A. Introduction

- 1.1 BSES Rajdhani Power Limited (BRPL), the Distribution Licensee, has filed its Petition for Approval of True up for FY 2016-17 and ARR for FY 2018-19.
- 1.2 The Executive Summary contains the summary of the Petition filed by BRPL for True up for FY 2016-17 (based on audited accounts) and ARR and Tariff of FY 2018-19 (based on projections).
- 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 BRPL 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 BRPL has submitted that its Energy Sales in FY 2016-17 was 11,189 MU based on actual as shown below:

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

Sr. No.	Consumer Category	Sales
1	Domestic	6516
2	Non-Domestic	3028
3	Industrial	499
4	Public Lighting	193
5	Agriculture & Irrigation	16
6	Railway Traction	21
7	DMRC	308
8	DIAL	219
9	DJB	222
10	Others*	166
11	Total	11,189

^{*} Advertisement, Temporary, Enforcement, Self Consumption

1.9 The AT&C loss along with Distribution Loss and Collection Efficiency for FY 2016-17 sought by BRPL is tabulated below:

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

Sr. No.	Particulars	Actual
1	Distribution Loss	11.13%
2	Collection Efficiency	100.50%
3	AT&C Loss level	10.69%

1.10 The source wise Power Purchase Quantum as submitted by BRPL is tabulated below:

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

Sr. No.	Particulars	Quantum
1	NTPC including BTPS (Thermal)	6554
2	NHPC (Hydro)	1135
3	NPCIL (Nuclear)	281
4	State Generating Stations excluding BTPS	1617
5	Other Hydro	551
6	SECI (Solar)	45
7	UMPP Sasan	428
8	DVC	1166
9	Short Term	1471
10	Total	13250

1.11 The following table shows the actual Power Purchase Cost as submitted by BRPL for

FY 2016-17:

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

Sr. No.	Particulars	Submission
Α	Power Purchase Cost	
I	Gross Power Purchase Cost	5915
li	Power sold to other sources	156
lii	Less UI Charges	9
lv	Net Power Purchase Cost	5751
В	Transmission Charges	
I	Inter-state transmission charges	551
li	Intra-state transmission charges	564
lii	Other Transmission charges	49
lv	Total Transmission charges	1163
С	Rebate	
I	Power Purchase Rebate	1
li	Rebate on Transmission Charges	
lii	Total rebate	1
D	Net Power Purchase Cost	6913

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

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

Sr. No.	Particulars	Actual as per Petition
1	Employee Expenses	391
2	A&G Expenses	200
3	R&M Expenses	161
4	Bank Charges	11
5	Total O&M Expenses	763

1.13 The Return on Capital Employed for FY 2016-17 is tabulated below:

Table 6: Return on Capital Employed for FY 2016-17 (Rs. Cr.)

Sr. No.	Particulars	FY 2016-17
1	Average Debt	2005
2	Average Equity	1700
3	Total	3705
4	Cost of Debt	13.56%
5	Return on Equity	16%
6	WACC (Weighted avg Cost of capital)	14.68%
7	RRB(i)	3708
8	RoCE (Return on Capital Employed)	544

1.14 The Income Tax claimed by BRPL in True-up of FY 2016-17 is tabulated below:

Table 7: Income Tax for FY 2016-17 (Rs. Cr.)

Sr. No.	Particulars	FY 2016-17
1	Average Equity	1700
2	Average Debt	2005
3	Equity %	46%
4	RRB	3708
5	Equity	1701
6	ROE	272
7	Income-tax rate	21.34%
8	Income-tax	74

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

Table 8: Non-Tariff Income for FY 2016-17 (Rs. Cr.)

Sr. No.	Particulars	Amount
1	Other Operating Revenue	110
2	Other Income	97
3	Total other income	207
4	Add: Income on Consumer Security Deposit CSD)	57
5	Add: Interest on Service Line Development (SLD)	11
6	Total Income for computation of Non Tariff Income	274
7	Less: Income from other business	
Α	Street Light	24
b	Consulting	0.41
8	Net Income for computation of NTI	249
9	Less: Interest on CR	0.04
10	Less: Late Payment Surcharge	28
11	Less: write-back of misc. provisions	3
12	Less: Short term gain	0.98
13	Less: Transfer from Consumer contribution for capital works	17
14	Less: Bad debts recovered	3
15	Less: Penalties from contractors	0.25
17	Less: Interest on inter-company loans	52
18	Less: Commission on Electricity Duty	12
20	Net NTI	133

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. Cr.)

Sr. No.	Particulars	Submission
Α	Purchase of power including Transmission and SLDC Charges	6913
В	O&M Expenses	763
С	Other Expenses/ Statutory levies	

Sr. No.	Particulars	Submission
D	Depreciation	195
E	Return on Capital Employed (RoCE)	544
F	Income Tax	74
G	Sub-total (A+B+C+D+E+F)	8489
Н	Less: Non-Tariff Income	133
1	Less: Income from other business	
J	Less: Interest on Consumer Security Deposit (CSD)	
K	Aggregate Revenue Requirement	8356
		Impact pertaining to
	Add: Impact of DERC/ APTEL/ High/ Supreme Court Judgments	previous years
L		directly carried in the
		balance of RA
	Net Aggregate Revenue Requirement	8356

1.17 The Revenue Surplus/(Gap) for FY 2016-17 is tabulated below:

Table 10: Revenue (Gap) for FY 2016-17 (Rs. Cr.)

Sr. No.	Particulars	Submission
Α	ARR for FY 2016-17	8356
В	Revenue available towards ARR	7680
С	Income from Open Access	28
D	Revenue (Gap)/ Surplus	(648)

C. ARR OF FY 2018-19

1.18 The Projected Energy Sales for FY 2018-19 is tabulated below:

Table 11: Energy Requirement for FY 2018-19

Sr. No.	Category	Expected Sales (MU)	Expected Fixed Charges (Rs. Cr.)	Expected Energy Charges (Rs. Cr.)
1	Domestic	7,470	351	4812
2	Non Domestic	2,879	335	2359
3	Industrial	481	44	359
4	Public Lighting	228	-	175
5	Agriculture	16	0	4
6	Mushroom	0	0	0
7	Railway Traction	11	2	7
8	DMRC	443	9	270
9	Others	582		
Α	DIAL	189	10	148
В	11KV (Worship/Hospital)	29	1	26
С	DJB 11 KV	152	11	103
D	DJB (LT)	70	6	49
Ε	DVB Staff	23	0	6
F	Advertisement/ Hoardings	2	1	2
G	Temporary	86	-	95
Н	Enforcement	-	-	-
1	Own Consumption	30	-	-
10	Net Metering	1	-	-
11	Total	12,111	770	8416

1.19 The Energy Requirement as per approved Distribution Loss Target in DERC Business Plan Regulations, 2017 is tabulated below:

Table 12: Energy Requirement (MU)

Sr. No.	Particulars	Unit	Quantity
1	Energy sales	MU	12111
2	Distribution Loss	MU	1374
3	Distribution Loss	%	10.19%
4	Energy Requirement	MU	13485

1.20 The Cost of REC purchase for meeting Solar and Total RPO for FY 2018-19 is tabulated as follows

Table 13: Cost on account of RPO

Particulars	Sales	Hydro	Target (%)	Target (MU)	Arrangement (MU)	Shortfall (MU)	REC Rate (Rs. /kwh)	Total cost (Rs. Cr.)
Solar (Min.)			4.75%	496	107	388	2.40	93
Non-Solar	12,111	1,676	9.50%	991	268	724	1.50	109
Total			14.25%	1487	375	1112	1.81	202
			Pos	t Back-up FY	' 2016-17			
Non-Solar				968	407	561	1.50	84
Total Cost towa	rds REC							286

1.21 The Intra State & Inter State Transmission charges for FY 2018-19 is tabulated as below:

Table 14: Trⁿ Loss and Trⁿ Charges projected for FY 2018-19

Sr. No.	Particulars	FY 2018-19
Α	Transmission losses (MU)	
I	Inter-State Transmission	134
li	Intra-State Transmission	404
lii	Total Transmission losses (MU)	537
В	Transmission Charges (Rs. Crore)	993

1.22 The Power Purchase Cost for FY 2018-19 is tabulated below:

Table 15: Power Purchase cost for FY 2018-19 (Rs. Cr.)

Sr. No.	Station	Quantum	Fixed Cost	Variable	Total Cost	TC/Unit
		(MU)	(Rs. Cr.)	Cost (Rs. Cr.)	(Rs. Cr.)	
1	Total Long Term (A)	13,427	2,618	3,498	6,116	4.55
2	Short Term Purchase (B)	1,575		607	607	3.86
3	Short Term Sale (C)	979		284	284	2.90
4	Transmission Charges (D)				993	
5	REC Cost (E)				286	
6	Net PP Cost (A+B-C+D+E)				7,718	
7	Net PP Cost @ Discom periphery	13,485			7,718	5.72

1.23 The O & M Expenses for FY 2018-19 is tabulated below:

Table 16: O&M Expenses for FY 2018-19 (Rs. Cr.)

Sr. No.	Assets/ lines	Quantity	Units	Norms	Amount
1	66 kV lines	1,144	Rs. Lakh/ Ckt. Km	3.648	42
2	33 kV lines	1,144	RS. Lakii/ CKL. Kiii	3.046	42
3	11 kV lines	6,703	Rs. Lakh/ Ckt. Km	1.058	71
4	LT lines system	11178	Rs. Lakh/ Ckt. Km	5.46	610
5	66/11 kV grid sub-station	6,467	Rs. Lakh/ Ckt. Km	0.986	64
6	33/11 kV grid sub-station	0,467	RS. Lakii/ CKL. Kiii	0.986	64
7	11/0.4 kV DT	4,932	Rs. Lakh/ Ckt. Km	2.333	115
8	Total				902

1.24 The Additional O & M Expenses for FY 2018-19 is tabulated below:

Table 17: Additional O & M Expenses for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Stand-alone for FY 2017-18	Esc. Factor	Estimated for FY 2018-19
1	7 th pay commission-FRSR Employees	55	5.61%	58
2	7 th pay commission-Non-FRSR Employees			34
3	Minimum wages	51	5.61%	54

Sr. No.	Particulars	Stand-alone for FY 2017-18	Esc. Factor	Estimated for FY 2018-19
4	GST			21
5	Legal expenses	0.46	5.61%	0.49
6	Total			168

1.25 The Depreciation for FY 2018-19 is tabulated below:

Table 18: Depreciation for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	FY 2018-19
Α	Gross Fixed Assets (GFA)	
I	Opening Balance	6536
П	Additions during the year	526
Ш	Closing Balance	7062
В	Consumer Contribution	
IV	Opening Balance	649
V	Additions during the year	41
VI	Closing Balance	690
С	Grants	
VII	Opening Balance	19
VIII	Additions during the year	0
IX	Closing Balance	19
D	GFA net of consumer contribution	
Χ	Opening Balance	5868
ΧI	Additions during the year	485
XII	Closing Balance	6353
E	Average rate of depreciation	4.88%
F	Depreciation	298

1.26 The Return on Capital Employed (RoCE) for FY 2018-19 is tabulated below:

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

Sr. No.	Particulars	FY 2018-19
1	Equity	1960
2	Debt	2257
3	Total	4217
4	Rate of Return on Equity	16%
5	Rate of Return on Debt	13.56%
6	RRB (i)	4189
7	WACC	14.69%
8	RoCE	615

1.27 The Income Tax for FY 2018-19 is tabulated below:

Table 20: Income Tax for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
		(Rs. Cr.)
Α	RRB Average	4189
В	Equity Average	1960
С	Debt Average	2257
D	% Equity (B/(B+C))	46%
Е	Equity considered for Income Tax (A*D)	1947
F	Rate of Return	16%
G		311
	Return on Equity (E*F)	
Н	MAT/ Income-tax rate	33.99%
I	Income Tax (G/(1-H)-G)	160

- 1.28 The Non-Tariff Income and income from other business during FY 2018-19 has been considered equivalent to actual NTI during FY 2016-17 as Rs. 133 Cr.
- 1.29 The Aggregate Revenue Requirement (ARR) for FY 2018-19 is tabulated below:

Table 21: Aggregate Revenue Requirement for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	FY 2018-19
Α	Net Power Purchase Cost including Transmission	7718
	and SLDC Charges	7710
В	O&M Expenses	902
С	Additional O&M Expenses	168
D	Depreciation	298
Е	Advance against depreciation (AAD)	I
F	Return on Capital Employed (RoCE)	615
G	Income Tax	160
Н	Sub-total	9862
I	Less: NTI	133
J	Add: Carrying cost	428
K	Aggregate Revenue Requirement	10157

1.30 The Regulatory Assets till FY 2016-17 after adjusting recoveries during FY 2016-17 is tabulated below:

Table 22: Regulatory Assets (RA) till FY 2016-17 ((Rs. Cr.)

Sr. No.	Particulars	FY 2016-17
Α	RA Creation	
1	Opening RA	4233

Sr. No.	Particulars	FY 2016-17
2	Past claims	2966
3	Impact of ATE Directions	9303
4	Revenue Gap during FY	648
В	Carrying cost additions	
1	Carrying cost rate	14.64%
2	Carrying cost	2462
С	RA Amortisation	
1	8% Surcharge	649
2	Carrying Cost allowed in Tariff	
	Order	451
D	Total at the end of FY	18513

1.31 The Revenue (Gap)/ Surplus for FY 2018-19 at Existing Tariffs is tabulated below:

Table 23: Revenue (Gap)/ Surplus at Existing Tariff for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars Particulars	Amount
Α	Revenue Requirement for the year (excludes	10157
В	carrying cost) Revenue at existing tariff	9140
ь	Nevertue at existing tariff	3140
С	Revenue (Gap)/ Surplus for the year	(1017)