

TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
1 EXECUTIVE SUMMARY.....	2
1.1 FILINGS UNDER PRESENT PETITION	2
1.2 CAPITALIZATION OF FY 2014-15.....	2
1.3 GAP / (SURPLUS) OF FY 2015-16	2
1.4 GAP / (SURPLUS) OF FY 2016-17	4
1.5 GAP / (SURPLUS) OF FY 2017-18	6
1.6 REGULATORY ASSET RECOVERY	7
1.7 PAST RECOVERY FOR FUTURE PERIOD:	7
1.8 RECOVERY OF PAST GAPS FOR SUPPLY BUSINESS.....	8
1.8.1 <i>Recovery of Past Gaps for Wire Business</i>	9
1.8.2 <i>Learning from the Past</i>	9
1.9 SUMMARY OF KEY REGULATORY EVENTS DURING THE LAST FIVE YEARS AND THEIR IMPLICATIONS.....	9
1.10 KEY ISSUES WITNESSED DURING THE 3RD CONTROL PERIOD	10
1.10.1 <i>Sales additions have not increased as envisaged</i>	10
1.10.2 <i>Past capex unapproved to the tune of Rs. 575 Crores</i>	11
1.11 IMPLICATIONS OF LOWER SALES AND UNAPPROVED PAST CAPITALIZATION	12
1.12 ARR FOR FY 2018-19 & FY 2019-20.....	13
1.12.1 <i>Category-wise Sales</i>	13
1.12.2 <i>Power Purchase for FY 2018-19 and FY 2019-20:</i>	13
1.12.3 <i>Capitalisation for FY 2018-19 and FY 2019-20</i>	14
1.12.4 <i>Aggregate Revenue Requirement</i>	15
1.13 CROSS SUBSIDY STRUCTURE.....	17
1.14 REVISED TARIFFS EFFECTIVE FROM 1 ST APRIL 2018	19
1.15 REVISED TARIFFS EFFECTIVE FROM 1 ST APRIL 2019	20

1.1 Filings under Present Petition

1. Tata Power-D, in this petition, has presented the Aggregate Revenue Required for the different years as follows:

1. As per MYT Regulations, 2011

- Truing up of FY 2015-16 based on actual performance;
- (Gap) / Surplus at the end of FY 2015-16 including past recoveries;
- Status of Compliance to Directives.

2. As per MYT Regulations, 2015

- Truing up of FY 2016-17 based on actual performance
- Provisional truing up for FY2017-18
- Revised Projections for FY 2018-19 and FY 2020-20 & ARR for each year of the Control Period
- Revenue from the sale of power at existing Tariffs and charges and projected Revenue (Gap) / Surplus for each year of the Control Period;
- Proposed Category-wise Tariffs or Fees & Charges for each year of the Control Period

The summary of the submission has been presented below:

1.2 Capitalization of FY 2014-15

2. The Hon'ble Commission in its MYT Tariff Order in Case 47 of 2016 has considered only 50% of the Capitalization for FY 2014-15. Tata Power-D in this petition has considered the entire capitalization of **Rs 464.82 Croes** and its impact during the Control Period.

1.3 Gap / (Surplus) of FY 2015-16

3. Tata Power-D has computed Gap / (Surplus) of FY 2015-16 based on the opening GFA, ROE and interest after considering the entire capitalization of FY 2014-15. Further, only incremental Gap / (Surplus) of FY 2015-16 is considered for working out carrying cost for the future period. The balance Gap / (Surplus) equal to the Gap / (Surplus) as approved by

the Hon'ble Commission has been considered separately under Regulatory Asset. The Gap / (Surplus) for Supply and Wire Business is as given in the table below:

Table 1: Tata Power-D Supply ARR for FY 2015-16

Particulars	Rs Crore	
	As per MYT Order	Tata Power-D
Power Purchase Expenses including Standby Charges	2545.36	2523.16
Intra-State Transmission Charges	262.50	262.50
MSLDC Fees & Charges	1.63	1.63
O&M Expenses	72.90	74.11
Depreciation	6.02	8.83
Interest on Loan Capital + Other Finance Charges	6.23	6.80
Interest on Working Capital	60.12	60.13
Interest on Security Deposit	13.20	12.69
Provision for bad and doubtful debt	0.00	2.69
Contribution to Contingency Reserve	0.31	0.31
Income Tax	0.00	224.30
DSM Expenses	2.23	2.33
Share of Efficiency (Gain)/loss in O&M Expenses		13.03
Total Revenue Expenditure	2970.49	3192.53
Add: Return on Equity Capital	6.71	7.08
Additional RoE due to higher Supply Availability		2.48
Aggregate Revenue Requirement	2977.20	3202.09
<i>Less: Non-Tariff Income</i>	19.57	17.58
<i>Less: Income from OA consumers</i>	4.75	5.28
Past recoveries	515.34	515.34
Revenue Gap/(Surplus) of previous years	1738.04	1738.04
Aggregate Revenue Requirement from Retail Supply	5206.26	5432.61

Table 2: Tata Power-D Wire ARR for FY 2015-16

<i>Rs. Crore</i>		
Particulars	Approved in MYT T.O.	Tata Power-D
Operation and Maintenance	88.36	93.61
Depreciation	81.06	100.55
Interest on Long-term Loan Capital + finance charges	71.18	90.94
Interest on Working Capital	7.29	7.28
Provision for Bad & Doubtful Debt	0.00	4.20
Contribution to Contingency Reserves	3.87	4.45
Income Tax	50.43	0.00
Share of Efficiency (Gain)/loss in O&M Expenses		-0.37
Total Revenue Expenditure	302.18	300.66
Return on Equity Capital	75.48	89.30
Additional RoE due to higher Wires Availability		0.27
Aggregate Revenue Requirement	377.66	390.24
<i>Less: Non-Tariff Income</i>	21.65	7.36
<i>Add: Revenue Gap/(Surplus) of previous years</i>	-199.71	-199.71
Net Aggregate Revenue Requirement	156.30	183.17

Table 3: Gap / (Surplus) Tata Power-D Supply & Wire ARR for FY 2015-16

<i>Rs Crores</i>			
Particulars	MYT Tariff Order	Tata Power-D	Diff
Net ARR	5206.26	5432.61	226.35
Revenue	3916.47	3891.47	-25.00
Revenue Gap/(Surplus)	1289.79	1541.14	251.35

<i>Rs Crores</i>			
Particulars	MYT Tariff Order	Tata Power-D	Diff
Net ARR	156.30	183.17	26.87
Revenue	213.11	211.61	-1.50
Revenue Gap/(Surplus)	-56.81	-28.44	28.37

1.4 Gap / (Surplus) of FY 2016-17

- Tata Power-D while computing Gap / (Surplus) for FY 2016-17 considered the normative O & M expenses as per 1st Amendment of MYT Regulations, 2015. Further, Tata Power-D has considered the sale to Railway and same has been utilized for reduction in power purchase cost.

Table 4: Tata Power-D Supply ARR for FY 2016-17

Particulars	Rs Crore	
	As per MYT Tariff Order	Tata Power-D
Power Purchase Expenses including Standby Charges	2241.14	1931.13
Intra-State Transmission Charges	217.44	215.85
MSLDC Fees & Charges	0.69	0.82
O&M Expenses	89.53	91.55
Depreciation	6.36	9.36
Interest on Loan Capital + Other Finance Charges	6.01	6.56
Interest on Working Capital	15.03	16.37
Interest on Security Deposit	12.42	18.80
Provision for bad and doubtful debt	0.00	0.78
Contribution to Contingency Reserve	0.32	0.36
Income Tax	0.00	131.60
DSM Expenses	2.60	1.23
Share of Efficiency (Gain)/loss		7.12
Total Revenue Expenditure	2591.54	2431.53
Add: Return on Equity Capital	7.02	7.79
Aggregate Revenue Requirement	2598.56	2439.32
<i>Less: Non-Tariff Income</i>	12.85	1.90
<i>Less: Income from OA consumers</i>		34.32
Aggregate Revenue Requirement from Retail Supply	2585.71	2403.10

Table 5: Tata Power-D Wire ARR for FY 2016-17

Particulars	Rs. Crore	
	Approved in MYT T.O.	Tata Power-D
Operation and Maintenance	80.90	98.93
Depreciation	87.00	111.93
Interest on Long-term Loan Capital + finance charges	71.02	92.69
Interest on Working Capital	7.39	6.03
Provision for Bad & Doubtful Debt	0.00	-1.97
Contribution to Contingency Reserves	4.16	5.07
Income Tax	50.43	0.00
Share of Efficiency (Gain)/loss		0.76
Total Revenue Expenditure	300.90	313.43
Return on Equity Capital	80.96	100.89
Aggregate Revenue Requirement	381.86	414.32
<i>Less: Non-Tariff Income</i>	21.53	7.08
<i>Add: Revenue Gap/(Surplus) of previous years</i>	-20.88	-20.88
Net Aggregate Revenue Requirement	339.45	386.37

Table 6: Gap / (Surplus) Tata Power-D Supply & Wire ARR for FY 2016-17

			<i>Rs Crores</i>
Particulars	Wire Business	Supply Business	Total
Net ARR	386.37	2403.10	2789.47
Revenue	239.56	2518.37	2757.92
Revenue Gap/(Surplus)	146.81	-115.27	31.54

1.5 Gap / (Surplus) of FY 2017-18

5. Tata Power-D while computing Gap / (Surplus) for FY 2017-18 considered the normative O & M expenses as per 1st Amendment of MYT Regulations, 2015. Further, since the year is over Tata Power-D has considered the actual sales and power purchase cost for computing the Gap / (Surplus) of Tata Power-D.

Table 7: Tata Power-D Supply ARR for FY 2017-18

		<i>Rs Crore</i>	
Particulars	As per MYT Tariff Order	Tata Power-D	
Power Purchase Expenses including Standby Charges	2327.46	2155.87	
Intra-State Transmission Charges	280.07	277.34	
MSLDC Fees & Charges	0.91	0.90	
O&M Expenses	92.18	96.18	
Depreciation	6.75	9.95	
Interest on Loan Capital + Other Finance Charges	5.93	6.02	
Interest on Working Capital	14.30	16.23	
Interest on Security Deposit	14.01	14.01	
Provision for bad and doubtful debt	0.00	0.00	
Contribution to Contingency Reserve	0.34	0.38	
Income Tax	0.00	131.60	
DSM Expenses	1.44	1.44	
Total Revenue Expenditure	2743.39	2709.92	
Add: Return on Equity Capital	7.45	8.28	
Aggregate Revenue Requirement	2750.84	2718.20	
<i>Less: Non-Tariff Income</i>	14.14	14.14	
<i>Less: Income from OA consumers</i>		62.11	
Aggregate Revenue Requirement from Retail Supply	2736.70	2641.95	

Table 8: Tata Power-D Wire ARR for FY 2017-18

Particulars	Rs. Crore	
	Approved in MYT T.O.	Tata Power-D
Operation and Maintenance	83.30	103.93
Depreciation	92.95	124.25
Interest on Long-term Loan Capital + finance charges	70.21	97.52
Interest on Working Capital	7.72	7.51
Provision for Bad & Doubtful Debt	0.00	0.00
Contribution to Contingency Reserves	4.46	5.70
Income Tax	50.43	0.00
Total Revenue Expenditure	309.07	338.90
Return on Equity Capital	86.45	111.91
Aggregate Revenue Requirement	395.52	450.80
<i>Less: Non-Tariff Income</i>	21.53	21.53
<i>Add: Revenue Gap/(Surplus) of previous years</i>	-19	-19
Net Aggregate Revenue Requirement	354.89	410.17

Table 9: Gap / (Surplus) Tata Power-D Supply & Wire ARR for FY 2017-18

Particulars	Rs Crores		
	Wire Business	Supply Business	Total
Net ARR	410.17	2641.95	3052.12
Revenue	381.23	2461.63	2842.85
Revenue Gap/(Surplus)	28.95	180.32	209.27

1.6 Regulatory Asset Recovery

6. The Hon'ble Commission has allowed the total past recovery of **Rs 1198 Crores** in the MYT Tariff Order. The recovery of the same was allowed in three years starting from FY 2016-17 to FY 2018-19. Tata Power-D has computed the balance RAC based on the RAC allowed to be recovered in FY 2016-17 & FY 2017-18 and RAC recovered during the year.

1.7 Past Recovery for future period:

7. Past Recovery has been computed considering

- Cumulative Gap / (Surplus) for FY 2015-16, FY 2016-17, Provisional truing up of FY 2017-18 & impact of capitalization for FY 2014-15.
- Balance Recovery of RAC
- Gap / (Surplus) of Tata Power-G

8. The total Past Recovery proposed to be recovered in remaining Control Period is as given below:

Table 1-10: Cumulative Past Gap / (Surplus) till FY 2017-18

					<i>Rs Crores</i>
	Particulars	I.R	Wire	Supply	Total
1	Incremental ARR for FY 2015-16		28.37	251.35	279.72
2	Carrying Cost for FY 2015-16	14.29%	2.03	17.95	19.98
3	Carrying Cost for FY 2016-17	10.31%	2.93	25.92	28.84
4	Carrying Cost for FY 2017-18	9.49%	2.69	23.85	26.54
5=1 to 4	Total incremental ARR with Carrying Cost FY 2015-16		36.01	319.07	355.09
6	Gap /(Surplus) FY 2016-17		146.81	-115.27	31.54
7	Carrying Cost for FY 2016-17	10.31%	7.57	-5.94	1.63
8	Carrying Cost for FY 2017-18	9.49%	13.93	-10.94	2.99
9=6 to 8	Total Gap / (Surplus) ARR with Carrying Cost FY 2016-17		168.31	-132.15	36.16
10	Gap /(Surplus) FY 2017-18		28.95	180.32	209.27
11	Impact of Non Consideration of Capitalization		28.65	0.00	28.65
12=5+9+10+11	Total need to be claimed in the future tariff		261.92	367.25	629.17

Table 1-11: Total Gap / (Surplus) till FY 2017-18

					<i>Rs Crores</i>
		Wire	Supply	Total	
1	Incremental Revenue Gap/(Surplus) of FY 2015-16 with Carrying Cost	36.01	319.07	355.09	
2	Revenue Gap/(Surplus) of FY 2016-17 with Carrying Cost	168.31	-132.15	36.16	
3	Revenue Gap/(Surplus) of FY 2017-18	28.95	180.32	209.27	
4	Impact of Capitalization	28.65	0.00	28.65	
5	Balance RAC to be Recovered in future tariff		584.72	584.72	
6	Gap / (Surplus) Tata Power-G		55.45	55.45	
4 = 1 to 6	Net Gap / (Surplus) for Future Tariff	261.92	1007.42	1269.34	

1.8 Recovery of Past Gaps for Supply Business

9. The Hon'ble Commission in its MYT Tariff Order has allowed **Rs 415 Crores** to be recovered in FY 2018-19. In line with the same Tata Power-D proposes to recover **Rs 494 Crore** of Gap through RAC while the balance amount will be recovered through Supply ARR in FY 2019-20. This has help in smoothen the tariff trajectory.

1.8.1 Recovery of Past Gaps for Wire Business

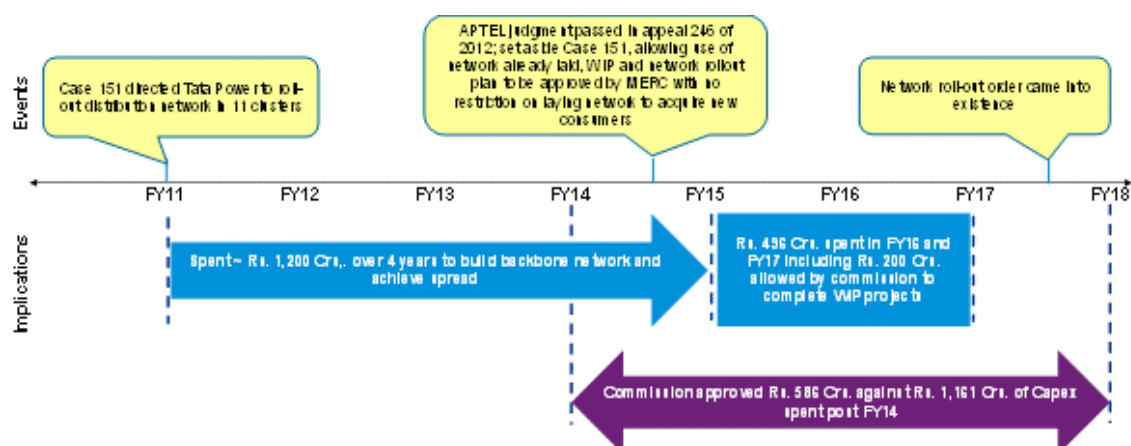
10. As explained in previous section above, the Hon'ble Commission in the MYT Tariff Order in Case 47 of 2016 had considered only 50 % of capitalization for FY 2014-15. Tata Power-D in the present petition has considered the entire capitalization and its impact. This has resulted in the opening Gap of **Rs 261.92 Crores** in the year FY 2018-19. As a set principle the cumulative Revenue Gap should be recovered in the minimum number of years to minimise the burden of carrying cost. However, at the same time ensuring that there is no tariff shock to consumers and that the tariff trajectory is smooth. Further, there is a significant reduction of Tata Power-D direct sale after Railway has become deemed Distribution Licensee to the tune of around 900 Mus. This has resulted in the increase of per unit wheeling charges. In view of this Tata Power-D proposes to recover the Past Recovery of wire Business in three years i.e from FY 2018-19 to FY 2020-21. Further, the recovery has been spread out in the three years in such manner that the consequential impact on the wheeling charges is smoothened & uniform wheeling charge is maintained along the three years

1.8.2 Learning from the Past

1.9 Summary of key regulatory events during the last five years and their implications

11. The Hon'ble Supreme court in FY2007-08 paved the way for competition in Mumbai allowing Tata Power D to supply power for retail consumers.
12. Further, the Hon'ble MERC in Case 151 of 2011 directed Tata Power D to lay down network extensively in identified 11 clusters, with the intent to create a level playing field as far as network parity is concerned. Tata Power D incurred capital expenditure of around Rs. 1,200 Crores as per the guidance of the Hon'ble Commission without a firm line of sight on consumers in order to honour MERC's directive.

Table 1-12: Impact of Regulatory events on CAPEX addition



13. As per Case 151 of 2011, Tata Power D commenced capacity addition for backbone network and spent about Rs. 1,200 Crores on the direction of the Hon'ble Commission. Further the Hon'ble APTEL judgment 246 of 2012 set aside Case 151 of 2011. However, the capital expenditure already incurred were allowed to be completed and capitalized with no restrictions on laying of network to acquire new consumers. Accordingly, Tata Power D has spent Rs. 1,161 Crores post FY2014 however the Hon'ble Commission approved only Rs. 586 Crores. This has resulted in a gap of Rs. 575 Crores between actual spend and approved capitalization post FY2014.

1.10 Key issues witnessed during the 3rd control period

1.10.1 Sales additions have not increased as envisaged

14. Although the commission in its MYT order in Case 47 of 2016 had envisaged an increase in sales in almost all the categories but in reality the actual sales for supply business has been lower than the approved sales in FY17 and FY18. For wires business the sales in FY18 is slightly higher than then approved levels majorly driven by Open Access (OA).

Table 1-13: Supply and Wires business approved versus actuals sales

Sales	FY 2016-17				FY 2017-18			
	MYT Approved	Actuals	Difference	Impact	MYT Approved	Actuals	Difference	Impact
Direct	2691	2498	-7%	↓	2770	2533	-9%	↓
Change Over	2259	1979	-12%	↓	2332	1855	-20%	↓
Open Access	544	680	25%	↑	367	819	123%	↑
Supply Business Sales	4950	4477	-10%	↓	5102	4388	-14%	↓
Wire Business Sales	3235	3178	-2%	↓	3137	3351	7%	↑

15. Even at category-wise level the actual sales for almost all categories in the supply business are lower than MYT approved sales. Further with railways became a deemed licensee has resulted in a dip in sales over the past years.

Table 1-14: Category wise approved versus actuals sales for Supply business

Sales	FY 2016-17				FY 2017-18			
	MYT Approved	Actuals	Difference	Impact	MYT Approved	Actuals	Difference	Impact
Residential	2031	1869	-8%	↓	2122	1904	-10%	↓
LT Industrial	277	254	-8%	↓	281	236	-16%	↓
LT Commercial	709	633	-11%	↓	729	594	-18%	↓
HT Industrial	859	865	1%	↑	882	796	-10%	↓
HT Commercial	611	552	-10%	↓	633	537	-15%	↓
Railways	157	75	-52%	↓	164	73	-56%	↓
HT Public Services	184	135	-27%	↓	239	99	-59%	↓

16. Additionally, the loss of HT sales due to consumers exiting on open access is substantial and more than envisaged leading to under-recoveries of revenues which resulting in a vicious circle of un-competitiveness.
17. Implication of the above is that if the sales are continuously lower than the projected levels then it may lead to revenue gaps for both supply and wires businesses.

1.10.2 Past capex unapproved to the tune of Rs. 575 Crores

18. Significant investments were made in the wires business as per Hon'ble Commission's guidance while the sales realized are much lower than the expected levels for the wires business
In addition to this, the Hon'ble Commission has only allowed 50% of the already incurred and capitalized wires capex to be passed during FY15 and FY16 as also maintained the same estimated Capitalization for balance years of 3rd Control period. The approved Capex for FY17 and FY18 was also significantly lower than the actual Capex required to meet the obligations of Tata Power D for providing connections to consumers. As a result, the unapproved wire Capex as of FY18 stands at Rs. 575 Crores.
19. This unapproved Capex from FY15-FY18 creates to a revenue gap of about Rs. 259 Crores.

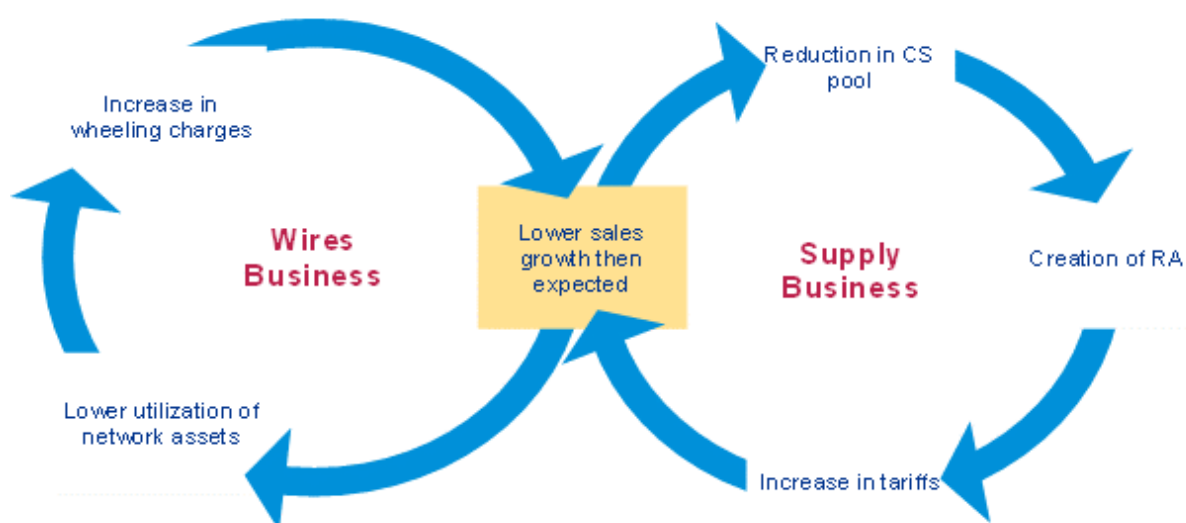
Table 1-15: Past Wires capitalization: Approved vs. Actual

(Rs. Cr)	2014-15	2015-16	2016-17	2017-18	Total
Approved	232.41	117.87	117.87	117.87	586.02
Actual	464.82	247.02	249.56	200.00	1161.40
Difference	232.41	129.15	131.69	82.13	575.38

1.11 Implications of lower sales and unapproved past capitalization

20. While the capital expenditure has increased substantially as a result of Case 151 of 2011 the wires business sales has not increased adequately resulting in an underutilization of the core backbone network assets. Unless addressed suitably, this has the implication of the wheeling charges becoming uncompetitive if the impact of the unapproved capital expenditure is passed on at once. This would create a tariff shock to consumers and also would pose a threat to business viability which in turn threatens the basic tenet of competition designed for Mumbai distribution.
21. The above sequence of events are taking form of vicious unsustainable cycles for both wires and supply businesses. In the wires business past gap due to unapproved capitalization and lower network utilization is increasing the wheeling charges which will lead to lower wires sales for Tata Power D. At the same time any reduction in sales will lead to reduction of cross subsidy pool from subsidizing consumers in the supply business which will put pressure on the remaining consumers to bear the same cross-subsidies. With lower amount of sales bearing higher cross-subsidies the tariffs will increase and it will lead to further migration of consumers from Tata Power D supply business as well.

Figure 1: Vicious Circle of lower sales



22. Further, consumers moving to open access puts pressure on tariffs of existing consumers as open access consumers do not pay energy charges which also contain a substantial part of the generation fixed costs. This leads to under recovery of generation capacity charges as well for Tata Power D.
23. In conclusion, Tata Power D is making every effort to improve the utilization of its network assets. However, the solution to this issue lies in competitive tariff design which would help in attracting more sales.

1.12 ARR for FY 2018-19 & FY 2019-20

1.12.1 Category-wise Sales

24. Tata Power-D has estimated the future sales based on the CAGR of various categories and expected growth based on the prospective demand for that category. The estimated sale for Direct and changeover consumers for FY 2018-19 is **4824 Mus** & for FY 2019-20 estimated sale is **5094 Mus**.

1.12.2 Power Purchase for FY 2018-19 and FY 2019-20:

25. Tata Power-D has computed the estimated power purchase cost considering following:
 - Long Term Tie up with The Power-G
 - Revised standby, Transmission charges SLDC charges based on the present demand of Tata Power-D

- RE purchase from existing sources, and 20% from REC purchase & balance through additional tie ups.
- Rate of Bilateral Power Purchase considered based on the present Market Price and rate discovered in the Case 1 Bidding.
- The summary of the approved and actual Power Purchase cost for FY 2018-19 and FY 2019-20 is given in the Table below:

Table 1-16: Power Purchase Cost for FY 2018-19 and FY 2019-20

Particulars	FY 2018-19						FY 2019-20					
	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores	MU	Rs./kWh	Rs Crores
	MYT Order			Petition			MYT Order			Petition		
Tata Power-G	3618.63	4.02	1456.18	3543.86	4.14	1468.30	3668.31	3.99	1465.42	3595.19	4.17	1498.48
Non-Solar+REC	322.21	4.99	160.69	444.64	5.09	226.34	322.21	5.06	162.98	491.00	5.07	248.91
Solar+REC	47.40	9.83	46.58	47.40	11.97	56.75	47.40	9.83	46.58	149.43	6.22	92.92
REC procurement	-	-	79.12				-	-	103.34			
Bilateral Power Purchase	1525.24	3.13	477.68	1016.79	3.50	355.87	1665.90	3.13	521.74	1101.29	4.32	475.60
Standby Charges	-	-	124.63			82.22	-	-	130.18			76.22
Transmission Charges	-	-	325.00			214.41	-	-	339.93			198.50
SLDC Charges	-	-	0.96			0.63	-	-	1.00			0.59
Total	5513.48	4.84	2670.84	5052.68	4.76	2404.52	5703.82	4.86	2771.17	5336.91	4.86	2591.21

1.12.3 Capitalisation for FY 2018-19 and FY 2019-20

26. Proposed Capitalization for FY 2018-19 & FY 2019-20 is as given below:

Table 1-17: Capitalization details for Supply & Wire Business for FY 2018-19 and FY 2019-20

Particulars	Supply			
	FY 2018-19		FY 2019-20	
	MYT	Petition	MYT	Petition
Opening GFA	145.49	161.27	151.24	172.37
DPR	5.41	11.10	5.41	11.12
Non-DPR	0.34		0.56	
Closing GFA	151.24	172.37	157.21	183.50
Total Capitalization	5.75	11.10	5.97	11.12

Rs Crores

Rs Crores

Particulars	Wires			
	FY 2018-19		FY 2019-20	
	MYT order	TPC-D	MYT order	TPC-D
Opening GFA	1900.79	2500.41	2018.65	2618.28
DPR	117.87	117.87	117.87	117.87
Non-DPR				
Closing GFA	2018.66	2618.28	2136.52	2736.15
Total	117.87	117.87	117.87	117.87

27. Based on the above the ARR for wire business is worked out to Rs

1.12.4 Aggregate Revenue Requirement

28. The ARR for the Distribution Wires & Retail Supply Business of Tata Power-D for FY 2018-19 and FY 2019-20 is tabulated below:

Table 1-18: Aggregate Revenue Requirement for Wire Business for FY19 and FY20

Rs. Crores

Particulars	FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition
O&M Expenses	85.77	109.19	88.32	114.71
Depreciation	98.90	133.08	104.85	139.21
Interest on Long Term Loans	68.76	96.54	66.66	91.12
Interest on Working Capital	8.05	8.39	8.37	8.90
Bad and Doubtful Debt	0.00	0.00	0.00	0.00
Contribution to Contingency Reserve	4.75	6.25	5.05	6.55
RoE	91.93	119.81	97.41	125.29
Income Tax	50.43	0.00	50.43	0.00
Less:				
Non Tariff Income	21.53	21.53	21.53	21.53
Total Fixed Charges	387.05	451.72	399.56	464.24
Gap of previous year	-17.33	-17.33		
Total ARR	369.73	434.39	399.56	464.24

Table 1-19: Aggregate Revenue Requirement for Supply Business for FY19 and FY20

Rs Crores

Particulars	Supply			
	FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition
Cost of own power generation /power	2220.26	2107.26	2300.06	2315.90
Intra-State Transmission Charges	325.00	214.41	339.93	198.50
Intra-State Standby Charges	124.63	82.22	130.18	76.22
MSLDC Fees & Charges	0.96	0.63	1.00	0.59
O&M Expenses	94.92	101.05	97.73	106.16
Depreciation	7.09	10.57	7.37	11.27
Interest on Long Term Loans	5.71	5.68	5.38	5.36
Interest on Working Capital	12.56	14.83	11.58	15.52
Bad and Doubtful Debt	-	0.00	-	0.00
Contribution to Contingency Reserve	0.36	0.40	0.38	0.43
RoE	7.82	8.79	8.13	9.37
Income Tax	0.00	131.60	0.00	131.60
Interest on consumer security deposit	15.33	12.17	16.91	13.05
DSM expenses	2.10	2.10	2.48	2.48
Less:				
Non Tariff Income	15.55	15.55	17.10	17.10
Total Annual Revenue Requirement	2801.19	2676.15	2904.03	2869.35

29. Based on the above and the cumulative past recovery the Average Cost of Supply for FY 2018-19 & FY 2019-20 is as given in the table below:

Table 1-20: Average Cost of Supply for FY19 and FY20

Rs Crores

Sr. No	Particulars	Recovery for Supply Business		Recovery for Wire Business		Total ARR for Distribution	
		FY 19	FY 20	FY 19	FY 20	FY 19	FY 20
1	Opening Balance	1007	589	262	212	1269	801
2	Recovery/(refund) of previous Gap/(Surplus)	419	589	50	87	469	676
3=1-2	Closing Balance	589	0	212	125	801	125
4=ave(1,3)	Average Balance	798	294	237	168	1035	463
5	Interest Rate %	9.49%	9.49%	9.49%	9.49%	9.49%	9.49%
6=4*5	Carrying /(holding) cost	76	28	22	16	98	44
7=2+6	Total recovery/(refund) in future period	494	617	72	103	567	720
8	Stand Alone ARR	2676	2869	434	464	3111	3334
9	Expected Recovery from OA consumers based on the tariff proposed by Tata Power-D	174	111	66	67	241	177
10=7+8-9	Total ARR for Future period including Past Recovery	2996	3375	441	501	3437	3876
11	Sales for the control period- Mus	4824	5094	3611	3921	4824	5094
12=10/11	Average Cost of Supply - Rs/kWh	6.21	6.63	1.22	1.28	7.12	7.61

Table 1-21: % Change in Average Cost of Supply for FY19 and FY20

Particulars	Rs /kWh					
	MYT Tariff Order		MTR Petition		% Increase	
	FY 19	FY 20	FY 19	FY 20	FY 19	FY 20
Average Cost of Supply	7.12	6.06	7.12	7.61	0%	7%

1.13 Cross Subsidy Structure

30. As per the learning during the Control Period as described in the previous Section Tata Power-D has considered following imperatives while designing the Cross Subsidy Structure for the year FY 2018-19 & FY 2019-20
- i. There is a need for rebalancing of the tariffs for subsidized categories LT IA Residential S1-S2 such that although the tariffs would be kept lower than the other distribution licensees in the common license area, the direct tariffs would be brought at par with the changeover tariff. This would enable rationalization of the cross subsidy borne by the subsidizing consumers while at the same time creating a predictable and level playing field. While this rebalancing would result in slight increase in the tariff of S1 & S2 categories during FY 2018-19, it would be neutralized with a reduction in tariff during FY 2019-20.
 - ii. There is a need for relook at the cross subsidy structure for subsidizing consumers such that the necessary critical base of such consumers is created to break the vicious circle of eroding sales as described in the previous Section.
 - iii. There is a need for alignment of the philosophy used by the Hon'ble Commission across all distribution licensees where by the tariff for Temporary Supply - Others (TSO) is converted to Commercial tariff on completion of one year of supply. This would ensure similar tariff structure across all licensees experienced by the consumers.
31. Tata Power-D has proposed its CS structure based on the above approach. It has also considered the methodology used by the Hon'ble Commission in the MYT Tariff Order

for determination of the cross subsidy by taking into account the sales and revenue from both direct and change-over consumers. The category wise CS structure adopted by Tata Power-D is as given below:

32. Tata Power-D considering the future demand has proposed a new category for Electric Vehicle Charging instead of clubbing under a different category. Further, the energy charges for the same has been kept lower than the charges for Industrial / commercial category.

Table 1-22 Category-wise Cross Subsidy for FY 19 & FY 20

	FY 2018-19 Existing CS	FY 2018-19 Proposed CS	FY 2019-20 Proposed CS	Ave % Change in Tariff with FY 19 Existing	Ave % Change in Tariff with FY 19 Proposed
HT CUSTOMERS					
HT I - Industry	123%	126%	119%	3%	-6%
HT II - Commercial	137%	126%	119%	-8%	-6%
HT III - Group Housing Society (Residential)	93%	109%	105%	17%	-3%
HT VII - Temporary Supply		125%	117%		
HT V(A) - Railways					
- 22/33 kV	114%	112%	104%	-2%	-7%
- 100kV		0%	0%		
HT V(B) - Metro & Monorail	114%	111%	104%	-3%	-6%
HT VI - Public Services					
a) Govt. Edu. Inst. & Hospitals	111%	119%	111%	8%	-8%
b) Others	130%	124%	117%	-5%	-6%
HT IV - PWW	110%	120%	105%	9%	-15%
LT CUSTOMERS					
LT I (A) - Residential (BPL)	30%	30%	0%	0%	0%
LT I (B) - Residential	66%	72%	72%	9%	0%
LT II - Commercial					
(A) - Upto 20 kW	112%	120%	128%	7%	7%
(B) - > 20 kW & < 50kW	114%	123%	123%	8%	0%
(C) - > 50kW	127%	134%	129%	6%	-4%
LT III (A) - Industry < 20 kW	101%	110%	112%	9%	2%
LT III (B) - Industry > 20kW	116%	127%	121%	10%	-5%
LT V - Advertisement & Hoardings, incl.floodlights & neon signs	169%	168%	160%	0%	-5%
LT VI – Streetlights	105%	116%	109%	10%	-6%
LT VII – Temporary Supply					
- TSR – Temporary Supply Religious	84%	84%	79%	0%	-7%
- TSO – Temporary Supply Others	129%	130%	122%	1%	-7%
LT VIII – Crematoriums and Burial Grounds	62%	57%	67%	-7%	0%
LT IX - Public Services					
a) Govt. Edu. Inst. & Hospitals	107%	80%	88%	-25%	9%
b) Others	129%	99%	121%	-23%	18%

33. As can be seen from the above the cross subsidy for most of the category is in the range of +20% of the ACoS and the cross-subsidies have been reduced in FY 2019-20.

1.14 Revised Tariffs effective from 1st April 2018

34. Based on the above Charges Effective tariff from 1st April 2018 is as given in the table below:

Table 1-23 Proposed Tariff from 1st April, 2018

	Components of tariff					
	Fixed Charges	Demand Charges	Energy Charges	RAC	CSS	Wheeling Charge
	Rs/Conne ction /month	Rs/KVA/ Month	Rs/kWh	Rs/kWh	Rs/kWh	RS/kWh
HT CUSTOMERS						
HT I - Industry	-	275.00	5.59	1.44	1.43	1.08
HT II - Commercial	-	275.00	5.55	1.43	1.40	1.08
HT III - Group Housing Society (Residential)	-	275.00	4.82	1.24	0.40	1.08
HT VII - Temporary Supply	505.00	-	6.20	1.59	1.16	1.08
HT V(A) - Railways	-	-	-	-	-	1.08
- 22/33 kV	-	275.00	5.20	1.34	0.53	1.08
- 100kV	-	-	-	-	-	1.08
HT V(B) - Metro & Monorail	-	275.00	4.98	1.28	0.48	1.08
HT VI - Public Services	-	-	-	-	-	1.08
a) Govt. Edu. Inst. & Hospitals	-	275.00	4.70	1.21	1.18	1.08
b) Others	-	275.00	5.50	1.41	1.31	1.08
HT IV - PWW	-	275.00	5.48	1.41	1.04	1.08
	-	-	-	-	-	-
LT CUSTOMERS	-	-	-	-	-	-
LT I (A) - Residential (BPL)	10.00	-	0.60		-	2.16
LT I (B) - Residential	-	-	-		-	-
- S1 (0-100 units)	55.00	-	1.49	0.38	-	2.16
- S2 (101-300 units)	110.00	-	3.75	0.97	-	2.16
- S3 (> 301-500 Units)	110.00	-	5.90	1.52	-	2.16
- S4 (Above 500 units (balance units))	135.00	-	6.43	1.65	-	2.16
LT II - Commercial	-	-	-		-	-
(A) - Upto 20 kW	325.00	-	6.30	1.62	-	2.16
(B) - > 20 kW & < 50kW	-	275.00	4.70	1.21	0.37	2.16
(C) - > 50kW	-	275.00	5.30	1.36	1.00	2.16
LT III (A) - Industry < 20 kW	325.00	-	5.55	1.43	-	2.16
LT III (B) - Industry > 20kW	-	275.00	4.95	1.27	0.61	2.16
LT V - Advertisement & Hoardings, incl.floodlights & neon signs	505.00	-	7.20	1.85	2.03	2.16
LT VI – Streetlights	-	275.00	4.25	1.09	-	2.16
LT VII – Temporary Supply	-	-	-		-	-
- TSR – Temporary Supply Religious	275.00	-	3.00	0.77	-	2.16
- TSO – Temporary Supply Others	505.00	-	5.58	1.43	0.65	2.16
LT VIII – Crematoriums and Burial Grounds	275.00	-	4.04	1.04	-	2.16
LT IX - Public Services	-	-	-		-	2.16
a) Govt. Edu. Inst. & Hospitals	325.00	-	3.85	0.99	-	2.16
b) Others	325.00	-	5.65	1.45	0.27	2.16
LT IV - PWW	-	275.00	3.20	0.82	-	2.16
LT XI - EV Charging Stations	110.00		3.00	0.77		2.16

1.15 Revised Tariffs effective from 1st April 2019

35. Revised tariff effective from 1st April 2019 is as given below:

Table 1-24 Proposed Tariff from 1st April, 2019

Consumer Category	Components of tariff					
	Fixed Charges	Demand Charges	Energy Charges	RAC	CSS	Wheeling Charge
	Rs/Connection /month	Rs/KVA/Month	Rs/kWH	Rs/kWH	Rs./kWh	RS/kWH
HT CUSTOMERS						
HT I - Industry	-	285	7.06	-	1.81	1.09
HT II - Commercial	-	285	6.96	-	1.80	1.09
HT III - Group Housing Society	-	285	6.26	-	1.60	1.09
HT IV - Temporary Supply	515	-	7.79	-	1.78	1.09
HT V(A) - Railways					-	
- 22/33 kV	-	285	6.45	-	1.58	1.09
- 100kV	-	-	-	-	-	-
HT V(B) - Railways Metro & Monorail	-	285	6.24	-	1.58	1.09
HT VI - Public Services					-	
a) Govt. Edu. Inst. & Hospitals	-	285	5.75	-	1.68	1.09
b) Others	-	285	6.92	-	1.78	1.09
HT IV PWW	-	285	6.86	-	1.59	1.09
					-	-
LT CUSTOMERS						
LT I - Residential (BPL)	10	-	0.37	-	-	2.18
LT I - Residential					-	
- S1 (0-100 units)	55	-	1.98	-	-	2.18
- S2 (101-300 units)	85	-	4.90	-	-	2.18
- S3 (> 301-500 Units)	110	-	7.33	-	1.27	2.18
- S4 (Above 500 units (balance units)	135	-	8.00	-	1.84	2.18
LT II - Commercial					-	
- Upto 20 kW	335	-	7.80	-	1.95	2.18
- > 20 kW & < 50kW	-	285	5.85	-	1.87	2.18
- > 50kW	-	285	6.57	-	1.95	2.18
LT III - Industry < 20 kW	335	-	6.87	-	1.43	2.18
LT IV - Industry > 20kW	-	285	6.30	-	1.84	2.18
LT V - Advertisement & Hoardings, incl.floodlights & neon signs	515	-	9.02	-	2.43	2.18
LT VI – Streetlights	-	285	5.31	-	1.16	2.18
LT VII – Temporary Supply					-	
- TSR – Temporary Supply Religious	285	-	3.75	-	-	2.18
- TSO – Temporary Supply Others	515	-	6.98	-	1.85	2.18
LT VIII – Crematoriums and Burial Grounds	285	-	5.05	-	-	2.18
LT IX - Public Services					-	
a) Govt. Edu. Inst. & Hospitals	335	-	5.11	-	-	2.18
b) Others	335	-	7.07	-	1.84	2.18
LT IV - PWW	-	285	4.00	-	-	2.18
LT XI - EV Charging Stations	110		3.00	0.77	-	2.18