

A. Introduction

- 1.1 Tata Power Delhi Distribution Limited (TPDDL), the Distribution Licensee, has filed its Petition for Approval of True up for FY 2018-19 and ARR for FY 2020-21.
- 1.2 The Executive Summary contains the summary of the Petition filed by TPDDL 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:
 - 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 TPDDL 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 TPDDL has billed Energy & Revenue (net of Electricity Tax, 8% Deficit Recovery Surcharge & Pension Trust Surcharge of 3.80%) of Rs. 6,891.24 Cr. (8,867 MU) at approved Retail Supply Tariffs for FY 2018-19.

Table 1: Energy Sales & Revenue for FY 2018-19

Sr. No.	Category	Net Units Sold	Fixed Charges Billed	Energy Charges/other charges Billed	PPAC Amount Billed	Total	ABR	Surcharge of 8%
		MU	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs./kWh	Rs Cr.
1	Domestic	4,068	497.81	1,692.61	45.50	2,235.92	5.50	175.26
2	Non-Domestic	1,541	400.13	1,285.37	39.32	1,724.82	11.19	134.89
3	Industrial	2,539	452.76	1,910.81	60.32	2,423.88	9.55	189.64
4	Agriculture	14	4.45	2.21	0.16	6.82	4.96	0.53
5	Public Utilities	615	54.21	376.92	10.72	441.85	7.19	34.04
6	Advertisement & Hoardings	0.42	0.18	0.37	0.01	0.56	13.12	0.04
7	E-Rickshaw	7	0.02	3.76	0.13	3.90	5.81	0.30
8	Own Consumption	12	0.00	0.00	0.00	0.00	0.00	-
9	Others	72	13.35	47.08	1.47	61.90	8.61	5.86
10	(-)Open Access Charges			(8.42)		(8.42)		(1.26)

Sr. No.	Category	Net Units Sold	Fixed Charges Billed	Energy Charges/other charges Billed	PPAC Amount Billed	Total	ABR	Surcharge of 8%
		MU	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs./kWh	Rs Cr.
	(to be treated separately)							
	Total	8,867	1,422.91	5,310.71	157.62	6,891.24	7.77	539.30
Reconciliation Statement with the Audited Form 2.1 a								
	Billed amount of Fixed Charges							1,422.91
	Billed amount of Energy Charges							5,310.71
	Billed amount of PPAC Charges							157.62
	Billed Amount of 8% Deficit Recovery Surcharge							539.30
	Billed amount of E. Tax							287.15
	Billed amount of Pension Trust Surcharge of 3.80%							255.63
	Total amount of Revenue Billed							7,973.31
	Average Billing Rate at gross level/ Rs. kWh							8.99

- 1.7 TPDDL has submitted actual Distribution Loss level of 7.93% for FY 2018-19 and its share in overachievement incentive on account of reduction in Distribution Loss Level for the FY 2018-19 at Rs. 8.05 Cr.

Table 2: Incentive claimed on Distribution Loss Reduction

Sr. No.	Particulars	UoM	FY 2018-19
1	Energy input at DISCOM periphery	MU	9631.15
2	Billed units	MU	8867.37
3	Distribution Loss target	%	8.19%
4	Actual Distribution Loss	%	7.93%
5	Desired input @ Target distribution loss level	MU	9656.16
6	Saving in input (MU) due to lower distribution loss level	MU	25.01
7	Average Power Purchase cost	Rs/kWh	5.98
8	Total overachievement incentive	Rs. Cr.	14.95
9	TPDDL Share	Rs. Cr.	8.05

- 1.8 TPDDL has submitted collection efficiency for FY 2018-19 at 100.08% and its share in incentive on account of higher collection efficiency at Rs 23.03 Cr. and Rs 17.23 Cr. towards consumers share in such incentive.

Table 3: Incentive claimed on Collection Efficiency

S.No.	Particulars	UoM	FY 2018-19
1	Revenue Billed	Rs. Cr.	6891.24
2	Collection Efficiency Achieved	%	100.08%
3	Collection Efficiency Approved in Tariff Order	%	99.50%
4	Revenue collected	Rs. Cr.	6897.04
5	Amount of collection over and above 99.5% target	Rs. Cr.	40.25
6	Sharing of incentive		
i	DISCOM (Amount to be retained by petitioner and consumer shared 50:50 for achievement of collection efficiency Target from 99.50% to 100% and entire 100% beyond 100% collection)	Rs. Cr.	23.03
ii	Consumers (shared 50:50 for achievement of collection efficiency Target from 99.50% to 100%)	Rs. Cr.	17.23

1.9 The Power Purchase Quantum for true up for FY 2018-19 as submitted by TPDDL is tabulated as below:

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

Sr. No.	Particulars	Actual Power Purchase
A	Power Purchase:	
I	Power Purchase Quantum	10,980.05
II	Short Term Power Purchase quantum	1,094.74
III	Short Term Sale of Power	(2086.36)
	Sub-total Power Purchase	9,988.42
B	Transmission Loss:	
I	Inter-State Transmission Loss	(257.38)
II	Intra-State Transmission Loss	(99.88)
	Sub-total Total Transmission Loss	(357.26)
C	Net Power Available after Transmission Loss	9,631.15

1.10 The following table shows the RPO obligations as submitted by TPDDL for true up of FY 2018-19:

Table 5: RPO obligations for FY 2018-19

Particulars	RPO requirement for FY 2018-19		
	Solar	Non Solar	Total
Total Billed Sales			8,867.37
Less- units from Hydro			820.48
Balance Billed sales to be met through RPO obligation			8,046.89
RPO obligation (%)	4.75%	9.50%	14.25%
Total RPO to be met - MU	382	764	1146
RPO to be met through Tied up Quantum- MU	79	163	242
Non Solar RPO met through tied up quantum (HPSEB) – MU		179	179
Shortfall of RPO obligation – MU	303	422	725
REC purchased – MU	53	422	475
Balance Solar REC yet to be purchased – MU	250	-	250
REC purchased – Rs Cr.	14.49	73.54	88.03
Provision created in FY 18-19 for purchase of RE certificates – Rs Cr.			134.00
Differential amount to be adjusted in ARR of FY 2018-19, and to be allowed on actual basis			45.97

1.11 The following table shows the actual power purchase cost as submitted by TPDDL for FY true up for 2018-19:

Table 6: Power Purchase Cost for FY 2018-19

Particulars	MU	(Rs. Cr.)	Rs/kWh
Power Purchase from CSGS	9,050.56	3,948.53	4.36
Short Term Power Purchase	1,094.74	429.44	3.92
Power Purchase – Delhi Gencos (including BTPS)	1718.01	997.11	5.80
RPO Obligations	211.47	115.75	5.47
Provision for purchase of REC certificate – towards RPO		217.44	
Gross Power Purchase Cost	12,074.79	5,708.26	4.73
Add: Transmission Charges			

Particulars	MU	(Rs. Cr.)	Rs/kWh
PGCIL charges	357.26	443.65	
DTL charges		392.27	
Other transmission charges		139.59	
Less: Sale of Surplus Power	2,086.36	773.61	3.71
Power Purchase Cost (Audited)	9,631.15	5,910.15	6.14
Adjusted for below			
Net Normative Rebate on power purchase		(99.06)	
Normative Rebate on account of Transmission charges		(16.05)	
Rithala Impact		49.33	
REC purchased during CY but pertains to PY		(81.18)	
Impact of Anta, Auriya & Dadri allowed in PY but account for in books in CY		(27.04)	
Provisions created for RECs but RECs not yet purchased;		(45.97)	
Incentive on Sale of Surplus Power		63.50	
Normative additional units of power Banking @ 4/unit		4.99	
Net Power Purchase Cost	9,631.15	5,758.68	5.98

1.12 The O&M Expenses as submitted by TPDDL for FY 2018-19 with additional O&M Expenses on account of change in statutory levies & Taxes is tabulated as below:

Table 7: Normative O&M Expenses for FY 2018-19

Sr. No.	Particulars	Unit	2018-19	Capacity	Capacity as on 31.03.2019	Amount (Rs. Cr.)
A.	66 kV Line	Rs. Lakh/ckt.km	3.482	Ckt.km	1,053.47	36.68
B.	33 kV Line	Rs. Lakh/ckt.km	3.482	Ckt.km		
C.	11 kV Line	Rs. Lakh/ckt.km	0.910	Ckt.km	6,609.57	60.15
D.	LT Line System	Rs. Lakh/ckt.km	6.730	Ckt.km	7,020.25	472.46
E.	66/11 kV Grid S/s	Rs. Lakh/MVA	0.979	MVA	4,682.00	45.84
F.	33/11 kV Gris S/s	Rs. Lakh/MVA	0.979	MVA		
G.	11/0.415 kV DT	Rs. Lakh/MVA	1.400	MVA	5,944.18	83.22
H.	Total					698.35

Table 8: Summary of Additional O&M Expenses on account of statutory levies & Taxes

Sr. No.	Particulars	Amount (Rs. Cr.)
A	Licensee fees	0.17
B	Land Licensee fees	11.01
C	Interim Relief 7 th Pay Commission - FRSR	43.92
D	Impact of GST	14.36
E	Impact of Minimum wages	20.33
F	Financing Charges	0.16
G	Property Tax	1.99
H	SMS Charges	1.12
I	DSM Expenses	0.41
J	PRI Lines	1.47
K	Water Charges	2.53
L	Legal Expenses	17.75
Total		115.22

1.13 The total Non-Tariff Income (including Income from Non Energy Business) offered by TPDDL for Truing Up for FY 2018-19 as follows:

Table 9: Non-Tariff Income for FY 2018-19 (Rs Cr.)

Sr. No.	Particulars	Amount
A	Non-Tariff Income	66.65
B	Income from other Business	14.06
C	Interest on Security Deposit	(4.76)
D	Income from Open Access	9.90
E	Total	85.85

1.14 The Gross Fixed Assets for the purpose of computation of RRB for FY 2018-19 is tabulated as below:

Table 10: Detail of Actual Capitalization (Rs Cr.)

Sr. No.	Particulars	Amount
A	Revised Provisional opening balance of Gross Fixed Assets (net of Retirement)	5,074.48
B	Add- Capitalization during the year	569.53
C	Less- Retirement/ De-capitalization for the year	78.99
D	Closing balance of Gross Fixed Assets (net of Retirement)	5,565.02
E	Average balance of Gross Fixed Assets	5,319.75

1.15 The Depreciation on Average Assets (Net of consumer contribution/grants) for FY 2018-19 is tabulated as below:

Table 11: Depreciation on Net Fixed Assets (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Average Assets	4,476.37
B	Average Depreciation Rate	4.98%
C	Depreciation (Net of Consumer Contribution)	222.78

1.16 The Computation of Regulated Rate Base submitted by TPDDL for true up of FY 2018-19 is tabulated as below:

Table 12: Computation of Regulated Rate Base (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Opening Balance of OCFA	5,074.48
B	Opening Balance of Working Capital	629.40
C	Opening Balance of Accumulated Depreciation	1,654.64
D	Opening balance of Accumulated Consumer Contribution	818.26
E	Provisionally trued up opening RRB	3,230.98
	RRB - for the year	
F	Net Capitalization during the year	490.54
G	Net Depreciation for the year	181.12
H	Consumer Contribution, Grants, etc. for the year	50.25
I	Change in Working Capital	150.06
J	RRB – Closing for the year	3,640.22
K	ΔAB (Change in Regulated Base)	279.65
L	Average RRB for the purpose of ROCE	3,510.63

1.17 The Computation of Working Capital for FY 2018-19 submitted by TPDDL is tabulated as below:

Table 13: Computation of working capital (Rs. Cr.)

Sr. No.	Particulars	Amount
A	ARR for Distribution business as a whole	7,556.11
B	ARR equivalent to 2 months	1,259.35
C	Power Purchase expenses	5,758.68
D	Less: 1/12th of power purchase expenses	479.89
E	Total working capital for the year	779.46
F	Less- Opening Working Capital	629.40
G	Change in Working Capital for the year	150.06

1.18 For the purpose of computation of ROCE, TPDDL has submitted WACC for FY 2018-19 as below:

Table 14: Computation of WACC and Return on Capital Employed (ROCE) (Rs. Cr.)

Sr. No.	Particulars	Amount
A	RRB (i)	3,510.63
B	Average Equity deployed in the business	1,266.39
C	Average Debt -Capex Loan	1,464.78
D	Average Debt - working capital	779.46
E	Rate of return on equity (re)	16%
F	Normal Income Tax Rate	23.04%
G	Grossed up Return on Equity	20.79%
H	Rate of interest on debt (rd)	8.34%
I	WACC	12.83%
J	RoCE	450.53

1.19 The Aggregate Revenue Requirement for FY 2018-19 as submitted by TPDDL is as below:

Table 15: Summary of Aggregate Revenue Requirement (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Power Purchase cost (incl. Transmission charges)	5,758.68
B	O&M Expenses	698.35
C	Other expenses/Statutory levies	115.22
D	Depreciation	222.78
E	Loss on Retirement	27.90
F	Return on Capital Employed (RoCE)	450.53
G	Carrying Cost	368.50
H	Interest on Consumer Security Deposit	4.76
I	Less: Non-tariff income	66.65
J	Less- Income from Non Energy Business	14.06
K	Less- Income from Open Access	9.90
L	Aggregate Revenue Requirement	7,556.11

1.20 The Revenue Surplus/ (Gap) for FY 2018-19 is tabulated as follows:

Table 16: Computation of Revenue surplus/ (Gap) for FY 2018-19 (Rs. Cr.)

Sr. No.	Particular	Amount
A	Revenue Available towards ARR net of Incentives	6,824.68
B	Aggregate Revenue Requirement (net of carrying cost)	7,187.61
C	Revenue Surplus/(Gap)	(362.93)

Table 17: Computation of closing Revenue Gap for FY 2018-19 (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Opening Provisional true up Revenue Gap	(2,254.50)
B	Additional Impact of Various Appeals and Rithala Order	(1,180.48)
C	Revised Opening Revenue Gap	(3,434.98)
D	Add: Revenue Gap sought for the year	(362.93)
E	Add: Rithala impact	(29.72)
F	Carrying Cost Rate	10.15%
G	Add: Carrying Cost	(368.50)
H	Less- Realization from 8% Deficit recovery surcharge	540.29
I	Closing Revenue Gap	(3,655.84)

C. ARR FOR FY 2020-21

1.21 TPDDL has submitted its Estimated Sales and Revenue for FY 2020-21 as below:

Table 18: Estimated Sales and Revenue for FY 2020-21

Category	Sales	Fixed Charges	Energy Charges	Total Revenue including Other Charges	ABR
	MU	(Rs. Cr.)	(Rs. Cr.)	(Rs. Cr.)	Rs./kWh
Domestic	4405.58	200.90	1669.74	1870.65	4.25
Non Domestic	1542.96	404.04	1300.49	1729.16	11.21
Industrial	2632.66	436.59	2091.51	2565.21	9.74
Agriculture	20.65	4.64	3.10	7.74	3.75
Mushroom Cultivation	0.15	0.02	0.10	0.12	8.00
Public Utilities	496.01	49.12	333.76	383.85	7.74
Adv. & Hoardings	0.41	0.16	0.34	0.50	12.20
E Vehicle	35.26	0	6.42	6.45	1.83
Others	112.16	7.46	60.03	67.54	6.02
Total	9245.84	1102.93	5465.50	6631.23	7.17
8% Deficit Revenue Surcharge				530.50	

1.22 TPDDL has submitted its Estimated Energy Requirements for FY 2020-21 as below:

Table 19: Estimated Energy Requirements for FY 2020-21

Sr. No.	Particulars	UoM	Amount
A	Expected Sales	MU	9,245.84
B	Distribution Loss	%	7.90%
C	Energy Input (at TPDDL periphery)	MU	10,038.91
D	Distribution Loss	MU	793.07

1.23 Based on the above estimation of energy requirement, Power Purchase Cost for FY 2020-21 is estimated as below:

Table 20: Energy Balance Summary and Power Purchase Cost for FY 2020-21

Sr. No.	Particulars	FY 2020-21		
		Quantity (MU)	Amount (Rs. Cr.)	Rate (Rs./kWh)
A	Power from CSGS	9,553.31	4,301.05	4.50
B	Power from SGS	1,314.03	875.96	6.67
C	Short Term Power Purchase	145.00	48.37	3.34
D	RPO obligation to be met through purchase from Renewable Sources	876.25	355.84	4.06
E	RPO Obligation to be met through purchase of REC		177.95	
F	FGD		164.45	
G	Total Purchase	11,888.59	5,923.62	4.98
H	Transmission losses (Intra-state & Inter-state)	(368.54)		
I	Transmission Charges		973.75	
J	Total Purchase incl. Transmission charges	11,520.05	6,897.37	5.99
K	Less: Short Term surplus power sale	(1481.13)	(441.18)	2.98
L	Less: Normative Rebate		(94.58)	
M	Net Power Purchase Cost	10,038.91	6,361.61	6.34

1.24 TPDDL has sought O&M expenses along with additional Expenses as shown below:

Table 21: Projected Normative O&M Expenses for FY 2020-21 (Rs. Cr.)

Particulars	Average Capacity	O&M Expenses Per Unit		O&M Expenses
66 kV Line (kms)	1091.08	Rs. Lakh/Ckt. Km	3.079	33.59
33 kV Line (kms)				
11 kV Line (kms)	6910.36	Rs. Lakh/Ckt. Km	0.935	64.61
LT Lines system (kms.)	7340.86	Rs. Lakh/Ckt. Km	7.338	538.67
66/11 kV Grid sub-station (MVA)	4922.96	Rs. Lakh/MVA	0.954	46.97
33/11 kV Grid sub-station (MVA)				
11/0.4 kV DT (MVA)	6170.00	Rs. Lakh/MVA	1.489	91.87
Total Normative O&M Expenses				775.71
Legal Expenses				15.00
Total O&M Expenses				790.71

1.25 TPDDL has submitted capitalization for FY 2020-21 as below:

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

Particulars	Amount
Capitalization without deposit work	363
Smart Meter	102
Deposit Work	50
Total Capitalization including deposit work	515

1.26 TPDDL has submitted its Computation of Change in Working Capital for FY 2020-21 as below:

Table 23: Computation of Change in Working Capital (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Annual revenues requirement	8,510.37

Sr. No.	Particulars	Amount	
B	Receivables equivalent to 2 months ARR		1,418.39
C	Power Purchase expenses	6,361.61	
D	Add: 1/12th of power purchase expenses		530.13
E	Total working capital		888.26
F	Opening working capital		831.46
G	Change in working capital		56.80

- 1.27 TPDDL has submitted its Computation of Return on Capital Employed for FY 2020-21 as below:

Table 24: Computation of Return on Capital Employed (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Opening Balance of OCFA	6,045.02
B	Opening Balance of Accumulated Depreciation	2,073.76
C	Opening Balance of Accumulated Consumer Contribution	918.51
D	Opening balance of working capital	831.46
E	RRB – Opening	3,884.22
F	Capitalization during the year	515.00
G	Depreciation for the year (Including AAD)	266.88
H	Consumer Contribution, Grants	50.00
I	Change in Working Capital	56.80
J	Δ AB (Change in Regulated Base)	155.86
K	RRB – Closing	4,025.54
L	RRB (i)	4,040.08
M	WACC	14.67%
N	Return on Capital Employed	592.67

- 1.28 The Non-Tariff Income estimated by TPDDL for FY 2020-21 is tabulated below:

Table 25: Non-Tariff Income (Rs. Cr.)

Sr. No.	Particulars	Amount
A	Non-Tariff Income	85.85

- 1.29 The summary of ARR requirement for FY 2020-21 as submitted by TPDDL is as below:

Table 26: Summary of Aggregate Revenue Requirement (Rs. Cr.)

Sr. No.	Particular	Amount
A	Cost of Power Purchase	6,361.61
B	O&M Expenses including Legal Expenses	790.71
C	Depreciation	266.88
D	Return on Capital Employed	592.67
E	Carrying Cost	584.35
F	Less: Non-Tariff Income/Interest on consumer security deposit	85.85
H	Annual Revenue Requirement	8,510.37

1.30 The computation of Revenue (Gap) for FY 2020-21 without carrying cost is below:

Table 27: Computations of Revenue (Gap) for the year without carrying Cost (Rs. Cr.)

Sr. No.	Particular	Amount
A	Aggregate Revenue Requirement for the year without carrying cost	7,926.02
B	Revenue available for the year without DRS	6,598.07
C	Revenue (Gap)/surplus for the year	(1,327.95)

1.31 The computation of Closing Revenue Gap for FY 2019-20 as submitted by TPPDL is tabulated below:

Table 28: Computation of Closing Revenue Gap (Rs. Cr.)

Sr. No.	Particular	Amount
A	Opening Revenue Gap for FY 2019-20	(3,655.84)
B	Additional impact for FY 2019-20	(1,328.25)
C	Opening Revenue Gap for FY 2020-21	(4,984.09)
D	Revenue (Gap)/Surplus for the year	(1,327.95)
E	Closing Revenue (Gap)	(6,312.04)
F	Carrying Cost Rate	10.35%
G	Carrying Cost	(584.35)
H	Recovery of carrying cost from 8% Deficit Revenue Recovery Surcharge	530.50
I	Closing Revenue Gap (including carrying cost)	(6,365.90)