

# **Chapter 4**

## **Revised ARR for FY 17-18**



The Hon'ble Commission has notified the Delhi Electricity Regulatory Commission (**TERMS AND CONDITIONS FOR DETERMINATION TARIFF) REGULATIONS, 2017 on 02.02.2017 to be read with BUSSINES PLAN REGULATIONS, 2017.**

Based on the said Regulations, the Hon'ble Commission has approved ARR for FY 2017-18 on estimated basis. The half year has been elapsed therefore considering the actuals and 6 months projections, Tata Power- DDL is requesting to the Hon'ble Commission to revise the ARR for FY 2017-18.

**Estimated Energy Sales for FY 17-18**

The Petitioner has estimated energy sale of 8607.91 MU for FY 2017-18 against the approved energy sale of 8457 MU. While estimating the energy sale for FY 2017-18, the Petitioner has first computed the 6 months growth (for H1 of FY 2017-18) over the previous year period of (H1 of FY 2016-17) energy billed. Thereafter applied the same growth of energy billed on the remaining 6 months actuals of FY 16-17 for estimating remaining 6 months billed sale for FY 2017-18. The above forecasting has been done keeping in mind the same economic conditions dynamics that would prevail and the same consumption trends would continue in the remaining 6 months.



**Table 4.1: Estimated energy sales & revenue billed for FY 17-18**

Categories	6 months Actuals (FY 16-17)	6 months Actuals (FY 17-18)	Growth	6 months Actuals (Oct'16 to Mar'17)	6 months Estimated (Oct'17 to Mar'18)	FY 2017-18 (Estimated)	
	Units (MU)	Units (MU)		Units MU	Units MU	Units (MU)	Revenue (Rs Cr)
	A	B		D		E=B+D	F
Domestic	2332.37	2,503.63	7.34%	1438.13	1,542.53	4,046.16	2214.67
Non domestic	823.66	856.45	3.98%	639.50	661.68	1,518.13	1568.57
Industrial	1194.71	1,196.15	0.12%	1118.10	1,119.13	2,315.28	2111.47
Agriculture	6.31	6.52	3.44%	6.33	6.55	13.08	4.36
Public lighting	64.36	69.24	7.57%	83.64	82.65	151.88	111.11
Delhi Jal Board	115.20	117.29	1.81%	123.54	124.98	242.27	192.18
Railway Traction	23.72	25.77	8.63%	24.34	26.44	52.21	38.57
DMRC	75.88	77.07	1.57%	73.62	72.38	149.44	96.71
Own consumption	8.97	9.79		8.97	11.68	21.47	0.00
Advertisement & Hoarding	0.20	0.26	33.23%	0.99	1.32	1.58	80.81
Others*	52.92	51.80	-2.11%	45.14	44.62	96.43	
<b>Total</b>	<b>4,698.30</b>	<b>4,913.97</b>		<b>3,562.31</b>	<b>3,693.94</b>	<b>8,607.91</b>	<b>6,418.46</b>

\* Others include Staff, Temporary supply, Theft, Misuse, E-Rickshaw etc.

### **Collection efficiency**

The Hon'ble Commission has approved collection target of 99.50% for 3<sup>rd</sup> MYT Control period vide Regulations 26(1) of Delhi Electricity Regulatory Commission Business Plan Regulation, 2017.

Relevant extract of the same is given below:

### **26. TARGET FOR COLLECTION EFFICIENCY**

(1) The targets for Collection Efficiency for FY2017-18 to FY2019-20 of the Distribution Licensees shall be 99.50%.

Based on above, collection efficiency at 99.50% level is considered for FY 2017-18.





**Table 4.2: Estimated Energy Collection**

		(Rs. Cr)	
Sl. No.	Particulars	Amount	Remark
A	Estimated Billing at Current Tariffs –without DRS	6,418.46	Table 4.1
B	Collection Efficiency	99.50%	
C	Estimated Collection	6,386.36	(A*B)

### **Target for Distribution Loss Level**

The Hon'ble Commission in its Business Plan Regulations, 2017 has approved distribution loss reduction targets as mentioned in table below in terms of Regulation 4(9)(a) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 :

**Table 4.3: Approved distribution loss level for 3<sup>rd</sup> MYT Control Period**

Category	FY 2017-18	FY 2018-19	FY 2019-20
Approved Distribution Target Loss level	8.38%	8.19%	8.00%
Year on Year reduction in distribution loss level		0.19%	0.19%

Based on distribution loss level of 8.38%, energy requirement at TPDDL periphery comes to 9395 MU for FY 2017-18.

**Table 4.4: Estimated Energy Requirements for FY 17-18**

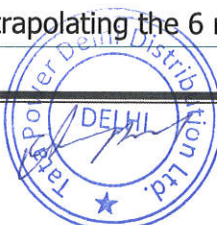
Sl. No.	Particulars	UoM	FY 17-18	Remark
A	Expected Sales	MU	8,607.91	Table 4.1
B	Distribution Loss	%	8.38%	
C	Energy Input (at TPDDL periphery)	MU	9,395.23	$((A/(1-B))*100)$
D	Distribution Loss	MU	787.32	C-A

### **Power Purchase Projections for FY 17-18**

For estimating the power purchase cost for FY 17-18, the actual invoices billed by the generation/transmission companies for the period Apr'17 to Sep'17 have been considered. And for the remaining period from Oct'17 to Mar'18, the projections are made based on the 6 months actuals.

### **Energy availability and applicable charges from Delhi Gencos:**

Total Energy availability has been considered based on 6 months actuals and for remaining period Oct'17 to Mar'18 based on extrapolating the 6 months actuals.





The fixed charges for remaining months are considered on actual fixed charges billed for first 6 months of FY 2017-18.

The variable cost for remaining months are considered on actual variable cost for 6 months actuals.

No Generation from BTPS has been considered from 16<sup>th</sup> Oct 2017 onwards.

Pragati III plant has been considered 80% on account of reduced availability.

Power purchase cost of Timarpur Okhla Waste Management Co. Limited, the agreement of which has been approved by the Hon'ble Commission has also been included in the costs.

No energy is considered to be scheduled from Rithala in view of present gas curtailment thus only fixed charges has been considered.

The estimated energy availability from the Delhi Gencos along with the estimated cost is detailed in the table as under:

**Table 4.5: Projected net energy available from Delhi Gencos for FY 17-18**

Delhi State Gencos	FY 2017-18			FY 2017-18		
	Projected by Hon'ble Commission			12 months (Actual +estimated)		
	MUs	(Rs Cr)	Av. Rate	MUs	(Rs Cr)	Av. Rate
BTPS	316.84	162.17	5.12	325.61	134.15	4.12
GTPS	177.63	85.74	4.83	210.99	124.81	5.92
Pragati – I	270.78	109.05	4.03	329.83	144.77	4.39
Pragati – III	464.68	335.97	7.23	577.90	340.53	5.89
Rajghat Power House				(0.93)	-0.35	3.78
Rithala					96.89	
Total	1229.93	692.92	5.63	1443.41	840.81	5.83

### **Energy Availability from the Central Sector Generating Stations**

Total Energy availability has been considered based on 6 months actuals and for remaining period Oct'17 to Mar'18 based on extrapolating the 6 months actuals.



The fixed charges for remaining months are considered on actual fixed charges billed for first 6 months of FY 2017-18.

The variable cost for remaining months are considered on actual variable cost for 6 months actuals.

The cost of Anta (G), Auriya (G) and Dadri (G) have been included as the bills for the same are being received from NTPC.

Further, allocations of below mentioned generating plants has been considered as follows:

Station	Remarks
National Capital Therm Pwr - Dadri 1	Reallocated as per DERC 2017-18 Tariff Order
National Capital Therm Pwr - Dadri 2	Reallocated as per DERC 2017-18 Tariff Order
Rihand Super Therm Pwr Stn 3	Reallocated as per DERC 2017-18 Tariff Order
Aravali Jhajjar	Allocation considered as per DERC 2017-18 Tariff Order
Hydro Stations (NHPC, THDC, SJVN, TALA)	Hydro Availability Reduced by 60%
Salal	Reallocated as per DERC 2017-18 Tariff Order
Sasan UMPP	Allocation considered as per DERC 2017-18 Tariff Order

The projected availability and the estimated cost of the CSGS are given in the Table as under:

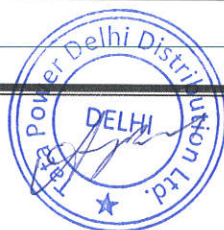
**Table 4.6: Projected energy available from CSGS**

Sr. No.	Particulars	Energy (MU)	V.C/unit (Rs./kW h)	Variable Cost (Rs. Cr.)	Energy (MU)	Total Charges (Rs. Cr.)	Avg. Rate (Rs./kWh)
<b>A</b>	<b>NTPC</b>						
1	Anta Gas Power Station				1.79	7.39	41.38
2	Auraiya Gas Power Station				3.38	17.32	51.30
3	Dadri Gas Power Station				19.58	11.36	5.80
4	FARAKKA	24.11	10.92	4.53	21.68	10.68	4.93
5	KAHALGAON - I	94.23	35.55	3.77	57.51	23.75	4.13
6	NCPP - DADRI	257.64	125.72	4.88	236.89	110.03	4.64
7	RIHAND - I	213.79	45.21	2.11	223.14	38.55	1.73
8	RIHAND - II	255.01	56.07	2.20	260.26	56.34	2.16
9	RIHAND - III	100.59	30.49	3.03	117.96	33.48	2.84
10	SINGRAULI	308.27	63.35	2.05	301.12	59.05	1.96
11	UNCHAHAHAR - I	28.88	13.33	4.61	23.87	12.59	5.27
12	UNCHAHAHAR - II	60.57	26.55	4.38	48.72	26.38	5.42





Sr. No.	Particulars	Energy (MU)	V.C/unit (Rs./kWh)	Variable Cost (Rs. Cr.)	Energy (MU)	Total Charges (Rs. Cr.)	Avg. Rate (Rs./kWh)
13	UNCHAHAHAR - III	37.70	18.73	4.97	30.34	17.43	5.75
14	KAHALGAON - II	220.64	92.79	4.21	211.24	88.04	4.17
15	DADRI EXTENSION	476.04	230.50	4.84	467.35	231.41	4.95
16	ARAVALI	2152.08	1181.23	5.49	1786.34	1026.11	5.74
	<b>Sub-Total NTPC</b>	<b>4229.55</b>	<b>2092.57</b>	<b>4.60</b>	<b>3811.17</b>	<b>1769.93</b>	<b>4.64</b>
<b>B</b>	<b>NHPC</b>						
1	BAIRA SIUL	26.04	6.91	2.65	26.90	5.36	1.99
2	CHAMERA – I	52.54	13.61	2.59	74.16	13.63	1.84
3	CHAMERA – II	63.28	16.84	2.66	77.16	14.84	1.92
4	CHAMERA – III	44.06	18.68	4.24	53.82	22.01	4.09
5	DHAULIGANGA	47.10	19.20	4.08	56.15	19.21	3.42
6	DULHASTI	82.42	59.36	7.20	101.83	54.16	5.32
7	SALAL	79.55	9.26	1.16	79.88	9.56	1.20
8	TANAKPUR	16.81	7.50	4.46	14.04	6.08	4.33
9	URI	88.75	19.51	2.20	98.07	19.01	1.94
10	SEWA –II	26.59	11.48	4.32	34.24	13.07	3.82
11	Uri – II	48.75	31.00	6.36	58.72	33.95	5.78
12	Parbati – III	32.02	13.32	4.16	36.98	18.34	4.96
	<b>Sub-Total NHPC</b>	<b>607.90</b>	<b>227.79</b>	<b>3.75</b>	<b>711.95</b>	<b>229.23</b>	<b>3.22</b>
<b>C</b>	<b>NCPD</b>						
1	RAPS – 5 & 6	100.76	35.67	3.54	128.82	45.51	3.53
2	NPCIL – NAPS	98.57	25.43	2.58	100.09	25.65	2.56
	<b>Sub-Total Nuclear</b>	<b>199.33</b>	<b>61.10</b>	<b>3.07</b>	<b>228.91</b>	<b>71.16</b>	<b>3.11</b>
<b>D</b>	<b>Other Stations</b>						
1	TEHRI HEP	52.35	26.96	5.15	52.53	17.17	3.27
2	SJVNL	205.28	48.86	2.38	254.55	56.49	2.22
3	KOTESHWAR	33.47	12.22	3.65	34.22	14.35	4.19
4	Mejia unit - 6	212.38	88.14	4.15	195.32	110.41	5.65
5	DVC Chandrapur (Ext. 7 & 8)	631.30	226.00	3.58	583.36	212.06	3.64
6	Haryana CLP Jhajjar (LT-5)	364.12	220.66	6.06	437.77	231.00	5.28
7	MPL	2046.60	714.26	3.49	1945.18	711.15	3.66
8	Tala HEP	29.14	5.90	2.02	35.16	7.60	2.16
9	Sasan UMPP	380.43	43.75	1.15	432.00	68.20	1.58
	<b>Others Total</b>	<b>3955.06</b>	<b>1387.20</b>	<b>3.51</b>	<b>3970.09</b>	<b>1428.43</b>	<b>3.60</b>
	<b>Grand Total</b>	<b>8991.84</b>	<b>3768.65</b>	<b>4.19</b>	<b>8722.12</b>	<b>3498.75</b>	<b>4.01</b>





**RPO Compliance**

TPDDL has always been proactive in its approach towards providing clean and reliable energy to the consumers in its area at the most competitive rates. TPDDL initiated its journey towards a cleaner and greener Delhi even before RPO obligation was mandated by Hon'ble Commission.

Further, the Hon'ble Commission is also aware of the various initiatives taken by TPDDL towards promoting the cause of Renewable Power.

Details of Renewable Capacity Contracted

SL. No.	Solar/Non-Solar	Name of the Developer	Quantum (MW)	Quantum (Mus)	Date of Commencement
1.	Solar	SECI	20	39	June 2015
2.	Solar	TPDDL-G	1.65	2	First Unit started in May' 2010
3.	Solar	SunEdison or SECI	180	375	June 2017
4.	Non-Solar (Waste to Energy)	TOWMCL	6	50	Apr' 2016
5.	Non-Solar (Waste to Energy)	DMSWL*	7	46	Jan 2017 (One Unit)
6	Non-Solar (Small Hydro Power)	(Taranda, Cosmos, Nanti, Suryakanta, NSL)	65.46	258	2017-2020

\*PPA under finalization

In order to meet the RPO compliance, the Petitioner has to purchase REC certificates. Given below is the computation of amount required for purchase of REC.

**Table 4.7 Summary of projected purchase of power from Renewable sources**

Sr. No.	Sources of Renewable Energy	Quantity to be Purchased (MU)	(Rs./kWh)	Total Cost (Rs. Crore)	Quantity to be Purchased (MU)	(Rs./kWh)	Total Cost (Rs. Crore)
	Billed Sales					8607.91	
	Solar Obligation %		4.75%			2.75%	
	Solar Obligation MU		401.73			236.72	
1	Own Solar	2.14	5.50	1.18	2.16	13.93	3.01
2	Solar (SECI)	41.02	5.50	22.56	42.22	5.50	23.22
	SHEPL				53.73	3.80	20.41



Sr. No.	Sources of Renewable Energy	Quantity to be Purchased (MU)	(Rs./kWh)	Total Cost (Rs. Crore)	Quantity to be Purchased (MU)	(Rs./kWh)	Total Cost (Rs. Crore)
3	Balance Solar Energy to be purchased	358.57	2.4	86.06	138.61	2.40	33.27
	<b>Sub Total</b>	<b>401.73</b>		<b>109.79</b>	<b>236.72</b>		<b>79.91</b>
<b>NON SOLAR</b>							
	Non Solar Obligation %	9.50%		8.75%			
	Non Solar Obligation MU	803.46		753.19			
4	TOWMCL	50.55	6.44	32.53	52.08	6.44	33.51
5	MSW Bawana	36.03	7.03	25.33	25.15	7.03	17.68
7	Balance Non Solar RECs to be purchased	716.88	1.5	107.53	675.96	1.5	101.39
8	<b>Sub Total</b>	<b>803.46</b>		<b>165.39</b>	<b>753.19</b>		<b>152.59</b>
9	<b>TOTAL RPO</b>	<b>1205.19</b>		<b>275.18</b>	<b>989.91</b>		<b>232.49</b>
	<b>RE Certificate</b>	FY 13-14	<b>Total amount of RE certificate to be purchased in FY 2017- 18 is Rs. 463.29 Cr</b>				46.57
	<b>RE Certificate</b>	FY 14-15					75.89
	<b>RE Certificate</b>	FY 15-16					95.29
	<b>RE Certificate</b>	FY 16-17					110.89

### **Power Purchase estimation from Other Sources: Intra State, Short Term Bilateral & Banking**

Other than power availability against the Long Term PPAs, TPDDL makes Bilateral arrangements such as short term purchases from exchange/ IDT/ /Banking arrangements to meet its 100% energy requirements. Long Term tie-ups for meeting the peak load demand for full year is not an economically viable proposition. Further, short term arrangement needs to be made to balance the demand and supply on day to day basis and that too on 15 minutes time intervals basis.

Power Purchase from Short term bilateral / banking arrangements has been considered as per table given below:





**Table 4.8 Projected Units purchase and sale from other sources**

Other Sources	Projection FY 17-18 (TPDDL)		
	MUs	(Rs Cr)	Av. Rate
<b>Power Purchase from Other Sources</b>			
Inter-State Bilateral Purchase			
Intra-State Power Purchase			
<b>Other Purchases Total</b>	504.43	192.03	3.81

### **Short Term Power Sale**

The Petitioner has projected 1172.05 MU of surplus power @ rate of 2.91 per unit. The short term surplus power was sold through available mechanisms i.e. banking, bilateral sale, exchange and UI.

### **Transmission Losses**

0.98% losses have been considered for intrastate transmission i.e. for DTL network and for Inter State Transmission losses 2.01% has been considered.

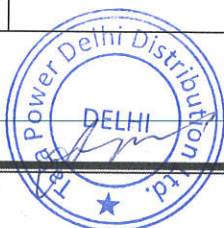
### **Transmission Charges**

The transmission charges for the period Apr'17 to Sep'17 have been taken on actual basis and for remaining period Oct'17 to Mar'18 has been extrapolated.

Apart from the above, the Short Term Open Access charges are required to be paid for sale of surplus power up to the delivery point which varies from contract to contract. The actual STOA charges paid from Apr'17 to Sep'17 are included as per actuals. However, STOA charges pertaining to the period Oct'17 to Mar'18 are taken to be approx. 35paise/unit of the surplus energy to be sold.

**Table 4.9: Transmission charges**

Transmission charges	Amount as approved by DERC	Revised Amount as per Petitioner (Rs Cr)
Transmission charges	976.68	905.22
<b>Total</b>	<b>976.68</b>	<b>905.22</b>





### Normative Rebate

MYT Regulations, 2011 provided that normative rebate has to be considered on net power purchase cost. Based on the same normative rebate of Rs 100.13 Cr has been projected.

**Table 4.10: Computation of Normative Rebate**

Gencos	Maximum rebate %	Amount (in Rs Cr)
<b>State Generating Stations</b>		
NTPC (BTPS)	2%	2.68
Delhi State Gencos	2%	12.20
<b>Central Generating Stations</b>		
NTPC	2%	35.40
NHPC	2%	4.58
NPCIL	2.5%	1.42
Others	2%	28.57
<b>Transmission</b>		
Transmission	2%	15.27
<b>Total</b>		<b>100.13</b>



**Estimated Power Purchase Cost for FY 2017-18**

Based on the above submission, Revised Power Purchase cost for FY 2017-18 is given below:

**Table 4.11: Energy Balance Summary and Power Purchase Cost for FY 17-18**

Sr. No.	Particulars	Approved for FY 2017-18			Revised for FY 2017-18		
		Quantity (MU)	Amount (Rs. Crore)	Average Cost (Rs./kWh)	Quantity (MU)	Amount (Rs. Crore)	Average Cost (Rs./kWh)
1	Power Purchase from CSGS (Table 4.6)	8991.84	3606.50	4.01	8722.12	3498.75	4.00
2	Short Term Power Purchase (Table 4.8)				504.43	192.03	3.81
3	PGCIL Losses & Charges	204.11	524.92		278.00	422.90	
4	Power Purchase from SGS (Table 4.5)	1229.93	692.92	5.63	1443.41	840.81	5.83
5	Renewable Energy Plants	129.74	81.71	6.30	175.34	97.83	5.58
6	Cost towards Renewable Energy Certificates		193.59			463.29	
7	Power Available at Delhi Periphery (cost excluding RECs)	10,147.40	5099.63	5.03	10,567.30	5515.61	5.22
8	DTL Loss & Charges including Pension trust, SLDC charges	91.36	451.76		-	482.32	
9	Power Purchase Rebate @ 2%		87.62			84.86	
10	Rebate on Transmission Charges @ 2%		19.46			15.27	
11	Power Available to DISCOM	10,056.04	5444.31	5.41	10,567.30	5897.80	5.58
12	Sales	8457.44			8607.91		
13	Distribution Loss	773.56			787.32		
14	Net Power Purchase cost including Transmission charges and REC	9,231.00	5,196.81	5.63	9,395.23	5,556.15	5.91
15	Net Surplus Power	825.03	247.51	3.00	1,172.05	341.65	2.91



**Operation & Maintenance Expenses for FY 2017-18**

The Hon'ble Commission in its Business Plan Regulations, 2017 has notified norms for operation and maintenance expenses in terms of Regulation 4(3). Based on network of utilities the Hon'ble Commission has determined O&M Expenses for FY 2017-18 as given in table below:

**Table 4.12: Approved O&M Expenses for FY 2017-18 (Rs Cr)**

Particulars	*Capacity as on 31.03.2018	O&M Expenses Per Unit		O&M Expenses (Rs. Crore)
66 kV Line (kms)	925.8	Rs. Lakh/Ckt. Km	3.3	30.53
33 kV Line (kms)		Rs. Lakh/Ckt. Km	3.3	
11 kV Line (kms)	6004.4	Rs. Lakh/Ckt. Km	0.86	51.76
LT Lines system (kms.)	6959.9	Rs. Lakh/Ckt. Km	6.37	443.50
66/11 kV Grid sub-station (MVA)	4962.5	Rs. Lakh/MVA	0.93	45.99
33/11 kV Grid sub-station (MVA)		Rs. Lakh/MVA	0.93	
11/0.4 kV DT (MVA)	5819.8	Rs. Lakh/MVA	1.33	77.15
Total (excluding impact of any statutory pay revision)				648.92
Add- Provisional Impact of 7th Pay Commission subject to true up on actual basis	<b>Expenses subject to true up on actual basis</b>			78.60
Add- Pay parity to Non FRSR employees in comparison to 7 <sup>th</sup> Pay commission impact				26.84
Add- Impact of GST				6.00
Add- Impact of Minimum Wages				10.00
Add- Legal Expenses	To be allowed on Normative Basis			14.88
Total amount sought towards O&M Expenses				785.24

It is further mentioned that the \*capacity considered for computation of O&M expenses are subject to change based on actual capitalization.





**Interim Relief for FRSR Employees**

In addition to above, the Hon'ble Commission in its Business Plan Regulations has clearly specified that change in O&M expenses due to statutory requirement like 7<sup>th</sup> Pay Commission impact will be true up on actual basis. In order to comply with the recommendations of Wage Revision Committee for disbursement of Interim Relief w.e.f. 01.01.2016 and for payment of other allowance w.e.f. 01-07-2017, which has been approved by the Govt. of NCT of Delhi, Department of Power vide their Order No. F.11(62)/2015/Power/Pt-I/2116 dated 26-07-2017 (copy attached as Annexure A-10 in Volume II of the Petition), the Petitioner in FY 2017-18 has paid interim relief to FRSR employees. In addition to Interim pay relief the petitioner has made a corresponding provision towards such increase in leave salary contribution and pension contribution. The Petitioner has sought Rs 78.60 Cr for 2017-18 subject to true up on actual basis, out of which Rs. 41.72 Cr towards payment of Interim Relief (one time and monthly outflow) and balance Rs 36.88 Cr towards provision for increase in leave salary and pension contribution.

**Pay parity for Non FRSR Employees**

Power sector is a specialised/technical sector for which efficient and trained manpower is generally not available in the market as is available for other businesses; hence poaching manpower from the same sector/ industry entails higher costs. The impact should be considered so that efficiency manpower can be retained within the organisation. Thus in order to maintain principle of pay parity, correction in Salary of Non- FRSR employees is required in line with recommendation of 7th Pay Commission applicable to FRSR employees. As it can be one of the reason to lure employee to look out for job outside.

It is also important to maintain harmony among employees and health working environment for better performance of the Company. Differential pay structure can also create a lack of motivation in employees and effect their performance towards company. It is also seen that compensation packages, its components, and pay parity are significant factors in enhancing and maintain job satisfaction level among the employees. Thus the Petitioner is requesting to the Hon'ble Commission to approve an amount of Rs. 26.84 Cr on adhoc basis subject to actual true up.



**Impact of GST**

It is further mentioned that GST has been implemented since 1<sup>st</sup> July, 2017 and considering the impact of the same on distribution business, the Petitioner is seeking GST impact of approx. Rs 6 Cr approx. for (9 months) of FY 2017-18 subject to true up of the same.

**Minimum Wages Impact**

Govt. of Delhi has issued the Delhi Gazette notification No. 85 dated 03.03.2017 (Notification attached as Annexure A-11 in Volume II of the Petition) and has revised the minimum wages for various Employment Categories effective 03.03.2017. The increase in minimum wages is substantial to the tune of 37% approx. A meeting was also called at Delhi Secretariat by Power Minister, Mr. Gopal Rai and Labour Commissioner wherein representatives from BAs and other organizations like Tata Power- DDL were also called. In the meeting, it was stressed by the Govt. to comply with the revised minimum wages with immediate effect. This unprecedented increase in minimum wages has an impact on all the service contracts issued by the Petitioner and in force, because such increase was unprecedented and not factored in the contract prices. The impact is more severe on the manpower intensive contracts and puts the sustainability of such contracts at risk. Business Associates have also started to represent for incorporating suitable increase in the monthly charges payable in respective contracts. Therefore the Petitioner is requesting to the Hon'ble Commission to allow provisionally an amount of Rs 10 Cr for FY 2017-18.

**Legal Expenses**

The Hon'ble Commission in its "Statement of Reason on Business Plan Regulations 2017" has provided the treatment of Legal Expenses in its Explanatory Memorandum as follows:

*"(43) The Commission has not considered the expenditure incurred on account of legal fee. Further, the Commission is of the view that legal expenses incurred on cases filed against the decisions of the Commission in any of the Courts and Forums shall not be allowed as pass through in the ARR. The legal expenses incurred on cases other than aforesaid, shall be claimed by the DISCOMs in Tariff petitions which may be allowed separately after prudence check in true-up order for respective year."*





With respect to above, the Petitioner would like to mention that legal expenses incurred shall be allowed without any distinction. Non allowance of some legal expenses amounts to curtailment of Statutory Right of the Petitioner to challenge the decisions of the Commission and is against the principle of natural justice as well the same is against Article 14 of the Constitution of India. The distribution business is a regulated business under the aegis of this Commission. The majority of issues in Distribution Business will arise out of orders/ directions issued by the Commission. In all such case, TPDDL and other utilities have right to challenge the same before the Hon'ble Appellate Tribunal for Electricity and Hon'ble Supreme Court thereafter. The final Judgment passed at the Appellate stage will be binding on both the DISCOM as well as the Hon'ble Commission. Therefore, all legal expenses without any distinction should be allowed as an expense in the ARR. The Petitioner further request to the Hon'ble Commission to allow normative figure of Rs. 14.88 Cr. (i.e. Actual of Rs. 13.96 Cr for FY 16-17 along with increase of approx. 6.6%) over and above the normative O&M expenses, so that the Petitioner has not to face any liquidity problem.

#### **DSM Expenses – Other than Normal O&M expenses**

The Petitioner has submitted that the Commission vide its letter dated 13th May, 2015 has given its approval for implementation of AC replacement scheme in the Petitioner region to be read with DERC other letter No. F. 17(23)/DERC/Engg./2014-15/4604/288. The Commission in its Tariff Order dated September, 2015 has approved the DSM budget of Rs 20 Cr.

The Petitioner has incurred an amount of Rs. 5.05 Cr. in FY 2017-18 towards implementation of rebate scheme. The Petitioner has already submitted a letter to the Hon'ble Commission mentioning the status of AC scheme from FY 2015-16 to till August, 2017 (Copy of the letter is attached as Annexure- A-8 in Volume II of the Petition).

Given below is the head wise bifurcation of Expenses

Item	Amount in Rs Cr.
<b>Total DSM Expenses for FY 2017-18 (AC Rebate + promotional activities)</b>	<b>5.05</b>





### **Capitalization**

The Hon'ble Commission in its Business Plan Regulations, 2017 has approved tentative capitalization of Rs 439 Cr. (excluding Rs. 50 Cr towards Capital Deposit).

**Table 4.13: Approved Capitalization for FY 2017-18**

Particulars	Rs. Crore
Capitalization	423
Smart Meter	66
Less: Deposit Work	50
<b>Total</b>	<b>439</b>

It is worth to mention that deposit work is also treated as a part of capitalization, hence the revised capitalization based on Business Plan Regulation's, 2017 and as per Tariff Order August, 2017 is given below:

**Table 4.14: Revised Capitalization considering Deposit work for FY 2017-18**

Particulars	Rs. Crore
Capitalization without deposit work	373
Smart Meter	66
Deposit Work	50
<b>Total</b>	<b>489</b>

Considering the revised capitalization of Rs. 489 Cr, gross block of fixed assets works out as follows:

**Table 4.15: Capitalization of Fixed Assets**

(Rs Cr)

Sl. No.	Particulars	Amount	Remark
A	Opening Balance	5,836.01	Table 3.40
B	Addition during the year	489.00	Table 4.14
C	Deletion during the year*		
D	Closing Balance	6,325.01	(A+B-C)
E	Average Balance of Fixed Assets	6,080.51	(A+D)/2

\*No deletion has been considered as the matter is pending before APTEL

### **Contributions, Grants, subsidies towards cost of Capital Assets**

The contribution towards cost of capital assets is transferred to sources of funds in the balance sheet when the assets for which such contribution is received are capitalized.



It is estimated that Rs 50 Cr will be capitalized towards consumer contribution for FY 17-18 and thereafter.

**Table 4.16: Estimated Consumer Contribution capitalized (Rs Cr)**

Sl. No.	Consumer Contribution/Grant	Amount	Remarks
A	Opening Balance	850.45	Table 3.43
B	Capitalized during the year	50.00	
C	Closing Balance	900.45	(A+B)
D	Average Cumulative Capitalized Consumer Cont.	875.45	(A+C)/2

### **Depreciation and provision of depreciation**

The Hon'ble Commission in its 3<sup>rd</sup> MYT Regulation's has changed its methodology for allowance of Depreciation. Based on the said regulations the Petitioner has changed depreciation rate in its books of account. Therefore considering such change in rate of depreciation the effective rate for HI comes to 5.20% (based on 6 months actual audited financial statement of FY 2017-18).

In addition to above 3<sup>rd</sup> MYT Regulations, 2017 also provided that depreciation shall be allowed on net fixed assets i.e. Gross Addition – Consumer Contribution/capital subsidy/grant.

Based on above methodology, depreciation is computed as follow:

**Table 4.17: Depreciation for FY 2017-18 (Rs. Cr.)**

Particulars	Amount	Remark/Ref
Opening GFA	5,836.01	Table 4.15
Net Additions to Asset during the year	489.00	Table 4.15
Closing GFA	6,325.01	Table 4.15
Average GFA	6,080.51	Table 4.15
Less: Average Consumer Contribution	875.45	Table 4.16
Average GFA net of CC	5,205.06	
Average rate of depreciation	5.20%	
Depreciation for the year	270.41	
Opening Depreciation	2,036.36	Table 3.46
Closing Depreciation	2,306.77	
Average Depreciation	2,171.57	





### **Working Capital Requirement**

The Petitioner has computed working capital requirement as per Regulation 84 (4) Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2017. The relevant extract of the Regulation is as follows:

"84. The Commission shall calculate the Working Capital requirement for:

(4) Distribution Licensee as follows:

(i) Working capital for wheeling business of electricity shall consist of ARR for two months of Wheeling Charges.

(ii) Working Capital for Retail Supply business of electricity shall consist of:

(a) ARR for two months for retail supply business of electricity;

(b) Less: Net Power Purchase costs for one month;

(c) Less: Transmission charges for one month: "

Based on the above formula computation of working capital is given below:

**Table 4.18: Computation of Change in Working Capital (Rs Cr)**

Sl. No.	Particulars	Amount		Remark
		FY 17-18		
A	Annual revenues requirement	7,451.76		Table 4.25
B	Receivables equivalent to 2 months ARR		1,241.96	A/12*2
C	Power Purchase expenses	5,556.15		Table 4.11
D	Add: 1/12th of power purchase expenses		463.01	C/12
E	Total working capital		778.95	
F	Opening working capital		673.23	Table 3.48
G	Change in working capital		105.72	(E-F)

### **Means of Finance**

The Petitioner has submitted that the Regulation 63 of the Tariff Regulations 2017 provided that for determination of Tariff, the debt-equity ratio for any project or scheme under commercial operation shall be considered as 70:30.

Sl. No.	Particulars	Amount	Remarks
A	Capitalization	489.00	
B	Less- Consumer Contribution Capitalized during the year	50.00	
C	Funding Requirement	439.00	
D	Through- Debt @ 70%	307.30	
E	Through Equity @ 30%	131.70	



**Table 4.19 Computation of Equity/ Debt balance for FY 2017-18**
*(Figures in Rs. Cr.)*

Financial year	Opening Equity	Addition Equity	Working Capital Equity*	Closing Equity	Opening Debt	Addition	Repayment	Working capital Debt*	Closing Debt
Revised	1467.53	131.70		1599.23	2155.96	307.30	270.41	105.72	2298.58
Opening Balance									
Average	1533.38				2280.13				

### **Regulated Rate Base**

RRB is computed as per formula specified in MYT Tariff Regulations, 2017.

**Table 4.20: Computation of Regulated Rate Base**
**(Rs Cr)**

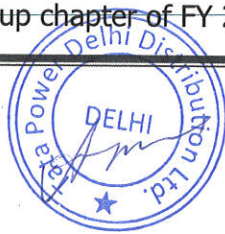
Sl. No.	Particulars	Amount	Remarks
A	Opening Balance of OCFA	5,836.01	Table 4.15
B	Opening Balance of Working Capital	673.23	Table 4.18
C	Opening Balance of Accumulated Depreciation	2,036.36	Table 4.17
D	Opening balance of Accumulated Consumer Contribution	850.45	Table 4.16
E	<b>RRB – Opening</b>	3,622.43	
F	Capitalization during the year	489.00	Table 4.15
G	Depreciation for the year (Including AAD)	270.41	Table 4.17
H	Consumer Contribution, Grants,	50.00	Table 4.16
I	Change in Working Capital	105.72	Table 4.18
J	<b>ΔAB (Change in Regulated Base)</b>	190.02	
K	<b>RRB – Closing</b>	3,896.74	
L	<b>RRB(i)</b>	3,812.45	

### **Computation of WACC**

The Hon'ble Commission in its Business Plan Regulations, 2017 has approved Rate of Return on Equity computed at base rate of 14% on post-tax basis for wheeling business and base rate of 2% on post-tax basis for retail business.

Further in the Tariff Order August, 2017 the Hon'ble Commission has approved rate of weighted average interest on loans @ 9.73% for FY 2017-18.

Considering the above cost of debt and rate of return on equity, weighted average cost of capital has been computed by considering the average actual equity and average actual debt (net of repayment) for FY 2017-18. The said treatment is in line with the Hon'ble APTEL Judgments explained above in true up chapter of FY 2016-17.





**Table 4.21: Weighted Average Cost of Capital (WACC) sought for FY 2017-18**

Sl. No.	Particulars	Amount	Remark/ Ref
A	Equity	1533.38	Table 4.19
B	Debt	2,280.13	Table 4.19
C	Return on Equity	16%	
D	Income Tax Rate	33.99%	
E	Grossed up Return on Equity	24.24%	
F	Rate of Interest	9.73%	
G	Weighted Average Cost of Capital	15.56%	

Considering the above computed WACC of 15.56% the Petitioner has sought revised ROCE for FY 17-18 as follows:

**Table 4.22: Computation of Return on Capital Employed (Rs Cr)**

Sl. No.	Particulars	Amount	Reference
A	RRB (i)	3,812.45	Table 4.20
B	WACC	15.56%	Table 4.21
C	Return on Capital Employed	593.36	(A*B)

### **Non-Tariff Income**

The Petitioner has kept Non-tariff income for FY 2017-18 at the same level equivalent to the Non Tariff Income offered for truing up for FY 2016-17 .

**Table 4.23 Non-Tariff Income (Rs Cr)**

Sl. No.	Particulars	Amount
A	Non-Tariff Income/Interest on Security Deposit	111.12

### **Computation of Carrying cost Rate**

The Hon'ble Commission has approved Return on Equity in terms of Regulations 2(16) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for computation of weighted average rate of interest for funding of Regulatory Assets/ accumulated Revenue Gap through Debt and Equity shall be considered at 14% on pre-tax basis in its Business Plan Regulations, 2017.

Further, the rate of interest has been approved at 9.68% (i.e margin of 1.68% over 1 year MCLR of SBI) for FY 2017-18 for funding revenue gap.



Based on the above, the carrying cost rate for FY 2017-18 computed as follows.

**Table 4.24: Computations of carrying cost**

		(Rs Cr)
Sl. No.	Particulars	FY 2017-18
A	Rate of Return on Equity	14.00%
B	Rate of Interest on Loan	9.68%
C	Rate of Carrying Cost	10.98%

### **Computation of Aggregate Revenue Requirement**

Based on the above submission the Petitioner has sought revised ARR for FY 2017-18 as below.

**Table 4.25: Summary of Aggregate Revenue Requirement**

		(Rs Cr)		
Sl. No.	Particular	FY 2017-18 As approved by Hon'ble Commission	FY 17-18 Revised sought by Tata Power DDL	Remarks
A	Cost of Power Purchase	5,196.81	5,556.15	Table 4.11
B	O&M Expenses	648.92	785.24	Table 4.12
B1	DSM Expenses		5.05	
C	Depreciation	160.90	270.41	Table 4.17
D	Return on Capital Employed	379.59	593.36	Table 4.22
E	Carrying Cost	196.54	352.67	Table 4.27
F	Less: Non-Tariff Income/ Interest on consumer security deposit	133.25	111.12	Table 4.23
H	<b>Annual Revenue Requirement</b>	<b>6,449.51</b>	<b>7,451.76</b>	

From the above table it can be seen that estimated revised ARR for FY 2017-18 comes to Rs. 7,451.76 Cr. against the approved ARR of Rs. 6,449.51 Cr.

### **Revised computation of Revenue (Gap)/surplus for FY 2017-18**

Based on the above submission, the Petitioner has computed Revenue gap of Rs. 712.73 Cr for FY 2017-18 without carrying cost and DRS.





**Table 4.26 Computations of Revenue (Gap) for the year without carrying Cost (Rs. Cr)**

Sl. No.	Particular	2017-18 as per Tariff Order Aug, 2017	FY 2017-18 Estimated	Remarks
A	Aggregate Revenue Requirement for the year <b>without carrying cost</b>	6,252.97	7,099.09	
B	Revenue available for the year	6,647.32	6,386.36	Table 4.2
C	Revenue (Gap)/surplus for the year	394.35	(712.73)	(B-A)

### **Deficit in Payment of Pension Trust**

The Hon'ble Commission in its Tariff Order dated August, 2017 has imposed 3.70% surcharge towards the payment of pension trust liability of Rs. 143.45 Cr. (net of Rs 91.55 Cr) which shall be paid in 7 equal monthly installments. It is submitted that against the said payment the petitioner would be able to collect only Rs. 112.52 Cr till march, 2017 resulting into deficit of Rs. 30.93 Cr for FY 2017-18.

It is worth to mention that the Hon'ble Commission in its Tariff order August, 2017 has specifically mentioned that it shall true up the deficit if any on account of difference in payment made to pension trust and collection through 3.70% surcharge. The Petitioner based on above submission has sought additional Rs 30.93 Cr as deficit.

### **Computation of Closing Revenue Gap along with Carrying Cost**

The summary of addition in opening Revenue Gap along with carrying cost (net of 8% Deficit Recovery Surcharge) is given below:

**Table 4.27 Computations of Closing Revenue Gap for FY 17-18 (Rs. Cr)**

Sl. No.	Particular	Amount	Remarks
A	Opening Revenue Gap	(2,841.27)	Table 3.57
B	Revenue (Gap)/Surplus for the year	(712.73)	Table 4.28
C	Add- Deficit on account of Pension Trust	(30.93)	
D	Closing Revenue (Gap)	(3,584.92)	
E	Carrying Cost Rate	10.98%	
F	Carrying Cost	(352.67)	
G	Recovery of carrying cost from 8% Deficit Revenue Recovery Surcharge	510.91	99.5% of Billed DRRS as per Table 4.8 (i)
H	Closing Revenue Gap (including carrying cost)	(3,426.68)	

