

A. INTRODUCTION

- 1.1 BSES Yamuna Power Limited (BYPL), the Distribution Licensee, has filed its Petition for Approval of True up for FY 2018-19 and ARR of FY 2020-21.
- 1.2 The Executive Summary contains the summary of the Petition filed by BYPL for True up for FY 2018-19 (based on audited accounts), 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:
- a) Power Purchase Cost including Transmission Charges
 - b) Operation and Maintenance (O&M) expenses
 - c) Return on Capital Employed
 - d) Depreciation
 - e) Income Tax
 - f) Non-tariff Income, etc.
- 1.5 The following tables/ figures have been extracted from the Petitions filed by BYPL 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 BYPL has submitted its energy sale in FY 2018-19 as follows:

Table 1: Sales for FY 2018-19 (MU)

Sr. No.	Category	Sales (MU)
A	Domestic	3838
B	Non Domestic	1791
C	Industry	374
D	Public Lighting	104
E	Agriculture & Mushroom Cultivation	0.0
F	DMRC	171
G	DJB	149
H	Others*	84
Total		6514

*Includes enforcement, Own consumption, Temporary Supply, net metering and Advertisement & Hoardings etc.

- 1.7 BYPL has submitted the actual AT&C loss of 8.98% and Distribution Loss of 9.31% for FY 2018-19. BYPL has claimed the following incentive with respect to actual Distribution Loss and Collection Efficiency achieved during FY 2018-19:

Table 2: Distribution Loss for FY 2018-19 (%)

Sr. No.	Particulars	UoM	FY 2018-19
1	Energy Purchased at BYPL periphery	MU	7,182.26
2	Distribution Loss target for FY 2018-19	%	11.69%
3	Actual Distribution Loss for FY 2018-19	%	9.31%
4	Average Power Purchase cost	Rs/kWh	4.66
5	Financial Impact on account of overachievement of Distribution Loss Target	Rs. Cr.	79.67
6	Impact of Financial benefit to be retained by Petitioner	Rs. Cr.	45.80

Table 3: Incentive claimed on Collection Efficiency

Sr. No.	Particulars	UoM	FY 2018-19
1	Revenue Billed	Rs. Cr.	4,911.16
2	Collection Efficiency Achieved	%	100.37%
3	Collection Efficiency Approved in Tariff Order	%	99.50%
4	Revenue Realised Achieved	Rs. Cr.	4,929.70
5	Revenue Realised as per approved Collection Efficiency	Rs. Cr.	4,886.61
6	Over-achievement	Rs. Cr.	42.56
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.	12.28
8	Entire 100% to be retained for achievement over 100%	Rs. Cr.	18.01
9	Total Incentive to be retained by BYPL	Rs. Cr.	30.29

- 1.8 The actual power purchase cost claimed during FY 2018-19 is as follows:

Table 4: Power Purchase Quantum for FY 2018-19 (MU)

Sr. No.	Particulars	Amount
A	Power Purchase	
i	Gross Power Purchase Quantum	8826.47
ii	Power sold to other sources	1332.45
iii	Net Power Purchase	7494.02
B	Transmission Loss	
i	Total transmission loss (Inter State & Intra State)	311.76
C	Net power available after Transmission Loss*	7182.26

* Excluding Open Access

Table 5: Power Purchase Cost for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Submission
A	Power Purchase Cost	
i	Gross Power Purchase Cost	3186.23
ii	Power sold to other sources	499.33

Sr. No.	Particulars	Submission
iii	Net Power Purchase Cost	2686.90
B	Transmission Charges	
i	Inter-state transmission charges	330.97
ii	Intra-state transmission charges	259.40
iii	Other Transmission charges/OA Charges	89.21
iv	Total Transmission charges	679.58
C	Rebate	
i	Power Purchase Rebate	18.89
ii	Rebate on Transmission Charges	
iii	Total rebate	18.89
D	Add: Net Metering	1.03
	Add: Self Generation (BYPL Roof Top Solar)*	0.84
E	Net Power Purchase Cost including Transmission charges net of rebate	3349.46
F	Incentive on short term Sale	19.22
G	Total Power Purchase including incentive	3368.68

* Self Generation @ Rs. 5.36/unit vide Hon'ble DERC order dt. 26.02.2018

- 1.9 The O&M expenses as considered by BYPL during FY 2018-19 are tabulated as follows:

Table 6: O&M expenses for FY 2018 - 19 (Rs. Cr.)

Network	UoM Of Network	Network Capacity as on 31/03/2019	Amount
66 kV Line	ckt km	225	10.5
33 kV Line	ckt km	381	17.8
11kV Line	ckt km	2869	56.3
LT Line system	ckt km	5460	478.1
66/11 kV Grid S/s	MVA	1765	19.5
33/11 kV Grid S/s	MVA	2013	22.2
11/0.415 kV DT	MVA	3366	81.6
Total O&M Expenses			686.0

- 1.10 BYPL has claimed certain amount on account of statutory levies/Taxes and miscellaneous expenses which are uncontrollable in nature and not covered in the above normative O&M expenses during FY 2018-19 as follows:

Table 7: Other uncontrollable costs/ miscellaneous expenses (Rs. Cr.)

Sr. No	Particulars	Amount
1.	Loss on Sale of Retired Assets	9.0
2.	Arrears paid on account of 7 th Pay Commission revision	54.3
3.	Impact of Revision in Minimum Wages	3.1
4.	Water Charges	0.9
5.	Property Tax	1.2
6.	GST Charges	20.1

Sr. No	Particulars	Amount
7.	SMS Charges	0.9
8.	Legal Expenses	12.3
9.	Ombudsman Fees	0.1
10.	DSM charges	1.2
11.	KYC expenses	2.6
Total		105.8

- 1.11 The average rate of Depreciation for FY 2018-19 as submitted based on the Audited Accounts is as follows:

Table 8: Computation of avg. rate of Depreciation for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Opening GFA as per audited accounts	3399.30
B	Closing GFA as per audited accounts	3714.14
C	Average of GFA	3556.72
D	Depreciation as per Audited Accounts	182.52
E	Average depreciation rate (%)	5.13%

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

Sr. No.	Particulars	Amount
A	Average GFA	3586.13
B	Average Consumer Contribution and Grants	296.31
C	Average GFA net of consumer contribution & Grants	3289.82
D	Average rate of depreciation (%)	5.13%
E	Depreciation	168.82

- 1.12 BYPL has considered the actual rate of interest of capex loans during FY 2018-19 i.e. 14% and RoE at 16% (post tax) for computation of WACC as follows:

Table 10: Weighted Average Cost of Capital (WACC) (Rs. Cr.)

Sr. No	Particulars	Amount
A	Average Equity	1134.32
B	Average Debt	1313.63
C	Return on Equity	16.00%
D	Income Tax Rate (%)	21.55%
E	Grossed up Return on Equity	20.39%
F	Rate of Interest	14.00%
G	Weighted average cost of Capital (%)	16.96%

1.13 The RoCE for FY 2018-19 is thus computed as follows:

Table 11: RoCE for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Weighted Average Cost of Capital (WACC) (%)	16.96%
B	RRB (i)	2479.22
C	RoCE	420.52

1.14 BYPL has submitted the Non tariff Income for FY 2018-19 as follows:

Table 12: Non Tariff Income for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Other Operating Income	66.67
B	Other Income	63.89
I	Total Income as per Accounts	130.56
C	Add: Interest on CSD	27.02
D	Add: Differential in SLD	(2.49)
II	Total Other Income	155.09
E	Less: Income from other business	
a	<i>Pole Rental Income</i>	1.59
III	Net Income to be considered	153.51
A	Less: LPSC	16.01
B	Less: Rebate on Power Purchase and Transmission Charges	0.0
C	Less: Write-back of misc. Provisions	19.62
D	Less: Short term gain	6.71
E	Less: Transfer from Consumer contribution for capital works	16.76
F	Less: Bad debts recovered	2.52
G	Less: Incentive towards Street Light	0.50
H	Less: Commission on collection of Electricity Duty	5.76
I	Net Non-Tariff Income	85.63

1.15 The summary of total income received from other business and proposed to be retained by BYPL is tabulated below:

Table 13: Other Business Income during FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Total Income	Petitioner's Share	Consumer's Share
A	Pole Rental Income	1.59	0.95	0.63
B	Total	1.59	0.95	0.63

1.16 The Aggregate Revenue Requirement for FY 2018-19 sought by BYPL for True-up is as follows:

Table 14: Aggregate Revenue Requirement during FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
1.	Purchase of power including Transmission and SLDC Charges	3368.68
2.	O&M Expenses	686.01
3.	Additional O&M Expenses	105.77

Sr. No.	Particulars	Amount
4.	Depreciation	168.82
5.	Return on Capital Employed (RoCE)	420.52
6.	Sub-total	4749.81
7.	Less: Non-Tariff Income	85.63
8.	Less: Income from other business	0.63
9.	Less: Income from Open Access	1.12
10.	Net Aggregate Revenue Requirement	4662.43
11.	Total amount realised (Net of Electricity Duty and Surcharges)	4929.17
12.	Incentive	
12 a	Less: Amount to be retained by Petitioner on account of overachievement of distribution loss target	45.80
12 b	Less: Amount to be retained by Petitioner on account of overachievement of collection efficiency target	30.29
12 c	Less: Carrying Cost	306.81
13.	Revenue available towards ARR	4546.89
14.	Revenue (Gap)/Surplus	(115.55)

TRUING-UP OF PAST PERIOD UP TO FY 2017-18

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

Table 15: Summary of Past claims (Rs. Cr.)

Sr. No	Particulars	Principal	Carrying Cost	Total
1	Impact for issues where there is inconsistency in different orders	176	298	474
2	Issues which fall under statutory levies/Change in law	45	4	48
3	Issues which tantamount to suo-motu reopening of previous orders	Impact included in capex related claims		
4	Impact on review petition	751	1182	1933
5	Impact on account of APTEL Judgments	3284	3852	7136
6	Issues which are contrary to Regulations/previous directions	866	568	1434
7	Total	5122	5903	11025

C. ARR AND TARIFF FOR FY 2020-21

1.18 BYPL has projected the energy sales and revenue for FY 2020-21 as follows:

Table 16: Estimated Energy Sales and Revenue for FY 2020-21

Sr. No.	Category	Energy	Fixed Charge	Energy Charges	Other Charges	Total Revenue
		MU	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
1.	Domestic	4192	207	1717	(2)	1922
2.	Non-Domestic	1706	494	1403	(7)	1890
3.	Industrial	374	65	303	(2)	366

Sr. No.	Category	Energy	Fixed Charge s	Energy Charges	Other Charges	Total Revenue
		MU	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
4.	Agriculture & Mushroom Cultivation	0	0	0	-	0
5.	Public Utilities*	333	50	221	(5)	266
6.	Advertisements and Hoardings	0	0.22	0.05	-	0
7.	Temporary Supply	45.63	-	51.46	-	51
8.	Charging Stations for E-Vehicle	9	-	3.91	-	4
9.	Own Consumption	16.68	-	-	-	0
10.	Enforcement	12.60	-	17.25	-	17
11.	Grand Total	6688.91	816	3716	(16)	4516

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

1.19 BYPL has considered the Distribution Loss @ 9.00% and Collection Efficiency @ 99.50% for FY 2020-21.

1.20 Based on the sales projected for FY 2020-21 and Distribution loss as specified for FY 2020-21 in *DERC Business Plan Regulations, 2019*, the energy requirement has been estimated by BYPL as follows:

Table 17: Energy Requirement for FY 2020-21

Sr. No.	Particulars	Unit	Quantity
A	Energy sales	MU	6690
B	Distribution Loss	%	9.00%
C	Energy Requirement	MU	7352
D	Distribution Loss	MU	662

1.21 The Power Purchase costs from various sources including from short term sources have been summarized as follows:

Table 18: Total Power Purchase Cost for FY 2020-21

Sr. No.	Source	Quantity	Amount	Rate
		(MU)	(Rs. Cr.)	(Rs./ kWh)
A	Power Purchase from CSGS	8241	2712	3.29
B	Inter-State Loss & Charges	248	401	
C	Cost towards REC		65.93	
D	Power Available at Delhi Periphery	7993	3179	3.98
E	Power Purchase from SGS*	815	653	8.01
F	Intra-State Losses & Charges including SLDC Charges	81	211	
G	Shortfall to be met at DISCOM Periphery	532	226.95	4.27

Sr. No.	Source	Quantity	Amount	Rate
		(MU)	(Rs. Cr.)	(Rs./ kWh)
H	Total Power available to DISCOM	9259	4270	4.61
I	Sales	6690		
J	Distribution Loss	662		
K	Less: Normative rebate		60.80	
L	Required power for the DISCOM	7352	3637	4.95
M	Total Sale of Surplus Power	1907	572	3.00

* includes SGS & State Renewable etc.

1.22 BYPL has computed the normative O&M expenses for FY 2020-21 as follows:

Table 19: O&M Expenses during FY 2020-21

Sr. No.	Assets/ lines	Avg. Quantity	Units	Norms	Amount (Rs. Cr.)
1	66 kV lines	245	Rs. Lakh/ Ckt. Km	4.857	12
2	33 kV lines	435			21
3	11 kV lines	2970	Rs. Lakh/ Ckt. Km	2.036	60
4	LT lines system	5611	Rs. Lakh/ Ckt. Km	9.173	515
5	66/11 kV grid sub-station	1915	Rs. Lakh/ Ckt. Km	1.157	22
6	33/11 kV grid sub-station	2087			24
7	11/0.415 kV DT	3550	Rs. Lakh/ Ckt. Km	2.534	90
8	Total				744

1.23 In terms of Regulation 11(9) of the Tariff Regulations, 2017 BYPL has submitted the additional O&M expenses estimated during FY 2020 -21 at Rs. 33 Cr.

Table 20: Additional O&M Expenses during FY 2020-21 (Rs. Cr.)

Particulars	FY 2020-21
Legal Expenses	13
Expenses for raising loan	11
Loss on sale of retired assets	9
Total	33

1.24 The Petitioner has considered the gross capitalisation of Rs. 408 Crore during FY 2020-21 as approved by the Commission.

1.25 BYPL has computed the depreciation as follows:

Table 21: Computation of rate of Depreciation for FY 2020-21 (Rs Cr)

Sr. No.	Particulars	Amount
1	Opening GFA for FY 18-19 as per Audited Accounts	3399
2	Closing GFA for FY 18-19 as per Audited Accounts	3714
3	Average GFA as per Books of Accounts	3557
4	Revised depreciation computed based on Tariff Regulations 2017	183
5	Average rate of depreciation (%)	5.13%

1.26 The depreciation for FY 2020-21 is calculated as follows:

Table 22: Depreciation for FY 2020-21 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Opening GFA for FY 2019-20	3744
B	Addition during FY 2019-20	413
C	Opening GFA for FY 2020-21	4157
E	Additions during the year	408
F	Closing GFA	4565
G	Average GFA	4361
H	Less: Average Consumer Contribution	336
I	Average GFA net of CC	4025
J	Average rate of depreciation	5.13%
K	Depreciation for FY 2020-21	207
L	Opening Accumulated Depreciation for FY 20-21	1516
M	Closing Accumulated Depreciation for FY 20-21	1723

1.27 BYPL has computed RoCE for FY 2020-21 as follows:

Table 23: RoCE for FY 2020-21 (Rs. Cr.)

Sr. No.	Particulars	Submission
A	WACC	15.92%
B	RRB (i)	2879
C	RoCE	458

1.28 BYPL has considered the Non-Tariff Income during FY 2020-21 as Rs. 86 Crore.

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

Table 24: Aggregate Revenue Requirement for FY 2020-21 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Power Purchase Cost including Transmission Charges	3637
B	O&M Expenses	744
C	Additional O&M Expenses	33
D	Depreciation	207
E	Return on Capital Employed (RoCE)	458
F	Less: Non-Tariff income	86
G	Aggregate Revenue Requirement excl. Carrying Cost on RA	4994

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

Table 25: Regulatory Assets till FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	FY 2018-19
A	RA Creation	
A1	Opening RA for FY 2018-19	2677
A2	Impact of ATE Directions	7136
A3	Past Claims	3889
A4	Revised Opening RA	13702
A5	Revenue Gap during FY 2018-19	116

Sr. No.	Particulars	FY 2018-19
B	Carrying Cost addition	
B1	Carrying Cost Rate	14%
B2	Carrying Cost	1926
C	RA amortization	
C1	8% Surcharge	382
C2	Carrying Cost	307
D	Closing RA at the end of FY 2018-19	15055

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

Table 26: Revenue (Gap)/ Surplus at Existing Tariff for FY 2020-21 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Aggregate Revenue requirement for the year	4994
B	Revenue available for the year	4494
C	Revenue (Gap)/ Surplus for the year	(500)
D	Carrying Cost on RA is proposed to be recovered as separate carrying cost surcharge	306