSS (Nos)	33kV Line (cKm) / (+UG)	11kV Lines (+UG)	LT Lines	DTs	Village Electrification	HH Electrification (lac)	DDUGJY	110	1,123	31,745.9 (94.2)	13,952	68,210	145	4.90
Scheme	New PSS (Nos)	33kV Line (cKm) / (+UG)	11kV Lines (+UG)	LT Lines	DTs	Village Electrification	HH Electrification (lac)												
DDUGJY	110	1,123	31,745.9 (94.2)	13,952	68,210	145	4.90												

Sl.	Directive	Details	Response from Petitioner																													
		network to avoid accidents which not only disrupt supply but also lead to loss of human life. The Commission also directs the Petitioner to update and implement its Safety Manual in line with the Provisions of Indian Electricity Rules to avoid such disruptions.	DDUGJY 12th Plan	11	219	8,267	8,039	22,444	1	12.4																						
			10th & 11th Plan	-	-	-	-	-	23	2.07																						
			RE State	-	-	-	-	-	10	0.87																						
			JSBAY	50	3,719	16,488	27,237	72,319	-	5.08																						
			AGJY	-	-	-	-	-	-	3.64																						
			RAPDRP B	23	296 (+77.5)	1,122 (+270)	3,730 (AB)	5,103	-	-																						
			IPDS	49	1,257 (+91.5)	4,013 (+317)	5,398 (AB)	8,535	-	-																						
			ADP	10	170 (+20)	816 (15)	816 (AB)	1360	-	-																						
			Total	253	6,784 (189)	62,452 (696.2)	59,172	1,77,971	179	28.9																						
				<p>The Petitioner is undertaking several measures for the strengthening of the distribution network like Installation of AB Cable for overhead network, Installation of Capacitor Banks, Installation of Underground cables, Replacement of bare conductors with insulated conductors, Capacity Enhancement of 33/11 kV PSS, Renovation of DT etc. The Scope of Work covered under the various schemes of Urban Electrification are shown below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Description of Activity</th> <th rowspan="2">Unit</th> <th>RAPDRP - B</th> <th>IPDS</th> <th>ADP</th> </tr> <tr> <th>Scope of Work</th> <th>Scope of Work</th> <th>Scope of Work</th> </tr> <tr> <th>Target Date of Completion</th> <td></td> <td>Aug-19</td> <td>Dec-18</td> <td>Annual Plan for FY 17</td> </tr> </thead> <tbody> <tr> <td>Capacity Enhancement/Augmentation of 33/11 KV PSS</td> <td>No</td> <td>31</td> <td rowspan="2">75</td> <td></td> </tr> <tr> <td>Renovation & Modernization of 33/11 KV PSS</td> <td>Job</td> <td>102</td> <td>24</td> </tr> </tbody> </table>								Description of Activity	Unit	RAPDRP - B	IPDS	ADP	Scope of Work	Scope of Work	Scope of Work	Target Date of Completion		Aug-19	Dec-18	Annual Plan for FY 17	Capacity Enhancement/Augmentation of 33/11 KV PSS	No	31	75		Renovation & Modernization of 33/11 KV PSS	Job	102
Description of Activity	Unit	RAPDRP - B	IPDS	ADP																												
		Scope of Work	Scope of Work	Scope of Work																												
Target Date of Completion		Aug-19	Dec-18	Annual Plan for FY 17																												
Capacity Enhancement/Augmentation of 33/11 KV PSS	No	31	75																													
Renovation & Modernization of 33/11 KV PSS	Job	102		24																												

Sl.	Directive	Details	Response from Petitioner																						
			33 KV Underground Cabling Work	cKm	59	14																			
			11 KV Underground Cabling Work	cKm	276	47																			
			Replacement of conductor in 33 KV Line	cKm	188	296																			
			Replacement of conductor in 11 KV Line	cKm	12,614	512																			
			Capacity Enhancement of Distribution Transformer	No.	329	1,248	589																		
			Renovation of Distribution Transformer	No.	7,543																				
			LT Line By A B Cable	cKm	3,326	1,668	423																		
			Also the Scope of Work covered under various schemes of Rural Electrification are shown below:																						
			<table border="1"> <thead> <tr> <th rowspan="2">Description of Activity</th> <th rowspan="2">Unit</th> <th>DDUGJY</th> <th>RGVY 12th Plan</th> </tr> <tr> <th>Scope of Work</th> <th>Scope of Work</th> </tr> <tr> <th>Target Date of Completion</th> <td></td> <th>Dec-18</th> <th>Dec-18</th> </tr> </thead> <tbody> <tr> <td>Capacity Enhancement/Augmentation of 33/11 KV PSS</td> <td>No</td> <td>98</td> <td>26</td> </tr> <tr> <td>Replacement of conductor in 11 KV Line</td> <td>cKm</td> <td>2643</td> <td>-</td> </tr> </tbody> </table>				Description of Activity	Unit	DDUGJY	RGVY 12th Plan	Scope of Work	Scope of Work	Target Date of Completion		Dec-18	Dec-18	Capacity Enhancement/Augmentation of 33/11 KV PSS	No	98	26	Replacement of conductor in 11 KV Line	cKm	2643	-	
Description of Activity	Unit	DDUGJY	RGVY 12th Plan																						
		Scope of Work	Scope of Work																						
Target Date of Completion		Dec-18	Dec-18																						
Capacity Enhancement/Augmentation of 33/11 KV PSS	No	98	26																						
Replacement of conductor in 11 KV Line	cKm	2643	-																						
			<p>JBVNL is committed to ensure 100% safety for its employees at all levels and avoid any unfortunate events. The Petitioner has already started the procurement and distribution of safety kits towards the compliance of order of Hon'ble Commissions. The table below shows the summary details of the safety equipment procured by JBVNL:</p>																						

Sl.	Directive	Details	Response from Petitioner				
			Name of material	Unit	Total requirement from Ranchi & Gumla Area Boards	Quantity Procured	Quantity Delivered to Central Store, Ranchi
			11 kV Hand Glove	Pair	691	418	170
			33 kV Hand Glove	Pair		273	160
			Gum Boot	Pair	530	300	300
			11 kV Discharge Rod	Set	410	275	0
			33 kV Discharge Rod	Set		135	0
			Safety Belt (Full)	No.	515	140	0
			Safety Belt (Half)	No.		375	0
			Safety Helmet	No.	621	621	0
			Also the Petitioner is under process of finalization of its safety manual which would create the awareness among the field staff and officers regarding the safety provisions covered under Indian Electricity Rules.				
2.	Energy Audit and T&D Loss Reduction	The Commission directs the Petitioner to conduct its division wise Energy Audit & prepare circle wise T&D loss reduction plan and submit the same to Commission within six months of issue of tariff order.	The petitioner has already completed 100% Feeder Metering and is in process of ensuring 100% metering of DTs and Consumers to cover the entire distribution value chain and enable energy auditing. To begin with energy audit of 311 rural feeders where lower level metering is complete, is being done out of 761 rural feeders. Also 689 no. of 11 kV and 33 kV urban feeders are audited out of total 799 no. of 11 kV and 33 kV urban feeders. Town-wise Energy				

Sl.	Directive	Details	Response from Petitioner
			<p>Accounting has been initiated to ensure the Energy Audit at division level.</p> <p>The Petitioner has also been undertaking several steps in order to achieve the AT&C Loss reduction trajectory under UDAY Scheme like Name and Shame Campaign, preparation of MIS for performance monitoring and management, Feeder Improvement Program for network strengthening, Physical segregation of feeders, Installation of AMR meters, providing electricity access to unconnected households, Implementation of ERP systems, Development of Mobile App, Android based spot billing, Mobile App for bill payment and other services, Installation of AB Cables, Pragya Kendra, Tying up with Bank and Post Offices, Any Time Payment (ATP) Machines, Online payment through JBVNL's Website, Feeder Segregation, Revenue Intelligence Cell Formation, etc.</p> <p>Also the Circle wise loss reduction plan, including the details of planned interventions, are being prepared by the Petitioner and shall be submitted to the Hon'ble Commission in due course.</p>
3.	SoP Implementation	The Commission directs the Petitioner to submit progress reports on the implementation of Standards of Performance as per the JSERC (Standard of Performance) Regulations, 2005.	<p>The Petitioner has already implemented the measure and the SOP reports are available on JBVNL website under Reliability Section.</p> <p>The payment of compensation is mandated in case of any default in the Guaranteed Standards stipulated under the JSERC SOP Regulations. In order to ensure 100% compliance of the regulation, an online web-based tool is being created whereby the consumer shall be able to register the compensation claim against JBVNL. The validation and approval of compensation against the claim</p>

Sl.	Directive	Details	Response from Petitioner
			<p>raised by the consumer shall be the responsibility of respective ESE of Electric Supply Circle for all HT and LTIS Consumers, while EEE of respective Electric Supply Division shall be responsible for validation and approval of compensation amount for other than HT & LTIS consumers. The respective officer shall validate the compensation claim by establishing the sanctity of complaint filed by the consumer as per his submission. The validation of claim raised by the consumer shall be done in accordance to the Standard of Performance Regulations, 2015 and will only be allowed if the consumer satisfies the required conditions under Section A5 and A8 of the Regulations. Once the approval has been accorded by the respective officer, payment of compensation claim to consumer shall be processed in the energy bill for the following month.</p>
4.	Power Procurement Plan	<p>The Commission views that the short-term and long-term Power Purchase planning needs to be ratified by the Commission before implementation by the Petitioner, hence it directs the Petitioner to submit to the Commission a detailed Power Procurement Plan before the start of every financial year so that the Commission can review the need for purchasing</p>	<p>Power Procurement Plan for FY 17-18 and FY 18-19 is being submitted by JBVNL herewith under this petition for FY 17-18 and FY 18-19.</p>

Sl.	Directive	Details	Response from Petitioner
		and selling power and approve accordingly. The detailed plan for power procurement is to be submitted	
5.	Interest on Consumer Security Deposit	<p>The Commission directs the Petitioner to submit the action taken along with report on actual interest paid to consumers on security deposits along with details of rate of interest considered to the Commission with the next tariff Petition, failure to do so will invite penal action.</p> <p>The Commission also directs the Petitioner to prepare a list of consumers who have not been paid at the prevailing bank rate and clear the dues pending on the Petitioner with immediate effect.</p>	<p>It is pertinent to mention that JBVNL has recently migrated to new billing agencies and billing system, for which the data migration of existing ~31 Lac consumer has been done. The initial issues pertaining to data quality are being addressed and in parallel the details of consumer security deposits are being updated. However, for a considerable number of consumers security details are not available. Therefore, JBVNL has is in process of finalizing an online portal for the estimation and settlement of the Interest on Consumer Security Deposit. The portal shall enable the consumers to upload certain documents, as evidence for consumer security deposit that has been submitted at the time of connection along with their identification details etc., based on which the security deposit shall be reflected in the consumer’s ledger and interest shall be paid from their onwards. A complete backend work flow has been designed and it is expected that the tool shall go-live by Dec’17.</p> <p>It is submitted that JBVNL is committed to clearing such unpaid security deposit interest dues, however, due to practical constraints it has not been done in case of certain consumers. Going forward, the security deposit interest payment shall be regularized and will be appropriately reflected in the energy bills of the</p>

Sl.	Directive	Details	Response from Petitioner
			consumers, once the web based tool is operational.
6.	Metering Plan	The Commission directs the Petitioner to submit the required information on metering plan and category wise details on replacement of defective/ burnt/ non-operational meters	The Petitioner has already prepared the Metering Plan and category-wise details on replacement of defective/ burnt/ non-operational meters as provided in the annexure 5.
7.	Reduction in Overtime Expenses	The Commission directs the Petitioner to take necessary steps to reduce the overtime expenses and submit action taken report with the next tariff petition, failing which the Commission will not allow any cost under overtime expenses	<p>The Petitioner hereby submits that the overtime expenses incurred during the 3 years were 41.6 lakhs, 46.07 lakhs and 12.39 lakhs during FY 13-14, FY 14-15 and FY 15-16 respectively. The Petitioner has already started taking necessary steps for reduction of overtime expense and has completed the below mentioned recruitment (<i>JUVNL Employment Notice No.02/2015</i>) to optimize the Overtime Expense –</p> <ul style="list-style-type: none"> • Junior Lineman – 184 Nos. • Switchboard Operator – 168 Nos. • Assistant Operator – 19 Nos. • Fitter – 1 No. <p>Also the recruitment of the below mentioned staff (<i>JUVNL Employment Notice</i></p>

Sl.	Directive	Details	Response from Petitioner
			<p>No. 03/2016) is at the final stage of selection -</p> <ul style="list-style-type: none"> • Junior Lineman – 215 Nos. • Switchboard Operator – 228 Nos. • Assistant Operator – 41 Nos. • Fitter – 9 Nos. <p>Once the selection of the above mentioned staff is completed, the cost of overtime expenses would be curtailed to a greater extent.</p>
8.	True-up Petitions	True-up Petitions for FY 2011-12, FY 2012-13, FY 2013-14 (pre-unbundling) for the distribution function of erstwhile JSEB and FY 2013-14 (post unbundling) & FY 2014-15 and FY 2015-16 for JBVNL.	True-up petitions FY 2011-12, FY 2012-13, FY 2013-14 (pre-unbundling) for the distribution function of erstwhile JSEB and FY 2013-14 (post unbundling) & FY 2014-15 and FY 2015-16 for JBVNL has been already been filled in Sep'17
9.	Approval of PPAs	The Commission directs JBVNL to submit, for approval, all the PPAs which have not yet been approved by the Commission within three months of the date of issuance of this Tariff Order.	It is submitted that PPAs for various stations has been submitted to Hon'ble Commission vide letter no-1532 dated 28.11.2017.

Sl.	Directive	Details	Response from Petitioner
10.	Delayed Payment Surcharge	The Commission directs the Petitioner to prepare a plan for the purpose of payment of such dues with changes in the methodology used for calculation of delayed payment surcharge as one time measure or so. The Petitioner may consider the methodology adopted in other States like Odisha where delayed payment surcharge is applied as a fixed amount instead of on percentage basis. The Petitioner shall submit its proposal for change in methodology for computation of delayed payment surcharge as one time measure or as may be found suitable for enabling more and more persons with arrears to pay the electricity dues.	<p>The existing Delayed Payment Surcharge mechanism followed by JBVNL is as per the Principles and Regulations given by the Hon'ble Commission.</p> <p>In other States also like Bihar, Delhi, Maharashtra etc., the Delayed Payment Surcharge calculation mechanism is based on the percentage of outstanding amount and not on the fixed amount basis.</p> <p>However, in Odisha, the Delayed Payment Surcharge (DPS) is taken on fixed amount basis only for few categories of consumers like LT Single Phase (Domestic & Kutir Jyoti), LT Three Phase and few consumer sub-categories of HT and EHT. Apart from these consumers, all others are being charged for every day of delay at 1.25% per month on the amount remaining unpaid (excluding arrears on account of DPS).</p> <p>Therefore, for the current Tariff Period, JBVNL proposes to continue with the existing practice of levying DPS as percentage of outstanding amount.</p>

Sl.	Directive	Details	Response from Petitioner
11.	System Loading Charges	The Commission directs the Petitioner to submit Zone wise, Category wise estimates of System loading charges for sample five new consumers of different connected load in each category.	<p>The Petitioner hereby submits that no such System Loading Charges for upgradation of system are being taken by JBVNL on account of new connection or enhancement of load by the consumers.</p> <p>JBVNL collects the Service Line Charges and the Development Charges (for un-electrified areas) on account upgradation of system for new connection and enhancement of load. These charges are calculated based upon the cost data book of JBVNL which shall be submitted to the Hon'ble Commission.</p>
12.	Quality of power/ Reliability Indices	The Commission directs the Petitioner to submit monthly report on Reliability Indices in MS-Excel format in course of achieving 24x7 quality & reliable power.	<p>The Petitioner has already implemented the measure the reports are available on JBVNL website under Reliability Section. These reports can be accessed on the website of JBVNL through the following link:</p> <p>https://www.jseb.co.in/relrpt/?rp=rel</p> <p>Further, the link to these reports is also available on the website of Hon'ble Commission which can be accessed through the following link:</p> <p>http://jserc.org/outages.aspx</p>
13.	Status of Revenue realization per unit sold	The Commission directs the Petitioner to take immediate steps to frame a time bound programme for realization of	JBVNL is having specific focus on HT and other high value consumers for the realization of arrears/ dues. The details of arrears are being prepared at the field level for reconciliation with the data available in the billing database. A detailed report is being prepared and shall be submitted subsequently.

Sl.	Directive	Details	Response from Petitioner
		pending arrears/dues and submit a report on the action taken for realization of arrears, amount of arrears, arrears remaining outstanding and reasons for non-realization of these arrears/dues should be submitted to the Commission	JBVNL is also planning to utilize expertise of professionals for the process of arrear data cleansing, analysis and strategizing the recovery of such arrears.
14.	Outstanding arrears	The Commission directs the Petitioner to make sincere efforts in mobilizing its resources to continuously make efforts throughout the year for collection of arrears under a structured receivable management programme besides taking corrective actions against the habitual defaulters.	Acting on the directives of Hon'ble Commission and learning from the experience, JBVNL has already taken various steps to maximize collection and identify the habitual defaulters. The monitoring of outstanding arrears and accumulation is being done at the Highest level and sincere efforts are being made by JBVNL to take stricter actions against the regular defaulters. The availability of billing database has not enabled JBVNL to identify and nab the defaulters who do not pay within time. The mechanism to identify and report such defaulters at the lowest (Sub-division/ section level) is being prepared and institutionalized and from December 2017 onwards, JBVNL shall launch the mass disconnection drive every month against non-paying consumers.
15.	Temporary Connections	The Commission directs the Petitioner to issue instructions to its field/distribution division	The Petitioner has already issued office order for the directions regarding the release of new temporary connections vide letter no.1486 dated 10.11.17

Sl.	Directive	Details	Response from Petitioner
		<p>officers to release temporary connections after assessing the overall load of such new temporary connections in the locality vis-a-vis the capacity of the existing transformer in the locality which would be feeding the enhanced load. In case the existing capacity of the transformer is not capable to meet the enhanced load, transformation capacity should be increased first for release of temporary connection in the locality and submit a compliance report within one month of the issuance of the Order.</p>	
16.	RPO Obligation	<p>The Commission directs the Petitioner to ensure that they procure renewable energy both solar & non-solar in accordance with JSERC (Renewable Energy</p>	<p>The Petitioner have always been committed towards the fulfillment of its RPO compliance. In order to meet the same, JBVNL has been undertaking various steps towards the procurement of renewable energy which are as follows:</p> <p>Solar Power:</p>

Sl.	Directive	Details	Response from Petitioner
		<p>Purchase Obligation and its compliance) Regulations, 2016. Failure to comply with RPO may attract penal action.</p>	<ul style="list-style-type: none"> • 26 MW Solar power being availed from IPPs in the State • 684.5 MW of Solar installation is under process of signing PPA the bid process for which has already been completed by JREDA <p>JBVNL has also approached Solar Energy Corporation of India (SECI) to allocate solar power from the existing or upcoming solar parks. Such a step has been taken in wake of extremely low prices of solar energy being discovered under the bidding for these solar parks. JBVNL is hopeful and regularly interacting with the concerned agencies to ensure allocation from solar park.</p> <p>Wind Power:</p> <ul style="list-style-type: none"> • 200 MW PPA for wind power with PTC has been done in June'17, the power shall be available from Dec'18 • 100MW PPA for wind with SECI shall be completed by end of November '17 and power will be available by March'19 <p>The Petitioner hereby submits that the above 300 MW of wind shall be sufficient to meet the entire Non- Solar RPO requirement.</p>
17.	Reduction in Cross-Subsidy	The Commission directs the Petitioner to prepare and submit a roadmap for the reduction in cross subsidy, in compliance with	The issue has already been dealt in the current Tariff Petition for FY 17-18 and FY 18-19, whereby JBVNL has proposed a rational tariff for reducing the cross subsidy.

Sl.	Directive	Details	Response from Petitioner
		the National Tariff Policy.	
18.	Wheeling Tariff	The Commission directs the Petitioner to propose capacity based Wheeling tariff and specify the voltage-wise distribution losses as per clause 7.9 of the JSERC MYT Regulations, 2015.	JBVNL is under process for appointment of an agency for carrying out the desired study for calculating the Voltage-wise distribution losses.
19.	Separate record for increase in consumer-wise sales	The Commission directs the Petitioners to keep a separate record of increase in consumer-category wise sales and submit the same for FY 2016-17 to the Commission with the next tariff petition filing.	The Petitioner has already complied with this directive of the Hon'ble Commission and the increase in Consumer-wise sales for FY 2016-17 has been submitted in the current Tariff Petition for FY 17-18 and FY 18-19.
20.	Rooftop Solar Installations	The Commission directs the Petitioner to conduct a detailed technical study on the feasibility of Rooftop Solar installation and submit a report within six months	The Petitioner hereby submits that the desired steps towards the implementation of the same are being taken by another State Govt. agency Jharkhand Renewable Energy Development Agency (JREDA) which is responsible for promoting the renewable energy sources in the State. JREDA is already working on the preparation of a policy for solar rooftop installation which

Sl.	Directive	Details	Response from Petitioner
		from the date of issuance of this Order.	would be notified shortly and numerous other steps for promoting Solar Rooftop installation in the State. Once such step has been development and launch of mobile application "AHAA Solar" by JREDA for carrying out the techno-commercial feasibility study for Rooftop Solar installations.
21.	Theft of Electricity	The Commission directs the Petitioner to strengthen the vigilance wing and take up frequent checking of theft prone areas and also take appropriate steps to improve revenue collection in relation to revenue assessed in cases of theft.	JBVNL has been committed to ensure that the incidence of theft and pilferages are contained. Massive raids are being conducted regularly (26,318 upto Mar'17) and FIRs are being lodged (8,826 upto Mar'17) against theft of electricity leading to realization of INR 11 Crs in FY 2016-17.
22.	Effectiveness of the Investments made	The Commission directs the Petitioner to carry out prudence check on five to ten schemes/ works under each head of plan being carried out during the year and furnish a report to the Commission, indicating cost benefit analysis and effectiveness	The Petitioner hereby submits that there has been a significant impact by the investments made under various schemes and works being undertaken by JBVNL. The Socio-Economic impact that these investments are much larger than the Commercial gains. Many of villages covered under these schemes have seen the day of light in form of electricity for the first time post-independence. Out of the 29376 inhabited villages of Jharkhand, 29135 have already been electrified as on 7 th Nov'17 and the remaining 241 shall be electrified by the end of Dec'18.

Sl.	Directive	Details	Response from Petitioner
		<p>of the investment, within six months from the date of issuance of the order.</p> <p>The Petitioner directs the Petitioner to submit a report, within 3 months of issuance of this Order, the steps taken by the Petitioner in maintaining quality in undertaking various construction works as well as procurement of maintenance spares.</p>	<p>One of the most significant and visible change can be seen in the LWE affected areas been electrified by JBVNL which has resulted into reduction in cases of violence especially in Latehar, Garwa and Palamu.</p> <p>Further the electrification of these villages has increased the agricultural activities resulting into rise in per capita income of rural population. It has also facilitated the establishment of cottage industries with generation of employment for skilled and unskilled people of these villages. Due to penetration of power in these villages, educational activities has also increased due to lighting facilities in schools and with increased usage of electronic devices like TV, Mobiles, and Computers/Laptops.</p> <p>The Petitioner is committed towards the maintenance of highest level of quality standards in works carried out and has been taking every possible steps towards the achievement of the same.</p> <p>JBVNL follows the 3 stage quality inspection mechanism for quality monitoring of material and works being carried out at the site. These stages are as follows:</p> <ul style="list-style-type: none"> • Stage 1: Material Inspection at the factory/inventory of the vendor • Stage 2: Stage inspection of material and works at the time of installation at site • Stage 3: Third Party inspection for workmanship in order to maintain REC standards of quality

Sl.	Directive	Details	Response from Petitioner
			<p>Also, the materials procured by JBVNL are as per the prevailing IS Standards and through the most competitive and online tendering process of Quality and Cost Based Selection (QCBS) method in order to ensure the procurement of best quality materials at optimum prices.</p>
23.	<p>Employee Performance Appraisal</p>	<p>The Commission directs the Petitioner to submit a report, within six months of issuance of this Order, on the Employee Performance Appraisal system adopted by the Petitioner. The report should explicitly mention the parameters / KPIs taken into consideration for the formulation of the same and whether there are any parameters for monitoring the performance of the employees in respect of service quality besides AT&C loss reduction and revenue enhancement.</p>	<p>In the direction of Employee Performance Appraisal, KPIs have been developed for the employees of JBVNL with the support of professional agency and the World Bank. At present, JBVNL is under process of cascading these KPIs down to the lowest level of employees. Also MIS database strengthening for the same is being carried out by JBVNL. It is expected that by the end of current FY, the KPI based performance appraisal system shall be put in place.</p>

Sl.	Directive	Details	Response from Petitioner
24.	Rebate for timely payment of bills including payment through digital mode	The Commission directs the Petitioner to conduct an impact analysis and propose a roadmap for the implementation of the rebate for timely payment of bills including payment through digital mode along with the next ARR/ Tariff filing.	The Petitioner hereby submits that the rebate for timely payment of bills have been implemented by various States like West Bengal, Chhattisgarh, Odisha etc. It is submitted that the Petitioner has already approached the Hon'ble Commission for providing rebate to consumers paying through digital modes. As per the directions of Hon'ble Commission, the Petitioner has already prepared a roadmap for implementation of the rebate and have sent it to all the Stakeholders. The petition for the same is under review stage by the Stakeholders.
25.	Segregation into Retail & wheeling supply of business	The Commission strictly directs the Petitioner to make separate accounting for both the businesses and submit the allocation statement for the FY 2016-17 duly approved by the Board of Directors within 3 months of the date of issue of the Tariff Order.	At present, JBVNL is under process to streamline the Accounting processes. Also hiring of Agency is being done in order to achieve the segregation of Retail and Wheeling supply of business. However, JBVNL has followed the principles adopted by the Hon'ble Commission in its previous tariff orders to segregate the accounts, for the current Petition.
26.	Consumer Awareness Programmes	The Commission directs the Petitioner to undertake extensive consumer	It is submitted that content and printing of the booklet is under process by JBVNL in line with Hon'ble Commission's booklet. The petitioner would like to inform the Hon'ble Commission that once the booklets are finalized, these would be

Sl.	Directive	Details	Response from Petitioner
		<p>awareness programmes with an aim to apprise the consumers on various facets of power distribution. For the same, the Petitioner should distribute the booklet issued by the Commission - "<i>Vidyut Upbhogta Sambandhit Jaanne Yogya Baatein</i>"- annually, latest by the month of August, along with the consumer bill and the same is to be uploaded on the Petitioner's website. The booklet should be accompanied by an additional leaflet comprising information on the contact details of the customer call centre as well as the nodal officers of the concerned units, for e.g. circle/division/sub-division/section, responsible for handling of consumer</p>	<p>distributed to consumers at the earliest along with their energy bills.</p>

Sl.	Directive	Details	Response from Petitioner
		<p>grievances.</p> <p>The Petitioner is also directed to publish every quarter, in one English and one Hindi newspaper, the contact details of the customer call centre as well as the nodal officers of the concerned units, for e.g. circle circle/division/sub-division/section, responsible for handling of consumer grievances. The Petitioner should submit the copy of such newspapers to the Commission as and when the Petitioner issues a publication.</p>	
27.	Capacity Building of Employees	The Commission observes that Discom officials are not conversant with the Regulations notified by the Commission, especially those dealing with	It is submitted that the World Bank has been providing the Institutional Development and capacity building support to JBVNL, whereby study of the existing organizational setup of JBVNL has been conducted and a revamped structure and manpower requirements are being finalized. A dedicated training setup has also been identified which will focus on capacity building & skill

Sl.	Directive	Details	Response from Petitioner
		<p>various aspects of power distribution. Moreover, the Tariff Orders as well as the directives issued by the Commission in those tariff orders for JBVNL, are not read by the concerned officials of the Discoms. The Commission directs the Petitioner to undertake capacity building workshops for its employees so that Discom officials are apprised of the key Regulations notified by the Commission. The Petitioner should submit details of such workshops undertaken along with the next Tariff Petition.</p>	<p>development of distribution employees.</p> <p>Additionally, a training need assessment study has been conducted to understand the training requirements for both executive & non-executive manpower of the utility. The findings from the assessment study will be used to develop training calendar & onboard training agencies for imparting technical & behavioral training.</p>
28.	<p>Impact assessment study for switching from kWh billing to</p>	<p>The Commission directs the Petitioners to carry out impact assessment study on transition from kWh billing to kVAh billing, for a sample set of consumers in the HTS and HTSS categories,</p>	<p>A brief analysis for the transition from kWh billing to kVAh has been covered under the Tariff petition for FY 17-18 and FY 18-19 along with the possible advantages for JBVNL and consumers. It is submitted that JBVNL is keen to shift towards kVAh based tariff for certain consumer categories which has been adopted by majority of the States (including Bihar, Delhi, and Chhattisgarh). A shift towards kVAh based billing shall ensure grid stability and improve the</p>

Sl.	Directive	Details	Response from Petitioner
	kVAh billing	and submit a report within six months of issuance of this Order.	power reliability in the State, the ultimate beneficiary of which shall be the consumers of the State. A detailed report based on the sample field data shall be submitted subsequently.
29.	Exceptions raised by the Auditor on Annual Accounts	<p>As per Para 2 of the Basis for the disclaimer of opinion, the Commission finds that the compliance of the independent auditor's report for the year ended 31st March 2015 & 31st March 2014 were not received.</p> <p>The Commission also observes that the Auditors have pointed out that AS6 "Depreciation Accounting" & AS 10 "Accounting for Fixed Assets" have not been complied with.</p> <p>The Auditors have also noted that the guidelines of Revenue recognition as per Accounting Principle no '12' and AS9</p>	<p>The independent Auditor's report for FY 13-14 and 14-15, Compliance of AG Report and CAG report is annexed as required by the Hon'ble Commission.</p> <p>Also the Petitioner hereby submits that the audit issues highlighted by auditors are accounted for in the concerned annual accounts itself, by taking necessary corrective measures. However, in case of certain exceptions, which have not been incorporated in the concerned year, the observation of audit reports are incorporated in the annual accounts of subsequent years.</p>

Sl.	Directive	Details	Response from Petitioner
		<p>“Revenue Recognition” differ in respect of revenue revised on assumption basis where certainty of collection is not established and also Assets acquired out of consumer contribution are not identified and amortization as per AS’12’ “Accounting for Government grants” is not done as per company’s significant accounting policy No. 2.3.</p> <p>The Commission finds sufficient reason not to consider the opening balances for the FY 2016-17 (closing balances of the FY 2015-16) as per the Audited accounts submitted by the Petitioner. Accordingly, the Commission directs the Petitioner to address the exceptions raised by the Auditor in an appropriate manner so that reliable data is</p>	

Sl.	Directive	Details	Response from Petitioner
		available.	

11. Prayers to Hon'ble Commission

11.1 The Petitioner JBVNL respectfully prays to the Hon'ble Commission:

- 1) To admit the APR Petition of JBVNL for FY 16-17 in accordance with Regulation 6 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
- 2) To admit the ARR Petition of JBVNL for FY 17-18 in accordance with Regulation 6 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
- 3) To admit the ARR Petition of JBVNL for FY 18-19 in accordance with Regulation 6 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
- 4) To approve the proposed tariff to meet the revenue gap and to minimise the gap between ARR and ACS
- 5) To allow adjustment of RGF against the disallowances first and remaining RGF to be utilized to reduce the tariff for particular consumer categories.
- 6) To approve revised schedule of charges.
- 7) To approve the terms and conditions of tariff as proposed by the Petitioner
- 8) To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

To condone any error/omission and to give opportunity to rectify the same.

12. Annexures

Annexure-1 Provisional Account of JBVNL for FY 16-17

(Board Approved Accounts of JBVNL for FY 16-17 is uploaded on www.jbvnl.co.in)

Annexure-2 Letter from Energy Dept. to Hon'ble Commission



(Annexure - 2)
झारखण्ड राज्य विद्युत नियामक आयोग
JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION

JSERC/Case (Tariff) No. 09 of 2017/534
Date: 17th November 2017

To
The Chief Engineer (C&R)
Jharkhand Bijli Vitran Nigam Limited (JBVNL)
Engineering Building, H.E.C.
Dhurwa, Ranchi - 834004.

Sub: Pregration of tariff petition without taking into consideration the resource Gap provided by Govt. to JBVNL.

Sir,
Please find an enclosed copy of order dt. 17.11.2017 passed by the Commission in Case (Tariff) No. 09 of 2017 along with a copy of letter No. 8018/बोर्ड-09/2013/4020 dated 18.10.2017 received in the Commission from the Special Secretary to the Govt. of Jharkhand, Deptt. of Energy, Ranchi.

You are requested to frame the tariff petition as per the decision of the Govt. as contained in the above mentioned letter.

Thanking you.

Yours faithfully,

Rajendra Prasad Nayak
(R. P. Nayak)
Law Officer

688(P)
E
22/11/17 cc:
EEE/RI
in tariff h.e.c. in.
22/11/17

- (1) The Chairman cum- Managing Director, Jharkhand Urja Vikas Nigam Limited (JUVNL), Engineering Building, H.E.C., Dhurwa, Ranchi - 834004.
- (2) The Managing Director, Jharkhand Bijli Vitran Nigam Limited (JBVNL), Engineering Building, H.E.C., Dhurwa, Ranchi - 834004.

मुख्य अधिकारी (सी. ए. आर.) का कार्यालय
झारखण्ड बिजली वितरण निगम लि. राँची
दिनांक 22/11/17
6295

2रा कल्ला, राजेन्द्र जवान भवन-सह-सैनिक बाजार, मेन रोड, राँची-834001
2nd Floor, Rajendra Jawan Bhawan-cum-Sainik Bazar, Main Road, Ranchi-834001
Tel. : 0651-2330838 • Fax : 0651-2330924 • E-mail : info@jserc.org • Website : www.jserc.org

**JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION
RANCHI**

FORM OF PROCEEDING

Case (Tariff) No. 09 of 2017

Jharkhand Bijli Vitran Nigam Limited (JBVNL)

Petitioner.

Sl. No.	Date of proceeding	Proceedings of the Commission with signature	Office action taken with date
1	2	3	4
3	17.11.2017	<p>A letter No. 2018/सं-59/2013/4020 dated 18.10.2017 has been received from the Special Secretary Govt. of Jharkhand, Department of Energy, Ranchi intimating the decision of the Govt. regarding determination of tariff without taking into consideration the resource gap provided to JBVNL.</p> <p>Perused the letter.</p> <p>Let a copy of the letter be sent to licensee - JBVNL asking them to prepare the Tariff Petition for the ensuing year taking into consideration the decision of the Govt. of Jharkhand as mentioned in the letter. Also send a copy of this letter to the Consultant-PWC asking them to take into consideration the decision of the Govt. as contained in the letter while scrutinizing /examining the tariff petition of JBVNL as and when filed.</p> <p style="text-align: center;">Sd/- Member (Engg.)</p> <p style="text-align: center;">Sd/- Chairperson</p>	



झारखण्ड सरकार,
ऊर्जा विभाग



प्रेषक,

सुरेन्द्र कुमार, फॉर्मसे
सरकार के विशेष सचिव।

सेवा में,

सचिव,
झारखण्ड राज्य विद्युत नियामक आयोग, राँची।

राँची, दिनांक 20/10/17

विषय :-

राज्य सरकार द्वारा झारखण्ड बिजली वितरण निगम लिमिटेड को उपलब्ध कराये जा रहे Resource Gap की राशि/सम्बिन्धी/अनुदान सहायता को विचार (Consider) किये बिना टैरिफ निर्धारित करने के संबंध में।

महोदय,

निदेशानुसार उपर्युक्त विषय के संबंध में कहना है कि राज्य सरकार झारखण्ड बिजली वितरण निगम लिमिटेड को Resource Gap की राशि नहीं देने पर विचार कर रही है। इसके लिए यह आवश्यक है कि टैरिफ निर्धारण के समय सरकार द्वारा दी जा रही Resource Gap/सम्बिन्धी/अनुदान सहायता की राशि पर विचार नहीं किया जाए।

उल्लेखनीय है कि उक्त Resource Gap को झारखण्ड राज्य विद्युत नियामक आयोग के समक्ष दायर होने वाले टैरिफ Petition में Grant के रूप में गणना किया जाता है, जिस कारण उनके द्वारा टैरिफ में बड़ोतरी के प्रस्ताव में कटौती कर दी जाती है।

National Tariff Policy, 2016 के अनुसार cost of supply के $\pm 20\%$ की दर में ही टैरिफ का निर्धारण किया जाना है। वर्तमान में झारखण्ड राज्य में औद्योगिक उपभोक्ताओं को अधिक टैरिफ देना पड़ता है, जबकि आम उपभोक्ताओं को कम टैरिफ लगता है।

यह भी उल्लेखनीय है कि बिगत वर्षों से अधिकतर राज्यों में टैरिफ Petition को प्राथमिक दरों पर Regulatory Commission के तहत दायर कर टैरिफ की दर cost of power supply के अनुरूप निर्धारित कराये जाते हैं, जिसके परभाव राज्य सरकार द्वारा अलग से विभिन्न श्रेणी के उपभोक्ताओं को राहत स्वरूप सम्बिन्धी दी जाती है।

अतः उपर्युक्त परिप्रेक्ष्य में अनुरोध है कि राज्य सरकार द्वारा झारखण्ड बिजली वितरण निगम लिमिटेड को उपलब्ध कराये जा रहे Resource Gap की राशि/सम्बिन्धी/अनुदान सहायता को विचार किये बिना टैरिफ निर्धारित करने की कृपा की जाए।

विरवाशभाजन
सरकार के विशेष सचिव

Annexure-3 Details of JASBAY scheme

Jharkhand Sampurna Bijli Achchadan Yojna (JSBAY):-

In spite of execution of works under 10th & 11th plan DDUGJY (erstwhile RGGVY) schemes and State plan works as well as proposed coverage under DDUGJY Atal Gram Jyoti Yojna and Tilka Manjhi Krishi Pump Yojana, there are several left over work required to ensure 24x7 power supply to all villages/Habitations and achievement of objectives of UDAY Yojana for reduction of AT&C losses.

In the light of direction of BoD, JBVNL vide agenda item no. 23-20-10, DPR of all 24 districts was revised on new cost data. The DPR cost comes to Rs. 5127.56 Crs. In this regard approval for implementation of JSBAY scheme from GoJ has been accorded vide letter No. 248 dtd 23.03.2017 of Energy Department, GoJ amounting to Rs. 5127.56 Crore which is inclusive of Rs. 100.54 Crore for PMC.

The total coverage of main infrastructure under the scheme will be as follows:-

i)	Construction of PSS	-	50 nos.
ii)	Augmentation of PSS	-	59 nos
iii)	Construction of 33 KV line	-	2315 Km.
iv)	Construction of 33 KV underground line	-	4 Km.
v)	Reconductoring of 33 KV line	-	1327 Km.
vi)	Construction of 11 kv line	-	15359 Km.
vii)	Construction of LT line	-	27237 Km.
viii)	Service connection coverage	-	641377 nos
ix)	Installation of distribution transformer	-	72319 nos.

Project Management Consultant :- 3 nos of PMC agencies (2 packages of each) has been engaged for providing services under JSBAY in all 6 packages and details as below:-

Sl. No.	NIT No.	Name of Package	Name of Districts	PMC work awarded to the Agency
1	546/PR/JBVNL/2016-17	Package-1	Ranchi, Khunti, Gumla, Simdega, Lohardaga	M/s REC Power Distribution Company Ltd.
2	547/PR/JBVNL/2016-17	Package-2	East Singhbhum, West Singhbhum & Saraikela - Kharsawan	M/s RODIC Consultants Pvt. Ltd.
3	548/PR/JBVNL/2016-17	Package-3	Dumka, Jamtara, Sahibganj & Pakur	M/s REC Power Distribution Company Ltd.
4	549/PR/JBVNL/2016-17	Package-4	Deoghar, Godda, Koderma & Giridih	M/s Medhaj Techno Concept Pvt. Ltd.

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5	550/PR/JBVNL/2016-17	Package-5	Dhanbad, Bokaro, Hazaribagh, Chatra & Ramgar	M/s Medhaj Techno Concept Pvt. Ltd.
6	551/PR/JBVNL/2016-17	Package-6	Palamu, Latehar & Garhwa	M/s RODIC Consultants Pvt. Ltd.

Tender for appointment of turnkey contractor of JSBAY for phase –I (construction of new PSS, Construction of 33 Kv & 11 KV line) has been floated in six packages as below and the target for completion of work is 18 months from date of award.

Sl. No.	NIT No.	Name of Package	Estimated Cost (in Rs.)	Last date of online submission of tender	Date of opening of technical & commercial Part
1	214PR/IBVNL/2017-18	Package-1 (Comprising Ranchi, Khunti, Gumla, Simdega & Lohardaga)	1048583845	Upto 15:00 Hrs of 28.11.2017	After 15:00 hrs. of 30.11.2017
2	215/PR/IBVNL/2017-18	Package-2 (Comprising East Singhbhum, West Singhbhum & Saraikela - Kharsawan)	1401376489		
3	216/PR/IBVNL/2017-18	Package-3 (Comprising Dumka, Jamtara, Sahibganj, Pakur, Deoghar & Godda).	1477499555		
4	217/PR/IBVNL/2017	Package-4 (Comprising , Koderma & Giridih)	1460161694		
5	218/PR/IBVNL/2017-18	Package-5 (Comprising Dhanbad, Bokaro, Hazaribagh, Chatra & Ramgarh)	1896206305		
6	219/PR/IBVNL/2017-18	Package-6 (Comprising Palamu, Latehar & Garhwa).	1601938197		

Redefined scope of work of sanctioned amount Rs. 5127.56 cr under JSBAY scheme has been sent to energy department, GoI vide office letter no 2540/RE dated 31.10.2017.

Sl. No.	Work Description	Amount (In Crore)
1	Forest, Rail and other Statutory Clearance Coming in the schemes of India and the state government	25
2	Construction of new 33/11 KV power substation, 33 & 11 KV line and other remaining works & construction / renovation of electric structure for agricultural work.	2085
3.	To installed meter to un metered consumer for reduce of AT&C losses.	580
(i)		
(ii)	Feeder and DTR metering for energy audit.	

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(iii)	To give new agricultural connection with electricity feeder pillar.	
4 (i)	To work underground cable and other reinforcement for 24x7 power supply in urban/suburban areas including tourist and pilgrim sites.	1700
(ii)	Execution for ease of doing business is required to strengthen the power infra structure in the industrial sector, as well as in the proposed industrial areas, it is also necessary to develop the electricity infra structure so that 24x7 the electricity can be supplied in industrial areas.	
5 (i)	Implementation of SCADA and other IT related work for automation of distribution infrastructure / sub-station.	615
(ii)	Installation of smart meters to reduce the AT & C loss and reduce the problem of the bill.	
6	Construction and installation of necessary equipment in the new TRW / store / M.R.T, along with up gradation of existing TRW/ Store/ M.R.T	34.56
7	PMA and other consultancy work to complete the above mentioned tasks according within time.	88
Total		5127.56

as per site requirement following additional power infrastructure has been added under JSBAY:-

i)	Construction of new additional PSS	-	104 nos.
ii)	Construction of 33 KV line	-	1400 Km.
iii)	Construction of 11 kV line	-	1295 Km.

(Signature)
28/1/17

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Annexure-4 Letter of RGF from State Govt.

(ANNEXURE-4)

Letter No. 02/3880/2017/4-490 Dated 14.7.17

From, B.K. Tripathi
Principal Secretary

To, The Chairman-cum-Managing Director,
Jharkhand Urja Vikas Nigam Limited,
Corporate Office,
Engineering Building, HEC,
Dhurwa, Ranchi-834004.

Sub: Release of Rs. 1500 Crs. towards Resource Gap.

Sir,

The State Government provides Rs.1500 Cr. Per annum towards resource gap to the JUVNL (erstwhile J.S.E.B.). This amount may be utilized to meet the slashes/disallowances worked out by the Hon'ble Commission while fixing the tariff.

This is for information.

Yours faithfully,
B.K. Tripathi
Principal Secretary

CE (C&A)
14/7/17

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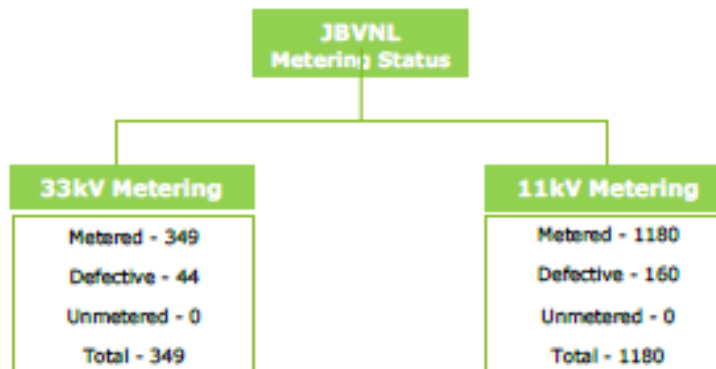
Annexure-5 Metering plan

JBVNL metering Plan

Metering is one of the key focus area for JBVNL, for it being the most important part in the value chain of distribution system to facilitate accounting and auditing of distribution losses. Further, one of the primary targets under UDAY scheme is to achieve 100% Feeder (33 & 11 kV), Distribution Transformer and Consumer metering. To achieve this, JBVNL has prepared a target driven action plan with significant focus on procurement and installation of meters. The following sub-sections provide the present status along with the actions that JBVNL plans to undertake for achieving metering targets.

1. Feeder Metering - Status and Action Plan

One of the primary target of JBVNL is to achieve 100% feeder metering both at 33 kV and 11 kV level. Feeder metering status of JBVNL is provided below –



It can be noted from the above figure that 100% feeder metering at 33kV and 11kV feeder level has already been achieved. In order to ensure that complete energy auditing is done regularly, JBVNL has utilized state of the art technology with Remote Meter Reading (RMR) capability for all the feeders. However, due to technical issues few feeder meters have been identified where data is not being reported due to communication issues with the modem or technical issue with the meters. These issues are being resolved on regular basis and all defective meters/ modems shall be replaced by Dec'17

Further, JBVNL had awarded the work for installation & maintenance of 840 feeder meters (33 kV feeders – 211 & 11 kV feeders – 629), which has been achieved in Aug'17. Also, it is being ensured that metering is being done simultaneously as and when new feeders are being installed.

2. Distribution Transformer (DTR) Metering- Status and Action Plan

JBVNL has a special focus on DTR metering in order to execute appropriate energy accounting and energy audit. Presently, JBVNL has a total of 72,934 DTRs out of which 71% are metered and the metering of remaining 21,172 unmetered DTRs is targeted to be completed by March 2018.

A phased rollout has been planned to achieve 100% DTR metering. In the first phase, all DTs irrespective of their capacity in urban areas will be targeted, along with the metering of rural areas of capacity higher than 25 KV. In next phase, all the remaining DTs shall be covered.

To achieve the above targets, dedicated agency has been appointed under RAPDRP Part - B and IPDS schemes. The major scope for the agency is to achieve complete DTR metering as well as to maintain the DTR metering infrastructure for a period of 5 years. One of the agency has already been awarded to install **11,118 DTR meters** and the process of awarding installation and maintenance contract for **10,054 meters** is in pipeline.

3. Consumer Metering- Status and Action Plan

JBVNL understands the importance of effective metering and billing, as it illustrates the potential increase in metered consumption that utility may achieve. All Industrial (LT & HT), Traction, MES consumers are 100% metered in the State. However, metering of other remaining consumer categories are planned to be done in phase manner. It is noteworthy that under the electrification targets envisaged, it has been ensured that no connection is issued without metering infrastructure. The current status of consumer metering along with the proposed timeline achieving 100% metering is provided in the table below -

Consumer Category	Total Consumers	Metered - Working	Metered - Not working	Unmetered	Timeline for 100% metering
DS-1 (A)	8,70,985	1,015	4,131	8,65,839	Jun'19
DS-1(B)	10,68,946	3,547	3,502	10,61,897	Jun'19
DS-2	8,67,397	6,88,821	82,324	96,252	Mar'18
DS-3	42,642	38,761	948	2,933	Mar'18
DSHT	28	28			NA
IAS-1	51,687	180	68	51,439	Jun'19
IAS-2	198	8	2	188	Dec'18
LTIS	15,305	11,912	480	2,913	Mar'18
LTIS-D	32	2	-	30	Mar'18
NDS-1	29,773	518	164	29,091	Jun'19
NDS-2	1,64,404	1,24,409	8,252	31,743	Dec'18
NDS-3	1,176	633	96	447	Mar'18
SS	371	27	42	302	Mar'18
MES	7	7			NA
HTS+HTSS	1,603	1,603			NA
RTS	2	2			NA
Total	31,14,556	8,71,473	1,00,009	21,43,074	

To achieve the aforementioned target of 100% consumer metering across all consumer categories, JBVNL has characterised the consumer metering in different priority levels. Metering priority has been distinguished as per the different consumer sub categories and their level of metering.

I. Priority level-I- HTS/ HTSS, LTIS, Street Light (SS)

JBVNL has achieved 100% metering for HTS/ HTSS consumers and complete billing is being done under metered slab. However, there has been few cases where meters are found defective, burnt or un-operational. One agency has been awarded work for installation and replacement of these meters and JBVNL also has a stock of around 996 meters which is being used for metering new connections and defective meters on site.

Metering/ meter replacement of ~3400 LTIS consumers has been recognised in Priority-I slab and is targeted to achieve 100% metering by Mar'18.

Street light service category consist almost 100% unmetered consumers and presently no billing is done under metered slab. Considering the poor status of metering of Street Light (SS) category, rapid metering is being planned considering the requirement of minimal effort in metering the mentioned category. Further, in order to achieve the 100% metering target, EESL has been given the entire responsibility for 100% metering of SS category along with the ongoing task of replacement of LED lights.

II. Priority level-II - DS-II, DS- III, NDS-II, NDS-III

Metering of urban consumer categories namely DS-II, DS- III, NDS-II, NDS-III is planned in priority-II. It can be noted from the above table that 88% of metering has already been achieved under the mentioned category leaving a total of 91,620 consumers to be metered. Further, meter replacement of 8,52,624 consumers is also being proposed to replace all defective, burnt or un-operational meters. New connection to urban households is being provided via Central Government sponsored schemes like RAPDRP Part – B and IPDS and new connections to poor un-electrified HHs in urban areas will be provided under the recently launched Saubhagya Schemes.

III. Priority level-III- IAS, DS-1, NDS-1

Rural/ BPL consumers under IAS, DS-1, NDS-1 consumer categories are being targeted to metered under the Priority slab-III. Considering the poor metering status of only 1% of the above categories, it is noteworthy that significant effort and time shall be required to achieve 100% metering. Following key actions/ initiatives are planned to layout 100% metering infrastructure.

- Responsibility to Urja Mitras for identification and transfer of flat meter consumer to metered consumer.
- Connections to new rural households with metering infrastructure is being provided under various Central and State Government Schemes like RGGVY 10th & 11th Plan, DDUGJY 12th Plan (erstwhile RGGVY), New DDUGJY, JSBAY, AGJY & TMGKPY, SAUBHAGYA schemes.
- Out of a total of 53.80 lakh RHHs, only 24.76 HHs remain to be electrified which is being covered under various schemes and it is being ensured that every new connection is issued with meter.
- The low level of metering at the DS 1 category is the foremost reason for low billing efficiency of JBVNL. However, JBVNL has committed itself to ensure 100% metering of all consumers and a large quantity of meters is under procurement, as provided below. The existing stock of meters is being continuously utilized first for covering the defective/ burnt meters and simultaneous procurement for unmetered consumers is being done.

In order to achieve the above target of 100% metering across consumers categories, a total of 22,43,083 meters are required. Presently, JBVNL has a meter stock of 48,475 meters which consist of 3 phase whole current meter, single phase meter, three phase CT operated meter, etc. Further, the procurement of 7,23,000 meters for urban category metering are in pipeline for which the tendering process shall be initiated soon. The remaining 15 Lacs meters are planned to be procured under JASBAY scheme covering the 100% metering.

Annexure-6 JSERC Tariff formats

Name of Distribution Licensee		
Profit & Loss Account		Form No: A1
All figures in Rs Lakhs		
Particulars		FY 16-17
I.	Revenue From Operations	2,81,351.67
	Revenue Grant from Govt.	1,20,000.00
II.	Other income	52,560.15
III.	Total Revenue (I + II)	4,53,911.82
IV.	Expenses:	
	Purchases of Power and Transmission charges	5,40,840.30
	Employee benefits expense	21,320.56
	Finance costs	3,183.72
	Depreciation and amortization expense	41,785.55
	Other expenses	20,893.44
	Total expenses	6,28,023.57
V.	Profit before exceptional and extraordinary items and tax (III-IV)	-1,74,111.75
VI.	Exceptional items	-
VII.	Profit before extraordinary items and tax (V - VI)	-1,74,111.75
X.	Tax expense:	-
XI.	Profit (Loss) for the period	-1,74,111.75
	Less: Provisions	
	Provisions for Doubtful debts	-
XII.	Profit (Loss) to be transferred to Reserves & Surplus	-1,74,111.75

Name of Distribution Licensee		
Balance Sheet		Form No: A2
All figures in Rs Lakhs		
Particulars	FY 16-17	
Particulars	As at 31st March 2017	
I. ASSETS		
1 Non-current assets		
Fixed assets		
Property, Plant & Equipment		3,70,868.01
Capital work-in-progress		2,64,121.36
Investment property		-
Intangible assets		-
Financial Assets		
Non-current investments		2.60
Loans		-
Others		100.00
Other non-current assets		5,93,575.48
2 Current assets		
Inventories		1,365.08
Financial Assets		
Investments		-
Trade receivables		2,19,985.23
Cash and cash equivalents		1,91,593.16
Bank Balances Other Than Cash & Cash Equivalent		71,635.01
Other current assets		1,61,537.57
TOTAL ASSETS		18,74,783.50
II. EQUITY AND LIABILITIES		
1 Equity		
Equity Share capital		210.00
Other Equity		(1,52,239.04)
Liabilities		
2 Non-current liabilities		
Financial Liabilities		
Borrowings		7,68,742.57
Trade Payable		-
Provisions		1,771.31
Consumers' Security Deposit		74,896.26
Government Grants		2,94,747.27
Other Non-Current liabilities		38,922.35
4 Current liabilities		
Financial Liabilities		
Borrowings		-
Trade payables		7,98,354.12
Others		41,209.93
Other current liabilities		5,910.54
Provisions		2,258.19
TOTAL		18,74,783.50

Name of Distribution Licensee				
Cash Flow Statement			Form No: A3	
			All figures in Rs Lakhs	
Particulars			FY 16-17	
Cash flows from operating activities				
Profit before taxation			-	(1,74,111.75)
Adjustments for:			-	-
Depreciation			41,785.55	-
Ammortisation of Grants, Contribution, Subsidies charged to P&L A/c			(18,194.65)	-
Provision for Doubtful Debts			4,892.69	-
Investment income			(1,171.47)	-
Profit / (Loss) on the sale of property, plant & equipment			-	27,312.12
Working capital changes:			-	-
Decrease in inventories			1,551.73	-
Increase in trade and other receivables			(9,387.43)	-
Increase in trade and other payables			2,67,629.23	2,59,793.53
Cash generated from operations			-	1,12,993.90
Interest paid			2,894.86	-
Income taxes paid			-	-
Dividends paid			-	2,894.86
Net cash from operating activities			-	1,15,888.76
			-	-
Cash flows from investing activities			-	-
Purchase of Property, Plant & Equipment			-	(7,339.12)
Addition/Capitalisation of CWIP			-	(56,345.41)
Interest Income on Investments			-	1,171.47
Purchase of Investment			-	(40,513.26)
Net cash from investing activities			-	(1,03,026.32)
			-	-
Cash flows from financing activities			-	-
Proceeds from Government Grant			-	(35,091.91)
Proceeds from State Government Loan			-	66,992.00
Proceeds from PFC & REC Loans			-	21,368.14
Proceeds from Central Government Loan			-	3,464.30
Payment of borrowings from PFC			-	(702.66)
Receipt from Consumer for Capital works			-	7,000.00
Change in Restructuring Account			-	(1,13,701.65)
Interest paid			-	(2,894.86)
Net cash from financing activities			-	(53,566.65)
			-	-
Net increase in cash and cash equivalents			-	(40,704.20)
			-	-
Cash and cash equivalents at beginning of period			-	2,32,297.36
			-	-
Cash and cash equivalents at end of period			-	1,91,593.16

Name of Distribution Licensee		Form No: A4		
Annual Revenue Requirement		All figures in Rs Cr.		
Particulars		FY 16-17	FY 17-18	FY 18-19
	Power Purchase (MU)	12489.29	12609.11	13217.20
	Sale of Power (MU)	8721.07	9498.52	10796.93
	1 Receipts			
a	Revenue from Tariffs & Miscell. Charges	2813.51	3572.22	8045.01
b	Revenue subsidy from Govt.	805.95	2321.39	0.00
	Total			
	2 Expenditure			
a	Power Purchase cost with Disallowance	5025.54	5531.79	5908.99
b	Transmission charges	185.40	160.39	181.41
c	O&M expenses	324.09	409.37	520.54
d	Depreciation	203.02	244.06	324.93
e	Interest on Loan	159.27	198.92	264.99
f	Return on Equity	143.86	174.99	222.71
g	Interest on Working Capital	24.20	20.89	13.35
h	Interest on security deposit	49.10	46.56	60.55
i	Provision for doubtful debts	196.95	0.00	0.00
	Total	6311.42	6786.96	7497.48
	3 Other Income			
a	Non-Tariff Income	112.46	126.94	138.06
	4 Annual Revenue Requirement (2)+(3)-(4)	6198.96	6660.02	7359.42
	5 Previous Gap Treatment	-	-	2336.09
	6 Surplus(+) / Shortfall(-) : (1)-(5) before tariff revision	2,579.50	766.40	1650.5

Name of Distribution Licensee				
Return on Equity			Form No: A5	
All figures in Rs Crores				
S. No	Particulars	FY 16-17	FY 17-18	FY 18-19
1	Opening Balance of Equity	830.85	1,025.36	1,232.63
2	Net Additions during the Year	194.51	207.27	408.45
3	Closing Balance of Equity	1,025.36	1,232.63	1,641.08
4	Rate of Return (%)	15.50%	15.50%	15.50%
	ROE	143.86	174.99	222.71

Name of Distribution Licensee				
Energy Balance		Form No: A6		
Particulars	FY 16-17	FY 17-18	FY 18-19	
	MU	MU	MU	
Purchase of Power	12489.29	12609.11	13217.20	
Energy Available for sales	11946.64	12053.73	12675.95	
Energy Sales within the state	8721.07	9498.52	10796.93	
Distribution Loss	3225.60	3956.35	3427.34	
Intra State Transmission Loss	371.00	372.76	363.04	

Name of Distribution Licensee
Projection of Sales

FY 16-17		
JBVNL	sales	conumers
Domestic	5,037.30	28,49,998
Commercial/Non Domestic	569.04	1,95,656
Public Lighting / SS	239.33	542
Irrigation / IAS	148.27	51,885
MES	15.92	7
Industrial LT / LTIS	193.83	14,677
Industrial HT / HTS / S	2,347.37	1,603
Railway / RTS	170.00	2
Total Energy Sales	8,721.07	31,14,370

Name of Distribution Licensee		
Repair & Maintenance Expenditure (in Lakhs)		Form No: A8
Sl.No	Particulars	
	Figure in Rs lakhs	FY 16-17
1	Plant and Machinery	69.01
2	Building	79.10
3	Civil Works	199.54
4	Hydraulic Works	-
5	Lines, Cables Net Works etc.	5,024.95
6	Vehicles	7.48
7	Furniture and Fixtures	2.04
8	Office Equipments	21.88
	Total	5,403.99

Name of Distribution Licensee			Form No: A9
Employee Cost and Provisions			In Rs Lakhs
Particulars			FY 16-17
a		Salaries and incentives	18,944.65
b		Contributions to :	
	i	Provident and other funds	337.55
	ii	Superannuation scheme	17.13
	iii	Pension fund	1,499.19
c		Gratuity fund contributions	384.43
d		Social security and other benefit plans	-
e		Expense on employee Stock Option Scheme (ESOP) and Employee Stock Purche Plan (ESPP)	-
f		Staff welfare expenses	136.34
g		Others	1.26
		Total	21,320.56

Adminstration & General Expenses (in Lakhs)		Form No: A10
S.No.	Particulars	FY 16-17
A)	Administration Expenses	
1	Rent Rates & Taxes	188.27
2	Insurance	16.60
3	Telephone Charges,Postage,telegram & Telex chgs	90.49
4	Legal Charges	351.78
5	Consultancy Charges	885.81
6	Technical Fees	0.03
7	Other Professional Charges/ Collection and Remittance charge	148.78
8	Conveyance Expenses	9.15
9	Traveling Expenses	111.22
10	Vehicle Running Expenses Petrol & Oil)	239.28
11	Hired Vehicles	309.56
12	Fees & Subscription	77.55
13	Books & Periodicals	1.81
14	Printing & Stationary	101.78
15	Advertisements	215.75
16	Water Charges	0.64
17	Electric Charges	308.70
18	Entertainment Charges	26.47
19	Miscellaneous Expenses	140.11
20	Home Guard	308.93
21	Computer Billing	2,008.71
22	Bills Distribution	-
23	Others	14.38
24	Photocopy	-
25	Freight	9.58
26	Freight on capital Equipments	-
27	Other Freight	-
28	Vehicle Running Trucks/Delivery	32.43
29	Vehicle Running exps-Trucks/vehicles	15.32
	Vehicle License & Reg. Fees	-
30	Incidental Stores Expenses	27.87
	Audit Fees:	
31	a) Statutory Audit	8.17
32	b) Internal Audit	33.91
	Total of Administrative Expenses	5,683.08

Category	Sub-Category	Existing Slabs	Existing Component of Tariff (FY 16-17)		Proposed Component of Tariff (FY 17-18 and FY 18-19)		
			Energy Charges (Rs.)	Fixed Charges (Rs.)	Energy Charges (Rs.)	Fixed Charges (Rs.)	
Domestic	PTG				5.25/kWh	40/kW	
		DS- I	Metered	DS- I (a), Kutir Jyoti (0-50 units)	1.25/kWh	16/conn	6.25/kWh
	DS- I (a), Kutir Jyoti (51-100 units)			1.25/kWh	16/conn		
	DS-I (b), (0-200 units)			1.6/kWh	30/conn		
	DS-I (b), (above 200 units)			1.7/kWh	30/conn		
	Unmetered	DS-I (a),	NIL	60/conn	NIL	700/kW	
		DS-I (b),	NIL	170/conn			
	DS- II	0-200 units	3/kWh	50/conn	7.00/kWh	80/kW	
		201 & above units	3.6/kWh	80/conn			
	Commercial	CS- I	0-100 Units	2.2/kWh	45/conn	6.50/kWh	100/kW
Above 100 Units			2.25/kWh	45/conn			
Unmetered			NIL	250/kW	NIL		
CS- II		NDS-II	6.0kWh	225/kW	6.50/kWh	225/kW	
		NDS-III	6.8/kWh	200/conn			
Industrial	LTIS	Demand based	5.50 / kWh	275/kVA	5.50/ kVAh	275/kVA	
		Installation based	5.50 / kWh	160/HP/Month	6.50 /kWh	200/HP/Month	
	HTIS	HTS - 11KV	6.25/kWh	300/kVA	6.00/ kVAh	300/kVA	
		HTS - 33KV	6.25/kWh	300/kVA			
		HTS - 132KV	6.25/kWh	300/kVA			
		HTSS - 11KV	4.00/kWh	490/kVA			
		HTSS - 33KV	4.00/kWh	490/kVA			
Irrigation and Agriculture	IAS-I	IAS - I Metered	0.70/kWh	-	5.25/kWh	30/HP	
		IAS - I Unmetered	-	100/HP	-	650/HP	
	IAS-II	IAS - II Metered	1.20/kWh	-	6.00/kWh	100/HP	
		IAS - II Unmetered	-	375/HP	-	650/HP	
Institutional	Ins- I	Metered	5.25/kWh	55/conn	6.50/kWh	100/kW	
		Un-metered	NIL	Rs 250 per 100 watt/month and Rs 55 for every additional 50 Watt	NIL	Rs 650 per 100 watt/month and Rs 100 for every additional 50 Watt	
	Ins- II	RTS	6.00/kWh	235/kVA	4.80/kVAh	400/kVA	
		MES	4.60/kWh	260/kVA			
	Ins- III	DS (HT)	3.50/kWh	110/kVA	5.25/kWh	200/kVA	

Name of Distribution Licensee

Form A12

Revenue from Proposed Tariffs in Ensuing Year/Control Period

FY 17-18

Sub-category	Energy cost Tariff	Fixed cost Tariff	consumers	sales (Mus)	connected load (kW)	Fixed charge (Rs Cr)	Energy charge (Rs Cr)	Total Revenue (Rs Cr)
PTG	5.25 / kWh	40 / Conn./ Month	2,500	0	1,250	0.1	0.3	0.3
DS-I	6.25 / kWh	60 / Conn./ Month	4,76,706	809	5,98,848	43.1	505.7	548.8
DS-I Unmetered		700 / Conn./ Month	17,40,762	2,832	17,40,762	1,462.2	-	1,462.2
DS-II	7.00 / kWh	80 / Conn./ Month	9,47,807	1,948	23,12,649	222.0	1,363.9	1,585.9
CS-I	6.50 / kWh	100 / Conn./ Month	37,834	78	39,186	4.7	50.7	55.4
CS-I Unmetered		700 / Conn./ Month	16,215	72	16,215	13.6	-	13.6
CS-II	6.50 / kWh	225 / kW / Month	1,91,983	643	4,86,394	131.3	417.7	549.0
IAS-I	5.25 / kWh	30.00 / Conn./ Month	-	-	-	-	-	-
IAS-I Unmetered		650.00 / HP / Month	52,035	153	1,04,069	108.8	-	108.8
IAS-II	6.00 / kWh	100.00 / Conn./ Month	-	-	-	-	-	-
IAS-II Unmetered		650.00 / HP / Month	226	1	452	0.5	-	0.5
LTIS	5.50 / kWh	275.00 / HP / Month	15,213	220	2,58,621	100.4	142.0	242.4
HTIS	6.00 / kWh	300 / kVA / Month	1,610	2,357	8,82,891	373.9	1,664.1	2,038.0
INS-I	6.50 / kWh	100 / Conn./ Month	149	121	10,430	1.3	78.4	79.7
INS-I Unmetered		650.00 / 100 W / Month	397	123	27,790	216.8	-	216.8
INS-II	4.80 / kWh	400 / kVA / Month	8	119	35,960	20.3	67.2	87.5
INS-III	5.25 / kWh	200 / kVA / Month	28	22	3,640	1.0	11.7	12.7
Total			34,83,473	9,498.8	65,19,155	2,700.0	4,301.7	7,001.7

FY 18-19

Sub-category	Energy cost Tariff	Fixed cost Tariff	consumers	sales (Mus)	connected load (kW)	Fixed charge (Rs Cr)	Energy charge (Rs Cr)	Total Revenue (Rs Cr)
PTG	5.25 / kWh	40 / Conn./ Month	1,03,000	45	1,03,000	4.9	23.6	28.6
DS-I	6.25 / kWh	60 / Conn./ Month	22,96,120	2,708	27,89,751	212.9	1,886.1	2,099.1
DS-I Unmetered		700 / Conn./ Month	6,71,348	1,238	6,71,348	422.9	-	422.9
DS-II	7.00 / kWh	80 / Conn./ Month	10,47,807	2,468	27,24,298	261.5	1,727.3	1,988.9
CS-I	6.50 / kWh	100 / Conn./ Month	55,941	131	62,157	7.6	89.0	96.7
CS-I Unmetered		700 / Conn./ Month	6,216	24	6,216	3.9	-	3.9
CS-II	6.50 / kWh	225 / kW / Month	2,33,729	837	4,46,211	120.5	543.9	664.4
IAS-I	5.25 / kWh	30.00 / Conn./ Month	29,363	121	58,726	3.6	81.9	85.6
IAS-I Unmetered		650.00 / HP / Month	33,823	140	67,645	39.6	-	39.6
IAS-II	6.00 / kWh	100.00 / Conn./ Month	118	0	235	0.0	0.4	0.4
IAS-II Unmetered		650.00 / HP / Month	118	0	235	0.1	-	0.1
LTIS	5.50 / kWh	275.00 / HP / Month	15,684	224	2,66,628	103.5	144.7	248.2
H TIS	6.00 / kWh	300 / kVA / Month	1,656	2,469	9,14,268	387.2	1,742.6	2,129.8
INS-I	6.50 / kWh	100 / Conn./ Month	434	182	23,580	3.3	129.4	132.7
INS-I Unmetered		650.00 / 100 W / Month	214	66	14,980	8.8	-	8.8
INS-II	4.80 / kWh	400 / kVA / Month	8	119	25,795	14.6	67.2	81.8
INS-III	5.25 / kWh	200 / kVA / Month	31	25	4,030	1.0	13.0	13.9
Total			44,95,608	10,796.9	81,79,102	1,596.1	6,449.1	8,045.2