

A. Introduction

- 1.1 BSES Rajdhani Power Limited (BRPL), the Distribution Licensee, has filed its Petition for Approval of True up FY 2018-19 and ARR for FY 2020-21.
- 1.2 This Executive Summary contains the summary of the Petition filed by BRPL for True up for FY 2018-19 and ARR of FY 2020-21.
- 1.3 The True up for FY 2018-19 shall be done based on the provisions of *DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017* and *DERC (Business Plan) Regulations, 2017*.
- 1.4 Aggregate Revenue Requirement (ARR) and Tariff for FY 2020-21 shall be determined based on the provisions of *DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017* and *DERC (Business Plan) Regulations, 2019*. ARR broadly has the following components:
- Power Purchase Cost including Transmission Charges
 - Operation and Maintenance (O&M) expenses
 - Return on Capital Employed
 - Depreciation
 - Income Tax
 - Non-tariff Income, etc.
- 1.5 The following tables/ figures have been extracted from the Petitions filed by BRPL for ease of understanding to various stakeholders. Complete Petition is also available on DERC website <http://www.derc.gov.in>

B. TRUE UP OF FY 2018-19

- 1.6 BRPL has submitted its energy sales and revenue in FY 2018-19 as follows:

Table 1: Sales and Revenue for FY 2018-19

Sr. No.	Consumer Category	Sales (MU)	Revenue Billed (Rs.Cr.)	Revenue Collected (Rs.Cr.)
1	Domestic	7214	4205	3988
2	Non-Domestic	3161	3489	4128
3	Industrial	529	519	612
4	Agriculture & Mushroom Cultivation	19	8	9
5	Public Utilities	864	601	688
6	DIAL	204	161	191
7	Advertisement & Hoardings	1	2	3
8	Temporary	100	122	0
9	E-Rickshaw/E-Vehicle	16	9	10
10	Others	85	52	55
11	Total	12194	9168	9685
12	Add: Deemed Collection		-	965
13	Less: 8% Surcharge			721
14	Less: PT Surcharge			340
15	Less: Electricity Tax			367

Sr. No.	Consumer Category	Sales (MU)	Revenue Billed (Rs.Cr.)	Revenue Collected (Rs.Cr.)
16	Less: LPSC Collected			30
17	Net Amount Considered for calculation of Revenue Gap			9192

- 1.7 BRPL has requested the Commission to approve the actual sales at 12194 MU and collected at Rs. 9192 Cr.
- 1.8 BRPL has submitted the actual AT&C loss of 8.02% and Distribution Loss of 8.26% for FY 2018-19. BRPL has claimed the following incentive with respect to actual Distribution Loss and Collection Efficiency achieved during FY 2018-19:

Table 2: Incentive claimed on Distribution Loss Reduction

Sr. No.	Particulars	UOM	FY 2018-19
1	Energy Purchased at BRPL periphery	MU	13292.2
2	Distribution Loss target for FY 2018-19	%	10.19%
3	Actual Distribution Loss for FY 2018-19	%	8.26%
4	Average Power Purchase cost for FY 2018-19	Rs/KWh	5.52
5	Financial Impact on account of overachievement of Distribution Loss Target	Rs. Cr.	141.7
6	Impact of Financial benefit to be retained by Petitioner (2/3)	Rs. Cr.	94.4

Table 3: Incentive claimed on Collection Efficiency

Sr. No	Particulars	UoM	FY 2018-19
1	Revenue Billed	Rs. Cr.	9167.9
2	Collection Efficiency Achieved	%	100.26%
3	Collection Efficiency Approved in Tariff Order	%	99.50%
4	Revenue Realised Achieved	Rs. Cr.	9191.8
5	Revenue Realised as per approved Collection Efficiency	Rs. Cr.	9122.1
6	Over-achievement	Rs. Cr.	69.7
7	Amount to be retained by petitioner and consumer shared 50:50 for achievement of collection efficiency Target from 99.50% to 100%	Rs. Cr.	22.9
8	Entire 100% to be retained for achievement over 100%	Rs. Cr.	23.8
9	Total Incentive to be retained by BRPL	Rs. Cr.	46.8

- 1.9 BRPL submits the actual sales, Distribution Loss level, and power purchase for FY 2018-19, as follows:

Table 4: Power Purchase Requirement for FY 2018-19

Sr. No.	Particulars	Actuals
1	Sales (MU)	12194.3

Sr. No.	Particulars	Actuals
2	Distribution Loss (%)	8.26%
3	Energy Required at DISCOM periphery (MU)	13292.2

1.10 BRPL has submitted that more than 90% of the total quantum is purchased from Government Owned utilities. The following table shows the source-wise power purchase quantum and cost for BRPL for FY 2018-19:

Table 5: Source-wise Power Purchase Quantum in FY 2018-19

Sr. No.	Particulars	Power Purchase (MU)	Quantum (%)
1	NTPC [#]	8715.5	56.1%
2	NHPC	1021.3	6.6%
3	NPCIL	394.2	2.5%
4	DVC	1007.9	6.5%
5	State Gencos [@]	2083.7	13.4%
6	Short Term Purchase	1199.5	7.7%
7	Other Hydro	511.6	3.3%
8	Wind Power	49.7	0.3%
9	Sasan	499.6	3.2%
10	SECI	42.3	0.3%
11	Total	15525.1	100%

Includes BTPS @ Excludes BTPS

Table 6: Power Purchase Cost

Sr.No.	Plant	FY 2018-19 (Actual)		
		MU	Total Cost	Rs. / Unit
1.	NTPC [#]	8282.8	3683	4.45
2.	NHPC	1021.3	359	3.51
3.	NPCIL	394.2	144	3.65
4.	DVC	1007.9	374	3.71
5.	State Genco [@]	2516.5	1558	6.19
6.	Other Hydro	511.6	236	4.62
7.	Sasan	499.6	71	1.43
8.	SECI	42.3	23	5.50
9.	Wind Power	49.7	18	3.53
10.	Long term power purchase cost	14325.6	6466	4.51
11.	Add: Other Costs	8.6	11	12.40
12.	ST Purchase	1199.5	581	4.84
13.	Gross Power Purchase Cost	15533.8	7058	4.54
14.	DTL loss/charges	467.7	553	
15.	PGCIL loss/charges		455	
16.	Other losses		96	
17.	Less: short term Sale	1773.8	741	4.18
18.	Add: Cost of REC		0	
19.	Net Power Purchase Cost	13292.2	7421	5.58
20.	Less: Rebate		75	
21.	Less: Additional UI		4	

Sr.No.	Plant	FY 2018-19 (Actual)		
		MU	Total Cost	Rs. / Unit
22.	Net Power Purchase Cost after rebate	13292.2	7341	5.52

Excludes BTPS @ Includes BTPS

1.11 The O&M Expenses as considered by BRPL during FY 2018-19 are tabulated below:

Table 7: O&M Expenses for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	FY 2018-19	
		Tariff Order	Actuals
1	11KV LINE	70.9	78.4
2	33KV LINE	41.7	39.8
3	66KV LINE		
4	LT LINE SYSTEM	610.3	642.3
5	11/0.415KV DT	115.1	113.8
6	33/11KV GRID SUBSTATION	63.7	58.3
7	66/11KV GRID SUBSTATION		
8	Total	901.78	932.7

1.12 BRPL has submitted that the depreciation has been calculated in accordance with *DERC Tariff Regulations, 2017*.

Table 8: Depreciation for FY 2018-19 (Rs. Cr.)

Sr.No.	Particulars	Amount
A.	Opening GFA as per audited accounts	6523.51
B.	Closing GFA as per audited accounts	7082.65
C.	Average of GFA	6803.08
D.	Depreciation as per Audited Accounts	309.47
E.	Average depreciation rate	4.55%

1.13 BRPL has submitted the average rate of depreciation for FY 2018-19 after implementation of ATE Judgments as under:

Table 9: Depreciation for FY 2018-19 (Rs. Cr.)

Sr.No.	Particulars	Amount
A	Average GFA	6841.54
B	Average Consumer Contribution and Grants	724.07
C	Average assets net of consumer contribution & Grants	6117.47
D	Average rate of depreciation	4.55%
E	Depreciation	278.28

1.14 BRPL has furnished the Return on Capital Employed during FY 2018-19 as follows:

Table 10: Return on Capital Employed (RoCE)(Rs. Cr.)

S. No.	Particulars	FY 2018-19
1	Average Debt (Term Loan & Working Capital)	2273
2	Average Equity	1962
3	Total	4235
4	Cost of Debt	13.56%
5	Return on Equity	20.39%
6	WACC (Weighted avg. Cost of capital)	16.72%

S. No.	Particulars	FY 2018-19
7	RRB(i)	4320
8	RoCE (Return on Capital Employed)	722

1.15 BRPL has submitted the Non tariff Income for FY 2018-19 as follows:

Table 11: Non-Tariff Income for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
1	Other Operating Revenue	132
2	Other Income	117
3	Total other income (1+2)	249
4	Add: Income from normative interest on security deposit	42
5	Add: Interest on SLD	11
6	Total Income for computation of NTI	302
7	Less: Income from other business	
8	Less: Street Light	15
9	Less: Interest on CR	0
10	Less: LPSC	30
11	Less: write-back of misc. provisions	24
12	Less: Interest Income/Short term gain	2
13	Less: Transfer from Consumer Contribution for capital works	38
14	Less: Bad debts recovered	2
15	Less: Interest on inter-company loans	22
16	Less: Commission on ED	11
17	Net NTI	158

1.16 The Aggregate Revenue Requirement for FY 2018-19 is as follows:

Table 12: Aggregate Revenue Requirement for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	As per Tariff Order dated 28/03/2018	Revised figures for the purposes of Truing up
1	Purchase of power including Transmission and SLDC Charges	6860	7341
2	O&M Expenses	902	933
3	Additional O&M Expenses/Other Expenses	58	197
4	Depreciation	190	278
5	Return on Capital Employed (RoCE)(Pre Tax)	592	722
6	Sub-total	8601	9471
7	Less: Non-Tariff Income	155	158
8	Aggregate Revenue Requirement	8446	9314
9	Less: Income from Open Access		26
10	Net Aggregate Revenue Requirement	8446	9288
11	Total amount realised (Net of Electricity Duty and Surcharges)	8748	9192
12	Incentive		
I	Less: Amount to be retained by Petitioner on account of overachievement of T&D Loss Targets		94
II	Less: Amount to be retained by Petitioner on account of overachievement of collection efficiency targets		47

Sr. No.	Particulars	As per Tariff Order dated 28/03/2018	Revised figures for the purposes of Truing up
III	Less: Incentive of Rate of Sale		141
IV	Less: Carrying Cost		420
B	Revenue available towards ARR	8748	8489
C	Revenue (Gap)/ Surplus	(353)	(799)

1.17 BRPL's claims pertaining to true-up of expenses with respect to earlier periods have been divided into six parts as follows:

Table 13: Summary of Past claims (Rs. Cr.)

Sr. No.	Particulars	Principal	Carrying Cost	Total
1	Impact for issues where there is inconsistency in different orders	206	397	603
2	Issues which fall under statutory levies/change in law	59	5	63
3	Issues which tantamount to suo-motu re-opening of previous orders	80	98	178
4	Impact on account of APTEL Judgments	3387	7252	10640
5	Impact of Review Petition	230	339	568
6	Issues which are contrary to Regulations/ previous directions	1248	1007	2255
7	Total	5210	9098	14308

C. ARR OF FY 2020-21

1.18 BRPL has projected the energy sales at 13167 MU for FY 2020-21.

Table 14: Estimated Energy Sales and Revenue for FY 2020-21

Sr. No.	Category	Energy	Fixed Charges	Energy Charges	ToD Sur + Rebate	Total Revenue	ABR
		MU	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs./kWh
1	Domestic	8136	498	3488		3986	4.90
2	Non-Domestic	3335	802	2860	24	3687	11.06
3	Industrial	529	94	423	4	521	9.85
4	Agriculture & Mushroom Cultivation	21	4	3		8	3.59
5	Public Utilities*	751	71	474	3	548	7.30
6	Dial	250	15	196	2	213	8.51
7	Advertisements And Hoardings	1	1	1		2	12.70
8	Temporary Supply	100		119		119	11.87
9	Charging Stations For E-Vehicle	28		12		12	4.50
10	Theft	0					
11	Own Consumption	16					

Sr. No.	Category	Energy	Fixed Charges	Energy Charges	ToD Sur + Rebate	Total Revenue	ABR
		MU	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs./kWh
12	Net Metering	0					
13	Grand Total	13167	1486	7576	34	9096	6.91

* Public Utilities include Public Lighting, DJB (11kV), DJB (LT), Railway Traction & DMRC.

- 1.19 BRPL submitted that the Regulation-25 (1) of *DERC (Business Plan) Regulations, 2019* specifies the Distribution Loss Target from FY 2020-21 to FY 2022-23 as under:

Table - 15: Distribution Loss during FY 2020-21 to 2022-23

Sr.No.	Distribution Licensee	FY 2020-21	FY 2021-22	FY 2022-23
1	BSES Rajdhani Power Limited	8.10%	8.00%	7.90%

- 1.20 BRPL has considered Collection Efficiency of 99.50% during FY 2020-21 in accordance with Regulation 26(1) of *DERC (Business Plan) Regulations, 2019*.
- 1.21 Estimated energy requirement for FY 2020-21 is as follows:

Table - 16: Energy Requirement for FY 2020-21

Sr.No.	Particulars	MU
1	Energy Sales	13167
2	Distribution Loss	8.10%
3	Energy requirement at Distribution Periphery	14327

- 1.22 Based on the above estimation of energy requirement the power purchase cost for FY 2020-21 is estimated as follows:

Table 17: Power Purchase Cost for FY 2020-21

Sr.No.	Particulars	Quantity (MU)	Amt. (Rs.Cr.)	Avg. Cost (Rs./kWh)
1	Total Energy Available (Excluding SGS Plants)	11987	5074	4.23
2	Inter-State Transmission Loss	3.00%		
3	Inter-State Transmission Loss	360		
4	Energy Available from Delhi stations	2120	1459	6.88
5	Short Term Purchase	1783	669	3.75
6	Short Term Sale	1071	(331)	3.09
7	Energy Available at State Transmission Periphery	14459		
8	Intra-State Transmission Loss	0.92%		
9	Intra-State Transmission Loss	133		
10	Transmission charges		1104	
11	Less: Rebate		(120)	
12	Add: REC Purchase		255	
13	Net Energy available at Distribution Periphery	14327	8110	5.66

- 1.23 The O&M Expenses estimated by BRPL for FY 2020-21 are as follows:

Table 18: O&M Expenses estimated during FY 2020-21 (Rs. Cr.)

Sr. No.	Assets/ lines	Avg. Quantity	Units	Norms	Amount
1	66 kV lines	1164	Rs. Lakh/ Ckt. Km	3.855	45
2	33 kV lines				
3	11 kV lines	7785	Rs. Lakh/ Ckt. Km	1.150	90
4	LT lines system	12458	Rs. Lakh/ Ckt. Km	6.148	766
5	66/11 kV grid sub-station	6365	Rs. Lakh/ Ckt. Km	1.033	66
6	33/11 kV grid sub-station				
7	11/0.415 kV DT	5204	Rs. Lakh/ Ckt. Km	2.563	133
8	Total				1099

1.24 The additional O&M Expenses for FY 2020-21 as estimated by BRPL are as follows:

Table 19: Additional O&M Expenses estimated for FY 2020-21 (Rs. Cr.)

O&M Expenses Projection	FY 2018-19 (Actual)	FY 2019-20 (Escalated at 5.6%)	FY 2020-21 (Escalated at 3.8%)
Additional O&M Expenses	197	208	216

1.25 The Petitioner has considered the gross capitalisation of Rs. 624 Crore including consumer contribution (Deposit work) (Rs. 67 Crore) during FY 2020-21 as approved by the Commission, provided that the same may be tried-up based on the actuals incurred to meet the loss targets issued by the Commission for FY 2020-21.

1.26 BRPL has submitted that FY 2017-18 being the first Financial Year for *DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017* and *DERC (Business Plan) Regulations 2017*, the Petitioner has worked out the depreciation by applying these class-wise rates based on the useful life of the existing assets. Accordingly, the average rate of depreciation comes to be 4.76%. The Petitioner has applied rate of 4.76% on the average GFA estimated for FY 2019-20. However, the depreciation rate of 4.76% so computed, may undergo change at the end of FY 2018-19 based on actual capitalization. The depreciation for FY 2020-21 is submitted as follows:

Table 20: Depreciation for FY 2020-21 (Rs. Cr.)

Sr.No.	Particulars	FY 2020-21
A	Gross Fixed Assets (GFA)	
i	Opening Balance	7657
ii	Additions during the year	624
iii	Closing Balance	8281
iv	Average Balance	7969
B	Consumer Contribution	
v	Opening Balance	790
vi	Additions during the year	67
vii	Closing Balance	857
viii	Average Balance	824
C	GFA net of consumer contribution	7146
D	Average rate of depreciation	4.76%

Sr.No.	Particulars	FY 2020-21
A	Gross Fixed Assets (GFA)	
E	Depreciation	340

1.27 BRPL has computed RoCE during FY 2020-21 as under:

Table 21: RoCE for FY 2020-21 (Rs. Cr.)

Sr.No.	Particulars	FY 2020-21
A	Average Equity	2270
B	Average Debt	2657
C	Total	4927
D	Rate of Return on Equity	16.00%
E	Income Tax Rate	17.47%
F	Grossed up Return on Equity	19.39%
G	Rate of Interest on Debt	12.90%
H	Weighted Average Cost of Capital (WACC)	15.89%
I	Regulated Rate Base (RRB (i))	4694
J	Return on Capital Employed (RoCE)	746

1.28 BRPL has considered the Non-Tariff Income and income from other business during FY 2020-21 equivalent to actual NTI during FY 2018-19 as Rs. 157.60 Crore.

1.29 The Aggregate Revenue Requirement during FY 2020-21 is tabulated as follows:

Table 22: Aggregate Revenue Requirement for FY 2020-21 (Rs. Cr.)

Sr.No.	Particulars	FY 2020-21
A	Net Power Purchase Cost including Transmission and SLDC Charges	8110
B	O&M Expenses	1099
C	Additional O&M Expenses	216
D	Depreciation	340
E	Return on Capital Employed (RoCE)	746
F	Less: NTI	158
G	Aggregate Revenue Requirement	10353

1.30 BRPL has submitted the Regulatory Assets till FY 2018-19 as follows:

Table 23: Regulatory Assets till FY 2018-19 (Rs. Cr.)

Sr.No.	Particulars	FY 2018-19
A	RA Creation	
1	Opening RA for FY 2018-19	3979
2	Revenue Gap during FY 2018-19	799
3	Rate of carrying cost	14%
4	Carrying cost accrued during the year	613
5	Amortization through 8% surcharge	721
6	Amortization of carrying cost	420
8	Closing RA for FY 2018-19 on stand-alone basis	4250
9	Add:	
a	Impact of past claims up to FY 2017-18 as per Table 1B13 of True-up Petition for FY 2018-19	14308
b	Carrying cost on past claims during FY 2018-19	2003
9	Total closing RA for FY 2018-19	20561

1.31 The Revenue (Gap)/ Surplus for FY 2020-21 at Existing Tariffs is as follows:

Table 24: Revenue (Gap)/ Surplus at Existing Tariff for FY 2020-21 (Rs. Cr.)

Sr.No.	Particulars	Amount
A	Revenue Requirement for the year excluding carrying cost	10353
B	Revenue at existing tariff	9050
C	Revenue (Gap)/ Surplus for the year	(1303)