#### **1** EXECUTIVE SUMMERY

#### 1.1 Filing under Present Petition

- The Hon'ble Commission had issued MERC (Multi-Year Tariff Regulations), 2019 dated 1<sup>st</sup> August, 2019 (herein after referred to as "MYT Regulations, 2019") for the fourth MYT Control Period from FY 2020-21 to FY 2024-25.
- 2. As per the Regulation 5.1 of the MYT Regulations 2019, the present petition has been filled by Tata Power-D for (i) Truing-up for FY 2017-18 (ii) Truing-up for FY 2018-19 (iii) Provisional Truing-up for FY 2019-20 under the MYT Regulations, 2015 and (iv) ARR and Tariff Proposal for each year of the Fourth Control Period i.e. the period from FY 2020-21 to FY 2024-25 under the MYT Regulations, 2019.
- 3. In the present petition, the detailed submission of the actual performance of FY 2017-18 & FY 2018-19 in comparison with the approved parameters by the Hon'ble Commission in MTR order in Case No. 69 of 2018, dated 12th September, 2018 has been presented in Section 2 and Section 3 respectively. Further, the detailed submission of Performance Review for FY 2019-20 in comparison with the approved parameters by the Hon'ble Commission in Case No. 69 of 2018 dated 12th September, 2018 has been presented in Section 4. The projections of ARR for the period from FY 2020-21 to FY 2024-25 are presented in Section 5. The detailed submission regarding recovery of past period and Tariff philosophy and proposal are presented in Section 6. The proposal for Schedule of Charges is presented in Section 7. The compliance to various directives of the Hon'ble Commission given in the Order dated 12<sup>th</sup> September, 2018 in Case No. 69 of 2018 has been covered in Section 8. The prayers to the Hon'ble Commission are listed in Section 9.
- 4. Summary of submission has been presented below:

- Truing up of FY 2017-18
- 5. This section discusses and presents the actual performance of FY 2017-18 for the Distribution Wires and Retail Supply Business of Tata Power-D taking into consideration the MERC (MYT) Regulations, 2015, MTR Tariff Order for Tata Power-D dated 12<sup>th</sup> September, 2018 in Case of 69 of 2018 and principles laid down in various judgments.

#### 1.1.1 Number of Consumers

6. The details of the consumers of Tata Power-D for FY 2017-18 are tabulated below. The consumer base of FY 2016-17 has also been shown for reference.

Table 1-1: Number of Consumers (billed) as on 31st March, 2018

No of Consumers Category							
Category		FY 2016-17			FY 2017-18		
0 /	Direct	Changeover	Total	Direct	Changeover	Total	% Change
HT I - Industry	89	5	94	97	4	101	7%
HT II - Commercial	143	10	153	150	8	158	3%
HT III Group Housing	1	1	2	2		2	0%
HT IV - Temporary Supply	10	0	10	18		18	80%
HT V (A)- Railways	2	0	2	2		2	0%
- 22/33 kV	2	0	2	2		2	0%
- 100kV	0	0	0				
HT V(B) - Railways Metro & Monorail	2	0	2	2		2	0%
HT VI - Public Services	34	0	34	41		41	21%
a) Govt. Edu. Inst. & Hospitals	9	0	9	11		11	22%
b) Others	25	0	25	30		30	20%
HT VII - PWW & Sewage Treatment Plants	6	0	6	6		6	0%
LT I - Residential (BPL)	0	3	3	0	0	0	-100%
LT I - Residential	88255	545790	634045	101483	543000	644483	2%
- S1 (0-100 units)	36042	101299	137341	41417	94898	136315	-1%
- S2 (101-300 units)	34800	353300	388100	38206	346571	384777	-1%
- S3 (> 301-500 Units)	10710	65183	75893	12971	74530	87501	15%
- S4 (> 500 (balance units)	6703	26008	32711	8889	27001	35890	10%
LT II - Commercial	13761	22000	35761	16595	18818	35413	-1%
- Upto 20 kW	10660	20756	31416	13086	17807	30893	-2%
- > 20 kW & < 50kW	1644	718	2362	1853	623	2476	5%
->50kW	1457	526	1983	1656	388	2044	3%
LT III - Industry < 20 kW	1211	2235	3446	1139	1721	2860	-17%
LT IV - Industry > 20kW	656	444	1100	748	321	1069	-3%
LT IV - PWW & Sewage Treatment Plants				1	0	1	
LT V - Advertisement & Hoardings,	6	12	18	7	11	18	0%
incl.floodlights							
LT VI – Streetlights	6	0	6	6	0	6	0%
LT VII – Temporary Supply	385	5	390	407	4	411	5%
- TSR – Temp Supply Religious	1	0	1	1	0	1	
- TSO – Temp Supply Others	384	5	389	406	4	410	5%
LT VIII – Crematoriums etc	0	5	5	0	5	5	0%
LT IX - Public Services	151	143	294	263	157	420	43%
a) Govt. Edu. Inst. & Hospitals	36	21	57	42	21	63	11%
b) Others	115	122	237	221	136	357	51%
GRAND TOTAL	104718	570653	675371	120967	564049	685016	1.43%

7. As can be seen from the above Table, there was an overall increase of **1.43%** in the total number of consumers of Tata Power-D (Direct plus Change-over) in FY 2017-18 over the previous year.

## 1.1.2 Category-wise Sales

8. The actual category-wise sales for FY 2017-18 and a comparison with the approved energy sales for FY 2017-18 as per the MTR Order is provided in the Table below:

Table 1-2: Category wise Sales for FY 2017-18

Mus

Consumer Categories	Approv	ved in the MT	RT.O.	Actual For FY 2017-18			
	Direct	Change	Total	Direct	Change over	Total	
		over					
HT Category	-				-		
HT I – Industry	794.96	0.94	795.90	794.96		795.90	
HT II – Commercial	529.03	8.19	537.23	529.03	8.19	537.23	
HT III - Group Housing Society	3.76	0.00	3.76	3.76		3.76	
HT IV - Public Water Works	76.00	0.00	76.00	76.00	0.00	76.00	
HT IV - Temporary Supply	17.23	0.00	17.23	17.23	0.00	17.23	
HT V(A) - Railways	65.82	0.00	65.82	65.82	0.00	65.82	
22/33 KV	65.82	0.00	65.82	65.82	0.00	65.82	
HT V(B) - Railways Metro & Monorail	6.96	0.00	6.96	6.96	0.00	6.96	
HT VI - Public Services	99.20	0.00	99.20	99.20		99.20	
HT VI(A) - Public Service - Government	12.01	0.00	12.01	12.01	0.00	12.01	
Hospitals & Educational Institutions							
HT VI(B) - Public Service - Others	87.19	0.00	87.19	87.19	0.00	87.19	
Sub-total Sub-total	1592.97	9.14	1602.10	1592.97	9.14	1602.10	
LT Category							
LT I - Residential (BPL)	0.00	0.00	0.00	0.00	0.00	0.00	
LT I - Residential	308.74	1594.94	1903.68	308.74	1594.94	1903.68	
0-100	84.80	614.66	699.46	84.80	614.66	699.46	
101-300	92.82	664.00	756.82	92.82	664.00	756.82	
301-500	37.38	176.47	213.85	37.38	176.47	213.85	
501 and above	93.75	139.82	233.56	93.75	139.82	233.56	
LT II - LT Commercial	385.95	208.32	594.27	385.95	208.32	594.27	
LT II(A) - Commercial upto 20 kW	62.89	127.24	190.13	62.89	127.24	190.13	
LT II(B) - Commercial 20 to 50 kW	56.50	29.13	85.63	56.50	29.13	85.63	
LT II(C) - Commercial > 50 kW	266.56	51.95	318.51	266.56	51.95	318.51	
LT III (A)- Industrial upto 20 kW	22.73	22.94	45.67	22.73	22.94	45.67	
LT III (B) - Industrial > 20 kW	175.75	14.97	190.72	175.75	14.97	190.72	
LT IV - PWW & Sewage Treatment Plants	0.0014	0.00	0.00	0.0014	0.00	0.0014	
LT V - Advertisement & Hoardings	0.06	0.02	0.07	0.06	0.02	0.07	
LT VI - Streetlights	0.65	0.00	0.65	0.65	0.00	0.65	
LT VII – Temporary Supply	26.65	0.03	26.68	26.65	0.03	26.68	
LT VII(A) - Temporary Supply - Religious	0.02	0.00	0.02	0.02	0.00	0.02	
LT VII(B) - Temporary Supply - Others	26.63	0.03	26.66	26.63	0.03	26.66	
LT VIII - Crematoriums & Burial Grounds	0.00	0.31	0.31	0.00	0.31	0.31	
LT IX - Public Services	18.90	6.32	25.22	18.90	6.32	25.22	
LT IX(A) - Public Services - Government	1.66	2.21	3.87	1.66	2.21	3.87	
Hospitals & Educational Institutions							
LT IX(B) - Public Services Others	17.24	4.11	21.35	17.24	4.11	21.35	
Sub-total	939.44	1847.84	2787.27	939.44		2787.27	
			-			-	
15 day	0.53	(2.35)	(1.83)	0.53	(2.35)	(1.83)	
Total	2,532.93	1,854.62	4,387.55	2,532.93	1,854.62	4,387.55	

9. The total Sales for FY 2017-18 is **4387.55 MUs** which is same as provisionally approved in the MTR Order.

## 1.2 Power Purchase Quantum and Cost for FY 2017-18

- 10. In this section, Tata Power-D has presented the actual power purchase for FY 2017-18 based on the actual energy input requirement as shown above. The energy requirement of Tata Power-D has been met through the following sources:
  - (i) Power Purchase from Tata Power-G
  - (ii) Power Purchase from Renewable Sources
  - (iii) Power Purchase from short term bilateral sources
- 11. The summary of the approved and actual Power Purchase Cost for Tata Power-D for FY 2017-18 is given in the Table below:

Table 1-3: Power Purchase Cost for FY 2017-18

Power Purchase for FY 2017-18	Approved in the MTR Tariff Order			er Tata Power-D Actual		
Source	Mus	Rs/kWh	Rs Cr	Mus	Rs/kWh	Rs Cr
Power Purchase from Tata Powre-G	3815.02	4.43	1691.09	3815.02	4.43	1691.09
RPO Purchase	319.74	5.60	179.00	319.02	5.62	179.43
REC procurement			33.30			33.30
Bilateral + UI Purchase	761.00	2.86	217.80	751.22	2.98	223.81
OLA Sale	-342.55	4.60	-157.66	-342.55	4.60	-157.66
Standby Charges	4.27	-	121.16	4.27		121.16
Transmission Charges	-	-	277.34			277.79
MSLDC Charges	-	-	0.90			0.90
Total Power Purchase cost	4557.48	5.18	2362.93	4546.98	5.21	2369.82

12. The total Power Purchase Cost for FY 2017-18 for Tata Power-D was **Rs. 2369.82 Crores** against the approved cost of **Rs. 2362.93 Crores** in the MTR Order. We request the Hon'ble Commission to approve the same.

#### 1.3 Capital Expenditure and Capitalisation

13. The Hon'ble Commission, in its MTR Tariff Order in Case No. 69 of 2018 dated 12<sup>th</sup> September, 2018 had approved the capitalisation of Rs. 186.27 Crores for Distribution Wires Business and Rs. 8.44 Crores for Retail Supply Business. Against this, the actual capitalisation for FY 2017-18 is Rs. 228.52 Crores for Distribution Wires Business and Rs.

8.61 Crores for Retail Supply Business. The actual capitalisation and capital expenditure for FY 2017-18 for Tata Power-D is presented in the Table below:

**Table 1-4: Capitalisation for FY 2017-18** 

Rs Crores

Particulars	Distribution V	Vires Business	Retail Supply Business		
	Capital Expenditure	Capitalisation	Capital Expenditure	Capitalisation	
Approved in the MTR Tariff Order		186.27		8.44	
Non-DPR Schemes	31.82	34.82	1.16	1.13	
DPR Cases	175.07	193.69	6.44	7.48	
NDPR/DPR Ratio		18%		15%	
Total	206.89	228.52	7.59	8.61	

14. As can be seen from the above Table, the capitalisation of the DPR schemes for the entire Distribution Business is Rs. 201.17 Crores and for Non-DPR schemes is Rs. 35.95 Crores. The ratio of Non DPR to DPR is works out to 18% which is lower than the limit of 20% of Non-DPR to DPR. In view of the above, we request the Hon'ble Commission to approve the actual capitalization of Rs. 228.52 Crores and Rs. 8.61 Crores for the Distribution Wires and Retail Supply Business respectively. The detailed scheme wise breakup of the actual capitalisation is given in the Form 4.2 of the MTR petition. Further Cost benefit analysis Report and In Principle clearance for the same is attached as Annexure 9. We request the Hon'ble Commission to approve the same.

### 1.4 Aggregate Revenue Requirement for FY 2017-18

15. Based on the above submission, the ARR for the Distribution Wires and Supply Business of Tata Power-D works out as follows:

Table 1-5: ARR for Distribution Wires and Supply Business for FY 2017-18

Rs Crores

			RS Crores
Particulars	Approved in	Tata Power-D	Diff
	MTR T.O.		
Power Purchase Expenses including Standby Charges	2084.70	2091.14	-6.44
Intra-State Transmission Charges	277.34	277.79	-0.46
MSLDC Fees & Charges	0.91	0.90	0.01
O&M Expenses	195.90	207.63	-11.73
Depreciation	124.92	120.07	4.85
Interest on Loan Capital	96.34	90.04	6.30
Interest on Working Capital	17.15	13.78	3.37
Interest on CSD	18.24	17.96	0.28
Provision for bad and doubtful debts	0.00	-0.29	0.29
Contribution to contingency reserves	5.82	5.82	0.00
Income Tax	118.63	132.36	-13.73
Others (DSM)	1.44	0.70	0.74
Share of Efficiency (Gain)/loss in O&M Expenses		1.08	
Total Revenue Expenditure	2941.40	2958.97	-17.58
Add: Return on Equity Capital	114.60	115.62	-1.02
Aggregate Revenue Requirement	3055.99	3074.59	-18.61
Less: Non-Tariff Income	8.98	10.13	-1.15
Less: Income from OA consumers	62.11	67.33	-5.22
Add: Revenue Gap/(Surplus) of previous years	-19.10	-19.10	0.00
Aggregate Revenue Requirement	2965.81	2978.03	-12.22

16. As seen from above Tables, the total Revenue Requirement for the year FY 2017-18 works out to **Rs. 2978.03 Crores.** 

#### 1.5 Revenue from Distribution Business of Tata Power-D for FY 2017-18

17. The Total revenue recovered by Tata Power-D during FY 2017-18 for Distribution Business is as presented below:

Table 1-6: Total Revenue for Distribution Wires and Retail Supply Business for FY 2017-18

Revenue Total
Revenue Supply Business 2455.24
Revenue Wheeling Charges 381.43
Revenue RAC 517.36
Revenue from OA 67.33
Total 3421.36

- 18. As can be seen from the Tables above, Tata Power-D has recovered the revenue of Rs. 2455.24 Crores from Retail Supply Business and Rs. 381.43 Crores from Distribution Wires Business during FY 2017-18. The same has been considered for determining Gap/(Surplus).
- 19. Tata Power-D has also recovered the revenue of **Rs. 517.36 Crores** from Regulatory Asset Charge (RAC) and the treatment for the same is shown in the section of cumulative past Gap / (Surplus).
- 20. Tata Power-D has recovered the revenue of **Rs. 67.33 Crores** from Open Access Consumers towards Cross Subsidy Surcharge (CSS) and same has been considered as reduction in the total ARR.

#### 1.6 Revenue Gap / (Surplus) for FY 2017-18

21. Based on the above submissions, the combined Revenue Gap / (Surplus) of Tata Power-D for FY 2017-18 for the Distribution Wires & Retail Supply Business is as shown in the Tables below:

Table 1-7: Gap / (Surplus) for Distribution Business for FY 2017-18

Rs Crores

Particulars	MTR Tariff Order	Tata Power-D	Diff
Net Aggregate Revenue Requirement	2965.81	2978.03	-12.22
Revenue from Distribution Wires +	2844.85	2836.67	8.18
Retail Supply			
Revenue Gap/(Surplus)	120.96	141.36	20.40

- 22. As can be seen from the above Table, the combined Gap for Distribution Business is **Rs 141.36 Crores** for FY 2017-18 as against the approved Gap of **Rs 120. 96 Crores**.
- 23. We request the Hon'ble Commission to approve the Net incremental Gap of **Rs. 20.40 Crores** for the Distribution Business for FY 2017-18 which we have considered for calculating Cumulative Revenue Gap.

#### • TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2018-19

24. This section discusses and presents the actual performance of FY 2018-19 for the Distribution Wires and Retail Supply Business of Tata Power-D taking into consideration the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulation, 2015 ("MYT Regulations, 2015") Mid Term Review (MTR) Tariff Order for Tata Power-D dated 12<sup>th</sup> September, 2018 in Case of 69 of 2018 and the principles laid down in various judgments.

#### 1.6.1 Number of Consumers

25. As has been described earlier, Tata Power-D supplies power to consumers either (i) through its network (Direct Consumers) or (ii) through the network of other Distribution Licensee (Changeover Consumers). The details of the consumers of Tata Power-D for the period FY 2018-19 are tabulated below. The consumer base of FY 2017-18 has also been shown for reference.

Table 1-8: Number of Consumers (billed) as on 31st March, 2019

							NOS
No of Consumers		FY 2017-18			FY 2018-19		
Category	Direct Consumers	Changeover Consumers	Total	Direct Consumers	Changeover Consumers	Total	% Change
HT Total	-	Consumers		Consumers	001100111010		
HT I - Industry	97	4	101	102	3	105	4%
HT II - Commercial	150	8	158	150	4	154	-3%
HT III Group Housing	2		2	7	0	7	250%
HT IV - Temporary Supply	18		18	18	0	18	0%
HT V - Railways	2		2	8		8	300%
- 22/33 kV	2		2	8		8	300%
- 100kV				_			
HT V(B) - Railways Metro & Monorail	2		2	2		2	
HT VI - Public Services	41		41	42	0	42	2%
a) Govt. Edu. Inst. & Hospitals	11		11	12	0	12	
b) Others	30		30	30	0	30	
HT VII - PWW & Sewage Treatment	6		6	6	-	6	
Plants	_						
LT I - Residential	101483	543000	644483	115459	543509	658968	2%
- S1 (0-100 units)	41417	94898	136315	52796	153822	206618	52%
- S2 (101-300 units)	38206	346571	384777	47385	338816	386201	0%
- S3 (> 301-500 Units)	12971	74530	87501	9542	38879	48421	-45%
- S4 (> 500 (balance units)	8889	27001	35890	5736	11992	17728	-51%
LT II - Commercial	16595	18818	35413	19599	17297	36896	4%
- Upto 20 kW	13086	17807	30893	15726	16409	32135	4%
- > 20 kW & < 50kW	1853	623	2476	2057	584	2641	7%
- > 50kW	1656	388	2044	1816	304	2120	4%
LT III - Industry < 20 kW	1139	1721	2860	1223	1552	2775	-3%
LT IV - Industry > 20kW	748	321	1069	813	280	1093	2%
LT IV - PWW & Sewage Treatment Plants	1	0	1	5	0	5	
LT V - Advertisement & Hoardings,	7	11	18	10	11	21	17%
incl.floodlights							
LT VI – Streetlights	6	0	6	6	0	6	0%
LT VII – Temporary Supply	407	4	411	432	5	437	6%
- TSR – Temp Supply Religious	1	0	1	1	0	1	
- TSO – Temp Supply Others	406	4	410	431	5	436	6%
LT VIII – Crematoriums etc	0	5	5	0	5	5	0%
LT IX - Public Services	263	157	420	299	142	441	5%
a) Govt. Edu. Inst. & Hospitals	42	21	63	44	17	61	-3%
b) Others	221	136	357	255	125	380	6%
LT XI: Electric Vehicle Charging Stations	0	0			0	0	
GRAND TOTAL	120967	564049	685016	138182	562808	700990	2%
				1			

26. As can be seen from the above Table, there was an overall increase of 2% in the total number of consumers (Direct plus Change-over) in FY 2018-19 over the previous year.

## 1.6.2 Category-wise Sales

27. The actual category-wise sales for FY 2018-19 and a comparison with the approved energy sales for FY 2018-19 as per the MTR Order is provided in the Table below:

Table 1-9: Category wise Sales for FY 2018-19

Consumar Catagories	ories Approved in the MTR T.O.				Mus Actual For FY 2018-19			
Consumer Categories	Direct		Total	Direct	Total			
	Direct	Change over	Iotai	Direct	Change over	Total		
HT Category	-							
HT I – Industry	794.96	0.95	795.91	948.90	0.41	949.31		
HT II – Commercial	529.03	10.38	539.41	506.31	5.48	511.79		
HT III - Group Housing Society	3.76	-	3.76	4.34	-	4.34		
HT IV - PWW & Sewage Treatment Plants	76.00	-	76.00	72.71		72.71		
HT IV - Temporary Supply	25.32		25.32	30.29		30.29		
HT V(A) - Railways			-			-		
22/33 KV	70.08		70.08	66.71		66.71		
100 KV			-			-		
HT V(B) - Railways Metro & Monorail	9.05		9.05	1.39		1.39		
HT VI - Public Services			-			-		
HT VI(A) - Publ Serv Govt Hosp&Edu Inst	13.27		13.27	12.39		12.39		
HT VI(B) - Public Services Others	96.36		96.36	129.78		129.78		
			-			-		
Sub-total	1,617.84	11.32	1,629.16	1,772.83	5.90	1,778.73		
			-	,		· ·		
LT Category			-					
LT I - Residential (BPL)			-			_		
LT I - Residential	364.03	1,618.35	1,982.37	354.38	1,519.74	1,874.13		
0-100	103.33	676.72	780.04	94.86	600.78	695.63		
101-300	109.20	677.97	787.17	103.43	629.97	733.40		
301-500	43.16	158.86	202.02	41.15	166.73	207.87		
501 and above	108.34	104.80	213.14	114.95	122.27	237.22		
LT II - Commercial	419.86	157.89	577.75	430.64	166.78	597.43		
LT II(A) - Commercial upto 20 kW	74.01	98.28	172.28	76.95	105.79	182.74		
LT II(B) - Commercial 20 to 50 kW	66.12	23.86	89.99	66.48	25.20	91.69		
LT II(C) - Commercial > 50 kW	279.73	35.75	315.48	287.21	35.79	323.00		
LT III - Industrial upto 20 kW	22.73	17.42	40.15	22.44	19.74	42.19		
LT IV - Industrial > 20 kW	186.41	8.33	194.75	179.57	11.51	191.08		
LT V - Advertisement & Hoardings	0.07	0.02	0.09	0.06	0.02	0.08		
LT VI - Streetlights	0.69	-	0.69	0.52	_	0.52		
LT VII – Temporary Supply			-		_	-		
LT VII(A) - Temporary Religious	0.03	_	0.03	0.02	-	0.02		
LT VII(B) - Temporary Others	29.45	0.01	29.46	24.16	0.02	24.19		
LT VIII - Crematoriums & Burial Grounds	-	0.30	0.30	-	0.37	0.37		
LT IX - Public Services		0.00	-		-	-		
LT IX(A) - Publ Serv Govt Hosp&Edu Inst	1.86	_	1.86	18.29	3.23	21.52		
LT IX(B) - Public Services Others	19.35	4.09	23.44	1.82	1.97	3.79		
LT IV - PWW & Sewage Treatment Plants	15.55	4103	-	0.26	1.57	3.73		
Electric Vehicle				0.20	+			
Sub-total	1 044 40	1 005 41	2 050 01		1 722 20	2 755 57		
Sub-total	1,044.49	1,806.41	2,850.91	1,032.18	1,723.39	2,755.57		
15 day	0.53	(2.35)	(1.83)	(0.82)	(7.65)	(8.46)		
	1 0.53	(2.33)	(1.83)	(0.82)	(7.03)	(8.40)		

28. The total Sales for FY 2018-19 is **4525.83 MUs** which is marginally higher than the provisionally approved sales in the MTR Order.

## 1.7 Power Purchase Quantum and Cost for FY 2018-19

- 29. In this section, Tata Power-D has presented the actual power purchase for FY 2018-19 based on the actual energy input requirement as shown above. The energy requirement of Tata Power-D is met through the following sources:
  - (i) Power Purchase from Tata Power-G
  - (ii) Power Purchase from Renewable Sources
  - (iii) Power Purchase from short term bilateral sources

#### 1.7.1 Total Power Purchase Cost of Tata Power-D

30. The summary of the approved and actual Power Purchase Cost for Tata Power-D for FY 2018-19 is given in the Table below:

Table 1-10: Power Purchase Cost for FY 2018-19

Power Purchase for FY 2018-19	Approved in the MTR Tariff Order			ler Tata Power-D Actual		
Source	Mus	Rs/kWh	Rs Cr	Mus	Rs/kWh	Rs Cr
Power Purchase from Tata Powre-G	3543.84	4.20	1581.88	3775.35	4.39	1659.13
Non Solar RPO Purchase	511.30	4.32	220.79	304.87	4.99	152.22
Solar RE Purchase	127.82	5.87	74.97	47.46	9.53	45.24
REC procurement						41.44
Bilateral + UI Purchase	465.21	3.13	133.20	664.32	3.64	241.80
OLA Sale				-104.37	5.53	-57.68
MSLDC Charges	1	-	0.65			0.77
Standby Charges	1	-	99.76	3.42		111.78
Transmission Charges	1	-	197.70			248.23
Total Power Purchase cost	4648.18	4.97	2309.06	4691.05	5.21	2442.92

31. The total Power Purchase Cost for FY 2018-19 for Tata Power-D was **Rs. 2442.92 Crores** against the approved cost of **Rs. 2309.06 Crores** in the MTR Order. We request the Hon'ble Commission to approve the same.

## 1.8 Capital Expenditure and Capitalisation for FY 2018-19

32. The Hon'ble Commission, in its MTR Order in Case No. 69 of 2018 dated 12<sup>th</sup> September, 2018 had approved a capitalisation of Rs. 111.26 Crores for Distribution Wires Business and Rs. 11.10 Crores for Retail Supply Business for FY 2018-19. Against this, the actual capitalisation for FY 2018-19 is **Rs. 127.69 Crores** for Distribution Wires Business and

**Rs. 7.01 Crores** for Retail Supply Business. The actual capital expenditure and capitalisation for FY 2018-19 for Tata Power-D is presented in the Table below:

Table 1-11: Capitalisation for FY 2018-19

Rs Crores

	Distribution V	Vires Business	Retail Supply		
Particulars	Capital Expenditure	Capitalisation	Capital Expenditure	Capitalisation	
Approved in the MTR Tariff Order		111.26		11.10	
Non-DPR Schemes	19.80	13.97	1.18	0.20	
Non-DPR- SAP Licence Fees	10.40	10.40		1.09	
DPR Cases	109.25	103.32	5.85	5.72	
NDPR/DPR Ratio		14%		3%	
Total	139.45	127.69	7.03	7.01	

## 1.9 Aggregate Revenue Requirement for FY 2018-19

33. Based on the above submission, the ARR for the **Distribution Wires and Supply Business** of Tata Power-D works out as follows:

Table 1-12: ARR for Distribution Wires and Supply Business for FY 2018-19

			Rs Crores
Particulars	MTR Tariff	Tata Power-D	Difference
	Order		
Power Purchase Expenses including Standby Charges	2110.71	2193.92	-83.21
Intra-State Transmission Charges	197.70	248.23	-50.53
MSLDC Fees & Charges	0.65	0.77	-0.12
O&M Expenses	205.80	209.78	-3.98
Depreciation	133.07	127.42	5.65
Interest on Loan Capital	94.52	84.58	9.94
Interest on Working Capital	15.73	14.35	1.38
Interest on CSD	17.30	19.93	-2.63
Provision for bad and doubtful debts	0.00	2.87	-2.87
Contribution to contingency reserves	6.31	6.40	-0.09
Income Tax	118.63	165.69	-47.06
Others (DSM)	2.10	0.68	1.42
Total Revenue Expenditure	2902.52	3074.61	-172.09
Add: Return on Equity Capital	122.03	124.02	-1.99
Aggregate Revenue Requirement	3024.55	3198.64	-174.09
Less: Non-Tariff Income	8.98	7.80	1.18
Less: Income from OA consumers		100.66	-100.66
Add: Revenue Gap/(Surplus) of previous years	-17.33	-17.33	0.00
Aggregate Revenue Requirement	2998.25	3072.85	-74.60

34. As seen from above Tables, the total Revenue Requirement for the year FY 2018-19 works out to **Rs. 3072.85 Crores** against Rs 2998.25 Crores approved by the Hon'ble Commission.

#### 1.10 Revenue from Distribution Business of Tata Power-D for FY 2018-19

35. The Total revenue recovered by Tata Power-D during FY 2018-19 for Distribution Business is as presented below:

Table 1-13: Total Revenue for Distribution Wires and Retail Supply Business for FY 2018-19

	Rs Crores
Revenue	Total
Revenue Supply Business	2724.96
Revenue Wheeling Charges	444.97
Revenue RAC	374.77
Revenue from OA	100.66
Total	3645.36

36. As can be seen from the above Table, Tata Power-D has recovered the Revenue of Rs. 2724.96 Crores for Retail Supply Business and Rs. 444.97 Crores from Wheeling

business during FY 2018-19 which we have used for determining Gap/(Surplus) of ARR of FY 2018-19. Tata Power-D has also recovered the revenue of **Rs. 374.77 Crores** from Regulatory Asset Charge (RAC) and the treatment to the same is shown in the section of cumulative past gap. Tata Power-D has recovered the revenue of **Rs. 100.66 Crores** from Open Access Consumers towards Cross Subsidy Surcharge (CSS) and while computing the Gap/ (Surplus) we have considered the same as reduction in the total ARR.

#### 1.11 Revenue Gap / (Surplus) for FY 2018-19

37. Based on the above submissions, the Revenue Gap / (Surplus) of Tata Power-D for FY 2018-19 for the Distribution Wires & Supply Business is as shown in the Table below:

Table 1-14: Gap / (Surplus) for Distribution Wires and Supply Business for FY 2018-19

			Rs Crores
Particulars	MTR Tariff Order	Tata Power-D	Diff
Net ARR	2998.25	3072.85	-74.60
Revenue	3116.88	3169.93	-53.05
Revenue Gap/(Surplus)	-118.63	-97.08	-21.55

38. As can be seen from the above Table, total Revenue Surplus for Distribution Business works out as **Rs. 97.08 Crores** against **Rs 118.63 Crores** approved by the Hon'ble Commission.

#### 1.12 Gap /(Surplus) along with Past Gap:

The total Gap /(Surplus) for FY 2019-20 along with the past Gap / (Surplus) approved by the Hon'ble Commission works out as given below:

Table 1-15: Gap / (Surplus) for Distribution Wires and Supply Business for FY 2018-19

Rs Crores

Particulars	Wire B	usiness	Supply E	Business
	As per MTR	Actuals	As per MTR	Actuals
	T.O.		T.O.	
Standalone ARR FY 2018-19	432.38	421.57	2565.87	2751.94
Past Gap Allowed in MTR T.O.	96.00	96.00	22.62	22.62
Less: Expected revenue from OA	60.94	26.30	79.78	100.66
consumers from proposed Tariff				
Total ARR for Recovery	467.44	491.27	2508.71	2673.90
Revenue Recovered		418.67		2724.96
Gap / (Surplus) for FY 2018-19		72.60		-51.06
Carrying cost for FY 2018-19	9.89%	3.59		-2.52
Carrying cost for FY 2019-20	9.80%	7.12		-5.00
Net Gap / (Surplus) for FY 2018-19		83.31		-58.59

Note: Recovery RAC presented seperately

#### PROVISIONAL TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2019-20

- 39. This section discusses and presents the provisional truing up of FY 2019-20 with respect to the Distribution Wires and Retail Supply Business of Tata Power-D. It is submitted that calculations presented in this section have been computed considering the MYT Regulations, 2015, MTR Order dated 12<sup>th</sup> September, 2018 in Case No. 69 of 2018 and principles laid down in various Judgements.
- 40. For provisional Truing-up of FY 2019-20, the actual values of power purchase and sales have been considered till September, 2019. Further, the revised provisional values have been compared with the expenditure considered by the Hon'ble Commission in its MTR Order.
- 41. The estimated number of consumers for FY 2019-20 as against actual number of consumers in FY 2018-19 are shown in the Table below:

Table 1-16: Estimated Number of Consumers for FY 2019-20

Nos

Consumer Categories		Y 2018-19	9	Nos FY 2019-20			
consumer categories	Direct	со	Total	Direct	co	Total	
	Nos	Nos	Nos	Nos	Nos	Nos	
HT CUSTOMERS							
HT I - Industry	102	3	105	100	1	101	
HT II - Commercial	150	4	154	148	1	149	
HT III - Group Housing Society	7		7	19		19	
(Residential)							
HT IV - PWW	6		6	6		6	
HT V(A) - Railways			0				
- 22/33 kV	8		8	9		9	
- 100kV			0			0	
HT V(B) - Metro & Monorail	2		2	2		2	
HT VI - Public Services			0				
a) Govt. Edu. Inst. & Hospitals	12		12	16		16	
b) Others	30		30	33		33	
HT VIII - Temporary Supply	18		18	33	0	33	
HT VIII - EV Charging Stations HT total	0 335	7	0 342	0	0 2	0 <b>369</b>	
LT CUSTOMERS	555	,	342	366		309	
LT I (A) - Residential (BPL)							
LT I (B) - Residential	115459	543509	658968	122419	545451	667870	
- S1 (0-100 units)	52796	153822	206618	43812	85056	128868	
- S2 (101-300 units)	47385	338816	386201	50711	343670	394381	
- S3 (> 301-500 Units)	9542	38879	48421	16794	88225	105019	
- S4 (Above 500 units (balance units)	5736	11992	17728	11102	28500	39602	
LT II - Commercial							
(A) - Upto 20 kW	15726	16409	32135	16864	13887	30751	
(B) - > 20 kW & < 50kW	2057	584	2641	2701	482	3183	
(C) - > 50kW	1816	304	2120	1842	181	2024	
LT III (A) - Industry < 20 kW	1223	1552	2775	1253	1259	2512	
LT III (B) - Industry > 20kW	813	280	1093	833	212	1045	
LT IV - PWW	5		5	5		5	
LT V - Advertisement & Hoardings,	10	11	21	10	12	22	
LT VI – Streetlights	6		6	6			
LT VII – Temporary Supply		_					
- TSR – Temporary Supply Religious	1	0	1 426	4	_	425	
- TSO – Temporary Supply Others	431	5	436	431	4	435	
LT VIII – Crematoriums and Burial	0	5	5		2	2	
Grounds	-						
a) Govt. Edu. Inst. & Hospitals	255	125	380	26	76		
b) Others	44	17	61	454	28	482	
EV Charging Stations	1	1/	1	404	20	402	
LT Total	137847	562801	700648	146847	561595	708442	
Total	138182	562808	700048	147214	561597	708411	
Total	130102	302000	700990	14/214	301337	700011	

42. Further, considering the actual sales from April, 2019 to September, 2019, Tata Power-D has estimated the sales for the balance period and arrived at the estimated total sales for FY 2019-20 as given in the Table below:

Table 1-17: Estimated Sale for FY 2019-20

Mus

Consumer Categories	Annro	ed in the M	ITP T O	Mus Estimated For FY 2019-20			
Consumer Categories	Direct	Change	Total	Direct	Change	Total	
	Direct	over	Total	Direct	over	TOTAL	
LIT CLICTOMERC							
HT CUSTOMERS	704.05	0.05	705.01	022.14	0.12	022.20	
HT I - Industry	794.96	0.95	795.91	932.14	0.13	932.28	
HT II - Commercial	529.03 3.76	10.38	539.41 3.76	499.96 11.71	1.73	501.69 11.71	
HT III - Group Housing Society HT IV - PWW & Sewage Treatment Plants	76.00		76.00	70.95		70.95	
ni iv - Pww & Sewage Heatment Plants	70.00		70.00	70.55		70.55	
HT V(A) - Railways				0.00		0.00	
- 22/33 kV	70.08		70.08	75.90		75.90	
- 100kV				0.00		0.00	
HT V(B) - Railways Metro & Monorail	11.77		11.77	1.39		1.39	
HT VI - Public Services				0.00		0.00	
a) Govt. Edu. Inst. & Hospitals	14.66		14.66	16.13		16.13	
b) Others	106.48		106.48	144.47		144.47	
HT VII - Temporary Supply	37.21		37.21	55.73		55.73	
HT CUSTOMERS TOTAL MUS	1643.96	11.32	1655.28	1808.38	1.86	1810.24	
LT I - Residential (BPL)				0.00			
LT I - Residential				399.97	1504.41	1904.38	
- S1 (0-100 units)	125.90	691.06	816.96	101.19		101.19	
- S2 (101-300 units)	128.48	701.42	829.90	121.60		121.60	
- S3 (> 301-500 Units)	49.84	159.48	209.32	51.35		51.35	
- S4 (Above 500 units (balance units)	125.21	91.25	216.45	125.84		125.84	
LT II - Commercial							
- Upto 20 kW	87.08	76.30	163.38	82.52	89.52	172.05	
- > 20 kW & < 50kW	77.38	19.56	96.94	87.31	20.79	108.10	
- > 50kW	293.55	24.59	318.15	291.39	21.36	312.76	
LT III (A) - Industry < 20 kW	22.73	13.34	36.07	22.99	16.02	39.01	
LT III (B)- Industry > 20kW	197.72	4.67	202.40	183.91	8.72	192.63	
LT IV: LT-Public Water Works (PWW) and				0.76	0.0000	0.76	
Sewage Treatment Plants							
LT V - Advertisement & Hoardings,	0.08	0.02	0.10	0.06	0.02	0.08	
incl.floodlights & neon signs							
LT VI – Streetlights	0.75	0.00	0.75	0.52	0.00	0.52	
LT VII – Temporary Supply							
- TSR – Temporary Supply Religious	0.03	0.00	0.03	0.06	0.00	0.06	
- TSO – Temporary Supply Others	32.58	0.01	32.58	24.16	0.02	24.18	
LT VIII – Crematoriums and Burial	0.00	0.29	0.29	0.00	0.14	0.14	
Grounds							
LT IX - Public Services					4		
a) Govt. Edu. Inst. & Hospitals	2.09	0.00	2.09	1.86	1.97	3.83	
b) Others	21.73	4.08	25.81	18.74	3.23	21.96	
LT X (A) Agriculture- Pumpsets							
LT X (B) Agriculture- Others	****	4705.55	2051 21	444	4555.55	2702 72	
LT CONSUMERS TOTAL MUS	1165.15	1786.07	2951.21	1114.34	1666.36	2780.70	
Total	2809.11	1797.39	4606.50	2922.72	1668.22	4590.94	

43. As seen from the above Table, the estimated sales for FY 2019-20 is **4590.94 MUs** and the same has been considered for energy requirement of FY 2019-20.

#### 1.13 Power Purchase Quantum and Cost for FY 2019-20

- 44. Tata Power-D has presented below the provisional power purchase requirement for FY 2019-20 considering the provisional energy input requirement arrived at in the previous section. The energy requirement of Tata Power-D for FY 2019-20 is being met from the following sources:
  - Power Purchase from Tata Power –G
  - Purchase from Renewable Sources
  - Short Term Bilateral Sources

#### 1.13.1 Total Cost of Power Purchase for FY 2019-20

45. Based on the above discussion, the provisional cost of Power Purchase for FY 2019-20 works out as given below:

Table 1-18: Provisional Power Purchase Cost for FY 2019-20

Power Purchase for FY 2019-20	Approved	in the MTR Ta	ariff Order	Tata Power-D Actual			
Source	Mus	Rs/kWh	Rs Cr	Mus	Rs/kWh	Rs Cr	
Power Purchase from Tata Powre-G	3543.84	4.46	1579.60	3662.40	4.49	1643.39	
Non Solar RPO Purchase	540.17	4.22	228.19	304.87	5.07	154.52	
Solar RE Purchase	167.31	4.73	79.19	51.17	8.84	45.21	
REC procurement						41.05	
Bilateral + UI Purchase	528.95	2.87	151.57	772.47	3.56	274.88	
OLA Sale				-21.68	4.38	-9.49	
MSLDC Charges	-	-	1.09			1.09	
Standby Charges	-	-	98.82	5.53		101.08	
Transmission Charges	-	-	216.12			216.12	
Total Power Purchase cost	4780.28	4.93	2354.69	4774.77	5.17	2467.86	

46. As seen from the above Table, the provisional power purchase cost for FY 2019-20 works out to **Rs. 2467.86 Crores.** 

#### 1.14 Capital Expenditure and Capitalisation

47. The Hon'ble Commission, in its MTR Tariff Order in Case 69 of 2018 dated 12<sup>th</sup> September, 2018 had approved the capitalisation of Rs. 89.90 Crores for Distribution Wires Business and Rs. 11.12 Crores for Retail Supply Business. Against this, the provisional capitalisation for FY 2019-20 is estimated to be Rs. 125.30 Crores for Distribution Wires Business and Rs. 12.83 Crores for Retail Supply Business. The estimated capital expenditure and capitalisation for FY 2019-20 for Tata Power-D is presented in the Table below:

Table 1-19: Estimated Capitalisation for FY 2019-20

Rs Crores

Particulars	Wire Business	Retail Supply
Approved in the MTR Tariff Order	89.90	11.12
Estimated capitalization	125.30	12.83

48. The detailed scheme wise breakup of the capitalisation is given in the Form 4.2 of the MYT petition. We request the Hon'ble Commission to approve the same.

#### 1.15 ARR for Distribution Business for FY 2019-20

49. Based on the above computation of the elements of ARR, the summary of the ARR and its comparison with that considered in the MTR Order is presented for the Distribution Wires and the Retail Supply Business in the Tables below:

Table 1-20: Provisional ARR for Distribution Wires and Supply Business for FY 2019-20

Rs Crores

Particulars	MTR Tariff	Tata Power-D	Diff
	Order		
Power Purchase Expenses including Standby Charges	2137.37	2250.65	-113.28
Intra-State Transmission Charges	216.12	216.12	0.00
MSLDC Fees & Charges	1.09	1.09	0.00
O&M Expenses	216.21	206.41	9.80
Depreciation	138.87	133.61	5.26
Interest on Loan Capital	88.68	79.13	9.55
Interest on Working Capital	16.33	21.20	-4.87
Interest on Security Deposit	17.71	20.39	-2.68
Provision for bad and doubtful debts	0.00	0.00	0.00
Contribution to contingency reserves	6.62	6.70	-0.08
Income Tax	118.63	165.69	-47.06
Others (DSM)	2.48	0.68	1.80
Total Revenue Expenditure	2960.11	3101.67	-141.56
Add: Return on Equity Capital	127.29	129.96	-2.67
Aggregate Revenue Requirement	3087.40	3231.63	-144.23
Less: Non-Tariff Income	8.98	7.80	1.18
Less: Income from OA consumers	80.76	94.82	-14.06
Aggregate Revenue Requirement	2997.65	3129.01	-131.36

50. As seen from the above the combined ARR for Distribution Wires and Retail Supply Business for FY 2019-20 worked out as **Rs 3129.01 Crores** as against approved ARR of Rs. 2997.65 Crores.

#### 1.16 Revenue for FY 2019-20

51. Tata Power-D has considered the actual Revenue recovered till September, 2019 and projected the expected revenue for the remaining period based on the actual realization till date. Based on the same, the total estimated revenue recovery during FY 2019-20 is as given in the Table below:

Table 1-21: Estimated Revenue Recovered for Distribution Business for FY 2019-20

 Revenue
 Total

 Revenue Supply Business
 2753.32

 Revenue Wheeling Charges
 603.98

 Revenue RAC
 331.08

 Revenue from OA
 94.82

 Total
 3783.19

52. As seen from the above the estimated total Revenue recovery will be **Rs 3783.19 Crores** during for FY 2019-20. Tata power-D has not considered revenue from Transmission charges paid by OA consumers and request the Hon'ble Commission to allow Tata Power-D to retain the same

#### 1.17 Gap /(Surplus) along with Past Gap:

The total Gap /(Surplus) for FY 2019-20 along with the past Gap / (Surplus) approved by the Hon'ble Commission works out as given below:

Table 1-22: Gap / (Surplus) for Distribution Wires Business for FY 2019-20

Rs Crores

Particulars	Wire B	usiness	Supply E	Business
	As per MTR	Actuals	As per MTR	Actuals
	T.O.		T.O.	
Standalone ARR FY 2019-20	460.20	456.13	2618.21	2767.70
Past Gap Allowed in MTR T.O.	185.04	185.04	43.60	43.60
Less: Expected revenue from OA	70.81	30.29	80.76	94.82
consumers from proposed Tariff				
Total ARR for Recovery	574.43	610.88	2581.05	2716.48
Revenue Recovered	574.43	573.68	2581.05	2753.38
Gap / (Surplus) for FY 2019-20	0.00	37.20	0.00	-36.90

#### AGGREGATE REVENUE REQUIRED FOR THE PERIOD FY 2020-21 TO FY 2024-25

53. This section discusses and presents the estimated ARR for the Period FY 2020-21 to FY 2024-25 with respect to the Distribution Wires and Retail Supply Business of Tata Power-D. It is submitted that the ARR is computed in this section considering the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2019 ("MYT Regulations, 2019").

#### 1.18 Sales Projection for the Control Period

54. Sales of Tata Power-D consist of (i) Direct Sales (on the Wires of Tata Power-D) and (ii) Changeover Sales (on the Wires of Other Utility) which is allowed in the Mumbai Suburban Area. Considering these aspects and the past Sales of Tata Power-D, the

detailed methodology for arriving at the Sales for the future Control Period is presented in the petition.

Table 1-23: Total Sales Projection for FY 2020-21 to FY 2024-25

	Direct Changeover									
Consumer Categories	FY 21	FY 22	FY 23	FY 24	FY 25	FY 21	FY 22	FY 23	FY 24	FY 25
HT CUSTOMERS										
HT I - Industry	945	959	972	986	999	0	0	0	0	0
HT II - Commercial	505	511	516	522	528	1	0	0	0	0
HT III - Group Housing Society	12	12	12	12	12	0	0	0	0	0
HT IV - PWW & Sewage Treatment	72	72	73	74	75					
Plants										
HT V(A) - Railways										
- 22/33 kV	76	76	76	76	76					
- 100kV	0	0	0	0	0					
HT V(B) - Railways Metro &	1	1	1	1	1					
HT VI - Public Services										
a) Govt. Edu. Inst. & Hospitals	16	16	17	17	17					
b) Others	147	149	151	153	155					
HT VII - Temporary Supply	56	56	56	56	56					
HT CUSTOMERS TOTAL MUs	1830	1852	1874	1897	1919	1	0	0	0	0
LT I - Residential	451.65	510.23	576.67	652.06	737.63	1489.5	1474.6	1459.91	1445.32	1430.9
- S1 (0-100 units)	114	129	146	165	187	540	535	530	524	519
- S2 (101-300 units)	137	155	175	198	224	637	630	624	618	612
- S3 (> 301-500 Units)	58	66	74	84	95	188	186	184	182	181
- S4 (Above 500 units (balance units)	142	161	181	205	232	124	123	122	121	120
,										
LT II - Commercial										
- Upto 20 kW	88	95	102	109	117	76	64	54	46	39
-> 20 kW & < 50kW	88	89	91	92	93	17	14	12	10	8
- > 50kW	296	300	304	309	313	13	8	5	3	2
LT III (A) - Industry < 20 kW	24	24	25	25	26	13	11	9	7	6
LT III (B)- Industry > 20kW	188	193	198	202	207	7	5	4	3	2
LT IV: LT-Public Water Works (PWW)	1	1	1	1	1					
and Sewage Treatment Plants										
0										
LT V - Advertisement & Hoardings,	0	0	0	0	0	0	0	0	0	0
incl.floodlights & neon signs										
LT VI – Streetlights	1	1	1	1	1					
LT VII – Temporary Supply										
- TSR – Temporary Supply Religious	0	0	0	0	0					
- TSO – Temporary Supply Others	24	24	24	24	24	0	0	0	0	0
LT VIII – Crematoriums and Burial	0	0	0	0	0	0	0	0	0	0
Grounds										
LT IX - Public Services										
a) Govt. Edu. Inst. & Hospitals	2	2	2	2	2	1	0	0	0	0
b) Others	19	20	20	21	21	3	4	4	4	4
LT X (A) Agriculture- Pumpsets										
EV Charging Stations	0	0	0	0	0					
LT CONSUMERS TOTAL MUS	1183	1259	1343	1438	1543	1619	1580	1547	1518	1491
Total	3013	3111	3218	3334	3462	1620	1580	1547	1518	1491

Table 1-24: Total Sales Projection for FY 2020-21 to FY 2024-25

		Sal	les in MK\	/ah						
Consumer Categories	FY 21	FY 22	FY 23	FY 24	FY 25	FY 21	FY 22	FY 23	FY 24	FY 25
HT CUSTOMERS										
HT I - Industry	945	959	972	986	999	962	976	989	1003	1017
HT II - Commercial	506	511	517	522	528	513	518	524	530	535
HT III - Group Housing Society	12	12	12	12	12					
HT IV - PWW & Sewage Treatment	72	72	73	74	75	72	73	74	74	75
Plants										
HT V(A) - Railways										
- 22/33 kV	76	76	76	76	76	120	120	120	120	120
- 100kV	0	0	0	0	0					
HT V(B) - Railways Metro &	1	1	1	1	1					
Monorail										
HT VI - Public Services	0	0	0	0	0					
a) Govt. Edu. Inst. & Hospitals	16	16	17	17	17	17	17	18	18	18
b) Others	147	149	151	153	155	149	151	153	155	158
HT VII - Temporary Supply	56	56	56	56	56	58	58	58	58	58
HT CUSTOMERS TOTAL MUs	1831	1852	1874	1897	1919					
LT I - Residential	1941	1985	2037	2097	2169					
- S1 (0-100 units)	655	664	676	689	706					
- S2 (101-300 units)	774	786	799	816	836					
- S3 (> 301-500 Units)	246	252	258	266	275					
- S4 (Above 500 units (balance units)	266	284	303	326	352					
				525	552					
LT II - Commercial										
- Upto 20 kW	164	159	156	155	156					
-> 20 kW & < 50kW	106	104	102	101	101	128	125	124	123	122
- > 50kW	308	308	309	311	315	348	347	348	351	355
LT III (A) - Industry < 20 kW	37	35	33	32	32					
LT III (B)- Industry > 20kW	195	198	201	205	209	216	219	223	227	231
LT IV: LT-Public Water Works (PWW)	1	1	1	1	1	1	1	1	1	1
and Sewage Treatment Plants										
LT V - Advertisement & Hoardings,	0	0	0	0	0					
incl.floodlights & neon signs	_									
LT VI – Streetlights	1	1	1	1	1					
LT VII – Temporary Supply	0	0	0	0	0					
- TSR – Temporary Supply Religious	0	0	0	0	0					
- TSO – Temporary Supply Others	24	24	24	24	24	27	27	27	27	27
LT VIII – Crematoriums and Burial	0	0	0	0	0					
Grounds	-	-	-							
LT IX - Public Services	0	0	0	0	0					
a) Govt. Edu. Inst. & Hospitals	3	2	2	2	2	3	3	2	2	2
b) Others	23	23	24	25	25	24	25	26	26	27
LT X (A) Agriculture- Pumpsets										
EV Charging Stations	0	0	0	0	0	0	0	0	0	0
LT CONSUMERS TOTAL MUS	2802	2839	2890	2955	3034					
Total	4633	4691	4764	4852	4953					

#### 1.19 Power Purchase Plan

- 55. In this section, Tata Power –D has presented the total power purchase requirement for FY 2020-21 to FY 2024-25 based on the above estimated energy input requirement. The energy input requirement is proposed to be met from the following sources:
  - a) Power Purchase from Tata Power –G

- b) Power Purchase from Renewable Sources
- c) Short Term Bilateral Sources
- 56. The summary of power purchase from Renewable Sources for the Control Period is provided in the Table below:

#### 1.19.1 Total Cost of Power Purchase:

57. Based on the above estimations, the total cost of Power Purchase for Tata Power-D for the Control Period FY 2020-21 to FY 2024-25 is shown in the Table below:

Table 1-25: Total Power Purchase Cost of Tata Power-D for the Period FY 2020-21 to FY 2024-25

Particulars	FY 2020-21			FY 2021-22			FY 2022-23		FY 2023-24			FY 2024-25			
	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores
Tata Power-G	3764.72	4.68	1761.83	3808.25	4.70	1790.02	3738.67	4.75	1775.34	3753.46	4.76	1786.42	3830.81	4.77	1827.88
Non-Solar+Solar	373.85	5.55	207.32	925.31	3.64	336.61	1035.60	3.54	366.33	1035.60	3.47	359.31	1035.60	3.45	357.33
Generation+REC															
Bilateral Power	680.29	3.50	238.10	146.82	3.50	51.39	182.94	3.50	64.03	259.68	3.50	90.89	288.79	3.50	101.08
Purchase															
Standby Charges			99.94			99.04			98.15			97.27			96.40
Transmission			452.18			271.71			279.67			297.82			315.86
Charges															
SLDC Charges			1.08			1.07			1.06			1.05			1.04
Total	4818.86	5.73	2760.45	4880.38	5.22	2549.84	4957.21	5.21	2584.57	5048.74	5.21	2632.75	5155.20	5.24	2699.58

58. As can be seen from the above table, the average cost of power purchase for the Control Period from FY 2020-21 to 2024-25 ranges from Rs. 5.73 /kWh to Rs. 5.24 /kWh.

#### 1.20 Capital Expenditure and Capitalisation

59. Tata Power-D, based on the existing schemes and schemes proposed has considered capitalisation of @ Rs. 150 Crores per annum for Distribution Wire Business (including Non-DPR schemes) and Rs. 12 Crores per annum for Retail Supply Business. The details of the projected capitalisation for FY 2020-21 to FY 2024-25 are provided in the Table below:

Table 1-26: Capitalisation in Distribution Wires Business for FY 2020-21 to FY2024-25

<u>Particulars</u>	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Capital Cost Rs Cr	151.24	152.21	153.44	151.81	152.00

Table 1-27: Capitalisation in Retail Supply Business for FY 2020-21 to FY2024-25

Rs Crores

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
DPR	20.00	20.00	20.00	14.40	9.93
Total Capitalization	20.00	20.00	20.00	14.40	9.93

60. We request the Hon'ble Commission to approve the projected capitalisation.

#### 1.21 Aggregate Revenue Requirement

61. Based on the above submissions, the estimated ARR for the Distribution Wires and Retail Supply Business has been tabulated below:

Table 1-28: Estimated ARR for Distribution Wires Business for FY 2020-21 to FY 2024-25

Rs Crores

Fixed Cost	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Return on Equity	137.42	145.14	152.92	160.68	168.41
Interest Expense	71.66	69.35	66.48	62.98	58.81
Depreciation	129.99	137.34	144.75	152.14	159.50
O & M expenses	115.97	119.16	123.25	126.67	130.20
Int on working capital	8.84	9.20	9.58	9.94	10.28
Income Tax					
Contingency Reserves	0.00	0.00	0.00	0.00	0.00
Total	463.89	480.20	496.97	512.41	527.21
Less: Non tariff Income	5.37	5.37	5.37	5.37	5.37
Total wire ARR	458.51	474.82	491.60	507.04	521.83

Table 1-29: Estimated ARR for Retail Supply Business for FY 2020-21 to FY 2024-25

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Cost of own power generation	2207.25	2178.02	2205.69	2236.61	2286.28
/power purchase expenses;					
Intra-State Transmission Charges	452.18	271.71	279.67	297.82	315.86
Intra-State Standby Charges	99.94	99.04	98.15	97.27	96.40
MSLDC Fees & Charges	1.08	1.07	1.06	1.05	1.04
O&M Expenses	116.98	121.46	125.73	131.13	134.62
Depreciation	11.07	12.07	13.07	13.93	14.53
Interest on Long Term Loans	5.03	5.23	5.35	5.23	4.75
Interest on Working Capital	10.23	10.99	10.90	10.99	11.24
Bad and Doubtful Debt					
Contribution to Contingency	0.53	0.58	0.63	0.68	0.72
Reserve					
RoE	12.54	13.67	14.80	15.77	16.45
Income Tax					
Interest on consumer security	12.14	11.30	11.47	11.70	12.00
deposit					
DSM expenses	0.68	0.68	0.68	0.68	0.68
Less:					
Non Tariff Income	2.43	2.43	2.43	2.43	2.43
Total Annual Revenue	2927.22	2723.40	2764.77	2820.42	2892.14
Requirement					

## CUMULATIVE REVENUE GAP / (SURPLUS), TARIFF PHILOSOPHY AND CATEGORY WISE TARIFFS FOR CONTROL PERIOD FY 2020-21 TO FY 2024-25

62. The earlier sections discussed about the truing of FY 2017-18 and FY 2018-19, provisional truing up of FY 2019-20 and the ARR for the new Control Period FY 2020-21 to FY 2024-25. This section presents the cumulative Gap / (Surplus) arising out of the performance of the previous years i.e. the actual Truing Up for FY 2017-18, FY 2018-19 and provisional truing up for FY 2019-20 and subsequently the Tariff philosophy and the Tariff proposal for the Control Period.

# 1.22 Cumulative Gap / (Surplus) of Distribution Wires and Retail Supply Business along with Carrying Cost

63. Based on the above submissions, the total past Gap / (Surplus) which needs to be adjusted in future Tariff is as computed in the Table below:

Table 1-30 Cumulative Gap / (Surplus) of Distribution Business

Rs Crores

	Rs Crores							
Sr. No.	Particulars	Wire B	usiness	Supply B	lusiness			
		As per MTR	Actuals	As per MTR	Actuals			
		T.O.		T.O.				
1	Incremental Revenue Gap/(Surplus)	0.00	-0.37	0.00	3.40			
	for FY 2015-16							
2	Incremental Revenue Gap/(Surplus)	0.00	0.22	0.00	4.39			
	for FY 2016-17							
3	ARR for FY 2017-18	411.69	405.30	2554.12	2572.73			
4	Less: Revenue from Tariff	381.23	381.43	2463.62	2455.24			
5	Revenue Gap/(Surplus)	30.46	23.88	90.50	117.49			
6	Net Incremental Revenue Gap/(Surplu	s)	-6.58		26.99			
7	Carrying Cost on incremental Gap		-1.63		6.69			
8=6+7	Net Gap / (Surplus) for FY 2017-18		-8.22		33.68			
9	Standalone ARR FY 2018-19	432.38	421.57	2565.87	2751.94			
10	Past Gap Allowed in MTR T.O.	96.00	96.00	22.62	22.62			
11	Less: Expected revenue from OA	60.94	26.30	79.78	100.66			
	consumers from proposed Tariff							
12=9+10-11	Total ARR for Recovery	467.44	491.27	2508.71	2673.90			
13	Revenue Recovered		418.67		2724.96			
14=12-13	Gap / (Surplus) for FY 2018-19		72.60		-51.06			
15	Carrying cost for FY 2018-19	9.89%	3.59		-2.52			
16	Carrying cost for FY 2019-20	9.80%	7.12		-5.00			
17=14+15+16	Net Gap / (Surplus) for FY 2018-19		83.31		-58.59			
18	Standalone ARR FY 2019-20	460.20	456.13	2618.21	2767.70			
19	Past Gap Allowed in MTR T.O.	185.04	185.04	43.60	43.60			
20	Less: Expected revenue from OA	70.81	30.29	80.76	94.82			
	consumers from proposed Tariff							
21=18+19-20	Total ARR for Recovery	574.43	610.88	2581.05	2716.48			
22	Revenue Recovered	574.43	573.68	2581.05	2753.38			
23=21-22	Gap / (Surplus) for FY 2019-20	0.00	37.20	0.00	-36.90			
24	Gap Allowed for Tata Power-G			-105.82	38.92			
25	Incremental Gap for Tata Power-G				144.74			
26	Contingency Reserves		-57.91					
27	Principal RA Recovery till FY 2019-20	584.74	644.39					
28	Balance RA to be recovered in the		-59.65					
	future period							
29	UI Reconcilation upto FY 2019-20 H1			0.00	31.21			
30	Tota Past Gap Recovery		-5.41		121.93			

64. As can be seen from the above Table, the net Surplus to be adjusted for the Distribution Wires Business in the Tariff of the future period is **Rs. 5.41 Crores** whereas the net Gap to be recovered in the future Tariff for the Retail Supply Business is **Rs. 121.93 Crores.**The approach towards recovery is discussed in the subsequent paragraphs

- 1.23 Average Cost of Supply for the Control Period along with the Past Gap / (Surplus)
- 65. Considering the ARR of the Control Period based on the MYT Regulations, 2019 and the proposed recovery of past Gap / (Surplus) for Distribution Wires and Retail Supply Business, the **Average Cost of Supply** is worked out as given in the table below:

Table 1-31: Average Cost of Supply for FY 2020-21 to FY 2024-25

			_								
		Wire Business				Supply Business					
	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Balance - Rs Crores	-5.41	0.00	0.00	0.00	0.00	121.93	121.93	86.93	58.93	23.93
2	Recovery during the period - Rs Crores						0.00	35.00	28.00	35.00	23.93
3=1-2	Closing Balance						121.93	86.93	58.93	23.93	0.00
4	Rate of Interest (%)						9.80%	9.80%	9.80%	9.80%	9.80%
5=Ave(1,2)*4	Carrying Cost						11.95	10.24	7.15	4.06	1.17
6=2+5	Net Recovery including carrying cost	-5.41	0.00	0.00	0.00	0.00	11.95	45.24	35.15	39.06	25.10
7	Standalone ARR - Rs Crores	458.51	474.82	491.60	507.04	521.83	2927.22	2723.40	2764.77	2820.42	2892.14
8=6	Past Recovery including carrying cost -	-5.41	0.00	0.00	0.00	0.00	11.95	45.24	35.15	39.06	25.10
	Rs Crores										
9	Less: Expected Revenue from OA	17.97	18.29	18.36	18.34	18.25	74.42	71.14	71.18	71.76	71.80
10=7+8-9	Total ARR Requirement - Rs Crores	435.13	456.54	473.23	488.70	503.58	2864.76	2697.49	2728.74	2787.72	2845.44
11	Total Sale - Mus	3508.80	3606.74	3713.43	3830.00	3957.73	4632.64	4691.12	4764.32	4851.63	4953.26
12=10/11*10	Average Cost - Rs/kWh	1.24	1.27	1.27	1.28	1.27	6.18	5.75	5.73	5.75	5.74

Table 1-32: Comparison of Proposed Vs Approved Average Cost of Supply

		Total ARR for Distribution Business						
	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25		
1	Standalone ARR - Rs Crores	3385.74	3198.22	3256.37	3327.46	3413.97		
2	Past Recovery including carrying cost -	6.54	45.24	35.15	39.06	25.10		
	Rs Crores							
3	Less: Expected Revenue from OA	92.39	89.43	89.54	90.10	90.05		
4=1+2-3	Total ARR Requirement - Rs Crores	3299.89	3154.03	3201.97	3276.42	3349.02		
5	Total Sale - Mus	4632.64	4691.12	4764.32	4851.63	4953.26		
6=4/5*10	Average Cost - Rs/kWh	7.12	6.72	6.72	6.75	6.76		

66. As seen from the above, the **Average Cost of Supply** for the Distribution Business works out in the range of **Rs. 7.12 /kWh** to **Rs. 6.76 /kWh** for FY 2020-21 to FY 2024-25.

#### 1.24 Cross Subsidy Structure

67. Tata Power-D has proposed its CS structure based on the above submissions. While arriving at the CS structure, Tata Power-D has considered i) the methodology used by the Hon'ble Commission in the previous Tariff Orders for determination of the cross subsidy by taking into account the Sales and Revenue from both direct and change-over consumers; ii) the impact of CS on the direct consumers in order to address the issue of different ACoS between direct Consumers and changeover consumers. The category wise CS structure proposed by Tata Power-D is as given below:

Table 1-33: Category-wise Cross Subsidy for FY 2020-21 & FY 2024-25

Common Colored to						FV 2024 2F
Consumer Categories					FY 2023-24	
	%	%	%	%	%	%
EHV - Industry	104%	108%	108%	108%	108%	108%
HT I - Industry	126%	115%	115%	115%	115%	115%
EHV- Commercial	110%	108%	108%	108%	108%	108%
HT II - Commercial	133%	116%	116%	116%	116%	116%
HT III - Group Housing Society	120%	116%	116%	116%	116%	116%
(Residential)						
EHV-PWW	83%	95%	95%	95%	95%	95%
HT IV - PWW	105%	106%	106%	106%	106%	106%
HT V(A) - Railways			0%	0%	0%	0%
- 22/33 kV	101%	106%	106%	106%	106%	106%
- 100kV			0%	0%	0%	0%
HT V(B) - Metro & Monorail	103%	105%	105%	105%	105%	105%
HT VI - Public Services			0%	0%	0%	0%
a) Govt. Edu. Inst. & Hospitals	119%	116%	116%	116%	116%	116%
b) Others	128%	108%	108%	108%	108%	108%
HT VII - Temporary Supply	126%	125%	125%	125%	125%	125%
HT VIII - EV Charging Stations						
LT CUSTOMERS						
LT I (A) - Residential (BPL)						
LT I (B) - Residential	69%	79%	80%	80%	80%	81%
- S1 (0-100 units)	27%	47%	47%	47%	47%	47%
- S2 (101-300 units)	70%	80%	80%	80%	80%	80%
- S3 (> 301-500 Units)	126%	112%	112%	112%	112%	112%
- S4 (Above 500 units (balance	174%	125%	125%	125%	125%	125%
units)						
LT II - Commercial						
(A) - Upto 20 kW	117%	107%	107%	107%	107%	107%
(B) - > 20 kW & < 50kW	117%	120%	120%	120%	120%	120%
(C)->50kW	136%	125%	125%	125%	125%	125%
LT III (A) - Industry < 20 kW	112%	107%	107%	107%	107%	107%
LT III (B) - Industry > 20kW	111%	120%	120%	120%	120%	120%
LT IV - PWW	110%	116%	116%	116%	116%	116%
LT V - Advertisement & Hoardings,	135%	125%	125%	125%	125%	125%
LT VI – Streetlights	118%	125%	125%	125%	125%	125%
LT VII – Temporary Supply						
- TSR – Temporary Supply Religious	84%	89%	89%	89%	89%	89%
- TSO – Temporary Supply Others	129%	125%	125%	125%	125%	125%
LT VIII – Crematoriums and Burial	59%	60%	60%	60%	60%	60%
Grounds						
LT IX - Public Services						
a) Govt. Edu. Inst. & Hospitals	96%	100%	100%	100%	100%	100%
b) Others	117%	118%	118%	118%	118%	118%
EV Charging Stations		100%	100%	100%	100%	100%

68. As can be seen from the above Table, CS has been adjusted to bring it broadly in the range of +/-20%.

#### 1.25 Tariff Components for the Control Period

- 69. Based on the above, various Tariff components have been proposed as given below:
  - ii. Fixed / Demand Charges
- 70. The Hon'ble Commission, in the MYT Order in Case No. 47 of 2016, had stated the following with respect to Fixed / Demand Charges:

The Fixed/Demand Charges are intended to recover a significant part of the overall fixed costs, and not only fixed cost of power purchase, as contended by TPC-D. The fixed costs of the Supply Business of a Distribution Licensee are all expenses, except the variable cost of power purchase, IoWC and provision for bad and doubtful debts. Although Transmission Charges and MSLDC Charges might also be classified as Fixed Charges, for the purpose of analysis the Commission has considered them as Variable Charges as their incidence is linked to the share of CPD and NCPD, which are linked to sales which are variable in nature.

Of the total ARR of the Supply Business, around 31% is fixed in nature, while 69% is variable. However, the recovery of the fixed cost through Fixed/Demand Charges is only 34%. Moreover, the Fixed/Demand Charges have remained constant over the 2nd Control Period although the fixed cost has been increasing. Hence, the Commission has decided to gradually increase the Fixed/Demand Charges for all consumer categories by around 10-12% over the Control Period. The higher revenue from this increase has been used to cushion the Energy Charges. The category-wise Fixed/Demand Charges approved for each year of the 3rd Control Period are summarised subsequently in this Section, along with other Charges.

71. The Hon'ble Commission has continued with the same principle in MTR Order in Case No. 69 of 2018. However, a considerable amount of Fixed Cost continues to be recovered through Energy Charges. The % of Fixed cost recovered through Demand Charges for FY 2017-18, FY 2018-19 and FY 2019-20 (provisional) is given in the Table below:

Table 1-34: % Recovery of Fixed Cost in the past

Particulars	Unit	FY 2017-18	FY 2018-19	FY 2019-20
Fixed Cost	Rs Crores	1302.99	1229.75	1186.06
Revenue from Demand+FC	Rs Crores	264.85	307.13	327.73
% of Fixed Cost Recovered	%	20%	25%	28%
through Demand + FC				

72. In view of the above, Tata Power-D proposes to increase the Fixed Cost recovery from fixed cost component of Tariff. Ideally, all Fixed Cost should be recovered through Fixed / Demand Charges, however, considering the trend adopted by the Hon'ble Commission, Tata Power-D, for the Control Period has proposed Fixed / Demand Charges in such a manner that the % recovery over the five years of the Control Period increases from 31% in FY 2019-20 to around 63% by FY 2024-25. As has been the practice, the Fixed / Demand Charges applicable to the consumers for all the Distribution Licensees in Mumbai would be the same across Licensees. The proposed recovery of Fixed Cost through Fixed / Demand Charges is presented in the Table below:

Table 1-35: Proposed Recovery of Fixed Cost during the Control Period

Particulars	Unit	FY 2020-21	FY 2020-23	FY 2020-24	FY 2020-25
Fixed Cost	Rs Crores	1262.60	1117.35	1145.44	1175.14
Revenue from Demand+ FC	Rs Crores	393.53	541.34	636.45	737.77
% of Fixed Cost Recovered	%	31%	48%	56%	63%
through Demand + FC					

iii. Energy Charges

73. Tata Power-D has determined the category-wise Energy Charges such that the cross-subsidy with respect to the ACoS across consumer categories is reduced from the present levels, and the Tariff of most of the consumer categories comes within the +/-

20% of the ACoS as suggested in the Tariff Policy. Further, as directed by the Hon'ble Commission from FY 2020-21 onwards, all two part consumers will be billed in kVah instead of kWh billing.

## kVAh Billing

- 74. The Hon'ble Commission had introduced the system of Power Factor Incentive (PFI) whereby consumers were encouraged to improve the power factor of their consumption by installing power factor correction equipment. During that period the electrical power system in the State of Maharashtra was not in good health as there was shortage of active as well as reactive energy. The Power Factor Incentive system was introduced with the aim to get support from the consumers to improve system conditions and at the same time the consumer to recover the cost of Power Factor correction equipment through incentives.
- 75. However, in the current scenario, when the system condition is much stable compared to the past, it is necessary to have a relook at the PFI scheme. The requirement of Reactive Energy support from the consumer on a continued basis has reduced, and the PFI provided to such consumers on a continued basis is burdening other consumers. However, it is necessary that the consumers who genuinely contribute to improving the PF of the system should have an inbuilt mechanism for incentivising their efforts.
- 76. With a view to ensure the automatic monetary benefit with regard to maintaining PF and to make Power Factor incentive / penalty redundant, it is proposed to replace the current kWh based billing by kVAh billing. The kVAh billing has been implemented by many States like Uttar Pradesh, Delhi, Uttarakhand etc. The base Power Factor for conversion of kWh to kVAh can be considered as **0.95** which is an average of PF of all consumers of Tata Power-D. Tata Power-D for proposing tariff in Rs/kVAh has considered the average ratio of 0.95. However, the same can be levied category wise based on the directions of the Hon'ble Commission. The month wise ratio of KWh/kVAh is given in the table below. However, we request the Hon'ble Commission to have a uniform base Power Factor across all Distribution Licensees of Maharashtra.

Table 1-36: Average Ratio of kWh/kVAh

kWh/KVAh **Consumer Category** Jan-19 Feb-19 Mar-19 Apr-19 May-19 Jun-19 Jul-19 Aug-19 Sep-19 Oct-19 Average HT I - Industry 0.97 0.98 0.99 0.99 0.99 0.98 0.98 0.98 0.98 0.99 0.98 HT II - Commercial 0.98 0.98 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 HT IV - PWW & Sewage 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 Treatment Plants HT V(A) - Railways 22/33 kV 0.55 0.62 0.67 0.73 0.67 0.64 0.64 0.64 0.63 0.63 0.55 HT VI(A) - Publ Serv Govt 0.95 0.95 0.95 0.95 0.95 0.95 0.94 0.94 0.94 0.92 0.94 Hosp&Edu Inst HT VI(B) - Public Services 0.98 0.98 0.98 0.98 0.99 0.99 0.97 0.99 0.99 0.98 0.98 Others HT VII - Temporary Supply 0.95 0.96 0.97 0.95 0.96 0.91 0.96 0.96 0.96 0.96 0.95 LT II(B) - Commercial 20 to 0.80 0.78 0.82 0.85 0.84 0.87 0.79 0.84 0.84 0.83 0.83 50 kW 0.89 LT II(C) - Commercial > 50 0.85 0.88 0.89 0.91 0.92 0.93 0.91 0.91 0.91 0.76 kW LT III(B) - Industrial > 20 kW 0.84 0.86 0.89 0.90 0.90 0.95 0.91 0.93 0.93 0.91 0.90 0.73 LT IV - PWW & Sewage 0.74 0.72 0.71 0.70 0.70 0.67 0.90 0.73 0.73 0.73 Treatment Plants LT IX(A) - Publ Serv Govt 0.80 0.89 0.95 0.91 0.91 0.92 0.80 0.91 0.91 0.84 0.88 Hosp&Edu Inst LT IX(B) - Public Services 0.91 0.94 0.96 0.96 0.97 0.96 0.96 0.93 0.93 0.80 0.95 Others LT VII(B) - Temporary 0.89 0.88 0.89 0.89 0.90 0.92 0.91 0.93 0.93 0.90 0.90 Others LT XI - Electric Vehicle 0.95 0.98 0.99 0.99 1.00 0.87 0.97 0.99 0.99 0.93 0.97 Charging Stn. 0.92 0.94 0.94 0.95 0.95 **Grand Total** 0.92 0.95 0.95 0.96 0.92 0.95

- iv. Incentives Load Factor / Power Factor / Time-of-Day
- a) Load Factor Incentive
- 77. Tata Power-D proposes to continue with the same Load Factor Incentive (LFI) as approved by the Hon'ble Commission in the MTR Order in Case No. 69 of 2018.
  - b) Time of Day Charges
- 78. The Hon'ble Commission in its MYT Tariff Order has directed as follows:

However, the Commission is of the view that, in the absence of a substantive study setting out the likely outcome of a revised TOD tariff structure and taking into account the impact of this shift in the load curve, it would not be prudent and might not even be beneficial to change the ToD tariff structure. Further, a

load curve weighted towards the afternoon hours might well be helpful for the Distribution Licensees ........

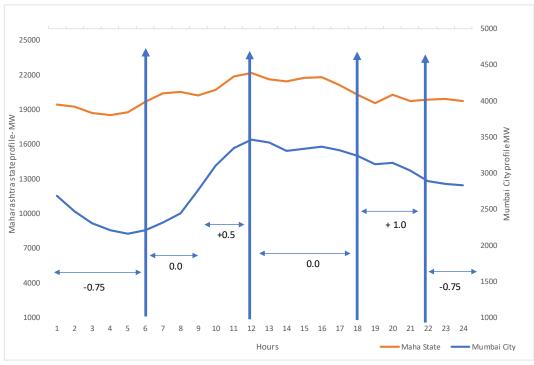
79. Further, in the MTR Order, the Hon'ble Commission had ruled the following:

As this issue has to be seen in totality across all Licensees, the Commission will take a view on proposals to modify the ToD time-slots and/or ToD slot-wise tariffs in the next Control Period.

80. The prevailing ToD Rates for the Distribution Licensees in Maharashtra are same for all the Licensees and have been approved by the Hon'ble Commission as follows:

L *					
TOD Tariffs (in addition to above base Tariffs)					
0600 to 0900 hours	0.00				
0900 to 1200 hours	0.50				
1200 to 1800 hours	0.00				
1800 to 2200 hours	1.00				
2200 to 0600 hours	-0.75				

- 81. The primary intention of the ToD Tariff is to flatten the Load Curve i.e. increase consumption in the periods of low Demand and reduce consumption in periods of high Demand. Accordingly, the ToD Tariffs provide incentives during low Demand period and higher Tariffs during high Demand periods.
- 82. Tata Power-D has considered a representative load pattern for Mumbai and Maharashtra State as a whole (refer diagram below). However, we submit that a larger database of load patterns over various seasons, past and present, needs to be analysed to arrive at a realistic inference.



**Graph 1: Load Curve for Mumbai and State with present Time of Day Tariffs** 

- 83. For the purpose of ToD, however, Tata Power-D has gone ahead and analysed the representative load pattern of Mumbai and State Demand and considering the representative Load Curve, Tata Power-D has proposed the following:
- 84. The current ToD rate for the time slot 22 hours to 6 hours is Rs. -0.75 / kWh with a view to increase consumption during night-time. From the representative Load Curve, it is observed that the Demand starts gradually picking up from 6 hours in Mumbai, but for the State of Maharashtra as a whole, the Demand picks up faster from 6 hours. Hence, for Mumbai, it may help if the negative ToD rate is extended till 7 hours to improve consumption. It is submitted that with the implementation of DSM Regulations, 2019 from 1<sup>st</sup> April, 2020 the interlinkage between Mumbai Demand and the Maharashtra State Demand has been removed as each Licensee has been provided with a limit of overdrawl. Considering this, we request the Hon'ble Commission to consider extending the current time slot of 22 hours to 6 hours to 22 hours to 7 hours for Mumbai.
- 85. Further, it is observed that there is a considerable Demand between 11 to 19 hours in the entire State where the ToD rate is zero. In order to flatten the Load Curve during

this period, Tata power-D proposes extending the current ToD Tariff of Rs. 0.75 / kWh from 11 hours to 19 hours.

- 86. It is observed, that the ToD Tariff of Re. 1 / kWh from 18 hours to 22 hours seems to have brought down the Demand during this period for Mumbai as well as the State. Tata Power-D proposes to continue the ToD Tariff for this period from 19 hours to 20 hours but reduce the rate to Rs. 0.50 / kWh. Further, the demand pattern is similar between 9 to 11 hours, hence, rate during this period is also proposed to be Rs. 0.50/kWh.
- 87. Accordingly, the proposed ToD Rates for the Control Period are as follows:

Table 1-37: Proposed ToD Rates for the Control Period

Time	Rate in Rs. /kWh
0700 to 0900	0.00
0900 to 1100	0.50
1100 to 1900	0.75
1900 to 2200	0.50
2200 to 0700	-0.75

- c) PF Incentive / Penalty
- 88. It is proposed to discontinue the PF Incentive / Penalty in view of introduction of kVAh Billing as it would have an inherent Incentive / Penalty for PF.
  - v. Regulatory Asset Charge
- 89. Tata Power-D proposes no Regulatory Asset Charge for the new Control Period.
  - vi. Wheeling Charge

90. Based on the GFA ratio and the total Wires ARR along with past recoveries and EHT, HT, LT Direct and Open Access Sales, Tata Power-D has computed the Wheeling Charges for the Control Period.

Table 1-38: Wheeling Charges for FY 2020-21 to FY 2024-25

Year	Level	Wheeled	Level wise	_	% GFA	Wheeling Cost	Wheeling	Wheeling	Wheeling	Total	Wheeling
real	Level	Sales	%	Wheeled	Ratio	segregation	Cost	Cost	Cost	Wheeling	Charges
		(MUs)	Wheeled	sales mix	Natio	(as per % GFA)		allocation	allocation	Cost	allocation
		(IVIUS)	Sales mix	between		(Rs. Crore)	for EHV	for HT	for LT	allocation	(Rs/kWh)
			Sales IIIIX			(NS. Crore)					(NS/KVVII)
				HT & LT			(ns. crore)	(Rs. Crore)	(ns. crore)	(Rs. Crore)	
FY 2020-21											
1	EHV (110 kV)	691	20%		1%	4	4			4	0.06
2	HT (33/22/11/6.6 kV)	1635	47%	58%	58%	252		146		146	0.89
3	LT	1183	34%	42%	41%	179		106	179	285	2.41
	Total Sale	3509	100%	100%	100%	435	4	252	179	435	1.24
FY 2021-22											
1	EHV (110 kV)	691	20%		1%	5	5			5	0.07
2	HT (33/22/11/6.6 kV)	1657	47%	57%	58%	264		150		150	0.91
3	LT	1259	36%	43%	41%	188		114	188	302	2.40
	Total Sale	3607	103%	100%	100%	457	5	264	188	457	1.27
FY 2022-23											
1	EHV (110 kV)	691	20%		1%	5	5			5	0.07
2	HT (33/22/11/6.6 kV)	1679	48%	56%	58%	274		152		152	0.91
3	LT	1343	38%	44%	41%	195		122	195	316	2.36
	Total Sale	3713	106%	100%	100%	473	5	274	195	473	1.27
FY 2023-24											
1	EHV (110 kV)	691	20%		1%	5	5			5	0.07
2	HT (33/22/11/6.6 kV)	1701	48%	54%	58%	283		153		153	0.90
3	LT	1438	41%	46%	41%	201		130	201	331	2.30
	Total Sale	3830	109%	100%	100%	489	5	283	201	489	1.28
FY 2024-25											
1	EHV (110 kV)	691	20%		1%	5	5			5	0.07
2	HT (33/22/11/6.6 kV)	1724	49%	53%	58%	291		154		154	0.89
3	LT	1543	44%	47%	41%	207		138	207	345	2.23
	Total Sale	3958	113%	100%	100%	504	5	291	207	504	1.27

91. Summary of Wheeling Charges for the period FY 2020-21 to FY 2024-25 is as given below:

Table 1-39: Wheeling Charges from FY 2020-21 to FY 2024-25

Rs/kWh

Wheeling Charges	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
EHV Wheeling Charge-Rs/kWh (110 kV)	0.06	0.07	0.07	0.07	0.07
HT Wheeling Charge-Rs/kWh (33/22/11/6.6 kV)	0.89	0.91	0.91	0.90	0.89
LT Wheeling Charge-Rs/kWh	2.41	2.40	2.36	2.30	2.23

Rs/kVAh

Wheeling Charges	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
EHV Wheeling Charge (110 kV)	0.06	0.06	0.06	0.07	0.07
HT Wheeling Charge	0.85	0.86	0.86	0.86	0.85
(33/22/11/6.6 kV)					
LT Wheeling Charge	2.29	2.28	2.24	2.18	2.12

- 92. We request the Hon'ble Commission to approve the Wheeling Charges for the Control Period.
  - vii. Fixed Wheeling Charges from Consumers having (in-situ) captive generation:
- 93. With respect to recovery of Wheeling ARR, it is observed that certain consumers have installed captive generation in their premises (in-situ captive). These captive generating plants have been installed by consumers behind the meters in their premises. Therefore, the meters installed by the Distribution Licensee does not record any generation of electricity by captive plants and subsequently its consumption by the consumer. However, such consumers draw energy from the Distribution Licensee during planned / unplanned outages of their captive plants, i.e. network has to be developed and maintained for such intermittent consumption. This reduces the utilisation of Wires assets / make them stranded as energy is drawn only during planned / unplanned shutdowns, however the network (wires assets) has to be maintained and kept available throughout the year for the full load as applied by the consumer. This puts a burden on other consumers as the Distribution Licensee can charge such consumers only on energy wheeled basis.

- 94. This scenario is similar to a consumer using an open-access generation source for meeting its energy requirements. However, in this case, although the Distribution Licensee has to develop and maintain the network infrastructure for such consumer, they have no means to recover the cost which is created for such consumers. This is so because the recovery is possible only on the basis of energy wheeled which happens only during planned / unplanned shutdowns of the in-situ captive generator. The other times the consumer replaces the energy supplied by the Distribution Licensee for its consumption through captive generation.
- 95. Such replacement necessarily has a adverse impact on the revenue recovery of the Distribution Licensee, primarily on two counts one, on its ability to cross-subsidise the vulnerable sections of society and the other, in terms of recovery of the fixed costs, the Distribution Licensee has incurred as part of its obligation to supply electricity to that consumer on demand (stranded costs). The Distribution Licensee incurs certain expenses on account of maintaining such systems, and such systems, though connected after the Consumer's meter, do derive benefit from being connected to the network of the Distribution Licensee; at the same time do not have any obligation to pay for such facilities as long as captive source remains operational.
- 96. It is submitted that the consumer remains connected to the Distribution network and enjoys right to use it as a fall back option, whenever its captive generation is unavailable. However, the Distribution Licensee has to be ready at all times i.e. keep the network on "stand by" all the time. In view of this, there has to be a mechanism in place so that the consumer reimburses the expenditure that the Distribution Licensee incurs towards keeping the infrastructure available at all times and allows the right to use without notice. This cost would include capital costs, O&M expenditure to maintain the distribution network, discom supplying unscheduled power upto the requirement of such consumer instantaneously without exposing him to any risk of UI charges.
- 97. In this regard, we wish to submit that the Hon'ble Commission in its Draft Maharashtra Electricity Regulatory Commission (Grid Interactive Rooftop Renewable Energy

Generating Systems) Regulations, 2019 has recognised this problem and as stated as follows:

7.10 Renewable Energy Generating Systems connected behind the Consumer's meter shall be allowed only after prior intimation to the respective Distribution Licensee:

Provided that the Consumer shall be responsible for ensuring that all necessary safeguarding measures as specified by Central Electricity Authority (CEA) are taken:

Provided further that the Commission may determine additional Fixed Charges or Demand Charges and any other Charges for such systems, in the retail Tariff Order, if Distribution Licensee proposes such additional Fixed Charges or Demand Charges and any other Charges for such systems, in its retail supply Tariff Petition, supported by adequate justification:

Provided also that in case the Consumer installs Renewable Energy Generating Systems behind the Consumer's meter without prior intimation to the respective Distribution Licensee, then the total additional liabilities in terms of additional Fixed Charges or Demand Charges and any other Charges for such systems, shall be levied at twice at the determined rate for such period of default.

- 98. Considering the above submissions and the costs involved, Tata Power-D proposes to recover wheeling charges from such consumers based on its in-situ captive capacity; i.e. on Rs. / kW / Month in addition to Rs. / kWh for energy wheeled. The proposed charges are computed based on the Wheeling ARR and Billed Demand of Tata Power-D. These charges will be levied based on the capacity of the captive plant in the consumer premises.
- 99. Accordingly, Tata Power-D proposes the following Fixed Wheeling Charges for the new Control Period:

Table 1-40: Fixed Wheeling Charges for Consumers with in-situ Captive generation for FY 2020-21 to FY 2024-25

Category	Wheeling	<b>Billing Demand</b>	Wheeling
	Cost		Charges
FY 2020-21	Rs Crores	MW	Rs/kW/Month
EHV	4	101	36
HT	146	347	350
LT	285	483	491
Total	435	932	389
FY 2021-22	Rs Crores	MW	Rs/kW/Month
EHV	5	102	37
HT	150	351	356
LT	302	504	499
Total	457	958	397
FY 2022-23	Rs Crores	MW	Rs/kW/Month
EHV	5	102	38
HT	152	357	355
LT	316	527	500
Total	473	986	400
FY 2023-24	Rs Crores	MW	Rs/kW/Month
EHV	5	102	40
HT	153	362	353
LT	331	553	498
Total	489	1017	400
FY 2024-25	Rs Crores	MW	Rs/kW/Month
EHV	5	102	41
HT	154	368	349
LT	345	581	494
Total	504	1051	399

100. This Charge will be applicable to all consumers having in-situ captive generating plants including Renewable Energy.

viii. Wheeling Losses for the Control Period

101. It is proposed to adopt the Wheeling Loss based on the Energy Balance of FY 2018-19 as shown in the Table below:

Table 1-41: Wheeling Losses for the Control Period

Particulars	Total Sale	EHV	HT	LT
Output MUS	2804.20	347.57	1425.26	1031.37
Input Mus	2827.21	347.57	1440.64	1039.00
Loss %		0.00%	1.07%	0.73%

ix. Cross Subsidy Surcharge for the Control Period

102. Tata Power-D has computed the Cross Subsidy Surcharge "CSS" based on the formula stipulated in the Tariff Policy, 2016 for determining CSS and as approved by the Hon'ble Commission in the MTR Order. The CSS formula is specified below:

Table 1-42: Proposed CSS for FY 2020-21 to FY 2024-25 (Rs/kWh) Rs/kWh FY 2024-25 **Consumer Categories** FY 2020-21 FY 2021-22 FY 2022-23 FY 2023-24 HT CUSTOMERS EHV - Industry 1.54 1.45 1.45 1.46 1.46 HT I - Industry 1.55 1.55 1.55 1.56 1.61 **EHV- Commercial** 1.54 1.47 1.46 1.46 1.46 HT II - Commercial 1.66 1.57 1.56 1.57 1.57 HT III - Group Housing Society 1.66 1.57 1.56 1.57 1.57 (Residential) **EHV-PWW** 1.09 1.20 1.19 1.23 1.21 HT IV - PWW 0.99 1.04 1.05 1.09 1.08 HT V(A) - Railways - 22/33 kV 0.99 1.04 1.05 1.09 1.08 HT V(B) - Metro & Monorail 0.92 0.97 0.98 1.02 1.02 HT VI - Public Services a) Govt. Edu. Inst. & Hospitals 1.66 1.57 1.56 1.57 1.57 b) Others 1.10 1.14 1.15 1.19 1.19 HT VII - Temporary Supply 1.78 1.68 1.68 1.69 1.69 HT VIII - EV Charging Stations 0.00 0.00 0.00 0.00 0.00 0.00 HT total 0.00 0.00 0.00 0.00 LT CUSTOMERS LT I (A) - Residential (BPL) LT I (B) - Residential 0.00 0.00 0.00 0.00 0.26 - S1 (0-100 units) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 - S2 (101-300 units) 0.00 0.00 0.00 S3 (> 301-500 Units) 0.00 0.00 0.02 0.11 0.16 - S4 (Above 500 units (balance 0.85 0.84 0.89 0.99 1.04 units) LT II - Commercial 0.00 0.00 (A) - Upto 20 kW 0.00 0.00 0.00 (B) - > 20 kW & < 50kW 0.49 0.50 0.56 0.65 0.70 (C) -> 50kW 0.85 0.84 0.89 0.99 1.04 0.00 LT III (A) - Industry < 20 kW 0.00 0.00 0.00 0.00 LT III (B) - Industry > 20kW 0.49 0.50 0.56 0.70 0.65 LT IV - PWW 0.21 0.24 0.29 0.38 0.43 LT V - Advertisement & 0.85 0.84 0.89 0.99 1.04 Hoardings, LT VI - Streetlights 0.85 0.84 0.89 0.99 1.04 LT VII - Temporary Supply 0.00 TSR – Temporary Supply 0.00 0.00 0.00 0.00 Religious TSO – Temporary Supply Others 0.82 0.81 0.87 0.96 1.01 LT VIII - Crematoriums and Burial 0.00 0.00 0.00 0.00 0.00 Grounds LT IX - Public Services a) Govt. Edu. Inst. & Hospitals 0.00 0.00 0.00 0.00 0.00

0.35

0.00

0.37

0.00

b) Others

EV Charging Stations

0.42

0.00

0.52

0.00

0.57

0.00

Table 1-43: Proposed CSS for FY 2020-21 to FY 2024-25 (Rs/KVAh)

Consumer Categories	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	CSS	CSS	CSS	CSS	CSS
	Rs./KVAh	Rs./KVAh	Rs./KVAh	Rs./KVAh	Rs./KVAh
EHV - Industry	1.46	1.38	1.38	1.39	1.39
HT I - Industry	1.52	1.47	1.47	1.48	1.48
EHV- Commercial	1.47	1.38	1.38	1.39	1.39
HT II - Commercial	1.58	1.49	1.49	1.49	1.50
EHV-PWW	1.04	1.13	1.14	1.17	1.15
HT IV - PWW	0.94	0.99	1.00	1.03	1.03
HT V(A) - Railways					
- 22/33 kV	0.94	0.99	1.00	1.03	1.03
- 100kV					
HT V(B) - Metro & Monorail	0.88	0.92	0.93	0.97	0.97
HT VI - Public Services					0.00
a) Govt. Edu. Inst. & Hospitals	1.58	1.49	1.49	1.49	1.50
b) Others	1.04	1.08	1.09	1.13	1.13
HT VIII - EV Charging Stations	0.00	0.00	0.00	0.00	0.00
HT total					
LT CUSTOMERS					
LT II - Commercial					
(B) - > 20 kW & < 50kW	0.47	0.48	0.53	0.62	1.55
(C)->50kW	0.81	0.80	0.85	0.94	1.61
LT III (B) - Industry > 20kW	0.47	0.48	0.53	0.62	1.55
LT IV - PWW	0.20	0.22	0.27	0.36	1.50
- TSO – Temporary Supply Others	0.78	0.77	0.82	0.91	1.61
LT IX - Public Services					
b) Others	0.33	0.35	0.40	0.49	1.52
EV Charging Stations	0.00	0.00	0.00	0.00	1.28

- x. Charges to Open Access Consumers for the Control Period
- 103. The Charges applicable to OA consumers based on the Distribution OA Regulations, 2016 and its subsequent Amendment in 2019 are as follows:
  - Wheeling Charges
  - Cross Subsidy Surcharge
  - Additional Surcharges
  - Regulatory Asset Charge
- 104. Tata Power-D has discussed applicability of these charges in the above paragraphs and the same would be applicable to OA consumers.
  - xi. Charges for Switchover of HT consumers

105. The Orders of the Hon'ble Commission have enabled switchover of consumers from one Distribution Licensee to another. In case of HT consumers who wish to switchover from one Licensee to another, it is submitted that the network is already laid down by one Distribution Licensee. This is unlike laying a network for a new consumer wherein the network is being laid down for the first time. Hence, the service connection charges as approved in the Schedule of Charges of the respective Licensee cannot be made applicable for such consumer as a network has already been laid down for the consumer. Further, unlike an LT service connection where the length of LT cable to be laid is restricted on account of technical constraints, there is no restriction on HT cable to be laid and it may vary from consumer to consumer. This creates a huge gap between actual expenditure incurred for laying such service line and the applicable Service connection charges determined by Hon'ble Commission. Further, once both the Distribution Licensees have laid the network for this consumer, this consumer would keep switching between licensees depending on the Tariff approved. Hence, the burden of this network cost would fall on other consumers. The actual cost of the scheme is never fully funded by the switchover Consumer and if such consumer keeps shifting between Licensees, he would not bear the cost even through wheeling charges. This would be unfair to the other consumers; i.e. for the personal benefit of one consumer, other consumers cannot be burdened with undue costs. In view of this, the Hon'ble Commission should direct recovery of the entire switchover cost to be borne by the consumer who wishes to switchover from one Licensee to another.

## 1.26 Revised Tariffs for the Control Period

106. In line with the submissions made above, the Tariff applicable for each year of the Control Period is presented in the Tables below:

Table 1-44: Proposed Tariff from 1<sup>st</sup> April, 2020 to 31<sup>st</sup> March, 2021

Consumer Categories	FY 2020-21						
	Fixed Charges	Demand	Demand Wheeling Ener				
	Timed enanges	Charge	Charge	charge			
	Rs/Connection	_	Rs./kWh	Rs./kWh			
	/month	onth	NS./KVVII	NS./KWII			
EHV - Industry	/month	350	0.06	6.35			
HT I - Industry		350	0.89	6.81			
EHV- Commercial		350	0.06	7.01			
HT II - Commercial		350	0.89	6.45			
HT III - Group Housing Society		350	0.89	6.43			
(Residential)			5.52	55			
EHV-PWW		350	0.06	6.48			
HT IV - PWW		350	0.89	6.06			
HT V(A) - Railways		0	0.00	0.00			
- 22/33 kV		350	0.89	4.95			
- 100kV		0	0.00	0.00			
HT V(B) - Metro & Monorail		350	0.89	6.61			
HT VI - Public Services		0	0.00	0.00			
a) Govt. Edu. Inst. & Hospitals		350	0.89	5.76			
b) Others		350	0.89	5.95			
HT VII - Temporary Supply	600		0.89	7.84			
HT VIII - EV Charging Stations		70	0.89	0.00			
LT CUSTOMERS			0.00	0.00			
LT I (A) - Residential (BPL)	10		2.41	0.87			
LT I (B) - Residential				4.52			
- S1 (0-100 units)	100		2.41	2.68			
- S2 (101-300 units)	140		2.41	4.41			
- S3 (> 301-500 Units)	150		2.41	6.66			
- S4 (Above 500 units (balance units)	160		2.41	7.36			
LT II - Commercial			0.00	0.00			
(A) - Upto 20 kW	425		2.41	5.48			
(B) - > 20 kW & < 50kW	423	350	2.41	4.55			
(C) -> 50kW		350	2.41	5.26			
LT III (A) - Industry < 20 kW	425	330	2.41	5.80			
LT III (B) - Industry > 20kW	123	350	2.41	5.34			
LT IV - PWW		350	2.41	3.44			
LT V - Advertisement & Hoardings,	610	-3-	2.41	5.52			
LT VI – Streetlights		350	2.41	5.80			
LT VII – Temporary Supply				0.00			
- TSR - Temporary Supply Religious	425		2.41	3.93			
- TSO – Temporary Supply Others	610		2.41	6.38			
LT VIII – Crematoriums and Burial	425		2.41	4.13			
Grounds							
LT IX - Public Services	0		0.00	0.00			
a) Govt. Edu. Inst. & Hospitals	425		2.41	5.64			
b) Others	425		2.41	5.59			
EV Charging Stations		70	2.41	4.31			

Consumer Categories	FY 20	20-21
	Wheeling	Energy
	Charge	charge
	Rs./kVAh	Rs./KVAh
EHV - Industry	0.06	6.03
HT I - Industry	0.85	6.47
EHV- Commercial	0.06	6.66
HT II - Commercial	0.85	6.13
EHV-PWW	0.06	6.15
HT IV - PWW	0.85	5.76
HT V(A) - Railways		
- 22/33 kV	0.85	4.70
- 100kV		
HT V(B) - Metro & Monorail	0.85	6.28
HT VI - Public Services		
a) Govt. Edu. Inst. & Hospitals	0.85	5.47
b) Others	0.85	5.65
HT VIII - EV Charging Stations	0.85	4.09
HT total		
LT CUSTOMERS		
LT II - Commercial		
(B) - > 20 kW & < 50kW	2.29	4.32
(C)->50kW	2.29	5.00
LT III (B) - Industry > 20kW	2.29	5.08
LT IV - PWW	2.29	3.26
- TSO – Temporary Supply Others	2.29	6.06
LT IX - Public Services		
b) Others	2.29	5.31
EV Charging Stations	2.29	4.09

Table 1-45: Proposed Tariff from 1<sup>st</sup> April, 2021 to 31<sup>st</sup> March, 2022

Consumer Categories	FY 2021-22						
consumer categories	ridel			F			
	Fixed Charges	Demand	Wheeling	Energy			
		Charge	Charge	charge			
	Rs/Connection	Rs/KVA/	Rs./kWh	Rs./kWh			
	/month	Month					
EHV - Industry		425	0.07	5.60			
HT I - Industry		425	0.91	6.11			
EHV- Commercial		425	0.07	6.38			
HT II - Commercial		425	0.91	5.71			
HT III - Group Housing Society		425	0.91	5.74			
(Residential)							
EHV-PWW		425	0.07	5.85			
HT IV - PWW		425	0.91	5.74			
HT V(A) - Railways		0	0.00	0.00			
- 22/33 kV		425	0.91	4.31			
- 100kV		0	0.00	0.00			
HT V(B) - Metro & Monorail		425	0.91	6.18			
HT VI - Public Services		0	0.00	0.00			
a) Govt. Edu. Inst. & Hospitals		425	0.91	4.93			
b) Others		425	0.91	5.23			
HT VII - Temporary Supply	675		0.91	7.57			
HT VIII - EV Charging Stations		70	0.91	0.00			
LT CUSTOMERS	25		0.00	0.00			
LTI (A) - Residential (BPL)	25		2.40	0.87			
LT I (B) - Residential	100		0.00	4.14			
- S1 (0-100 units)	100		2.40	2.44			
- S2 (101-300 units)	150		2.40	3.99			
- S3 (> 301-500 Units)	160		2.40	6.11			
- S4 (Above 500 units (balance	170		2.40	6.77			
units)							
LT II - Commercial	0	0	0.00	0.00			
(A) - Upto 20 kW	500		2.40	4.75			
(B) - > 20 kW & < 50kW		425	2.40	3.69			
(C)->50kW		425	2.40	4.46			
LT III (A) - Industry < 20 kW	500		2.40	5.20			
LT III (B) - Industry > 20kW		425	2.40	4.64			
LT IV - PWW		425	2.40	2.65			
LT V - Advertisement & Hoardings,	660		2.40	5.01			
LT VI – Streetlights		425	2.40	5.15			
LT VII – Temporary Supply	0	0	0.00	0.00			
- TSR - Temporary Supply Religious	500		2.40	3.59			
- TSO - Temporary Supply Others	660		2.40	5.88			
LT VIII – Crematoriums and Burial	500		2.40	3.75			
Grounds			0.00	0.00			
LT IX - Public Services	0		0.00	0.00			
a) Govt. Edu. Inst. & Hospitals	500		2.40	4.86			
b) Others	500	7.0	2.40	5.16			
EV Charging Stations		70	2.40	3.92			

Consumer Categories	FY 20	21-22
	Wheeling Charge	Energy charge
	Rs./kVAh	Rs./KVAh
EHV - Industry	0.06	5.32
HT I - Industry	0.86	5.80
EHV- Commercial	0.06	6.06
HT II - Commercial	0.86	5.42
EHV-PWW	0.06	5.55
HT IV - PWW	0.86	5.45
HT V(A) - Railways		
- 22/33 kV	0.86	4.09
- 100kV		
HT V(B) - Metro & Monorail	0.86	5.87
HT VI - Public Services		
a) Govt. Edu. Inst. & Hospitals	0.86	4.69
b) Others	0.86	4.97
HT VIII - EV Charging Stations	0.86	3.72
HT total		
LT CUSTOMERS		
LT II - Commercial		
(B) - > 20 kW & < 50kW	2.28	3.50
(C)->50kW	2.28	4.24
LT III (B) - Industry > 20kW	2.28	4.41
LT IV - PWW	2.28	2.51
- TSO – Temporary Supply Others	2.28	5.59
LT IX - Public Services		
b) Others	2.28	4.90
EV Charging Stations	2.28	3.72

Table 1-46: Proposed Tariff from 1<sup>st</sup> April, 2022 to 31<sup>st</sup> March, 2023

Consumer Categories	FY 2022-23				
	Fixed Charges Demand Wheel		Wheeling	eling Energy	
		Charge	Charge	charge	
	Rs/Connection	Rs/KVA/M	Rs./kWh	Rs./kWh	
	/month	onth			
EHV - Industry	0	500	0.07	5.29	
HT I - Industry	0	500	0.91	5.90	
EHV- Commercial	0	500	0.07	6.19	
HT II - Commercial	0	500	0.91	5.45	
HT III - Group Housing Society	0	500	0.91	5.53	
(Residential)					
EHV-PWW	0	500	0.07	5.70	
HT IV - PWW	0	500	0.91	5.60	
HT V(A) - Railways	0	0	0.00	0.00	
- 22/33 kV	0	500	0.91	4.06	
- 100kV	0	0	0.00	0.00	
HT V(B) - Metro & Monorail	0	500	0.91	6.18	
HT VI - Public Services	0	0	0.00	0.00	
a) Govt. Edu. Inst. & Hospitals	0	500	0.91	4.58	
b) Others	0	500	0.91	4.98	
HT VII - Temporary Supply	725	0	0.91	7.57	
HT VIII - EV Charging Stations	0	70	0.91	0.00	
LT CUSTOMERS	0	0	0.00	0.00	
LT I (A) - Residential (BPL)	25	0	2.36	0.87	
LT I (B) - Residential	0	0	0.00	4.05	
- S1 (0-100 units)	115	0	2.36	2.35	
- S2 (101-300 units)	165	0	2.36	3.85	
- S3 (> 301-500 Units)	175	0	2.36	5.99	
- S4 (Above 500 units (balance units)	185	0	2.36	6.70	
LT II - Commercial	0	0	0.00	0.00	
(A) - Upto 20 kW	575	0	2.36	4.46	
(B) - > 20 kW & < 50kW	0	500	2.36	3.32	
(C)->50kW	0	500	2.36	4.20	
LT III (A) - Industry < 20 kW	575	0	2.36	5.08	
LT III (B) - Industry > 20kW	0	500	2.36	4.46	
LT IV - PWW	0	500	2.36	2.30	
LT V - Advertisement & Hoardings,	680	0	2.36	5.10	
LT VI – Streetlights	0	500	2.36	5.03	
LT VII – Temporary Supply	0	0	0.00	0.00	
- TSR – Temporary Supply Religious	575	0	2.36	3.63	
- TSO – Temporary Supply Others	680	0	2.36	5.92	
LT VIII – Crematoriums and Burial	575	0	2.36	3.47	
Grounds					
LT IX - Public Services	0	0	0.00	0.00	
a) Govt. Edu. Inst. & Hospitals	575	0	2.36	4.69	
b) Others	575	0	2.36	5.18	
EV Charging Stations	0	70	2.36	3.96	

Consumer Categories	FY 2022-23		
	Wheeling Charge	Energy charge	
	Rs./kVAh	Rs./KVAh	
EHV - Industry	0.06	5.03	
HT I - Industry	0.86	5.61	
EHV- Commercial	0.06	5.88	
HT II - Commercial	0.86	5.18	
EHV-PWW	0.06	5.42	
HT IV - PWW	0.86	5.32	
HT V(A) - Railways			
- 22/33 kV	0.86	3.86	
- 100kV			
HT V(B) - Metro & Monorail	0.86	5.87	
HT VI - Public Services			
a) Govt. Edu. Inst. & Hospitals	0.86	4.35	
b) Others	0.86	4.73	
HT VIII - EV Charging Stations	0.86	3.76	
HT total			
LT CUSTOMERS			
LT II - Commercial			
(B) - > 20 kW & < 50kW	2.24	3.15	
(C)->50kW	2.24	3.99	
LT III (B) - Industry > 20kW	2.24	4.23	
LT IV - PWW	2.24	2.18	
- TSO – Temporary Supply Others	2.24	5.62	
LT IX - Public Services			
b) Others	2.24	4.92	
EV Charging Stations	2.24	3.76	

Table 1-47: Proposed Tariff from 1<sup>st</sup> April, 2023 to 31<sup>st</sup> March, 2024

Consumer Categories	FY 2023-24				
	Fixed Charges	Demand	Wheeling	Energy	
		Charge	Charge	charge	
	Rs/Connection	Rs/KVA/	Rs./kWh	Rs./kWh	
	/month	Month			
EHV - Industry	0	600	0.07	4.92	
HT I - Industry	0	600	0.90	5.68	
EHV- Commercial	0	600	0.07	5.98	
HT II - Commercial	0	600	0.90	5.17	
HT III - Group Housing Society	0	600	0.90	5.29	
(Residential)					
EHV-PWW	0	600	0.07	5.55	
HT IV - PWW	0	600	0.90	5.46	
HT V(A) - Railways	0	0	0.00	0.00	
- 22/33 kV	0	600	0.90	3.77	
- 100kV	0	0	0.00	0.00	
HT V(B) - Metro & Monorail	0	600	0.90	6.22	
HT VI - Public Services	0	0	0.00	0.00	
a) Govt. Edu. Inst. & Hospitals	0	600	0.90	4.15	
b) Others	0	600	0.90	4.68	
HT VII - Temporary Supply	775	0	0.90	7.61	
HT VIII - EV Charging Stations	0	70	0.90	0.00	
LT CUSTOMERS	0	0	0.00	0.00	
LT I (A) - Residential (BPL)	30	0	2.30	0.87	
LT I (B) - Residential	0	0	0.00	4.02	
- S1 (0-100 units)	125	0	2.30	2.29	
- S2 (101-300 units)	175	0	2.30	3.78	
- S3 (> 301-500 Units)	185	0	2.30	5.93	
- S4 (Above 500 units (balance units)	195	0	2.30	6.69	
LT II - Commercial	0	0	0.00	0.00	
(A) - Upto 20 kW	600	0	2.30	4.34	
(B) -> 20 kW & < 50kW	0	600	2.30	2.89	
(C) -> 50kW	0	600	2.30	3.91	
LT III (A) - Industry < 20 kW	600	0	2.30	5.05	
LT III (B) - Industry > 20kW	0	600	2.30	4.26	
LT IV - PWW	0	600	2.30	1.87	
LT V - Advertisement & Hoardings,	700	0	2.30	5.26	
LT VI – Streetlights	0	600	2.30	4.92	
LT VII – Temporary Supply	0	0	0.00	0.00	
- TSR - Temporary Supply Religious	600	0	2.30	3.71	
- TSO – Temporary Supply Others	700	0	2.30	6.01	
LT VIII – Crematoriums and Burial	600	0	2.30	3.06	
Grounds					
LT IX - Public Services	0	0	0.00	0.00	
a) Govt. Edu. Inst. & Hospitals	600	0	2.30	4.68	
b) Others	600	0	2.30	5.26	
EV Charging Stations	0	70	2.30	4.05	

Consumer Categories	FY 2023-24		
	Wheeling Charge	Energy charge	
	Rs./kVAh	Rs./KVAh	
EHV - Industry	0.07	4.68	
HT I - Industry	0.86	5.40	
EHV- Commercial	0.07	5.68	
HT II - Commercial	0.86	4.91	
EHV-PWW	0.07	5.27	
HT IV - PWW	0.86	5.19	
HT V(A) - Railways			
- 22/33 kV	0.86	3.59	
- 100kV			
HT V(B) - Metro & Monorail	0.86	5.91	
HT VI - Public Services			
a) Govt. Edu. Inst. & Hospitals	0.86	3.94	
b) Others	0.86	4.45	
HT VIII - EV Charging Stations	0.86	3.84	
HT total			
LT CUSTOMERS			
LT II - Commercial			
(B) - > 20 kW & < 50kW	2.18	2.74	
(C)->50kW	2.18	3.72	
LT III (B) - Industry > 20kW	2.18	4.05	
LT IV - PWW	2.18	1.77	
- TSO – Temporary Supply Others	2.18	5.71	
LT IX - Public Services			
b) Others	2.18	5.00	
EV Charging Stations	2.18	3.84	

Table 1-48: Proposed Tariff from 1st April, 2024

Consumer Categories	FY 2024-25			
	Fixed Charges Demand Wheeling			Energy
		Charge	Charge	charge
	Rs/Connection	Rs/KVA/	Rs./kWh	Rs./kWh
	/month	Month	NS./KWII	NS./KWII
EHV - Industry	0	700	0.07	4.53
HT I - Industry	0	700	0.07	5.43
EHV- Commercial	0	700	0.89	5.74
HT II - Commercial	0	700	0.89	4.85
HT III - Group Housing Society	0	700	0.89	5.04
(Residential)		700	0.05	3.04
EHV-PWW	0	700	0.07	5.37
HT IV - PWW	0	700	0.89	5.29
HT V(A) - Railways	0	0	0.00	0.00
- 22/33 kV	0	700	0.89	3.47
- 22/33 KV - 100kV	0	0	0.00	0.00
HT V(B) - Metro & Monorail	0	700	0.89	6.23
HT VI - Public Services	0	0	0.00	0.00
a) Govt. Edu. Inst. & Hospitals	0	700	0.89	3.70
b) Others	0	700	0.89	4.37
HT VII - Temporary Supply	825	0	0.89	7.63
HT VIII - EV Charging Stations	0	70	0.89	0.00
LT CUSTOMERS	0	0	0.00	0.00
LT I (A) - Residential (BPL)	30	0	2.23	0.87
LT I (B) - Residential	0	0	0.00	3.97
- S1 (0-100 units)	135	0	2.23	2.22
- S2 (101-300 units)	185	0	2.23	3.69
- S3 (> 301-500 Units)	195	0	2.23	5.85
- S4 (Above 500 units (balance	205	0	2.23	6.67
units)		_	0.00	0.00
LT II - Commercial	0	0	0.00	0.00
(A) - Upto 20 kW	700	0	2.23	4.04
(B) -> 20 kW & < 50kW	0	700	2.23	2.44 3.61
(C) -> 50kW	700	700	2.23	
LT III (A) - Industry < 20 kW LT III (B) - Industry > 20kW	700	700	2.23	4.96 4.05
LT III (B) - Industry > 20kW	0	700	2.23	
LT V - Advertisement & Hoardings,	750	700 0	2.23	1.42 5.32
LT VI – Streetlights	0	700	2.23	4.78
LT VII – Streetlights  LT VII – Temporary Supply	0	0	0.00	0.00
- TSR – Temporary Supply Religious	750	0	2.23	3.78
- TSO – Temporary Supply Others	750	0	2.23	6.08
LT VIII – Crematoriums and Burial	750	0	2.23	1.93
Grounds	/30	"	2.23	1.95
LT IX - Public Services	0	0	0.00	0.00
a) Govt. Edu. Inst. & Hospitals	750	0	2.23	4.72
b) Others	700	0	2.23	5.30
EV Charging Stations				
EV Charging Stations	0	70	2.23	4.53

Consumer Categories	FY 2024-25		
	Wheeling Charge	Energy charge	
	Rs./kVAh	Rs./KVAh	
EHV - Industry	0.07	4.30	
HT I - Industry	0.85	5.16	
EHV- Commercial	0.07	5.45	
HT II - Commercial	0.85	4.61	
EHV-PWW	0.07	5.10	
HT IV - PWW	0.85	5.03	
HT V(A) - Railways			
- 22/33 kV	0.85	3.29	
- 100kV			
HT V(B) - Metro & Monorail	0.85	5.92	
HT VI - Public Services			
a) Govt. Edu. Inst. & Hospitals	0.85	3.51	
b) Others	0.85	4.15	
HT VIII - EV Charging Stations	0.85	4.30	
HT total			
LT CUSTOMERS			
LT II - Commercial			
(B) - > 20 kW & < 50kW	2.12	2.32	
(C)->50kW	2.12	3.43	
LT III (B) - Industry > 20kW	2.12	3.85	
LT IV - PWW	2.12	1.35	
- TSO — Temporary Supply Others	2.12	5.78	
LT IX - Public Services			
b) Others	2.12	5.04	
EV Charging Stations	2.12	4.30	

## Note:

- FAC will be applicable to all consumers and will be charged over the above tariffs, on the basis of the FAC formula specified by the Hon'ble Commission and computed on a monthly basis.
- Fixed Charge of Rs. 175 per month will be levied on residential consumers availing 3 phase supply. Additional Fixed Charge of Rs. 175 per 10 kW load or part thereof above 10 kW load shall also be payable.
- 4. #: Street lighting having 'automatic timers' for switching 'on/off' would be levied Demand Charges on the lower of the following:
- a) 50% of the Contract Demand
- b) Actual Recorded Demand

## 1.27 Revised ABR for the Control Period

107. Based on the above, the revised ABR in comparison with the existing ABR is as given in the Table below:

Table 1-49: ABR proposed for FY 2020-21 to FY 2024-25

Rs/kWh

Consumer Categories	Existing	EV 2020-21	FY 2021-22	EV 2022-23	EV 2023-24	Rs/kWh FY 2024-25
consumer categories	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh	Rs/kWh
	NS/KVVII	NS/KVVII	NS/KVVII	NS/KVVII	NS/KVVII	NS/KVVII
EHV - Industry	7.81	7.69	7.26	7.26	7.29	7.30
HT I - Industry	9.50	8.19	7.73	7.73	7.23	7.78
EHV- Commercial	8.29	7.72	7.73	7.73		
HT II - Commercial		8.29		7.29	7.32 7.86	7.33 7.87
HT III - Group Housing Society	9.98		7.83			
(Residential)	9.02	8.29	7.83	7.82	7.86	7.87
EHV-PWW	6.22	6.80	6.41	6.41	6.44	6.45
HT IV - PWW	7.91	7.58	7.15	7.15	7.19	7.19
HT V(A) - Railways		0.00	0.00	0.00	0.00	0.00
- 22/33 kV	7.59	7.58	7.15	7.15	7.19	7.19
- 100kV		0.00	0.00	0.00	0.00	0.00
HT V(B) - Metro & Monorail	7.73	7.51	7.09	7.08	7.12	7.13
HT VI - Public Services		0.00	0.00	0.00	0.00	0.00
a) Govt. Edu. Inst. & Hospitals	8.92	8.29	7.83	7.82	7.86	7.87
b) Others	9.61	7.69	7.25	7.25	7.29	7.30
HT VII - Temporary Supply	9.44	8.90	8.40	8.40	8.44	8.45
HT VIII - EV Charging Stations						
LT CUSTOMERS						
LT I (A) - Residential (BPL)						
LT I (B) - Residential	5.21	5.65	5.35	5.37	5.43	5.46
- S1 (0-100 units)	1.99	3.35	3.16	3.16	3.17	3.18
- S2 (101-300 units)	5.24	5.70	5.38	5.38	5.40	5.41
- S3 (> 301-500 Units)	9.47	8.01	7.56	7.55	7.59	7.60
- S4 (Above 500 units (balance	13.10	8.93	8.43	8.43	8.47	8.48
units)						
LT II - Commercial						
(A) - Upto 20 kW	8.81	7.65	7.22	7.22	7.25	7.26
(B) - > 20 kW & < 50kW	8.79	8.58	8.09	8.09	8.13	8.14
(C)->50kW	10.23	8.93	8.43	8.43	8.47	8.48
LT III (A) - Industry < 20 kW	8.44	7.65	7.22	7.22	7.25	7.26
LT III (B) - Industry > 20kW	8.32	8.58	8.09	8.09	8.13	8.14
LT IV - PWW	8.32	8.29	7.83	7.82	7.86	7.87
LT V - Advertisement & Hoardings,	10.12	8.93	8.43	8.43	8.47	8.48
LT VI – Streetlights	8.85	8.93	8.43	8.43	8.47	8.48
LT VII – Temporary Supply						
- TSR — Temporary Supply Religious	6.33	6.34	5.98	5.98	6.01	6.02
- TSO – Temporary Supply Others	9.71	8.90	8.40	8.40	8.44	8.45
LT VIII – Crematoriums and Burial	4.45	4.27	4.03	4.03	4.05	4.06
Grounds						
LT IX - Public Services						
a) Govt. Edu. Inst. & Hospitals	7.18	7.15	6.75	6.75	6.78	6.79
b) Others	8.78	8.43	7.96	7.96	8.00	8.01
EV Charging Stations		7.12	6.72	6.72	6.75	6.76