

## Delhi Performance Overview and Financial Data

Distribution Sector as a whole, barring a few utilities, is financially sick and is plagued by challenges of spiraling Technical and Commercial Losses, dilapidated network conditions, rampant power cuts, sub-optimal resource availability and above all lack of consumer service facilities. As referred in Fig 1 below, Discoms in all the 29 States have incurred huge losses in FY13 and on cumulative basis have reached to nearly Rs. 3,00,000 crs. According to the VK Shunglu Committee estimates, “electricity distribution losses totaled Rs. 1,07,000 Cr in 2010 which were expected to increase to app. 2,90,000 Cr. by end of XII Plan (2017) at existing tariffs”. These estimates are in line with the Thirteenth Finance Commission Report of Govt. of India which states “Total losses of SEBs at 2008 tariffs envisaged to be Rs. 116000 Cr in FY 2014-15 vis-à-vis Rs. 68000 Crs. in FY 2010-11. These losses are persistent even after payout of heavy subsidy on year on year basis. Presently nearly 10% (Rs. 2000 - Rs. 6000 crores annually) of the State’s Annual Budgets are spent on providing subsidies to the State owned Discoms, which is a huge burden on the State Exchequer. On the other hand, the subsidy in Delhi has reduced drastically to a level of Rs. 200-300 Crs per annum from a whopping amount of Rs. 1200-1500 Crs annually in 2002 (and in total subsidy would have been Rs. 4000 Crs). In addition to this, the accrued subsidy in last 6 years for States like Punjab, UP, Gujarat are Rs. 21220 Crs., Rs. 15633 Crs., Rs. 6230 Crs. respectively as compared to the subsidy by Delhi is only Rs. 1533 Crs.(approx.). Similarly accumulated losses for these States has bellowed from Rs. 5000 Crs to Rs. 48,000 Crs (till FY12) which for Delhi has never happened in last 11 years. Private sector participation in Delhi Distribution System through PPP mode has ensured adequate financing and technological advancements which has helped the State Governments in minimizing/ eliminating this perpetual subsidy outgo which has then be channelized to other priority areas of Government like education, healthcare, roads, flyovers, metro rail, social schemes etc.

One of the major achievement post privatization in Delhi has been an expeditious reduction of AT&C Loss Level from around 55% in 2002 to nearly 11-15% at present as against National Average of 26% (wherein most Discoms are still hovering at around 30-40%). Against this TPDDL has achieved a major loss reduction from a level of 53% in 2002 to 9.87% in FY 2015 as shown in Fig 2. This steep reduction in losses have been possible through augmentation of network (HVDS, LTABC, DT level Metering etc.), introduction of State-of-Art technologies (SCADA,DMS,GIS,AMI, AMR etc.) and social intervention (aggressive enforcement, Corporate Social Responsibility etc.) .

**Fig-1: Profit/ (Loss) on subsidy received basis (Rs. Crores, per year)**

<b>Region</b>	<b>2012-13</b>	<b>2013-14</b>
Eastern	-4,332	-2,143
North Eastern	-1,949	-1,795
Northern	-28,814	-37,012
Southern	-30,559	-15,914
Western	-6,036	-7,196
<b>Grand Total</b>	<b>-71,690</b>	<b>-64,060</b>

FRP States	2012-13	2013-14
Bihar	-1,227	-343
Jharkhand	-2,668	-1,511
Haryana	-3,649	-3,113
<b>Rajasthan</b>	<b>-12,351</b>	<b>-15,645</b>
<b>Uttar Pradesh</b>	<b>-9,778</b>	<b>-16,724</b>
Andhra Pradesh	-6,359	-537
<b>Tamil Nadu</b>	<b>-12,064</b>	<b>-14,052</b>
Telangana	-11,163	-842
<b>Grand Total</b>	<b>-59,259</b>	<b>-52,767</b>

Fig-2: Total Outstanding Loans (Rs. Crores)

Region	2012-13	2013-14
Eastern	25,430	29,785
North Eastern	1,961	2,074
Northern	157,689	191,692
Southern	76,566	102,552
Western	42,396	49,242
<b>Grand Total</b>	<b>304,041</b>	<b>375,344</b>

FRP States	2012-13	2013-14
Bihar	2,963	3,827
Jharkhand	9,795	10,512
<b>Haryana</b>	<b>22,571</b>	<b>28,700</b>
<b>Rajasthan</b>	<b>64,141</b>	<b>72,858</b>
<b>Uttar Pradesh</b>	<b>33,637</b>	<b>53,599</b>
Andhra Pradesh	9,535	10,468
<b>Tamil Nadu</b>	<b>45,198</b>	<b>66,105</b>
Telangana	11,967	13,099
<b>Grand Total</b>	<b>199,805</b>	<b>259,168</b>

**Fig-3: Accumulated Profit / (loss) (Rs. Crores)**

<b>Region</b>	<b>2012-13</b>	<b>2013-14</b>
Eastern	-18,183	-20,352
North Eastern	-9,199	-10,829
Northern	-143,552	-178,430
Southern	-56,321	-72,137
Western	-26,977	-34,249
<b>Grand Total</b>	<b>-254,232</b>	<b>-315,997</b>

<b>FRP States</b>	<b>2012-13</b>	<b>2013-14</b>
Bihar	-1,782	-2,124
Jharkhand	-11,958	-13,468
<b>Haryana</b>	<b>-23,358</b>	<b>-24,180</b>
<b>Rajasthan</b>	<b>-53,292</b>	<b>-68,938</b>
<b>Uttar Pradesh</b>	<b>-43,378</b>	<b>-60,101</b>
Andhra Pradesh	-9,389	((10,335)
<b>Tamil Nadu</b>	<b>-38,480</b>	<b>-52,466</b>
Telangana	-8,040	-8,476
<b>Grand Total</b>	<b>(1,89,677)</b>	<b>(2,40,088)</b>

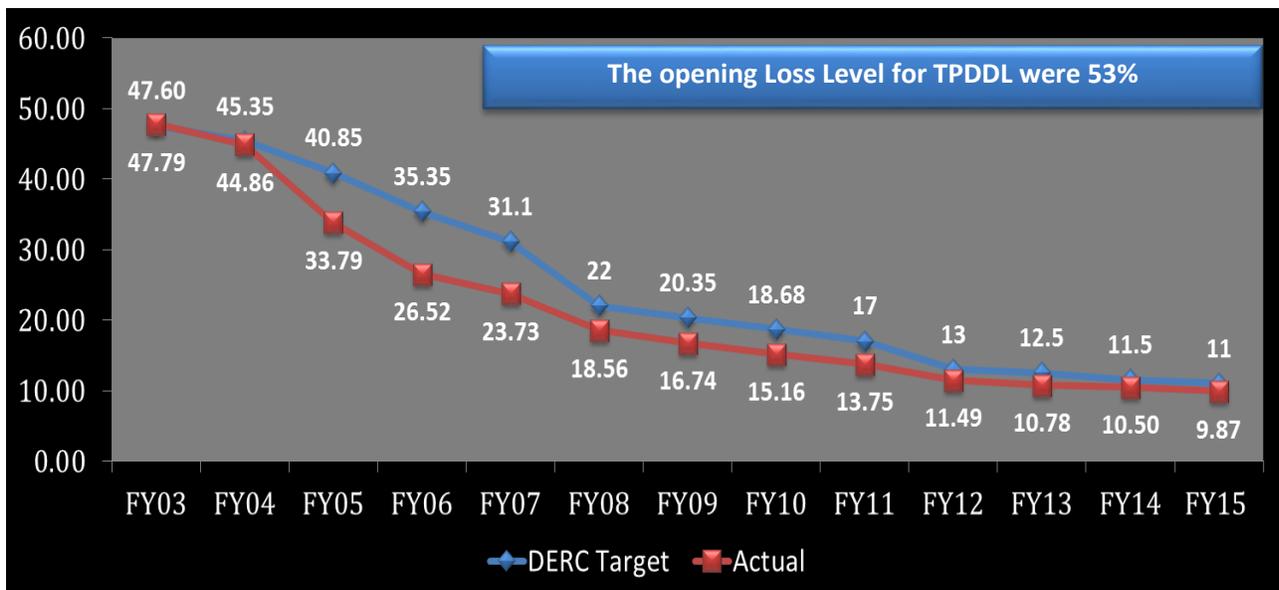
**Fig-4: ACS, ARR and Gap (Rs/Kwh)**

Region	2012-13			2013-14		
	ACS	Avg Revenue (Subsidy Recd basis)	Gap (subsidy recd basis)	ACS	Avg Revenue (Subsidy Recd basis)	Gap (subsidy recd basis)
Eastern	4.93	4.4	0.52	4.68	4.42	0.26
North Eastern	5.23	3.47	1.75	4.94	3.48	1.46
Northern	4.99	3.96	1.03	5.53	4.29	1.24
Southern	5.9	4.54	1.36	5.28	4.62	0.66
Western	4.33	4.1	0.23	4.72	4.4	0.32
<b>Grand Total</b>	<b>5.04</b>	<b>4.19</b>	<b>0.85</b>	<b>5.15</b>	<b>4.41</b>	<b>0.73</b>

FRP States	2012-13			2013-14		
	ACS	Avg Revenue (Subsidy Recd basis)	Gap (subsidy recd basis)	ACS	Avg Revenue (Subsidy Recd basis)	Gap (subsidy recd basis)
Bihar	5.81	4.88	0.92	5.04	4.8	0.24
Jharkhand	6.1	3.66	2.44	5.52	3.79	1.73
Haryana	5.13	4.22	0.91	5.22	4.57	0.66
Rajasthan	5.8	3.57	2.23	6.54	3.9	2.64
<b>Uttar Pradesh</b>	<b>4.78</b>	<b>3.45</b>	<b>1.33</b>	<b>6.12</b>	<b>3.96</b>	<b>2.16</b>
Andhra Pradesh	6.55	4.51	2.04	4.81	4.65	0.16
Tamil Nadu	6.42	4.62	1.79	6.52	4.71	1.81
Telangana	6.8	4.43	2.37	4.85	4.66	0.19
<b>Grand Total</b>	<b>5.84</b>	<b>4.09</b>	<b>1.75</b>	<b>5.81</b>	<b>4.37</b>	<b>1.43</b>

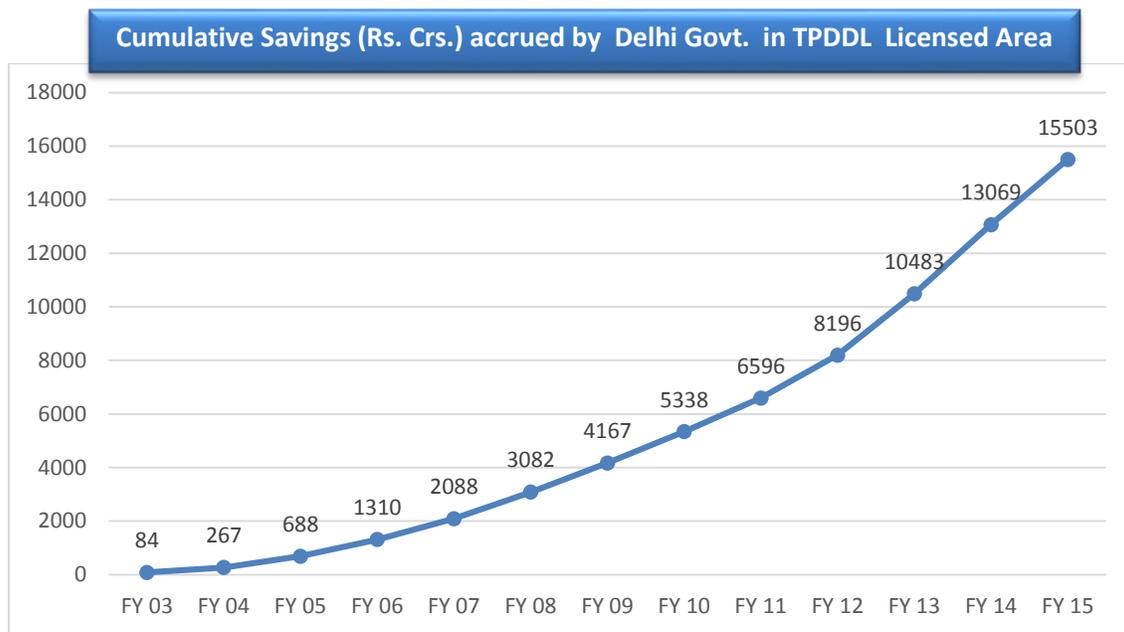
**Fig 5. AT&C Loss (%) reduction trajectory at TPDDL:**



The benefits of AT&C Loss reduction have duly been accrued by the State Govt. and consumers in the form savings from public finances and controlled tariff increase.

- a) State Government: AT&C Loss reduction had a hugely positive impact on Delhi's public finances, allowing the Government to utilize funds in other infrastructural development activities such as Metro rails, building elevated roads, flyovers, education support and social support. Earlier, the sector was a strain on the government budget, with outflows of Rs.860 crore in 1998-99, Rs.1,136 crore in 1999-2000 and Rs.1,337 crore in 2000-01 (and would have been in the range of Rs. 4000 crs under present circumstances). The cumulative savings to Delhi Government has been nearly Rs. 40,000 crs. due to Delhi Discoms and Rs. 15000 crs on account of TPDDL as shown in Fig 3.

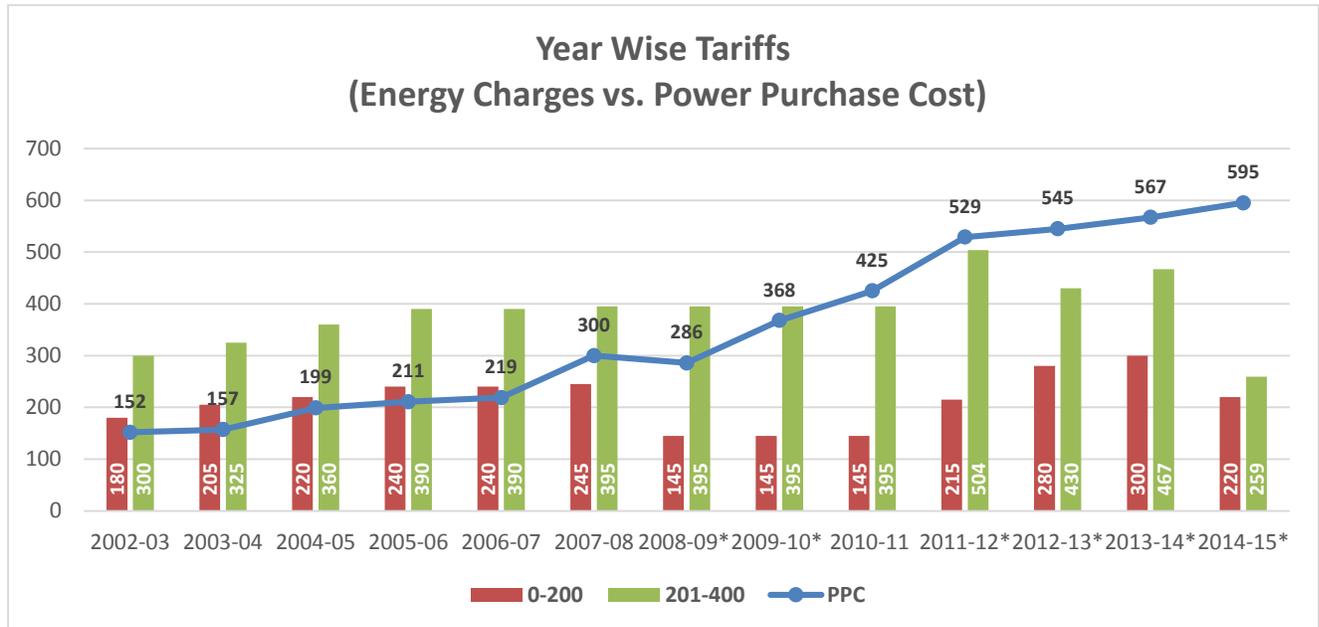
**Fig 6. Cumulative Savings to Delhi Govt. Due To AT &C Loss Reduction in TPDDL area:**



(For whole of Delhi, the saving would be approximately Rs. 40,000 crores)

- b) Consumer: The total benefit of reduction of losses was passed on or used to offset the increase in procurement price of power and benefit of this was passed to the consumers of Delhi by keeping power tariff low. In last 12 years the power purchase cost for Delhi has increased @ 13% (CAGR) from Rs. 1.52 per unit in 2002-03 to Rs. 5.95 per unit in 2014-15, while the actual average tariff has only increased @ less than 6% from Rs. 4.01 per unit to Rs. 7.60 per unit (Ref Fig 4). The difference of increase in purchase price of power and tariff was met due to reduction of losses and the full benefit was passed on to the consumers. In the initial 8 years, tariff increase was very nominal about 1.84% (CAGR) inspite of 13.72% (CAGR) increase in Power Purchase Cost . If this reduction in losses would not have taken place and in Business As Usual scenario, the average tariff in Delhi would have been Rs. 14.50 per unit instead of present avg. tariff of Rs 7.60 per unit (Ref Fig 5). Hence nearly 50% of the average tariff increase has been offset by the reduction in AT&C Loss in last 11 years.

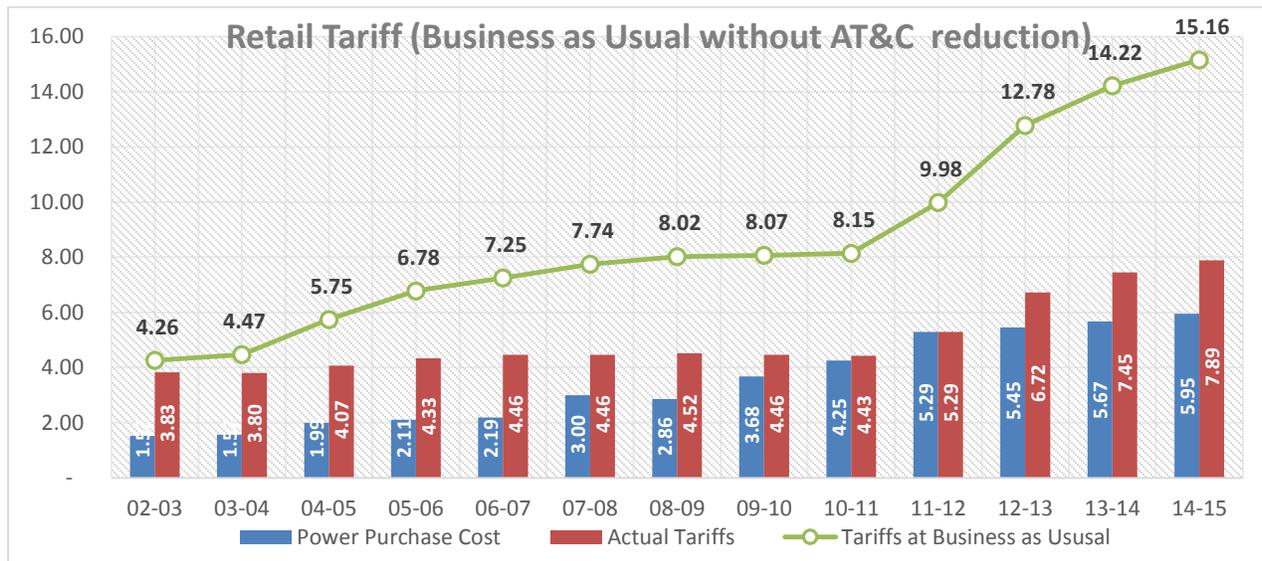
**Fig 7. Y-O-Y Comparison Of Tariff Vis-À-Vis Power Purchase Cost (TPDDL)**



Source: As per DERC Tariff Order notification

Note : \*Subsidy started from 2008 onwards

**Fig. 8 Impact Of AT & C Loss Reduction On Retail Tariff**



Source: As per DERC Tariff Order notification

To bring it into the perspective, Delhi's per capita consumption is the highest in the country, 1,651 kWh as against the national average of 778 kWh. To meet the peak load, Delhi would not only need to contract sufficient power but also build in a robust infrastructure. The gap

between peak demand and the lowest demand on a daily basis ranges from 2,000-2,500 MW. In the summers, Delhi has twin peaks, at mid-afternoon and midnight. Almost 80% of Delhi's purchases are from thermal plants, leaving the Discoms sitting on large quantum of surplus power for most part of the year-Oct to march. Moreover, Delhi power portfolio consists of some of the most expensive power plants of NTPC( Badarpur, Dadri) and Delhi Genco's (Rajghat) including coal plants where the coal is being transported from Eastern to Northern part of India and Gas based plants such NTPC, Dadri-Anta, Auriya and Delhi Genco's Bawana, GT operating at PLF of 20-30% leading Delhi consumers to pay for fixed cost of the full plant with major quantity stranded due to less availability of gas. In spite of such challenges, Delhi Discoms have never failed to supply reliable and quality power to its consumers and never resorted to load shedding , a tactic employed by most of the other States to avoid such huge financial losses.

Delhi, despite providing 24X7 power supply to its consumers, wherein the load shedding has reduced from 11% in 2001-02 to less than 0.5% in 2014-15 and having one of the lowest AT&C Loss level of 10%/15% which were reduced from 55%, has tariff which is still one of the lowest in Domestic category and at par in other categories vis a vis other Metro city's of Mumbai, Kolkotta, Chennai and Northern States of Punjab, Haryana and UP. Comparing the Tariff of Delhi, it is still lower than Northern States like Punjab, UP, Haryana in spite of the fact that these states provide large quantum of subsidy to the State Discoms and have huge amount of load shedding forcing people to go for expensive DG Set power. The increased demand of electrical appliances and reducing trend of sales of invertors and DG's in Delhi and a positive perception emerging from independent survey conducted by Delhi Govt. ( carried by Institute For Human Development) and ET Survey ( carried by Taylor Nelson Sofres) itself votes confidence in the existing system. This is a big contribution by Delhi Government to the people of Delhi and is due to their vision to privatize electricity in Delhi.

**Fig 9 Tariff Comparison across different utilities of Metro Cities in India**

Consumer Category	Units	Delhi (TPDDL)	Mumbai	Kolkata	Chennai
		Rs. / Unit	Rs. / Unit	Rs. / Unit	Rs. / Unit
<b>Dom - 2 Kw*</b>	200	2.20	5.1	5.12	3.58
<b>Dom - 2 Kw*</b>	400	2.59	6.05	5.62	4.46
<b>Non Domestic/ Commercial- 20 kW</b>	1500	10.15	12.88	7.64	7.71
<b>LT Industrial - 20 kW</b>	1500	9.2	10.63	6.88	5.9
<b>HT Industrial - 100kW/108 KVA</b>	15000	8.3	9.44	8.77	7.66
<b>Peak Load</b>	In MW	1704	3192	1856	2000
<b>No of Consumers</b>	In Lakhs	14	30	25	11

**Fig 10 Tariff Comparison across different Utilities near Delhi NCR**

Consumer Category	Units	Delhi (TPDDL)	Haryana	Uttar Pradesh	Rajasthan
		Rs. / Unit	Rs. / Unit	Rs. / Unit	Rs. / Unit
<b>Dom - 2 Kw*</b>	200	2.20	4.14	5.00	5.16
<b>Dom - 2 Kw*</b>	400	2.59	4.60	4.90	5.17
<b>Non Domestic/ Commercial- 20 kW</b>	1500	10.15	8.50	9.45	7.35
<b>LT Industrial - 20 kW</b>	1500	9.20	8.16	10.1	6.32
<b>HT Industrial - 100kW/108 KVA</b>	15000	8.30	6.88	8.10	6.51
<b>Power Outage During Summer(Avg.)**</b>	Hours/ day	0	4-6	4-6	2-2.5
<b>Peak Demand Met</b>	In MW	1704	8114	8733	10038
<b>No of Consumers</b>	In Lakhs	14.4	50	239	78

Source: As per Tariff Order of State Commissions

\*\* From news clippings