

A. Introduction

- 1.1 BSES Yamuna Power Limited (BYPL), the Distribution Licensee, has filed its Petition for Approval of True up for FY 2016-17 and ARR of FY 2018-19.
- 1.2 The Executive Summary contains the summary of the Petition filed by BYPL for True up for FY 2016-17 (based on audited accounts) and ARR of FY 2018-19.
- 1.3 The Commission shall true-up the ARR for FY 2016-17 as per DERC MYT Regulations, 2011, after prudence check.
- 1.4 ARR and Tariff for FY 2018-19 shall be based on the provisions of Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2017, which broadly has the following components:
 - a. Power Purchase Cost including transmission charges
 - b. Operation and Maintenance (O&M) expenses
 - i. Employee Expenses
 - ii. Administrative & General Expenses
 - iii. Repair & Maintenance Expenses
 - c. Return on Capital Employed
 - d. Depreciation
 - e. Income Tax.
 - f. Non-tariff Income, etc.
- 1.5 Depreciation and RoCE shall be trued up based on the actual capital expenditure and actual capitalization vis-à-vis capital investment plan (capital expenditure and capitalization) approved by the Commission - Controllable parameters.
- 1.6 Variation in revenue / expenditure on account of uncontrollable sales / power purchase respectively – Uncontrollable parameters.
- 1.7 The figures of various components in the Executive Summary have been extracted from the Petitions filed by BYPL for ease of understanding to various stakeholders. However, the complete Petition is also available on DERC website <http://www.derc.gov.in/>

B. TRUE UP OF FY 2016-17

1.8 BYPL has submitted that its energy sales in FY 2016-17 was 6115 MU as shown below:

Table 1: Energy Sales for FY 2016-17 (MU)

Sr. No.	Category	Actual
A	Domestic	3517
B	Non Domestic	1772
C	Industry	277
D	Public Lighting	145
E	Agriculture & Mushroom Cultivation	0
F	DMRC	177
G	DJB	142
H	Others*	86
Total		6,115

*Advertisement, Temporary, Enforcement, Self Consumption, Net Metering

1.9 The actual AT&C loss along with Distribution loss and collection efficiency for FY 2016-17 as submitted by BYPL is as follows:

Table 2: AT&C Loss for FY 2016-17 (%)

Sr. No	Particulars	Actual
1	Distribution Losses	12.99%
2	Collection Efficiency	100.33%
3	AT&C Loss level	12.70%

1.10 The Power Purchase Quantum as submitted by BYPL is tabulated below:

Table 3: Power Purchase Quantum for FY 2016-17 (MU)

Sr. No	Particulars	Submission
A	Power Purchase:	
i	Gross Power Purchase Quantum	8129.4
ii	Power sold to other sources	767.6
iii	Net Power Purchase	7361.8
B	Transmission Loss:	
i	Inter-State Transmission Loss	334.1
ii	Intra-State Transmission Loss	
iii	Total transmission loss	334.1
C	Net power available after Transmission Loss	7027.7

1.11 The actual power purchase cost as submitted by BYPL for FY 2016-17 is tabulated as follows:

Table 4: Power Purchase Cost for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	Power Purchase Cost	
i	Gross Power Purchase Cost	2922.8
ii	Power sold to other sources	213.9
iii	Net Power Purchase Cost	2709.0
B	Transmission Charges	
i	Inter-state transmission charges	299.8
ii	Intra-state transmission charges	302.8
iii	Other Transmission charges	41.0
iv	Total Transmission charges	643.6
C	Rebate	
i	Power Purchase Rebate	0
ii	Rebate on Transmission Charges	0
iii	Total rebate	0
D	Net Power Purchase Cost including Transmission charges net of rebate	3352.6

1.12 The O&M Expenses as considered by BYPL during FY 2016-17 is tabulated below:

Table 5: O&M Expenses for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	Employee Expenses	270.3
B	A&G Expenses	171.5
C	R&M Expenses	105.5
D	Gross O&M Expenses	547.3

1.13 The miscellaneous expenses incurred during FY 2016-17 is tabulated below:

Table 6: Other uncontrollable costs/ expenses during FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
1	Other Borrowing cost	7.0
2	Incremental Service Tax Paid	27.5
3	Arrears paid on account of 7 th Pay Commission revision	49.7
4	Impact of Revision in Minimum Wages	2.2
5	Total	86.3

1.14 The Non-Tariff Income claimed by BYPL in True-up of FY 2016-17 is tabulated below:

Table 7: Non-Tariff Income during FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	Other Operating Revenue	61.3
B	Other Income	28.6
I	Total Income as per Accounts	89.9
C	Add: Interest on Consumer Security Deposit (CSD)	40.2
D	Add: Difference in Service Line Development (SLD)	7.6
II	Total Other Income	137.7
E	Less: Income from other business	
a	<i>Pole Rental Income</i>	<i>1.1</i>
III	Net Income to be considered	136.6
A	Less: Late Payment Surcharge	19.2
B	Less: Rebate on Power Purchase and Transmission Charges	-
C	Less: Write-back of misc. provisions	3.3
D	Less: Short term gain	1.5
E	Less: Transfer from Consumer contribution for capital works	7.3
F	Less: Bad debts recovered	2.5
G	Less: Incentive towards Street Light	0.4
H	Less: Sale of scrap	4.4
I	Less: Commission on collection of Electricity Duty	6.1
IV	Net Non-Tariff Income	91.9

1.15 BYPL has calculated the allowable depreciation @ 3.96% after excluding consumer contribution and Grants from the Gross Fixed Assets as under:

Table 8: Depreciation for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	Average Gross Fixed Assets	3,000.9
B	Average Consumer Contribution and Grants	226.4
C	Average assets net of consumer contribution & Grants (A-B)	2,774.5
D	Average rate of depreciation	3.96%
E	Depreciation	109.8

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1.16 The Annual Revenue Requirement (ARR) claimed during FY 2016-17 is tabulated below:

Table 9: Annual Revenue Requirement for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	Purchase of power including Transmission and SLDC Charges	3352.6
B	O&M Expenses	547.3
C	Other Expenses/ Statutory levies	86.3
D	Depreciation	109.8
E	Advance Against Depreciation (AAD)	2.4
F	Return on Capital Employed (RoCE)	318.6
G	Additional return on account of overachievement of AT&C loss	26.9
H	Income Tax	41.5
I	Sub-total (A+B+C+D+E+F+G+H)	4485.4
J	Less: Non-Tariff Income	91.9
K	Less: Income from other business	0.4
L	Less: Income from Open Access	5.3
M	Aggregate Revenue Requirement (I-J-K-L)	4387.8

1.17 The revenue gap during FY 2016-17 is tabulated as under:

Table 10: Revenue Gap during FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Submission
A	ARR for FY 2016-17	4387.8
B	Revenue available towards ARR	4164.5
C	Revenue (Gap)/ Surplus	(223.3)

C. ARR OF FY 2018-19

1.18 Based on the sales projected for FY 2018-19 and Distribution loss as specified for FY 2018-19 in DERC Business Plan Regulations, 2017, the energy requirement estimated by BYPL is tabulated as below:

Table 11: Energy Requirement for FY 2018-19

Sr. No.	Particulars	UoM	Amount
A	Energy Sales	(MU)	6603
B	Distribution Loss	(%)	11.69
C	Energy Requirement	(MU)	7477

1.19 The total power purchase cost during FY 2018-19 is tabulated below:

Table 12: Power Purchase Quantum & Cost for FY 2018-19

Sr. No	Source	Quantity (MU)	Amount (Rs. Crore)	Average Cost (Rs./ kWh)
A	Power Purchase from CSGS	7,462	2,531.8	3.39
B	Inter-State Loss & Charges	169	312.5	
C	Cost towards REC		196.1	
D	Power Available at Delhi Periphery	7,293	3,040.4	4.17
E	Power Purchase from SGS*	756	515.5	6.82
F	Intra-State Losses & Charges including SLDC Charges	79	249.3	
G	Banking Import	307	122.6	4.00
H	Shortfall to be met at Discom Periphery	395	135.7	3.44
I	Total Power available to DISCOM	8,671	4,063.6	4.69
J	Sales	6,603		
K	Distribution Loss	874		
L	Power Required at Discom periphery	7,477	3,752.9	5.02
M	Sale of Surplus power	873	181.9	2.08
N	Sale of Power through Banking	322	128.8	4.00
O	Total Sale of Surplus Power	1,195	310.7	2.60

* includes SGS/BTPS/Renewable etc.

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1.20 BYPL has applied the approved O&M rates specified for FY 2018-19 in DERC Business Plan Regulations, 2017 on the Line Length and Power Transformation Capacity estimated for FY 2018-19 and accordingly, the Petitioner has computed the normative O&M expenses for FY 2018-19 as follows:

Table 13: O&M Expenses for FY 2018-19

Particulars	Capacity as on 31.03.2019	O&M expenses per unit		O&M expenses (in Rs. Cr)
66 kV Line (ckt km)	216	Rs. Lakh/ckt. km	4.669	10.1
33 kV Line (ckt km)	371	Rs. Lakh/ckt. km	4.669	17.3
11kV Line (ckt km)	2659	Rs. Lakh/ckt. km	1.961	52.2
LT Line system (ckt km)	5133	Rs. Lakh/Ckt. km	8.756	449.4
66/11 kV Grid S/s (MVA)	1699	Rs. Lakh/MVA	1.104	18.8
33/11 kV Grid S/s (MVA)	2003	Rs. Lakh/MVA	1.104	22.1
11/0.415 kV DT (MVA)	3386	Rs. Lakh/MVA	2.425	82.1
Total O&M Expenses				652.0

Table 14: Additional O&M Expenses during FY 2018-19(Rs. Crore)

Sr.No.	Particulars	Submission
A	Increase in salary on account of 7th Pay Commission	69.2
B	Minimum Wage revision	36.8
C	GST	8.8
D	Short Code 1912	4.6
E	DSM Initiative	7.0
E	Total	126.4

Table 15: Consumer contribution capitalized for FY 2018-19 (Rs. Crore)

Sr. No	Particulars	Submission
1	Consumer Contribution & Grants capitalised upto FY 16-17	235.4
2	Consumer Contribution Capitalized approved for FY 17-18 in Business Plan Regulations, 2017	11.0
3	Opening Balance of Consumer Contribution capitalised	246.4
4	Consumer Contribution approved for FY 18-19 in Business Plan Regulations, 2017	11.0
5	Closing Consumer Contribution and Grants	257.4
6	Average Consumer Contribution and Grants	251.9

Table 16: Depreciation for FY 2018-19 (Rs. Crore)

Sr.No.	Particulars	Submission
A	Closing GFA for FY 2016-17	3,109.6
B	Addition during FY 2017-18	395.0
C	Opening GFA for FY 2018-19	3,504.6
E	Additions during the year	409.0
F	Closing GFA	3,913.6
G	Average GFA	3,709.1
H	Less: Average Consumer Contribution	251.9
I	Average GFA net of Consumer Contribution	3,457.2
J	Average rate of depreciation	5.61%
K	Depreciation for FY 2018-19	193.9
L	Opening Depreciation including AAD upto FY 17-18	1,371.0
M	Accumulated Depreciation	1,564.9

1.21 BYPL has computed the working capital requirement for FY 2018-19 as per Regulation 84 (4) of Tariff Regulations, 2017 as below:

Table 17: Working Capital for FY 2018-19 (Rs. Crore)

Sr.No.	Particulars	Submission
A	Annual Revenue Requirement	5126.9
B	Receivables equivalent to 2 months average billing	854.5
C	Net Power Purchase expenses	3752.9
D	Power purchase expenses for 1 Month	312.7
E	Total Working Capital	541.7
F	Opening Working Capital	427.8
G	Change in WC	113.9

Table 18: Equity and Debt for FY. 2018-19 (Rs Crore)

Sr.No.	Particulars	Submission
Equity		
A	Closing Balance upto FY 2016-17	1007.8
B	Addition during FY 2017-18	115.2
C	Opening Balance for FY 2018-19	1123.0
D	Addition during FY 2018-19	119.4
E	Closing Balance for FY 2018-19	1242.4
Debt		
F	Closing Balance upto FY 2016-17	1126.7
G	Addition during FY 2017-18	281.9

Sr.No.	Particulars	Submission
i	Capex	268.8
ii	Working Capital	13.1
H	Repayment	112.7
I	Opening Balance for FY 2018-19	1295.9
J	Addition during FY 2018-19	392.5
i	Capex	278.6
ii	Working Capital	113.9
K	Repayment	129.6
L	Closing Balance for FY 2018-19	1558.9

Table 19: Weighted Average Cost of Capital (WACC) for FY 2018-19(%)

Sr. No.	Particulars	Submission
A	Average Equity (Rs. Cr)	1182.7
B	Average Debt (Rs. Cr)	1427.4
C	Return on equity	16.00%
D	Rate of Interest	14.00%
E	Weighted average cost of Capital	14.91%

Return on Capital Employed (RoCE):

1.22 BYPL has computed RoCE for FY 2018-19 as under:

Table 20: RoCE for FY 2018-19 (Rs. Crore)

Sr. No.	Particulars	Submission
A	WACC	14.91%
B	RRB (i)	2,640.3
C	RoCE	393.6

Income-Tax:

1.23 The Income-tax during FY 2018-19 is tabulated below:

Table 21: Income Tax for FY 2018-19 (Rs. Crore)

Sr.No.	Particulars	Submission	Remarks
A	Equity considered for Tax	1182.7	
B	RoE @16%	189.2	16%*A
C	Corporate tax rate	34.61%	
D	Gross up Tax by corporate tax rate	289.4	B/(1-C)
E	Income Tax	100.2	D-B

Non-Tariff Income:

1.24 BYPL has submitted its Non-Tariff Income during FY 2018-19 as Rs. 92 Crore.

Aggregate Revenue Requirement

1.25 BYPL has sought the ARR of Rs.5404.8 Crore for FY 2018-19 as below:

Table 22: Aggregate Revenue Requirement for FY 2018-19 (Rs. Crore)

Sr. No.	Particulars	Amount
A	Power Purchase Cost including Transmission Charges	3752.9
B	O&M Expenses	652.0
C	Additional O&M Expenses	126.4
D	Depreciation	193.9
E	Return on Capital Employed (RoCE)	393.6
F	Income Tax	100.2
G	Less: Non-Tariff income	92.3
H	Aggregate Revenue Requirement excl. Carrying Cost on RA	5126.6
I	Add: Carrying Cost on RA	278.2
J	Aggregate Revenue Requirement Incl. Carrying Cost on RA	5404.8

Table 23: Revenue (Gap) for FY 2018-19 (Rs. Crore)

Sr. No.	Particulars	Submission
A	Aggregate Revenue requirement for the year	5404.8
B	Revenue available for the year	4718.1
C	Revenue (Gap)/ Surplus for the year	(686.7)