

A. INTRODUCTION

- 1.1 BSES Rajdhani Power Limited (BRPL), the Distribution Licensee, has filed its Petition for Approval of True up of FY 2019-20 and Aggregate Revenue Requirement (ARR) for FY 2021-22.
- 1.2 This Executive Summary contains the summary of the Petition filed by BRPL for True-up of FY 2019-20 (based on Audited Accounts) and ARR & Tariff for FY 2021-22.
- 1.3 The True up for FY 2019-20 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 ARR and Tariff of FY 2021-22 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 FOR FY 2019-20

- 1.6 BRPL has submitted its Energy Sales and Revenue (Billed and Collected) in FY 2019-20 as follows:

Table 1: Sales and Revenue for FY 2019-20

Sr. No.	Consumer Category	Sales (MU)	Net Revenue Billed (Rs.Cr.)	Revenue Collected (Rs.Cr.)
1	Domestic	7694.2	4178.9	3745.7
2	Non-Domestic	3164.2	3654.2	4167.2
3	Industrial	534.7	557.8	612.6
4	Agriculture	21.0	9.3	5.2
5	Mushroom Cultivation	0.1	0.1	0.1
6	Public Utilities (DJB & Lighting)	378.8	326.1	360.8
7	DIAL	146.1	121.7	142.4
8	DMRC	411.8	297.9	318.4
9	Temporary Supply	108.4	135.4	0

Sr. No.	Consumer Category	Sales (MU)	Net Revenue Billed (Rs.Cr.)	Revenue Collected (Rs.Cr.)
10	Advertisement & Hoardings	1.2	1.5	2.9
11	Charging stations for E-Vehicle	25.1	12.8	14.4
12	Self-consumption	17.3	-0.1	0
13	Enforcement	46.6	48.2	55.4
14	Total	12549.5	9343.8	9425
15	Add: Deemed Coll.		-	1249
16	Less: Etax			385
17	Less: LPSC			26.9
18	Less: RA Surcharge			728.9
19	Less: PT Surcharge			345.7
20	Net Collection			9187.5

- 1.7 BRPL has submitted the actual AT&C loss of 8.58% and Distribution Loss of 7.02% for FY 2019-20. BRPL has claimed the following incentive with respect to actual Distribution Loss and Collection Efficiency achieved during FY 2019-20:

Table 2: Incentive claimed for overachievement in Distribution Loss Target for FY 2019-20

Sr. No.	Particulars	UOM	FY 2019-20
1	Distribution Loss Target in Previous Year – FY 2018-19	%	10.19%
2	Distribution Loss Target in Current Year – FY 2019-20	%	9.50%
3	Actual Distribution Loss	%	7.02%
4	50% of (previous year target – current year target)	%	0.35%
5	Distribution Loss Target – 50% of (previous year target – current year target)	%	9.16%
6	Actual Energy input at BRPL periphery	MU	13498
7	Average Power Purchase cost for FY 2019-20	Rs/KWh	5.99
8	Total incentive	Rs. Crore	200.1
9	Impact of Financial benefit to be retained by BRPL	Rs. Crore	124.1

Table 3: Incentive claimed on Collection Efficiency

Sr. No.	Particulars	UoM	Rolling Feb 20
1	Collection Efficiency	%	99.95%
2	Collection Efficiency Target	%	99.50%
3	Revenue Billed	Rs. Crore	9344
4	Revenue Realized Adjusted	Rs. Crore	9339
5	Revenue Realized as per approved collection efficiency	Rs. Crore	9297
6	Over-achievement on collection efficiency	Rs. Crore	42

Sr. No.	Particulars	UoM	Rolling Feb 20
7	Amount to be retained by petitioner and consumer shared 50:50 for achievement of collection efficiency Target from 99.50% to 100%	Rs. Crore	21
8	Entire 100% to be retained for achievement over 100%	Rs. Crore	-
9	Collection efficiency incentive	Rs. Crore	21

- 1.8 BRPL submits the Actual Sales, Distribution Loss level, and Power Purchase requirement for FY 2019-20, as follows:

Table 4: Power Purchase Requirement for FY 2019-20

Sr. No.	Particulars	Actuals
1	Sales (MU)	12549.5
2	Distribution Loss (%)	7.02%
3	Energy Required at DISCOM periphery (MU)	13497.7

- 1.9 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 2019-20:

Table 5: Source-wise Power Purchase Quantum in FY 2019-20

Sr. No.	Particulars	Power Purchase (MU)	Quantum (%)
1	NTPC [#]	6736.96	44.6%
2	NHPC	1118.50	7.4%
3	NPCIL	435.36	2.9%
4	DVC	1143.15	7.6%
5	State Gencos [@]	2267.26	15.0%
6	Short Term Purchase	2163	14.3%
7	Other Hydro (incl. THDC, SJVNL and Tala HEP)	555.36	3.7%
8	Wind Power	145.48	1.0%
9	Sasan	514.10	3.4%
10	SECI	42.80	0.3%
11	Total	15525.1	100%

[#] Excludes BTPS

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Table 6: Actual Power Purchase Cost in FY 2019-20

Sr. No.	Plant	FY 2019-20 (Actual)		
		MU	Total Cost (Rs. Cr.)	Rs. / kWh
1.	NTPC	6715	3235	4.82
2.	NHPC	1118	371	3.31
3.	NPCIL	435	156	3.59
4.	SJVNL	307	74	2.40

Sr. No.	Plant	FY 2019-20 (Actual)		
		MU	Total Cost (Rs. Cr.)	Rs. / kWh
5.	THDC	213	106	4.94
6.	PTC	180	59	3.27
7.	DVC	1143	471	4.12
8.	State Genco	2267	1900	8.38
9.	ARAVALI	22	19	8.92
10.	Sasan-UMPP	514	83	1.61
11.	SECI	43	24	5.50
12.	Others	20	35	
13.	Long term power purchase cost	12959	6531	5.03
14.	ST Purchase	2163	1040	4.81
15.	Less: ST Sale	1188	527	4.43
16.	Less: DTC loss/charges	456	1087	
17.	Less: PGCIL loss/charges			
18.	Less: Other losses			
19.	Less: Rebate		49	
20.	Net Power Purchase Cost after rebate	13498	8083	5.99

1.10 The O&M Expenses as considered by BRPL during FY 2019-20 are tabulated below:

Table 7: O&M Expenses for FY 2019-20

Particulars	Network Capacity as on 31/03/2020	O&M expenses Per Unit		O&M expenses (Rs. Cr.)
66/33 kV Line (ckt km)	1174	Rs. Lakh/ ckt.km	3.853	45
11kv Line (ckt km)	7730	Rs. Lakh/ ckt.km	1.117	86
LT Line system (ckt km)	12544	Rs. Lakh/ ckt.km	5.766	723
66/11 & 33/11 kV Grid S/s (MVA)	6076	Rs. Lakh/ MVA	1.041	63
11/0.415 kV DT (MVA)	6204	Rs. Lakh/ MVA	2.464	153
Total				1071

1.11 BRPL has submitted the Additional O&M expenses for FY 2019-20 as follows:

Table 8: Additional O&M Expenses for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Loss on Sale of Retired Assets	20.64
2	Arrears paid on account of 7 th Pay Commission revision	69.73
3	Impact of Revision in Minimum Wages	7.07
4	Water Charges	2.30
5	Property Tax	2.43

Sr. No.	Particulars	Amount (Rs. Cr.)
6	GST Charges	29.97
7	SMS Charges	1.19
8	Legal Expenses	19.81
9	Legal Fees	0.66
10	DSM Charges (AC Rebate)	1.22
11	Licensee Fees paid on Assets	6.29
12	Geo-Spatial Fees	0.30
13	Total	162

- 1.12 BRPL has submitted that the depreciation has been calculated in accordance with *DERC Tariff Regulations, 2017*. The average rate of depreciation for FY 2019-20 based on audited accounts of the petitioner is tabulated below:

Table 9: Depreciation for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Opening GFA as per audited accounts	7083
2	Closing GFA as per audited accounts	7626
3	Average of GFA	7354
4	Depreciation as per Audited Accounts	335.36
5	Average depreciation rate (%)	4.56%

- 1.13 BRPL has submitted the total Depreciation for FY 2019-20 after implementation of ATE Judgments as under:

Table 10: Depreciation for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Average GFA	7393
2	Average Consumer Contribution and Grants	777
3	Average assets net of consumer contribution & Grants	6616
4	Average rate of depreciation (%)	4.56%
5	Depreciation	302

- 1.14 BRPL has submitted the Return on Capital Employed (RoCE) for FY 2019-20 as follows:

Table 11: Return on Capital Employed (RoCE) for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Average Debt (Term Loan & Working Capital)	2478
2	Average Equity	2111
3	Total	4589
4	Cost of Debt (%)	13.17%
5	Return on Equity (%)	19.39%
6	WACC (Weighted Avg. Cost of capital) (%)	16.03%

Sr. No.	Particulars	Amount (Rs. Cr.)
7	RRB(i)	4680
8	RoCE	750

1.15 BRPL has submitted the Non-tariff Income for FY 2019-20 as follows:

Table 12: Non-Tariff Income for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Other Operating Revenue	133.30
2	Other Income	66.13
3	Total income as per accounts	199.43
4	Add: Income from CSD	35.82
5	Add: Interest on SLD	19.51
6	Total other Income	254.76
7	Less: Income from other business	
8	Street Light	14.93
9	Net income to be considered	239.83
10	Less: Interest on Contingency Reserve	0.01
11	Less: LPSC	26.87
12	Less: Write-back of misc. provisions	4.58
13	Less: Short Term Gain	6.35
14	Less: Transfer from consumer contribution for capital works	39.99
15	Less: Bad debts recovered	1.93
16	Less: Interest on Inter-Company Loans	19.25
17	Less: Commission on collection of Electricity Duty	11.55
18	Net Non-Tariff Income	129.30

1.16 The Aggregate Revenue Requirement (ARR) for FY 2019-20 is as follows:

Table 13: Aggregate Revenue Requirement (ARR) for FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Purchase of power including Transmission and SLDC Charges & Incentives	8083
2	O&M Expenses	1071
3	Additional O&M Expenses/Other Expenses	162
4	Depreciation	302
5	Return on Capital Employed (RoCE)(Pre Tax)	750
6	Sub-total	10367
7	Less: Non-Tariff Income	129
8	Aggregate Revenue Requirement	10238
9	Revenue Collected	9188
	Less:	
10	Incentive – Overachievement of T&D Loss	124
11	Incentive – Overachievement of CE	21
12	Incentive on Sale of Surplus Power	75

Sr. No.	Particulars	Amount (Rs. Cr.)
13	Carrying Cost	346
14	Revenue available towards ARR	8621
15	Add: Income from Open Access	52
16	Revenue (Gap)/ surplus	(1565)

1.17 BRPL's claims pertaining to true-up of expenses with respect to earlier periods are as follows:

Table 14: Summary of Past claims

Sr. No.	Particulars	Principal (Rs. Cr.)	Interest (Rs. Cr.)	Total (Rs. Cr.)
1	Impact of APTEL Judgments yet to be implemented	5776	7652	13428
2	Impact of issues pending in Review/before DERC	209	405	614
3	Impact of issues pending in Appeal before Hon'ble APTEL	3884	6136	10020
4	Total	9869	14193	24062

C. AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY 2021-22

1.18 BRPL has projected the Energy Sales as 13219 MU and Revenue as Rs. 8979 Cr. for FY 2021-22.

Table 15: Estimated Energy Sales and Revenue for FY 2021-22

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	8626	497	3845	0	4342	5.03
2	Non-Domestic	3018	763	2577	16	3356	11.12
3	Industrial	528	89	421	4	515	9.74
4	Agriculture & Mushroom Cultivation	24	6	4	0	10	4.17
5	Public Utilities (DJB & PL)	393	57	268	-1	325	8.25
6	DIAL	36	15	27	0	42	11.75
7	DMRC	408	44	245	9	298	7.30
7	Advertisements And Hoardings	1	1	1	0	2	13.19
8	Temporary Supply	108	0	64	0	64	5.87
9	Charging Stations For E-Vehicle	59	0	27	0	27	4.50
11	Own Consumption	17	0	0	0	0	-

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
13	Grand Total	13219	1472	7478	29	8979	6.79

- 1.19 BRPL has 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 16: Distribution Loss Targets during FY 2020-21 to FY 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 2021-22 in accordance with Regulation 26(1) of DERC (Business Plan) Regulations, 2019.

- 1.21 Estimated energy requirement for FY 2021-22 is as follows:

Table 17: Energy Requirement for FY 2021-22

Sr. No.	Particulars	MU
1	Energy Sales	13219
2	Distribution Loss (%)	8.00%
3	Energy requirement at Distribution Periphery	14368

- 1.22 Based on the above estimation of Energy requirement, the Power Purchase Cost for FY 2021-22 is estimated as follows:

Table 18: Power Purchase Cost for FY 2021-22

Particulars	Energy Purchase (MU)	AFC (Rs. Cr.)	Energy Charges (Rs. Cr.)	Total PPC (Rs. Cr.)	Total PPC (Rs./kWh)
Existing sources					
NTPC Ltd.	5513	901	1615	2516	4.56
NHPC Ltd.	1042	148	137	285	2.73
Nuclear Power Corp. of India Ltd.	430	0	147	147	3.41
Satluj Jal Vidyut Nigam Ltd.	275	41	35	76	2.75
Tehri Hydro Development Corp. Ltd.	201	50	48	98	4.87
PTC	190	0	61	61	3.21
Damodar Valley Corporation	1128	217	299	516	4.57
Power stations in Delhi	1947	500	579	1079	5.54
Aravali Power Corporation Ltd.	26	12	9	22	8.38
Sasan-UMPP	490	8	63	71	1.45
SECI	43	0	24	24	5.50
Past Arrears		621		621	

Particulars	Energy Purchase (MU)	AFC (Rs. Cr.)	Energy Charges (Rs. Cr.)	Total PPC (Rs. Cr.)	Total PPC (Rs./kWh)
New Sources	1567	6	431	438	2.79
Total	12808	2505	3424	5929	4.63
Short-term Purchase	3212		1084	1084	3.37
Short-term Sale	1078		321	321	2.98
Transmission Charges	-456			1381	
REC Purchases				30	
Rebate				109	
Grand Total	14368			7994	5.56

1.23 The O&M Expenses estimated by BRPL for FY 2021-22 are as follows:

Table 19: O&M Expenses estimated during FY 2021-22

Sr. No.	Assets/ lines	Network Capacity as on 31/03/2022	Units	Norms	Amount (Rs. Cr.)
1	66 kV lines	1227	Rs. Lakh/ Ckt. Km	4.002	49
2	33 kV lines				
3	11 kV lines	8070	Rs. Lakh/ Ckt. Km	1.194	96
4	LT lines system	13343	Rs. Lakh/ Ckt. Km	6.384	852
5	33/11 kV grid sub-station	6568	Rs. Lakh/ MVA	1.073	70
6	66/11 kV grid sub-station				
7	11/0.4 kV DT	6476	Rs. Lakh/ MVA	2.661	172
Total					1240

1.24 The additional O&M Expenses for FY 2021-22 as estimated by BRPL are as follows:

Table 20: Additional O&M Expenses estimated for FY 2021-22

Sr. No.	Particulars	FY 2021-22 (Rs. Cr.)
1	Impact on account of Minimum Wages	8
2	Impact on account of GST	32
3	Impact on account of 7 th Pay Commission	218
4	SMS Charges	1
5	Property Tax	3
6	Water Charges	2
7	Legal Fees	1
8	Legal Expenses	21
9	Loss on Retirement of Assets	22

Sr. No.	Particulars	FY 2021-22 (Rs. Cr.)
10	DSM Charges (a/c Rebate)	1
11	Incremental License fees to be paid on assets	7
12	Geo-Spatial Fees	0.32
13	R&D Expenses	10
14	Total	328

- 1.25 The Petitioner has considered the gross capitalisation of Rs. 686 Crore including consumer contribution (Deposit work) (Rs. 81 Crore) during FY 2021-22 as approved by the Commission, provided that the same may be trued-up based on the actuals incurred to meet the loss targets issued by the Commission for FY 2021-22.
- 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 4.56% for FY 2019-20. The Petitioner has applied same rate of 4.56% on the average GFA estimated for FY 2021-22. However, the depreciation rate of 4.56% so computed, may undergo change at the end of FY 2021-22 based on actual capitalization. The depreciation for FY 2021-22 is submitted as follows:

Table 21: Depreciation for FY 2021-22

Sr. No.	Particulars	FY 2021-22 (Rs. Cr.)
1	Gross Fixed Assets (GFA)	
i	Opening Balance	8355
ii	Additions during the year	686
iii	Closing Balance	9041
iv	Average Balance	8698
2	Consumer Contribution	
v	Opening Balance	873
vi	Additions during the year	81
vii	Closing Balance	954
viii	Average Balance	913
3	GFA net of consumer contribution	7758
4	Average rate of depreciation (%)	4.56%
5	Depreciation	355

- 1.27 BRPL has computed Return on Capital Employed (RoCE) during FY 2021-22 as under:

Table 22: RoCE for FY 2021-22

Sr. No.	Particulars	FY 2021-22 (Rs. Cr.)
1	Average Equity	2462
2	Average Debt	2981

Sr. No.	Particulars	FY 2021-22 (Rs. Cr.)
3	Total	5443
4	Rate of Return on Equity (%)	16.00%
5	Income Tax Rate (%)	17.47%
6	Grossed up Return on Equity (%)	19.39%
7	Rate of Interest on Debt (%)	12.27%
8	Weighted Average Cost of Capital (WACC) (%)	15.49%
9	Regulated Rate Base (RRB (i))	5489
10	Return on Capital Employed (RoCE)	850

1.28 BRPL has considered the Non-Tariff Income (NTI) and Income from Other Business during FY 2021-22 equivalent to actual NTI during FY 2019-20 as Rs. 129.30 Crore.

1.29 The Aggregate Revenue Requirement (ARR) during FY 2021-22 is tabulated as follows:

Table 23: ARR for FY 2021-22

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Net Power Purchase Cost including Transmission and SLDC Charges	7994
2	O&M Expenses	1240
3	Additional O&M Expenses	328
4	Depreciation	355
5	Return on Capital Employed (RoCE)	850
6	Sub-Total	10767
7	Less: NTI	129
8	Aggregate Revenue Requirement (ARR)	10,638

1.30 BRPL has submitted the Regulatory Assets till FY 2019-20 as follows:

Table 24: Regulatory Assets till FY 2019-20

Sr. No.	Particulars	Amount (Rs. Cr.)
	RA Creation	
1	Opening RA for FY 2019-20	3475
2	Revenue Gap during FY 2019-20	1565
3	Rate of carrying cost (%)	14%
4	Carrying cost accrued during the year	596
5	Amortization through 8% surcharge	729
6	Amortization of carrying cost	346
8	Closing RA for FY 2018-19 on stand-alone basis	4561
9	Add:	
	Impact of APTEL Judgments and review petitions (including carrying cost upto FY 20)	14042
10	Total closing RA for FY 2019-20	18603
	Add: Impact of pending appeals before ATE if upheld in favour of Petitioner	10020
11	Grand total closing RA for FY 2019-20	28623

1.31 The Revenue (Gap)/ Surplus for FY 2021-22 at Existing Tariffs is as follows:

Table 25: Revenue (Gap)/ Surplus at Existing Tariff for FY 2021-22

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Revenue Requirement for the year (excludes carrying cost)	10638
2	Revenue at existing tariff	8934
3	Revenue (Gap)/ Surplus for the year	(1703)

1.32 **Proposal on Tariff Structure:**

BRPL has requested to implement the following proposals on Tariff Structure for FY 2021-22:

- Determine fixed and variable charges in accordance with Regulation-130 and Regulation-131 of *DERC Tariff Regulations, 2017*.
- Review the present 8% surcharge towards accumulated deficit and approve a revised surcharge to ensure time bound recovery of Regulatory Assets/Revenue Gap.
- Existing Power Purchase Adjustment Cost (PPAC) mechanism may be implemented on monthly basis instead of quarterly basis.
- Address the issue of Cross subsidization among all categories by restructuring the existing tariff structure and common tariff may be adopted across all categories of consumer matching with average cost of supply of the Petitioner.
- Explore the possibility of further simplifying the tariff structure of the Petitioner without adversely affecting the interest of the consumers.
- Suitable commission preferably 3% to be provided on collection of Pension Trust Surcharge.
- GoNCTD Subsidy amount to be passed on the basis of Direct Benefit Transfer.
- Exclusion of dishonest consumers for GoNCTD Subsidy.
- Waiving of the procession fee on account of digital payment charged by the Bank/Gateway and allow the same as a pass through in the ARR of the Petitioner.
- Levy of Disconnection penalty on account of non-payment of dues by defaulting consumers.
- Tariff for charging stations for Electric Vehicle may be approved equivalent to average cost of supply of the Petitioner.

1.33 In view of the above, BRPL proposes to determine a suitable cost reflective Tariff in terms of Regulation-130 and Regulation-131 of DERC Tariff Regulations, 2017, so as to recover the projected Revenue Gap.