



**UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION**

PETITION NO.: 634 OF 2009

FILED BY:

KANPUR ELECTRIC SUPPLY COMPANY (KESCO)

IN THE MATTER OF:

DETERMINATION OF ANNUAL REVENUE REQUIREMENT (ARR)  
AND TARIFF FOR FY 2009-10

ORDER UNDER SECTION 64 OF  
THE ELECTRICITY ACT 2003

LUCKNOW

14th October, 2010



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**Before**

**UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION**

**Petition No.: 634 / 2009**

**IN THE MATTER OF:**

Application dated September 23, 2009 regarding filing of Aggregate Revenue Requirement for FY 2009-2010 and determination of tariffs to be charged by Kanpur Electric Supply Company (KESCO).

**And**

**IN THE MATTER OF:**

Kanpur Electric Supply Company (KESCO)

**CORAM:**

**Shri RAJESH AWASTHI, Chairman**

**ORDER**

The Commission having deliberated upon the above petition and also the subsequent filings by the petitioner, and having considered the suggestions / comments / views / objections received from various stakeholders during the course of the above proceedings and also in the public hearing held, in exercise of power vested under Sections 61, 62, 64 and 86 of the Electricity Act 2003, hereby pass this Order signed, dated and issued on 14th October, 2010. The tariffs to be charged by KESCO shall continue to be the same as approved in the UP DISCOMS Tariff Order dated 31st March, 2010. The rate schedule as notified in the UP DISCOMS Tariff Order dated 31st March, 2010 shall continue to be in force, unless amended or revoked, till issuance of the next Tariff Order for KESCO.



## **Chapter 1. BACKGROUND AND PROCEDURAL HISTORY:**

### **1.1 BACKGROUND:**

1.1.1 Kanpur Electricity Supply Company (KESCO), a company registered under the Companies Act, 1956 was incorporated through the Transfer Scheme dated 15th January, 2000; wherein the assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under erstwhile Uttar Pradesh State Electricity Board (UPSEB) were transferred to KESCO.

1.1.2 Subsequently the Commission, in exercise of the powers conferred on it under Section 15 of the Uttar Pradesh Electricity Reform Act, 1999 (Uttar Pradesh Act No.24 of 1999), granted KESCO on 4<sup>th</sup> October 2000 a distribution license for a period of 30 years for carrying out the business of Distribution and Retail Supply of electrical energy within its license area.

### **1.2 DISTRIBUTION TARIFF REGULATIONS:**

1.2.1 Thereafter the, Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2006 (hereinafter referred to as the "Distribution Tariff Regulations") were notified by the Commission on 6th October, 2006.

1.2.2 These regulations are applicable for the purposes of Annual Revenue Requirement (ARR) filing and Tariff determination of all the distribution licensees within the State of Uttar Pradesh.

### **1.3 ARR & TARIFF PETITION FILING FOR FY 2009-10:**

1.3.1 KESCO had submitted its ARR/Tariff petition for FY 2009-10 on 24th September, 2009, under Section 64 of the Electricity Act, 2003.

### **1.4 PRELIMINARY SCRUTINY OF THE PETITION:**

1.4.1 Subsequent to the receipt of the ARR / Tariff Petition for the FY 2009-10, a preliminary scrutiny of the petition was carried out by the Commission. It was observed that certain data, required as per Distribution Tariff Regulations, had not been furnished.

1.4.2 The Commission also noted that KESCO had not submitted the audited accounts with their petition. The audited accounts are primarily required for the purpose of undertaking the 'true – up' exercise for any given financial year. They serve the limited purpose of recognising the actual performance of the utilities and in



permitting / not permitting the 'true – up' for performance variations vis-à-vis the Tariff Order. The ARR & Tariff determination process on the other hand is based on forecast of number of consumers likely to take supply, expected quantum of energy required to meet the demand, anticipated load etc. and requires accounts / information as per Regulatory provisions. Further, the characteristic of power sector business is such that more often than not the Regulatory Commissions have to deal with insufficient / inaccurate information on various factors and base the Tariff Order on judgemental prognosis adopting a balanced approach in addressing the interests of the consumers as well as that of the licensee.

- 1.4.3 The licensee is already reeling under tremendous financial pressure on account of various factors including increase in Employee Cost, Administrative Costs, R&M Costs, cost of Raw Materials etc. While the licensee should not be allowed to recover any additional costs on account of their inefficiencies, they should be allowed to recover the legitimate increase in costs through tariff revision as deemed necessary. As such delay in submission of audited accounts should not lead to stoppage of the process of ARR & Tariff determination.
- 1.4.4 Hence, a detailed deficiency note was served on to the licensee vide letter no. UPERC/Secy. /D (Tariff) -1049 dated 13th October, 2009 which directed KESCO to provide within 10 days the required information alongwith the audited / provisional accounts for FY 2007-08 & FY 2008-09.
- 1.4.5 In response to the same, KESCO submitted vide its letter dated 10th November, 2009 the audited accounts for FY 2005-06 and provisional / unaudited accounts for FY 2006-07 to FY 2008 – 09 and provided most of the critical data as required by the Commission for acceptance / admission of the petition.
- 1.4.6 In view of above, the Commission has not undertaken the true-up process. The final approval of actual expenses will be done at the time of truing up process.
- 1.4.7 The Commission once again directs KESCO to ensure finalisation of audited accounts for the past years at the earliest and for the future years within a reasonable time frame. Further, KESCO is also directed to ensure that the annual audited accounts are submitted along with the next ARR / Tariff filing to enable true up process to be undertaken.



1.4.8 The Commission would also like to mention here that Hon'ble High Court of Judicature at Allahabad in the matter regarding finalisation of ARR/Tariff proposals of Distribution Companies for the financial year 2009-10 in WRIT-C No. 12752 of 2010 dated 30.3.2010 has stated that, "*Commission may consider the representation of the petitioner and take steps in accordance with the Act and Regulations*". With respect to this, the Commission in exercise of power vested under Section 61, 62 and 86 of the Electricity Act, 2003 has determined this ARR/Tariff in accordance with the Act and Regulations after taking into consideration the views/ comments/ suggestions/ objections/ representations received from the petitioner and various other stakeholders.

**1.5 ADMITTANCE OF ARR / TARIFF PETITION FOR FY 2009-10:**

1.5.1 Notwithstanding the fact that the structure of UP Power Sector is still not completely in line with the spirit of the Act, the Commission in the larger interest of consumers as well as licensee and to honour its commitment to abide by the major statutory obligation of tariff determination cast upon it by EA 2003 admitted the petitions filed by the licensee.

1.5.2 The Commission admitted the ARR petition submitted by KESCO for further processing on 3rd December, 2009.

1.5.3 The Commission through its admittance order also directed KESCO to publish the Public Notice detailing the salient information and facts of the ARR petition for FY 2009-10, in at least two daily newspapers (one English and one Hindi), for two successive days inviting suggestions / comments / views from all stakeholders and the public at large till 31st December, 2009.

**1.6 PUBLICITY OF THE PETITION:**

1.6.1 The Public Notice detailing the salient information and facts of the ARR petition appeared in the Kanpur edition of Hindustan Times & Dainik Jagran on 6th & 7th December, 2009.

**1.7 PUBLIC HEARING PROCESS:**

1.7.1 The Commission invited comments / suggestions from consumers and all other stakeholders on the ARR & Tariff proposal of the licensee. To provide an opportunity to all sections of the population in the licensee's area of supply and to obtain feedback from them, a public hearing was held in Kanpur on 23rd December, 2009, by the Commission.



1.7.2 The details of the Public Hearing held in Kanpur on 23rd December, 2009 were published in the Times of India (Lucknow Edition) & Aaj (Kanpur Edition) on 22nd December, 2009. The hearing had representations by consumers on the ARR / Tariff proposals submitted by KESCO. As the hearing process was common for both the licensees, the issues raised by the stakeholders and the Commission's views on the same have been duly elaborated in the Tariff Order of the 4 DISCOMS and UPPTCL dated 31st March, 2010.

**1.8 STATE ADVISORY COMMITTEE:**

1.8.1 The Commission convened a meeting of the State Advisory Committee on 22nd February, 2010 and discussed issues related with ARR / Tariff proposal filed for FY 2009-10. The members of the State Advisory Committee deliberated upon the issues and offered valuable comments / suggestions which have been taken into consideration and suitably incorporated while finalizing this Tariff Order.

**1.9 APPLICABILITY OF TARIFF:**

1.9.1 The Commission in the ARR & Tariff Order for 4 DISCOMS & UPPTCL for FY 2009-10 issued on 31st March 2010, had mentioned that the Retail Tariffs as determined under the Tariff Order shall also apply provisionally to the consumers in the area of operations of M/s. KESCO and M/s. NPCL till separate Tariff Orders for FY 2009-10 are issued in their case. Accordingly, the final tariffs are being approved for KESCO in this order.



## Chapter 2. DETERMINATION OF ARR FOR FY 2009-10:

### 2.1 INTRODUCTION:

2.1.1 In the current chapter, the Commission has determined the ARR of KESCO for FY 2009-10 and has elaborated upon the approach followed for the same in line with the Distribution Tariff Regulations. The Commission has in the process also specified the payment liability of KESCO on account of Bulk Power Supply it received from UPPCL for the FY 2009-10.

2.1.2 An Overview of the ARR petition is shown in the **TABLE 2-1** below:

**TABLE 2-1: SUMMARY OF ARR PETITION (Rs. Cr)**

Item	FY 2007-08 Actual Unaudited	FY 2008-09 Submitted	FY 2009-10 Projections
Power Purchase Expenses (incl. PGCIL charges)	628.69	650.19	807.83
Transmission Charges - Intra state	50.61	57.91	67.46
Employee cost	55.79	59.58	81.68
A&G expenses	10.77	12.96	13.95
R&M expenses	17.61	17.91	19.60
Interest & Finance charges	14.42	24.02	21.67
Depreciation	24.22	28.03	33.69
<b>Gross Expenditure</b>	<b>802.11</b>	<b>850.60</b>	<b>1,045.88</b>
<b>Expense capitalization</b>			
<i>Employee cost capitalized</i>	<i>9.02</i>	<i>8.94</i>	<i>12.25</i>
<i>Interest capitalized</i>	<i>3.52</i>	<i>4.78</i>	<i>6.96</i>
<i>A&amp;G expenses capitalized</i>	<i>0.58</i>	<i>1.94</i>	<i>2.09</i>
<b>Net Expenditure</b>	<b>788.98</b>	<b>834.94</b>	<b>1,024.58</b>
<b>Special Appropriations</b>			
<i>Provision for Bad &amp; Doubtful debts</i>	<i>30.15</i>	<i>32.04</i>	<i>33.16</i>
<b>Total net expenditure with provisions</b>	<b>819.13</b>	<b>866.98</b>	<b>1,057.74</b>
Add: Return on Equity	11.80	14.65	18.62
Less: Non Tariff Income	3.12	2.68	2.88
Carry forward Gap of the Previous year			
<b>Annual Revenue Requirement (ARR)</b>	<b>827.81</b>	<b>878.95</b>	<b>1,073.47</b>

2.1.3 KESCO has provided the audited data for FY 2005-06 & actual unaudited data from FY 2006-07 to FY 2008-09 in the tariff filing formats. However, inconsistencies were observed between the information submitted in the provisional / unaudited accounts and the tariff filing formats that were addressed by KESCO vide letter dated 22nd April, 2010.



2.1.4 The Commission has not undertaken true-up of any of the past years as the annual accounts of KESCO have not been audited from FY 2006-07 onwards.

## 2.2 SALES, NUMBER OF CONSUMERS & CONNECTED LOAD PROJECTIONS:

### 2.2.1 SALES PROJECTIONS:

2.2.1.1 KESCO has submitted the actual sales figures for FY 2007-08 & FY 2008-09 alongwith projections for FY 2009-10 as shown in the **TABLE 2-2** below. The sales figures show variance from those approved by the Commission in the Tariff Order for FY 2007-08 & FY 2008-09. The actual sales for FY 2007-08 & FY 2008-09 are lower than the Commission approved figures by 8.4 % in FY 2007-08 & 9.3 % in FY 2008-09.

**TABLE 2-2: CATEGORYWISE SALES COMPARISON (MUs)**

Consumer Categories	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	Difference	FY 2008-09 Tariff Order	FY 2008-09 Submitted	Difference	FY 2009-10 Projections
LMV 1:Domestic, Light, Fan & Power	943.0	806.7	136.3	1038.4	919.8	118.6	997.8
LMV 2:Non- Domestic, Light, Fan &	217.7	214.1	3.6	239.7	231.9	7.8	255.3
LMV 3:Public Lamps	39.8	39.1	0.6	42.5	49.7	-7.2	52.2
LMV 4:Institutions	142.3	117.7	24.5	156.8	34.5	122.3	37.3
LMV 5:Private Tubewells	-	-	-	-	-	-	-
LMV 6 :Small & Medium Power	166.9	167.9	-1.0	183.9	187.4	-3.5	209.7
LMV 7: Public Water Works	55.0	36.4	18.6	60.0	41.1	18.9	45.3
LMV 8:State Tubewells	-	-	-	-	-	-	-
LMV 9: Temporary Supply	-	-	-	-	-	-	-
LMV10:Employees & Pensioners	-	-	-	-	-	-	-
HV 2:Large & Heavy Power	293.2	320.7	-27.5	338.5	402.9	-64.4	456.7
HV 3:Railway Traction	-	-	-	-	-	-	-
HV 4:Lift Irrigation Works	-	-	-	-	-	-	-
<b>Total</b>	<b>1857.9</b>	<b>1702.6</b>	<b>155.2</b>	<b>2059.8</b>	<b>1867.3</b>	<b>192.5</b>	<b>2054.3</b>
% age Difference			-8.4%			-9.3%	

2.2.1.2 The methodology adopted by Commission for computing Energy Balance is in line with the provisions of the Distribution Tariff Regulations. The Commission has arrived at the quantum of Bulk Power Purchase required by first determining the category wise sales and then grossing the same by the distribution losses as KESCO procures its power from UPPCL at Agra DISCOM's periphery.

2.2.1.3 Thus, the Commission has adopted the following methodology for Sales projections for FY 2009-10:

- Computed Compounded Annual Growth Rate (CAGR) for last 5 years (FY 2004-05 to FY 2008-09) for each category.



- b) Ignored Negative CAGR
- c) Normalised Abnormal CAGR
- d) Considered actual unaudited sales data for first ten months of FY 2009-10 to verify the reasonability of the projections.

KESCO had projected an overall growth of **10.0%** over FY 2008-09 for FY 2009-10. The overall CAGR computed for past 5 years is **7.37%**. However the approved growth over FY 2008-09 for FY 2009-10 is **11.53%** based on the above mentioned methodology. KESCO had not provided data with regards to Private Advertisement (LMV-2), Temporary Supply (LMV-9), Employees & Pensioners (LMV-10) & HV-1 (Non Industrial Bulk Loads), in the petition, but in subsequent submissions, KESCO submitted the first 10 months data for FY 2009-10. The Commission has taken note of actual ten months data while finalizing the annual sales of FY 2009-10.

2.2.1.4 Based on the above methodology, the category-wise sales projections made by KESCO and that approved by the Commission for FY 2009-10 is shown in the **TABLE 2-3** below:

**TABLE 2-3: APPROVED CATEGORY-WISE SALES - FY 2009-10**

Item	FY 2009-10	FY 2009-10
	Projections	Approved
LMV 1:Domestic, Light, Fan & Power	998	973
LMV 2:Non- Domestic, Light, Fan & Power	255	244
LMV 3:Public Lamps	52	52
LMV 4:Institutions	37	36
LMV 5:Private Tubewells	-	-
LMV 6:Small & Medium Power	210	197
LMV 7: Public Water Works	45	41
LMV 8:State Tubewells	-	-
LMV 9: Temporary Supply*	-	1
LMV10:Employees & Pensioners*	-	16
HV 1:Non Industrial Bulk Loads*	-	100
HV 2:Large & Heavy Power	457	423
HV 3:Railway Traction	-	-
HV 4:Lift Irrigation Works	-	-
<b>Total</b>	<b>2054</b>	<b>2083</b>

\* Evaluated on the basis of first 10 months data for FY 2009-10 submitted by KESCO

## 2.2.2 NUMBER OF CONSUMERS PROJECTION:



2.2.2.1 The approved numbers of consumers for FY 2009-10 are based on the approved sales for FY 2009-10 after considering the existing number of consumers and sales of FY 2008-09 provided by KESCO. Number of Consumers figures for FY 2007-08, FY 2008-09 & FY 2009-10 as submitted in the petition by KESCO are given at **ANNEXURE I**. The category-wise number of consumers approved for FY 2009-10 are provided in **ANNEXURE II**.

### 2.2.3 CONNECTED LOAD PROJECTIONS:

2.2.3.1 Similar to the above approach, the Commission has approved the connected load for FY 2009-10 after considering the approved number of consumers for FY 2009-10 and the connected load per consumer of FY 2008-09. The Connected load figures for FY 2007-08, FY 2008-09 & FY 2009-10 as submitted in the petition by KESCO are given at **ANNEXURE I**. The category wise connected load approved for FY 2009-10 are provided in **ANNEXURE II**.

### 2.3 DISTRIBUTION LOSSES AND ENERGY BALANCE:

2.3.1 The Distribution loss as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figure approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-4** below:

**TABLE 2-4: DISTRIBUTION LOSS (%) – PETITION**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Distribution Loss (%)	28.97%	36.09%	25.00%	29.05%	26.00%

2.3.2 KESCO has projected a distribution loss 26.0% for FY 2009-10. This level of loss is higher than the 25.0% distribution loss level approved by the Commission for FY 2008-09 in the last Tariff Order.

2.3.3 KESCO has submitted that in spite of undertaking all-out efforts; it has been unable to achieve the targets specified by the Commission. However, KESCO expects that with takeover of business operations by Input based Distribution franchisee; the distribution loss may come down to the levels of 26.0% in the FY 2009-10.

2.3.4 Further in this regard, at the time of finalization of the last Tariff Order, the Commission had to set up a long term loss trajectory for KESCO as per the provisions of the Distribution Tariff Regulations. But, in absence of any reliable data on loss levels, the Commission had opined that it would be inappropriate to



determine a loss trajectory for the long-term and had directed KESCO to carry out the energy audit studies to determine the voltage wise break up of distribution losses within 6 months from the date of the issue of the last Tariff Order. KESCO was further directed to submit a 5 year loss reduction trajectory for technical as well as commercial losses based on above study for consideration before the Commission.

2.3.5 However, KESCO simply failed to comply the said directive and submitted that as per the Distribution Franchisee Agreement (DFA); the Distribution Franchisee shall achieve a target level of 15% AT&C losses within 7 years from the effective date of taking over business operations failing which a penalty equivalent to 10% of the revenue lost due to non-achievement of the target shall be recoverable from the Distribution Franchisee by KESCO and thus, no yearly targets have been prescribed.

2.3.6 In view of the above, the Commission re-directs KESCO to carry out the energy audit / estimation study with voltage wise break up of distribution losses into technical loss and commercial loss within 6 months from the date of the issue of this Tariff Order alongwith a 5 year loss reduction trajectory for technical as well as commercial losses based on above study for the consideration of the Commission. However, KESCO should intimate the Commission within 2 months from the date of issue of the Tariff Order with regards to the progress on the study to be undertaken in terms of the finalised scope of work, whether the study is being undertaken departmentally or help of some experts in the field is being availed, the methodology being adopted for undertaking the study, etc. This would ensure that the requirements of the Commission and direction in which KESCO is proceeding converge at the same point. Further, on completion of the loss estimation study, KESCO should submit the report for perusal of the Commission.

2.3.7 The Commission would like to reiterate that, in the future, any distribution loss proposal of KESCO is liable to be rejected unless and until the same are based on correct energy audit data. Obviously, to comply with such requirement KESCO will have to install meters at all the interface points as well as the distribution transformers and feeders. The Commission directs KESCO to report the status of the metering / meter checking / meter replacement and other such initiatives, for the purpose of bringing down the losses along with the proposed plan to undertake the metering for the remaining points within 1 month from the date of issue of the order. KESCO shall also report the status of the progress on this



front to the Commission on a monthly basis along with reasons for deviation from the plan, if any.

2.3.8 Thus, in absence of any study being undertaken and availability of reliable base line information, the Commission has no other option but to set the loss targets for the years in consideration based on some interim basis. The Distribution Tariff Regulations also provides for such an interim measure.

2.3.9 Further, the Distribution losses of KESCO are even higher than the other utilities in the State. In this regard, KESCO has drawn comparisons from NPCL and have argued that the NPCL and KESCO's loss levels are not comparable as both have contrasting consumer and sales mix; the number of consumers in NPCL supply area are barely thirty six thousand, whereas the numbers of consumers in KESCO supply area are around five lakh. Further, a bigger and denser supply area of KESCO makes enforcement difficult. Moreover, NPCL has higher supply (64%) on HT side where losses are minimal in contrast with KESCO, where LT supply is predominant. KESCO has further submitted that due to the flight of industries from its supply area, HT: LT ratio has widened in favour of LT supply and has resulted in increase in technical losses.

2.3.10 Thus, keeping in view the above submissions and failure of KESCO to maintain loss levels comparable to that of UP DISCOMS, despite having a favourable consumer mix, the Commission has decided to approve distribution loss level of 21.27% as also approved for UP DISCOMS for FY 2009-10 vide Tariff Order for FY 2009-10 dated 31.03.2010 on consolidated basis.

**Table 2-5: DISTRIBUTION LOSS % – APPROVED**

Item	FY 2009-10 Projections	FY 2009-10 Approved
Distribution Loss (%)	26.00%	21.27%

2.3.11 The energy balance as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figure approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-6** below:



**TABLE 2-6: ENERGY BALANCE – PETITION**

Item		FY 2007-08	FY 2007-08	FY 2008-09	FY 2008-09	FY 2009-10
		Tariff Order	Actual Unaudited	Tariff Order	Submitted	Projections
Consumer Sales (MU)	A	1857.9	1702.6	2059.8	1867.3	2054.3
Distribution Loss (%)	B	28.97%	36.1%	25.0%	29.1%	26.0%
Distribution Loss (MU)	$C=A/(1-B)-A$	757.7	961.5	686.6	764.6	721.8
Bulk Power Purchase Required (MU)	$D=A+C$	2615.6	2664.1	2746.4	2631.9	2776.1

2.3.12 Based on the approved Sales and approved distribution loss % for FY 2009-10; the Commission approves energy balance for FY 2009-10 as shown in the **TABLE 2-7** below:

**TABLE 2-7: ENERGY BALANCE – APPROVED**

Item		FY 2009-10	FY 2009-10
		Projections	Approved
Consumer Sales (MU)	A	2054.3	2082.6
Distribution Loss (%)	B	26.00%	21.27%
Distribution Loss (MU)	$C=A/(1-B)-A$	721.8	562.6
Bulk Power Purchase Required (MU)	$D=A+C$	2776.1	2645.3

## 2.4 ANNUAL REVENUE REQUIREMENT FOR FY 2009-10:

2.4.1 The Commission has analysed all the components of the Aggregate Revenue Requirement (ARR) submitted by KESCO to arrive at suitable values. As per the Distribution Tariff Regulations, the ARR includes the following components:

- a) Power Purchase cost
- b) Transmission Charge
- c) SLDC Charge
- d) Operation and Maintenance Expense
  - Employee cost
  - Administration & General Expenses
  - Repairs and Maintenance Expenses
- e) Depreciation
- f) Interest and Financing Costs
- g) Bad and Doubtful Debts
- h) Return on Equity
- i) Taxes on Income
- j) Other Expense
- k) Contribution to Contingency Reserve

The detailed analysis of each and every element identified above is presented in the subsequent sections. However for approving the O&M expenses for ensuing year, the Distribution Tariff Regulations provides for a formula of an escalation index to be applied to the base year. This is detailed below.

#### 2.4.2 ESCALATION INDEX:

2.4.2.1 The Commission has suggested formulation of an escalation index linked to WPI and CPI as notified by the Central Government for different years in its Distribution Tariff Regulations. As per these Regulations, for determination of the O&M expenses (which includes Employee cost, A&G and R&M expenses) for the year under consideration, the O&M expenses of the base year shall be escalated at inflation rates notified by the Central Government for the next year. The inflation rate for above purpose shall be the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40. Accordingly the Commission has considered an Inflation Index of **8.74%** over FY 2008-09 for FY 2009-10. KESCO has worked out the inflation index @ 7.57% in their ARR /Tariff Petition. Difference in inflation index % can be owed to the timing of filing and release of this Tariff Order. The working of the inflation index is given in the **Table 2-8** below:

**TABLE 2-8: INFLATION INDEX FOR FY2009-10**

Month	Wholesale Price Index			Consumer Price Index		
	2007	2008	2009	2007	2008	2009
Jan	209	218	229	127	134	148
Feb	209	220	228	128	135	148
Mar	210	226	228	127	137	148
Apr	212	229	232	128	138	150
May	212	231	234	129	139	151
Jun	212	237	235	130	140	153
Jul	214	240	239	132	143	160
Aug	214	241	241	133	145	162
Sep	215	242	243	133	146	163
Oct	215	239	243	134	148	165
Nov	216	234	247	134	148	168
Dec	216	230		134	147	
<b>Average</b>	<b>213</b>	<b>232</b>	<b>236</b>	<b>131</b>	<b>142</b>	<b>156</b>
<b>Inflation of Nov. 09 over Nov. 08</b>			<b>5.55%</b>			<b>13.51%</b>
<b>Weighted Average of Inflation (60% *WPI+40%*CPI)</b>						<b>8.74%</b>



## 2.5 POWER PURCHASE COST:

2.5.1 The Power Purchase Cost as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figure approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-9** below:

**TABLE 2-9: POWER PURCHASE COST - PETITION**

Item		FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Bulk Power Purchase Required (MU)	A	2614.0	2664.0	2746.0	2632.0	2776.0
Bulk Supply Tariff ( Rs/Kwh)	B	2.36	2.36	2.47	2.47	2.91
<b>Power Purchase Cost ( Rs Cr)</b>	<b>C=A*B/10</b>	<b>618.5</b>	<b>628.7</b>	<b>678.3</b>	<b>650.2</b>	<b>807.8</b>

2.5.2 For FY 2009-10, the power purchase quantum approved by the Commission has been already determined in **Table 2-7**. The Bulk power purchase so determined has been multiplied by Rs.2.64/kWh Bulk supply tariff as determined in the Tariff Order of UP DISCOMS for FY 2009-10 issued on 31st March, 2010. Power Purchase cost so approved by the Commission for FY 2009-10 is as shown in the **TABLE 2-10** below:

**TABLE 2-10: POWER PURCHASE COST – APPROVED**

Item		FY 2009-10 Projections	FY 2009-10 Approved
Power Purchase (MU)	A	2776.0	2645.3
Bulk Supply Tariff ( Rs/Kwh)	B	2.91	2.64
<b>Power Purchase Cost ( Rs Cr)</b>	<b>C=A*B/10</b>	<b>807.8</b>	<b>697.2</b>

## 2.6 TRANSMISSION & SLDC CHARGES:

### 2.6.1 INTRA STATE TRANSMISSION CHARGES:

2.6.1.1 The Intra State Transmission Charges as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figure approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-11** below:

**TABLE 2-11: INTRA STATE TRANSMISSION CHARGES – PETITION**

Item		FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Bulk Power Purchase Required (MU)	A	2614	2664	2746	2632	2776
Intra State Transmission Tariff ( Rs/Kwh)	B	0.19	0.22	0.19	0.22	0.24
<b>Intra State Transmission Charges ( Rs Cr)</b>	<b>C=A*B/10</b>	<b>50.03</b>	<b>59.23</b>	<b>50.61</b>	<b>57.91</b>	<b>67.46</b>

2.6.1.2 For FY 2009-10, the power purchase quantum approved by the Commission has already been determined in Table 2-7. The Bulk power purchase so determined has been multiplied by Rs.0.126/kWh intra-state transmission tariff as



determined in the Tariff Order of UPPTCL for FY 2009-10 issued on 31st March, 2010. Intra State Transmission Charges so approved by the Commission for FY 2009-10 is as shown in the **TABLE 2-12** below:

**TABLE 2-12: INTRA STATE TRANSMISSION CHARGES – APPROVED**

Item		FY 2009-10	FY 2009-10
		Projections	Approved
Bulk Power Purchase Required (MU)	A	2776	2645.3
Intra State Transmission Tariff ( Rs/Kwh)	B	0.24	0.126
<b>Intra State Transmission Charges ( Rs Cr)</b>	<b>C=A*B/10</b>	<b>67.46</b>	<b>33.22</b>

2.6.1.3 KESCO shall pay the transmission charges payable directly to UPPTCL at the above mentioned rate based on the monthly billing by UPPTCL.

## 2.7 O&M EXPENSES:

2.7.1.1 Operation and Maintenance (O&M) expenses comprise of Employee Costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) Expenditure.

2.7.1.2 The regulation 4.3 of the Distribution Tariff Regulations stipulates:

- “1. The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The O&M expenses for the base year shall be calculated on the basis of historical/audited costs and past trend during the preceding five years. However, any abnormal variation during the preceding five years shall be excluded. For determination of the O&M expenses of the year under consideration, the O & M expenses of the base year shall be escalated at inflation rates notified by the Central Government for different years. The inflation rate for above purpose shall be the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40. Base year, for these regulations means, the first year of tariff determination under these regulations*
- 2. Where such data for the preceding five years is not available the Commission may fix O&M expenses for the base year as certain percentage of the capital cost.*
- 3. Incremental O&M expenses for the ensuing financial year shall be 2.5% of capital addition during the current year. O&M charges for the ensuing financial year shall be sum of incremental O&M expenses so worked out and O&M charges of current year*



*escalated on the basis of predetermined indices as indicated in regulation 4.3 (1)..”*

2.7.1.3 The Distribution Tariff Regulations also provides for bringing the O&M expenses of the utilities to an efficient level. The regulation also provides for the Commission to fix up norms based on circuit kilometres of distribution lines and number of bays in substation and such other parameters, as may be determined by the Commission in due course of time.

2.7.1.4 The Commission has summarised Gross O&M expenditure for past five years based on the actual / unaudited / provisional figures submitted by licensee and as approved by Commission in past Tariff Orders. The details of O&M expenses are given in **TABLE 2-13** below:

**TABLE 2-13: O&M EXPENSES TREND – GROSS FIGURES (Rs. Cr)**

Gross O&M Expenses	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09
<b>Approved</b>					
<i>Gross Employee Cost</i>	44.60	43.83	48.90	59.53	63.40
<i>Gross A&amp;G Expenses</i>	2.00	3.52	1.96	9.85	10.49
<i>R&amp;M Expenses</i>	11.70	11.97	12.47	10.79	11.50
<b>Gross O&amp;M Expenses</b>	<b>58.30</b>	<b>59.32</b>	<b>63.33</b>	<b>80.17</b>	<b>85.38</b>
<b>Actual/ Unaudited/ Provisional</b>					
<i>Gross Employee Cost</i>	45.53	45.72	50.63	55.79	59.58
<i>Gross A&amp;G Expenses</i>	3.24	3.60	3.73	10.77	12.96
<i>R&amp;M Expenses</i>	18.41	17.11	14.36	17.61	17.91
<b>Gross O&amp;M Expenses</b>	<b>67.18</b>	<b>66.42</b>	<b>68.72</b>	<b>84.17</b>	<b>90.45</b>

2.7.1.5 However, the Commission would like to reiterate its opinion that a suitable norm for allowance of O&M expenses could be adopted only after undertaking a thorough study of the O&M expenditure based on the past performances, and the cost drivers of the same, through a separate process. This study also has to be backed by audited information for the past which needs to be made available by KESCO. Only then the true picture of the trend in the O&M expenses may emerge.

Till any such norm for O&M expenditure is determined, the Commission is forced to consider the individual elements of O&M expenditure based on the past trends escalated by an Inflation Index. However for employee cost, the Commission has taken a different view on account of Sixth Pay Commission salary revision impact which is discussed in the following sections.

**2.7.2 O&M EXPENSES ON ADDITIONS TO ASSETS DURING THE YEAR:**

2.7.2.1 In addition to the Employee cost, A&G and R&M expenses approved by the Commission in preceding paragraphs, the regulations provide for incremental O&M expenses on additions to assets during the year @2.5% on additions to gross fixed assets.

2.7.2.2 Based on the above, the incremental O&M expenses for FY 2009-10 work out to Rs. **0.21** Cr as shown in the **TABLE 2-14** below. The same are allocated across the individual elements of the O&M expenses on the basis of the contribution of each element in the gross O&M expenses excluding the incremental O&M charges.

**TABLE 2-14: INCREMENTAL O&M EXPENSES FOR FY 2009-10 (Rs. Cr)**

<b>Incremental O&amp;M Expenses @ 2.5% of capital additions during the year FY 2008-09</b>	<b>Approved for FY 2009-10</b>
Capitalized Assets during FY 2008-09	7.86
Incremental O&M Expenses Approved @ 2.5%	<b>0.21</b>
a) Employee Costs	0.15
b) A&G Expenses	0.03
c) R &M Expenses	0.04

**2.7.3 EMPLOYEE COST:**

2.7.3.1 As discussed in the preceding section **2.7.1.5**, the Commission is treating employee cost for the year under consideration in a different manner on account of Sixth Pay Commission impact.

2.7.3.2 The Employee cost for the FY 2009-10 have been forecast by KESCO based on data / information of FY 2007-08 and FY2008-09 till the date of ARR filing. KESCO has also taken impact of increase in basic salary due to implementation of Sixth Pay Commission. The assumptions & methodology used by KESCO for forecasting the employee cost for FY 2009-10 are detailed out as under:

- Basic Salaries for FY 2009-10 will increase by over 69% from FY 2008-09 costs due to implementation of Sixth Pay Commission recommendations & due to time bound increments and annual increase in pay;
- Dearness Allowance (DA) has been projected at 25% of Basic Salary for FY 2009-10;
- Other allowance has been forecasted to be 8% of the Basic Salary;
- Likewise, medical expenses have been forecasted to increase by inflation index per year from FY 2006-07, taking 3% as contingency;



- Pension and Gratuity have been calculated at 16.7% and 2.38% (i.e., 19.08%) of Basic Salary and Dearness Allowance;
- Leave Travel Assistance & Compensation is assumed to be 0.01% & 0.2% of Basic Pay respectively;
- Staff welfare expenses are assumed to in same ratio as actually incurred in FY 2008-09;
- Employee cost Capitalized has been calculated as 15% of total Employee Costs, which is in line with the policy adopted by the Commission in its last Tariff Order.

2.7.3.3 The Employee cost as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-15** below:

**TABLE 2-15: EMPLOYEE COST - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Basic Salaries	59.53	30.47	62.00	29.67	50.14
Overtime		-		-	-
Dearness Allowance		11.52		15.50	12.53
Other allowances		2.79		2.94	4.01
Bonus / Ex-gratia		1.06		1.25	1.04
Medical expenses reimbursement		0.72		0.68	0.76
Leave travel assistance		0.00		0.01	0.01
Earned leave encashment		1.60		0.79	0.91
Payment under workmen's compensation Act		0.20		0.00	0.10
Staff welfare expenses		0.02		0.13	0.22
Employers Contribution for Pension & Gratuity		1.08		8.62	11.96
Other Terminal benefits		6.32		-	-
Incremental Expenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-	-	1.40	-	-
<b>Gross Employee Expenses</b>	<b>59.53</b>	<b>55.79</b>	<b>63.40</b>	<b>59.58</b>	<b>81.68</b>
<i>Less: Expenses capitalized</i>	<i>8.93</i>	<i>9.02</i>	<i>9.51</i>	<i>8.94</i>	<i>12.25</i>
<b>Net Employee Expenses</b>	<b>50.60</b>	<b>46.77</b>	<b>53.89</b>	<b>50.65</b>	<b>69.43</b>
<b>Capitalisation %</b>	<b>15.0%</b>	<b>16.2%</b>	<b>15.0%</b>	<b>15.0%</b>	<b>15.0%</b>

2.7.3.4 The gross employee cost for FY 2008-09 at Rs. **59.58** Cr have been projected at lower value as compared to the employee cost approved Rs. **63.40** Cr for FY 2008-09 by the Commission in the previous Tariff Order by around 5%. In absence of audited accounts for past years, the Commission has taken into consideration the employee cost of FY 2008-09 for projections for FY 2009-10. Further in absence of any documentary proof to support the claims made by KESCO for FY 2009-10, the Commission is constrained to allow only part of hike being sought by the licensee i.e. 2/3rd of the hike on account of 6th pay revision (**46%** - 2/3rd of **69%**) over FY 2008-09 employee cost. The actual



employee cost for FY 2009-10 on account of the same would be considered by the Commission for approval at the time of true-up process subject to prudence check.

- 2.7.3.5 The other employee cost elements such as dearness allowance, other allowance, LTA, compensation, pension & gratuity etc are approved as mentioned above in accordance with their linkages to basic salary and dearness allowance as applicable.
- 2.7.3.6 Further, the Commission has also acknowledged and approved Bonus, Medical expenses, Earned Leave encashment & Staff Welfare expenses for FY 2009-10 by applying an escalation factor of **8.74%** (inflation index) over the provisional figures of FY 2008-09.
- 2.7.3.7 The Commission thus approves the gross employee cost of Rs. **70.96 cr** for FY 2009-10 including additional employee cost. As mentioned in section **2.7.2**, the Commission has allowed an incremental O&M expenses @ 2.5% of the additions to the assets during the previous year. The allocation of the same to Employee cost is Rs. **0.15 cr** for FY 2009-10 (**Table 2-14**) and is included in gross employee cost mentioned above.
- 2.7.3.8 KESCO has capitalized employee cost @ 15% of the total employee cost which is in line with the policy adopted by the Commission in its last Tariff Order. Thus, the Commission allows capitalization @ **15%** of the total employee cost in consistency with the approach adopted in its previous Tariff Orders. In this regard, the Commission directs KESCO to suggest an appropriate policy on capitalization of salaries and wages within 3 months of the issue of this order. The approved net employee cost after capitalization is Rs. **60.31 cr** for FY 2009-10 as given in the **Table 2-16** below:



**TABLE 2-16: EMPLOYEE COST – APPROVED (Rs. Cr)**

Item	FY 2009-10 Projections	FY 2009-10 Approved
Basic Salaries	50.14	43.31
Overtime	-	-
Dearness Allowance	12.53	10.83
Other allowances	4.01	3.47
Bonus / Ex-gratia	1.04	1.04
Medical expenses reimbursement	0.76	0.74
Leave travel assistance	0.01	0.004
Earned leave encashment	0.91	0.86
Payment under workmen's compensation Act	0.10	0.09
Staff welfare expenses	0.22	0.14
Employers Contribution for Pension & Gratuity	11.96	10.33
Other Terminal benefits	-	-
Incremental Expenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-	0.15
<b>Gross Employee Expenses</b>	<b>81.68</b>	<b>70.96</b>
Less: Expenses capitalized	12.25	10.64
<b>Net Employee Expenses</b>	<b>69.43</b>	<b>60.31</b>
<b>Capitalisation %</b>	<b>15%</b>	<b>15%</b>

2.7.3.9 Further, the Commission in its last Tariff Order for FY 2007-08 & FY 2008-09 had directed KESCO to undertake a fresh actuarial valuation study for employee cost. This study is required for the purposes of re-estimating as the previous study being adopted currently is outdated and require revalidation. The Commission redirects KESCO to submit a report on study on actuarial valuation for employer's contribution towards pension and gratuity within three months from the date of issue of this Tariff Order.

**2.7.4 ADMINISTRATION AND GENERAL EXPENSES (A & G EXPENSES):**

2.7.4.1 A&G expenses are incurred for meeting the day-to-day expenses relating to the administration of its offices, insurance, communication, professional charges, audit fees, advertisement expenses, freight etc. A&G expenses have been projected considering the impact of inflation and need for addition of more substation and offices.

2.7.4.2 The A&G expenses as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-17** below:



**TABLE 2-17: A&G EXPENSES - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Rent, Rates & Taxes	9.85	0.67	10.26	0.01	0.01
Insurance		0.03		0.03	0.04
Telephone, Postage & Telegrams, Telex charges		0.42		0.40	0.43
Consultancy Charges		0.16		0.20	0.22
Travelling		0.08		0.07	0.08
Technical Fees		-		0.01	0.01
Other Professional Charges		-		0.02	0.02
UPERC License fee		-		0.39	0.43
Fee And Subscriptions (Books And Periodicals)		0.20		0.30	0.32
Printing And Stationery		0.31		0.95	1.02
Advertisement Expenses		0.15		0.18	0.20
Electricity Charges To Offices		6.99		7.35	7.91
Miscellaneous Expenses		0.10		0.11	0.12
Billing & Collection Expenses		1.44		2.71	2.91
Legal Charges		0.19		0.22	0.24
Auditor'S Fee		0.01		0.01	0.01
Provision for FBT		0.03		-	-
Other Debits to Revenue Account		0.00		-	-
Incremental Exepenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-	-	0.23	-	-
<b>Gross A&amp;G Expenses</b>	<b>9.85</b>	<b>10.77</b>	<b>10.49</b>	<b>12.96</b>	<b>13.95</b>
Less: Capitalization	1.48	0.58	1.57	1.94	2.09
<b>Net A&amp;G Expenses</b>	<b>8.37</b>	<b>10.19</b>	<b>8.91</b>	<b>11.02</b>	<b>11.86</b>
<b>Capitalisation %</b>	<b>15.0%</b>	<b>5.4%</b>	<b>15.0%</b>	<b>15.0%</b>	<b>15.0%</b>

2.7.4.3 The gross A&G expenses for FY 2008-09 at Rs. **12.96** cr have been projected at higher value as compared to the A&G expenses of Rs. **10.49** cr approved by the Commission for FY 2008-09 in the previous Tariff Order by around 24%. As discussed in the preceding section **2.4.2**, the Commission has approved the A&G expenses for FY 2009-10 based on the escalation factor of **8.74%** over the submitted figures for FY 2008-09. Thus, the same computes to Rs. **14.12** cr for FY 2009-10 including incremental A&G cost allocation. As mentioned in Clause **2.7.2**, the Commission allows incremental O&M expenses @ 2.5% of the additions to the assets during the FY 2009-10. The allocation of the same to A&G expenses is Rs. **0.03** cr for FY 2009-10 (**TABLE 2-14**) and is included in gross A&G expenses mentioned above. However, the Commission appreciates KESCO's commitment to keep costs under control and accordingly approves gross A&G expenses for FY 2009-10 as projected at the level of Rs. **13.95** cr including allocation of incremental A&G expenses.



2.7.4.4 For the purposes of this Tariff Order, capitalization @15% of the total A&G expenses as proposed by KESCO is approved by the Commission. However the Commission directs that KESCO should capitalise the expenditure based on the actual expenses incurred/ projected and based on the past audited accounts in next ARR filing. Further KESCO should have proper accounting system to capture the expenses related to capital schemes rather than assuming a standard %age.

2.7.4.5 The Commission thus approves the net A&G expenses (after capitalisation) at Rs. **11.86** cr as projected by KESCO for FY 2009-10. The approved A&G expenses for FY 2009-10 are shown in the **TABLE 2-18** below:

**TABLE 2-18: A&G EXPENSES - APPROVED (Rs. Cr)**

Item	FY 2009-10 Projections	FY 2009-10 Approved
Rent, Rates & Taxes	0.01	13.92
Insurance	0.04	
Telephone, Postage & Telegrams, Telex charges	0.43	
Consultancy Charges	0.22	
Travelling	0.08	
Technical Fees	0.01	
Other Professional Charges	0.02	
UPERC License fee	0.43	
Fee And Subscriptions (Books And Periodicals)	0.32	
Printing And Stationery	1.02	
Advertisement Expenses	0.20	
Electricity Charges To Offices	7.91	
Miscellaneous Expenses	0.12	
Billing & Collection Expenses	2.91	
Legal Charges	0.24	
Auditor'S Fee	0.01	
Provision for FBT	-	
Other Debits to Revenue Account	-	
Incremental Expenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-	
<b>Gross A&amp;G Expenses</b>	<b>13.95</b>	<b>13.95</b>
Less: Capitalization	2.09	2.09
<b>Net A&amp;G Expenses</b>	<b>11.86</b>	<b>11.86</b>
<b>Capitalisation %</b>	<b>15.0%</b>	<b>15.0%</b>



**2.7.5 REPAIRS AND MAINTENANCE (R&M) EXPENSES:**

2.7.5.1 KESCO has estimated the R&M expenses for FY 2009-10 as 4.50% of opening gross fixed assets for distribution assets in the corresponding year.

2.7.5.2 KESCO has stated that there is an increase in assumption of 4.50 % as the maintenance of distribution network in its area of supply is currently inadequate and is impacting the quality and quantity of power supplied. There has been a substantial increase in raw material and fuel cost & the metal prices have increased phenomenally as compared to past few years. Moreover, KESCO has added a number of transformers, cables, grid substation, etc due to which there has been an increase in the amount of annual maintenance contracts, which has translated into higher R&M expenses. KESCO has further submitted that its R&M expenses cannot be directly compared with other DISCOMS as its distribution network is mostly 33KV and 11KV underground cables and their maintenance cost is around 15-20 times higher than that of an overhead cable network. KESCO has also submitted that it has inherited an aged, weak & inadequate distribution system which has outlived its normal life.

2.7.5.3 Based on the above assumptions, the R&M expenses estimated by Licensee are summarized below:

2.7.5.4 The R&M expenses as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-19** below:

**TABLE 2-19: R&M EXPENSES - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Plant & Machinery	10.79	4.55	11.24	10.11	11.06
Building		2.28		0.54	0.60
Civil works		-		0.01	0.01
Other Expenses		-		-	-
Lines, Cable Network, etc		10.70		5.34	5.85
Vehicles		-		1.73	1.90
Furniture & Fixtures		0.08		0.17	0.19
Office equipment		-		-	-
Incremental Exepenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-		0.25	-	-
<b>Total</b>	<b>10.79</b>	<b>17.61</b>	<b>11.50</b>	<b>17.91</b>	<b>19.60</b>



2.7.5.5 In view of the above, the R&M expenses for FY 2009-10 have been estimated by applying an escalation factor of 8.74% (inflation index) over the figures of Rs. 17.91 cr of FY 2008-09 as submitted by KESCO in line with the provisions of the Distribution Tariff Regulations. The Commission thus approves the R&M cost of Rs. **19.51** cr as against Rs. **19.60** cr projected by KESCO for FY 2009-10. As mentioned in Clause **2.7.2**, the Commission has allowed an incremental O&M expenses @ 2.5% of the additions to the assets during the previous year i.e. FY 2008-09. The allocation of the same to R&M expenses is Rs. **0.04** cr for FY 2009-10 as shown in **TABLE 2-14** and is included in approved gross R&M expenses. Approved cost for FY 2009-10 is shown in the **TABLE 2-20** below:

**TABLE 2-20: R&M EXPENSES - APPROVED (Rs. Cr)**

Item	FY 2009-10 Projections	FY 2009-10 Approved
Plant & Machinery	11.06	19.47
Building	0.60	
Civil works	0.01	
Other Expenses	-	
Lines, Cable Network, etc	5.85	
Vehicles	1.90	
Furniture & Fixtures	0.19	
Office equipment	-	
Incremental Exepenses allowed owing to 2.5% of Capitalised Assets during Previous Year	-	
<b>Total</b>	<b>19.60</b>	<b>19.51</b>

2.7.5.6 The Commission considers repairs & maintenance expenses as critical to operational activities. The approval for these expenses is provisional in nature. The approval of the actual expenses would be undertaken at the time of true-up exercise, subject to prudence check with regards to the spending in R&M works over the year.

## 2.7.6 SUMMARY OF THE O&M EXPENSES:

2.7.6.1 The Commission has mentioned earlier that due to 6th Pay Commission impact, different approach has been adopted for allowing employee cost for FY 2009-10. The Commission would like to state that if the O&M expenses were approved as per Inflation indices only over FY 2008-09 and incremental O&M expenses were allowed, the net O&M expenses for FY 2009-10 after capitalisation under respective heads would compute to Rs. **86.56** cr. The **TABLE 2-21** below provides the computation of net O&M expenses including

additional O&M expenses as per above methodology and also as approved by the Commission.

**TABLE 2-21: SUMMARY OF NET O&M EXPENSES FOR FY 2009-10 (Rs. Cr)**

Item	FY 2009-10 (FY 2008-09+Inflation)	FY 2009-10 Approved
Gross O&M Expenses	<b>98.39</b>	<b>104.42</b>
a) Gross Employee Expenses	64.93	70.96
b) Gross A&G expenses	13.95	13.95
c) R&M expenses	19.51	19.51
<i>Less: Employee Expenses Capitalisation</i>		
<i>Less: A&amp;G Expenses Capitalisation</i>	<i>11.83</i>	<i>12.74</i>
<b>Total</b>	<b>86.56</b>	<b>91.68</b>

2.7.6.2 However as an exceptional year, due to 6th Pay Revision, the net O&M expenses approved for FY 2009-10 is Rs. **91.68** cr inclusive of the allocation for incremental O&M expenses of Rs. **0.21** cr as detailed in the **TABLE 2-14**.

2.7.6.3 KESCO should make efforts to bring down the O&M expenses to an optimum level. The Commission expects KESCO to improve its performance considering the repetitive nature of O&M works and introduction of new technologies. The Commission may review the costs in the future, based on availability of audited information and justifications for Truing up the expenses.

## **2.8 GFA BALANCES AND CAPITAL FORMATION:**

2.8.1 KESCO has computed R&M expenses for FY 2009-10 based on the opening balances of GFA for the year. The assumptions used for projecting GFA and Capital Work-in-Progress (CWIP) by KESCO are as follows:

- The opening GFA and CWIP for FY 2007-08 have been taken as per the opening figures from provisional annual accounts of FY 2007-08.
- For FY 2007-08 & FY 2008-09, 40% of the opening CWIP and 40% of investment made during the year, Employee cost capitalised, A&G expenses capitalised & interest capitalised has been assumed to get capitalised.
- During FY 2009-10, KESCO has considered only the spill-over of previous years Capital Investment program that amounts to Rs. 6.44 cr on account of laying of Aerial Bunch Conductors. Deposit works has been assumed at Rs. 8.11 cr for FY 2009-10. Investment through “deposit work “has not been taken for capital formation as per policy adopted by the Commission in its last Tariff Order.



- For FY 2009-10, 70% of the opening CWIP and 70% of investment made during the year, Employee cost capitalised, A&G expenses capitalised & interest capitalised has been assumed to get capitalised.

2.8.2 The investment plan for FY 2007-08, FY 2008-09 and FY 2009-10 is given in the **TABLE 2-22** below:

**TABLE 2-22: INVESTMENT PLAN - PETITION (Rs. Cr)**

Fund/ Source (In Rs.Cr)		Govt. of UP		PFC		Others	Total
		APDRP	System Improvement	System Improvement	APDRP	Deposit Works	
FY 2007- 08 (Actual Unaudited)	Loan	-	-	-	16.50	-	16.50
	Grant	0.03		-	-	-	0.03
	Equity	-	37.04	-	-	-	37.04
	Deposit Works	-	-	-	-	7.50	7.50
	<b>Total</b>	<b>0.03</b>	<b>37.04</b>	<b>0.00</b>	<b>16.50</b>	<b>7.50</b>	<b>61.06</b>
FY 2008-09 (Submitted)	Loan	-	-	31.27	2.96	-	34.23
	Grant	0.00	0.74	-	-	-	0.74
	Equity	-	55.42	-	-	-	55.42
	Deposit Works	-	-	-	-	4.08	4.08
	<b>Total</b>	<b>0.00</b>	<b>56.16</b>	<b>31.27</b>	<b>2.96</b>	<b>4.08</b>	<b>94.47</b>
FY 2009-10 (Projections)	Loan	-	-	6.44	-	-	6.44
	Grant	-	-	-	-	-	0.00
	Equity	-	-	-	-	-	0.00
	Deposit Works	-	-	-	-	8.11	8.11
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>6.44</b>	<b>0.00</b>	<b>8.11</b>	<b>14.55</b>

2.8.2.1 The corresponding asset capitalisation as given in the petition during the FY 2007-08, FY 2008-09 & FY 2009-10 is given in the **TABLE 2-23** below:



**TABLE 2-23: ASSETS CAPITALISATION – PETITION (Rs. Cr)**

Particulars	Balance 01-April-07	Investments	Interest Capitalized	Employee and A&G Expenses Capitalized	GFA Addition	Depreciation	Balance 31-Mar-08
Gross Fixed Assets	316.55				47.89		364.44
Accumulated Depreciation	155.98					24.22	180.20
Work in Progress	53.03	53.56	3.52	9.60	-47.89		71.83
Particulars	Balance 01-April-08	Investments	Interest Capitalized	Employee and A&G Expenses Capitalized	GFA Addition	Depreciation	Balance 31-Mar-09
Gross Fixed Assets	364.44				71.15		435.59
Accumulated Depreciation	180.20					28.03	208.23
Work in Progress	71.83	90.39	4.78	10.88	-71.15		106.73
Particulars	Balance 01-April-09	Investments	Interest Capitalized	Employee and A&G Expenses Capitalized	GFA Addition	Depreciation	Balance 31-Mar-10
Gross Fixed Assets	435.59				94.14		529.73
Accumulated Depreciation	208.23					33.69	241.92
Work in Progress	106.73	6.44	6.96	14.34	-94.14		40.34

2.8.3 The Commission in its last Tariff Order for the FY 2007-08 & FY 2008-09 had approved the gross fixed assets (GFA) of Rs. **556.51** cr as on 31st March, 2009. The opening balance as per petition for FY 2009-10 is Rs. **435.59** Cr. However, as per the provisional accounts for FY 2008-09, the closing GFA is Rs. **313.88** Cr. As the figure for gross fixed assets flows from the previous years, the Commission has adopted the quantum of GFA from the provisional accounts. Further, the same would be subject to change at the time of true-up for the year.

2.8.4 The Commission would like to state that since the figures are based on the actual unaudited balance sheets, the variation in GFA between the Commission approved figures and the actual figures for FY 2008-09 will be subject to true-up once audited accounts are finalized.

2.8.5 The Commission has scrutinized the investment plan and asset capitalization as submitted by KESCO. As, KESCO has projected no new investments during FY 2009-10 and is only carrying out a meagre Rs. 6.44 cr as investment in PFC system improvement schemes. Thus, Commission approves Rs.6.44 cr in full with



a debt: equity ratio of 70:30. The investments proposed to be carried out under deposit works for FY 2009-10 amounting to Rs. **8.11** cr is also approved by the Commission. However the Commission has not considered investments from deposit/ grants work for the purpose of capitalisation.

2.8.6 The Commission understands that though KESCO has proposed investment plan at very low levels considering business takeover by franchisee, the amount approved herein is subject to true-up at the time of availability of audited accounts.

2.8.7 Accordingly, the Commission approves investments of Rs. **14.55** cr for FY 2009-10 as shown in the **TABLE 2-24** below:

**TABLE 2-24: INVESTMENTS - APPROVED (Rs. Cr)**

Fund/ Source (In Rs Cr)		Govt. of UP		PFC		Others	Total
		APDRP	System Improvement	System Improvement	APDRP	Deposit Works	
FY 2009-10 Projections	Loan	-	-	6.44	-	-	6.44
	Grant	-	-	-	-	-	0
	Equity	-	-	-	-	-	0
	Deposit Works	-	-	-	-	8.11	8.11
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>6.44</b>	<b>0</b>	<b>8.11</b>	<b>14.55</b>
FY 2009-10 Approved	Loan	-	-	4.51	-	-	4.51
	Grant	-	-	-	-	-	0
	Equity	-	-	1.93	-	-	1.93
	Deposit Works	-	-	-	-	8.11	8.11
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>6.44</b>	<b>0</b>	<b>8.11</b>	<b>14.55</b>

2.8.8 The Commission would like to further underline that the licensee has not been following the Distribution Tariff Regulation 2006 in true spirit. The Licensees are required to submit the data and information related to capital investment, for approval by the Commission, in the manner specified in regulation 4.5 of the distribution tariff regulations.

2.8.9 The Commission directs the licensee to submit the investment plan for next year filing strictly in accordance with Distribution Tariff Regulation failing which no investments would be approved in future. The Commission further directs the licensee to submit the progress details regarding the major schemes under implementation for review by the Commission on a quarterly basis.

2.8.10 KESCO has considered different percentages for capitalization of investments for GFA purpose i.e. 40% for FY 2007-08 & FY 2008-09 and 70% for FY 2009-10. In Tariff Order for FY 2007-08 & FY 2008-09; the Commission has also considered



capitalisation % as 70%. In this regard, on closer evaluation of the provisional balance sheets, the Commission has observed that actual capitalisation mentioned in provisional balance sheets is lower than the capitalisation mentioned in the petition figures. Thus, Commission approves 40% as the capitalisation % for the sum of opening WIP, investments made during the year, employee cost capitalized, A&G Expenses capitalized and interest capitalized i.e. 40% of total investments. Thus, the total capitalization approved by Commission is Rs. **68.93** cr as shown in the **TABLE 2-25** below. The prudence check with regards to actual amount will be undertaken at the time of true up.

**TABLE 2-25: CAPITALISATION & WIP OF INVESTMENTS - APPROVED (Rs. Cr)**

Particulars		FY 2009-10	
		Projections	Approved
Opening WIP as on 01.04.2009*	A	106.73	150.67
Investments	B	6.44	6.44
Employee Expenses Capitalisation @ 15%	C	12.25	10.64
A&G Expenses Capitalisation @ 23%	D	2.09	2.09
Interest Capitalisation @ 23% on Interest on long term loans	E	6.96	2.47
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>134.48</b>	<b>172.32</b>
<b>Transferred to GFA (Total Capitalisation)</b>	G= F*70% (Petition) G=F*40% (Approved)	94.14	68.93
<b>Closing WIP</b>	<b>H= F-G</b>	<b>40.34</b>	<b>103.39</b>

\* Approved Opening WIP as on 01.04.2009 has been taken from the provisional balance sheet of FY 2008-09 submitted by KESCO

2.8.11 Considering the total capitalization approved by the Commission for FY 2009-10 as above, the capital formation is given in **TABLE 2-26** below:

**TABLE 2-26: GROSS FIXED ASSETS – APPROVED (Rs. Cr)**

Particulars		FY 2009-10	
		Projections	Approved
Opening GFA as on 01.04.09 *	A	435.59	313.88
Addition to GFA during the year	B	94.14	68.93
Closing GFA as on 31.3.2010	C = A + B	<b>529.73</b>	<b>382.81</b>

\* Approved Opening GFA as on 01.04.2009 has been taken from the provisional balance sheet of FY 2008-09 submitted by KESCO

## 2.9 DEPRECIATION EXPENSE:



- 2.9.1 KESCO has submitted that Depreciation expenses have been determined by applying the rates as specified in the Distribution Tariff Regulations to compute Depreciation Expense at Rs.24.22 Cr, Rs.28.03 cr & Rs.33.69 cr in FY 2007-08, FY 2008-09 & FY 2009-10 respectively.
- 2.9.2 In previous Tariff Order for FY 2007-08 & FY 2008-09; the Commission had approved depreciation expense @ Rs.32.23 cr for FY 2007-08 & Rs.39.63 cr for FY 2008-09.
- 2.9.3 KESCO has computed depreciation at opening GFA balances only. However, the Distribution Tariff Regulations does provide for charging depreciation on a pro-rata basis on assets capitalised during the year. The relevant portion of Regulation 4.9 of the Distribution Tariff Regulation is reproduced as under:
- “4.9 Depreciation:*
- 1. For the purposes of tariff, depreciation shall be computed in the following manner, namely:*
    - a. The value base for the purpose of depreciation shall be the historical cost as provided in the Fixed Assets Register, excluding consumer contribution or capital subsidy/grant utilized for capitalization of the assets.....*
    - e. Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.”*
- 2.9.4 The Commission has allowed the depreciation to be charged during the year in accordance to the above provision. The depreciation is charged for the entire year on the opening GFA and pro-rata basis for the assets capitalised during the year.
- 2.9.5 As mentioned earlier, the opening GFA considered for FY 2009-10 is as per the closing GFA balances of provisional balance sheet for FY 2008-09. The Commission has approved the weighted average depreciation rate as projected by KESCO for FY 2009-10 which works out to be **6.98%** which computes Rs. **24.32** cr as depreciation for FY 2009-10 as shown in the **TABLE 2-27** below:



**TABLE 2-27: DEPRECIATION – APPROVED (Rs. Cr)**

Particulars		Approved
Depreciation Rate (Weighted Avg.)	A	6.98%
Opening GFA as on 01.04.09	B	313.88
Opening Accumulated Depreciation*	C	185.67
Addition to GFA during the year	D	68.93
<b>Depreciation on Opening GFA + Addition during the year</b>	<b>E= B*A+0.5D*A</b>	<b>24.32</b>
Closing Accumulated Depreciation	F= C+E	209.98
Closing GFA	G= B+D	382.81

\* Approved Opening Accumulated Depreciation as on 01.04.2009 has been taken from the provisional balance sheet of FY 2008-09 submitted by KESCO

## 2.10 INTEREST AND FINANCING COST:

### 2.10.1 INTEREST ON LONG TERM LOANS:

2.10.1.1 In addition to the interest on long term loans, KESCO have also projected other interest expenses under the following heads:

- Interest on working capital / short term loans;
- Other interest charges including Overdraft;
- Discount to consumers;
- Interest on consumer security deposits.

2.10.2 The Loan balances as submitted by KESCO for FY 2007-08, FY 2008-09 and FY 2009-10 is given in the **TABLE 2-28** below:

**TABLE 2-28: LOAN BALANCES - PETITION (Rs. Cr)**

Item	FY 2007-08 Actual Unaudited	FY 2008-09 Submitted	FY 2009-10 Projections
GoUP APDRP (through UPPCL)	4.04	4.04	4.04
PFC APDRP	57.32	52.54	46.19
PFC Loan	-	31.27	37.71
From UPPCL (Balance as per transfer of KESA Zone Electricity distribution Scheme, 2000)	110.00	110.00	110.00
Terminal Benefit Liability as per Transfer Scheme and interest accrued and due thereon	132.25	132.25	132.25
<b>Sub-total : Long term Debt</b>	<b>303.61</b>	<b>330.10</b>	<b>330.19</b>
Short Term Debt - PFC STL	-	92.21	-
<b>Total</b>	<b>303.61</b>	<b>422.31</b>	<b>330.19</b>

2.10.2.1 Based on these loan balances, KESCO has interest on long term loans for FY 2007-08, FY 2008-09 & FY 2009-10 as given in the **TABLE 2-29** below:



**TABLE 2-29: INTEREST ON LONG TERM DEBT - PETITION (Rs. Cr)**

Item	FY 2007-08 Actual Unaudited	FY 2008-09 Submitted	FY 2009-10 Projections
GoUP APDRP (through UPPCL)	0.62	0.62	0.62
PFC APDRP	5.03	6.07	5.63
PFC Loan	-	0.77	4.32
From UPPCL (Balance as per transfer of KESA Zone Electricity distribution Scheme, 2000)	-		-
Terminal Benefit Liability as per Transfer Scheme and interest accrued and due thereon	-		-
<b>Total : Interest on Long term Debt</b>	<b>5.65</b>	<b>7.46</b>	<b>10.57</b>

2.10.2.2 The Commission has computed the interest and finance charges for FY 2009-10 based on the approved investment plan. The Commission has considered debt: equity ratio of 70:30.

2.10.2.3 KESCO in its investment plan for FY 2009-10 have only submitted information of residual Capex schemes funded by PFC. The Commission has considered the closing balances of provisional balance sheet for FY 2008-09 as opening balances for FY 2009-10. The interest rates for the loans are thus retained as submitted by KESCO for FY 2009-10.

2.10.2.4 Considering above assumptions, the Commission approves Rs. **10.76** cr for FY 2009-10 as interest on long term debt as shown in the **TABLE 2-30** below:

**TABLE 2-30: INTEREST ON LONG TERM LOAN - APPROVED (Rs. Cr)**

Item	Projected					Approved				
	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
GoUP APDRP (through UPPCL)	4.04	-	-	4.04	0.62	4.04	-	-	4.04	0.62
PFC APDRP	52.54	-	6.35	46.19	5.63	55.50	-	6.35	49.15	5.94
PFC Loan	31.27	6.44	-	37.71	4.32	31.27	4.51	-	35.78	4.20
From UPPCL (Balance as per transfer of KESA Zone Electricity distribution Scheme, 2000)	110.00	-	-	110.00	-	110.00	-	-	110.00	-
Terminal Benefit Liability as per Transfer Scheme and interest accrued and due thereon	132.25	-	-	132.25	-	132.25	-	-	132.25	-
<b>Total : Interest on Long term Debt</b>	<b>330.10</b>	<b>6.44</b>	<b>6.35</b>	<b>330.20</b>	<b>10.56</b>	<b>333.06</b>	<b>4.51</b>	<b>6.35</b>	<b>331.23</b>	<b>10.76</b>



2.10.2.5 Capitalisation % on interest on long term debt, as submitted in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 is given in the **TABLE 2-31** below:

**TABLE 2-31: CAPITALISATION OF INTEREST ON LONG TERM LOAN – PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Interest on Long term Loans	8.55	5.65	11.45	7.45	10.56
Less :Capitalization	1.97	3.52	2.63	4.78	6.96
<b>Capitalization %</b>	<b>23%</b>	<b>62%</b>	<b>23%</b>	<b>64%</b>	<b>66%</b>

2.10.2.6 For FY 2009-10, the Commission has capitalized interest charges on long term loans at the rate of 23%. The Commission directs KESCO to develop a system whereby the actual interest accrued/ incurred till the capital scheme is completed and put to use gets captured in separate account typically called as 'Interest during Construction' (IDC) rather than assuming a standard %age. The approved capitalisation for FY 2009-10 is given in the **TABLE 2-32** below:

**TABLE 2-32: CAPITALISATION OF INTEREST ON LONG TERM LOAN – APPROVED (Rs. Cr)**

Item	FY 2009-10 Projections	FY 2009-10 Approved
Interest on Long term Loans	10.56	10.76
Less :Capitalization	6.96	2.47
<b>Capitalization %</b>	<b>66%</b>	<b>23%</b>

### 2.10.3 OTHER INTEREST AND FINANCE CHARGES:

2.10.3.1 The Interest & finance charges other than interest on long term debt, as submitted in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-33** below:

**TABLE 2-33: OTHER INTEREST AND FINANCE CHARGES - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Interest on Short Term Loans/ Interest on Working Capital	4.77	-	6.62	9.26	4.05
Other interest including OD	-	0.47	-	0.09	0.10
Finance Charges	0.15	-	0.38	0.91	0.03
Discount to Consumers	2.29	3.18	2.48	0.46	0.50
Interest on Consumer Security Deposits	4.94	5.13	5.68	5.85	6.43
<b>Total</b>	<b>12.15</b>	<b>8.77</b>	<b>15.16</b>	<b>16.57</b>	<b>11.11</b>

### 2.10.3.2 INTEREST ON WORKING CAPITAL:



2.10.3.2.1 The Distribution Tariff Regulations 4.8 (2) provides rate of interest on working capital as per bank rate specified by RBI for the relevant year plus a margin decided by the Commission. The prevailing bank rate specified by RBI is 6% per annum and the Commission has approved 5.75% as the margin for FY 2009-10. Thus, the rate on interest on working capital is approved at **11.75%** per annum (RBI rate 6% + Margin 5.75%) which is also equivalent to prevailing SBI Prime Lending Rate (PLR).

2.10.3.3 Further, other interest including interest on overdraft (O/D) facilities, on account of long term loans and working capital are not approved as distribution licensee is entitled to normative interest on working capital to take care of their short term requirements for funds. Thus, the Commission has disallowed other interest on short term loans including Overdraft as KESCO has been allowed interest on normative working capital.

2.10.3.4 The computation of approved interest on normative working capital level for FY 2009-10 is given in **TABLE 2-34** below:

**TABLE 2-34: INTEREST ON WORKING CAPITAL - APPROVED (Rs. Cr)**

S.N	Item	FY 2009-10
		Approved
1	One month's O&M Expenses	7.64
2	One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	1.96
3	Receivables equivalent to 60 days average billing on consumers	154.24
	<b>Gross Total</b>	<b>163.84</b>
	Less:	
4	Less: Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	97.08
5	<b>Net Working Capital</b>	<b>66.76</b>
6	Rate of Interest for Working Capital	11.75%
7	<b>Interest on Working Capital</b>	<b>7.84</b>

#### 2.10.4 DISCOUNT TO CONSUMERS:

2.10.4.1 KESCO has claimed an expenditure on account of the discount offered to consumers to the tune of Rs. **0.50** cr in FY 2009-10. This rebate is given to consumers under different heads like load factor rebate, power factor rebate, etc. As these rebates offered to consumers are part of the tariff approved by the Commission, the same are approved by the Commission to be recovered through the ARR.



### 2.10.5 INTEREST ON CONSUMER SECURITY DEPOSITS:

2.10.5.1 Interest to consumer on security deposits has been computed on the Opening Balance of the Security Deposits at the beginning of the year at the prevailing bank rate of 6% as notified by Reserve Bank of India. The opening balances have been considered as per closing figures of provisional accounts for FY 2008-09 and additions during the year for FY 2009-10 have been considered from the petition for FY 2009-10. The Computation of the same is given **TABLE 2-35** below:

**TABLE 2-35: INTEREST ON SECURITY DEPOSITS - APPROVED (Rs. Cr)**

S. N	Item	FY 2009-10	
		Projections	Approved
1	Opening Balance for Security Deposit	97.03	92.30
2	Additions During the Year	9.57	9.57
3	<b>Closing Balance for Security Deposit</b>	106.60	101.86
4	Rate of Interest	6.00%	6.00%
5	<b>Interest Paid / Payable on Security Deposit</b>	6.43	6.11

2.10.5.2 Accordingly the Commission has approved interest on security deposits for FY 2009-10 at Rs. **6.11 Cr.**

### 2.10.6 FINANCE CHARGES:

2.10.6.1 In the context of other interest and finance charges, the Commission has approved cost of raising finance as 0.5% of the loan draws for the year as submitted by KESCO. This is in line with the stand taken by the Commission in its last Tariff Order for FY 2007-08 & FY 2008-09. Accordingly the Commission has approved Rs. **0.02 cr** as finance charges for FY 2009-10.

### 2.10.7 SUMMARY OF INTEREST AND FINANCE CHARGES:

2.10.7.1 Interest and finance charges (net of capitalization) inclusive of Interest on working capital, interest on consumer security deposits, discount to consumers and other approved interest and finance costs approved by the Commission for FY 2009-10 is given in **TABLE 2-36** below:



**TABLE 2-36: INTEREST & FINANCE CHARGES - APPROVED (Rs. Cr)**

Particulars	FY 2009-10	
	Projections	Approved
Interest on Long term Loans	10.56	10.76
Interest on Working Capital Loans	4.05	7.84
Other interest including OD	0.10	-
Finance Charges	0.03	0.02
Discount to Consumers	0.50	0.50
Interest on Consumer Security Deposits	6.43	6.11
<b>Grand Total</b>	<b>21.67</b>	<b>25.23</b>
<i>Less: Capitalization @ 23% on Long term Loans</i>	6.96	2.47
<b>Net Interest &amp; Finance Charges</b>	<b>14.71</b>	<b>22.76</b>

### 2.11 PROVISION FOR BAD AND DOUBTFUL DEBTS:

2.11.1 The Distribution Tariff Regulations provide for expenses under Bad & Doubtful Debts to the extent of 2 % of the revenue receivables.

2.11.2 KESCO has submitted that provision for bad & doubtful debts are accepted accounting principle even in sector like Banking, the provisioning of un-collectible dues are considered as a normal commercial practice. Therefore, it is a legitimate ARR component and thus, it has made provision for bad and doubtful debts @ 2% of revenue receivables in line with the section 4.4 of Distribution Tariff Regulations.

2.11.3 The Commission in its previous Tariff Orders have stated that it is not averse to allowing some provision for bad and doubtful debts in the course of normal operations of the licensee. However such provisioning needs to be backed up with processes to identify consumers who are not paying and then making adequate attempts to collect from such consumers. Accordingly, the Commission had directed KESCO to form a clear cut 'Bad Debt' policy as defined in Distribution Tariff Regulations.

2.11.4 Provision for bad and doubtful debts as submitted by KESCO in the ARR / Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-37** below:



**TABLE 2-37: PROVISION FOR BAD AND DOUBTFUL DEBTS - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Receivables	-	1,507.29	-	1,602.21	1,658.04
% of provision	-	2%	-	2%	2%
Provision for bad and doubtful debts	-	30.15	-	32.04	33.16

2.11.5 In absence of the compliance of the said directive; the Commission opines that it is inappropriate to approve the Bad & Doubtful debts without a proper policy in place and disapproves Rs 33.16 Cr as claimed by KESCO for FY 2009-10. In this regard, the Commission further directs KESCO to submit ten such sample cases of LT & HT consumers where orders have been issued for writing of bad debts clearly depicting the procedure adopted for writing off bad debts alongwith a policy framework for Commission's approval within a month of issue of this order.

## 2.12 OTHER INCOME:

2.12.1 As per KESCO, Other Income includes incomes such as interest on loans and advances to employee, income from fixed rate investment deposits, interest on loans and advances to licensee and other miscellaneous income from retail sources. For FY 2009-10; Other Income has been forecasted to grow at the rate of inflation index from base figure of FY 2008-09 figures.

2.12.2 Other Income as submitted by KESCO in the ARR / Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-38** below:

**TABLE 2-38: OTHER INCOME - PETITION (Rs. Cr)**

Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
Other Income	2.89	3.12	3.03	2.68	2.88

2.12.3 The Commission approves the Other Income as projected by KESCO at Rs. **2.88** Cr.

## 2.13 RETURN ON EQUITY (RoE):

2.13.1 KESCO has claimed Return on Equity @16% on the equity base as per the Section 4.10 of the Distribution Tariff Regulations. However, in the last Tariff Order for FY



2007-08 & FY 2008-09; Return on Equity was disallowed by the Commission. The Commission had stated that:

*“4.17.3 The Commission takes the above submission by KESCO very seriously and observes that it is reflective of the mind set of the management controlling KESCO which is not at all committed to improving the performance of its operations. The need of the hour for the management is to introspect for the reasons for this non-performance rather than trying to find out lame excuses for its non-performance. Further, considering the small area of operation of KESCO with a favourable consumer mix wherein there are no rural consumers, the Commission firmly believes that there is ample scope for improvement of performance by KESCO. KESCO should target distribution loss levels of 8% which have already been achieved by NPCL, a private distribution company operating in the State. KESCO should appreciate that a reduction of mere 1% in the distribution losses could reduce its power purchase cost (BST + Tx. Charges) by approximately Rs. 9.70 Crores or generate additional revenue of approximately Rs. 9.75 Crores in terms of additional sales even at the average through rate of Rs. 3.55/unit as projected by KESCO for the FY 2008-09 based on the existing tariff. In any case KESCO need to be treated at par with the other government owned distribution companies who have not claimed returns on equity in order not to burden the consumers for their non-performance.”*

2.13.2 In this regard, KESCO has submitted that disallowance of RoE on the grounds that the loss levels of KESCO are higher as compared to other DISCOMS of the state and in particular with NPCL & no other Government owned DISCOMS have claimed return on equity is imprudent as:

- a) KESCO & NPCL has varying consumption profile:
- Domestic consumers accounts for 47% of the total supply of KESCO as compared to 16% for NPCL. Large and Heavy Power consumer accounts for 62% of supply of NPCL, whereas for KESCO; it accounts for 19%.
  - The numbers of consumers in NPCL supply area are barely thirty six thousand, whereas the numbers of consumers in KESCO's supply area are around five lakh.
  - A bigger and denser supply area of KESCO also makes enforcement difficult.
  - KESCO has also submitted that NPCL has high supply (64%) on HT side where losses are minimal in contrast with its area of supply wherein LT supply is predominant. It has also submitted that with the flight of industries from its supply area, the HT: LT ratio has widened in favour of LT supply resulting in rise in technical losses.



- b) KESCO has also submitted that the argument of disallowance of Return on Equity just because no other government owned distribution companies have claimed return on equity is random and inconsistent.
- c) KESCO has further submitted that various financial institutions (like PFC) impose a condition in their loan agreements that KESCO must claim and get approval of return on equity in their Annual Revenue Requirement Petitions. Thus, any disallowance on RoE will result in hampering the Capital Expenditure programmes of KESCO as future disbursements of loans might get held back.

2.13.3 Return on Equity as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 are given in the **TABLE 2-39** below:

**TABLE 2-39: RETURN ON EQUITY – PETITION (Rs. Cr)**

Particulars	FY 2007-08 Actual Unaudited	FY 2008-09 Submitted	FY 2009-10 Projections
<b>Opening Equity Employed</b>	<b>60.00</b>	<b>103.58</b>	<b>159.00</b>
Equity Employed (Based on Actuals)	43.58	55.42	0.00
<b>Closing Equity Employed</b>	<b>103.58</b>	<b>159.00</b>	<b>159.00</b>
<b>Capitalised Assets during the year</b>	<b>47.89</b>	<b>71.15</b>	<b>94.14</b>
Addition to Equity (Portion of Capital Expenditure of Capitalised Assets)	14.37	21.35	28.24
<b>Opening Regulatory Equity</b>	<b>60.00</b>	<b>80.91</b>	<b>102.25</b>
Equity for APDRP	6.54		
Addition to Equity (Portion of Capital Expenditure of Capitalised Assets)	14.37	21.35	28.24
<b>Closing Regulatory Equity</b>	<b>80.91</b>	<b>102.25</b>	<b>130.49</b>
<b>Return Computation</b>			
Return on Equity at the beginning of the	10.65	12.95	16.36
Return on Equity (On addition during the	1.15	1.71	2.26
<b>Total Return on Equity</b>	<b>11.80</b>	<b>14.65</b>	<b>18.62</b>

2.13.4 Based on the above submissions, Commission does find some logic in KESCO's comments and observes that KESCO's comparison with NPCL may not be proper but the fact of the matter is that KESCO's performance as compared to Govt. owned DISCOMS is not better. Infact, KESCO's performance as compared to these DISCOMS is far from satisfactory and this could be easily made out with loss levels as shown in the **TABLE 2-40** below:



**TABLE 2-40: DISTRIBUTION LOSS LEVEL (%)**

DISTRIBUTION LOSS (%)	KESCO	GOVT. OWNED DISCOMS
FY 2008-09 – Petition	29.1%	23.72%
FY 2008-09 – Approved in Tariff Order	25.0%	23.45%
FY 2009-10 – Petition	26.0%	22.32%
FY 2009-10 – Approved in Tariff Order	21.27%	21.27%

Furthermore, KESCO’s consumption mix is better than that of Government owned DISCOMS as KESCO doesn’t even have any rural load. Thus, the Commission has decided to disallow the ROE for this year because of their non-performance in areas of reduction in distribution losses, capital expenditure etc.

**2.14 CONTRIBUTION TO CONTINGENCY RESERVE:**

2.14.1 The Distribution Tariff Regulations provides for contribution to the contingency reserves upto 0.5% of opening GFA to be included in the ARR of licensee. The contingency reserve so created shall be utilized to meet cost of replacement of equipment damaged due to force majeure situations. The Licensee shall invest Contingency Reserve as allowed by the Commission in Government securities. However, the use of such reserve is only with the prior permission of the Commission.

2.14.2 Further, KESCO in its submission has submitted that as there is a substantial revenue gap between ARR and revenue forecast, and in case KESCO claims this component, it will only go to enhance the already large gap and create extra burden on the consumers. In view of the same, KESCO has not claimed any amount under the said component in the present ARR filing.

2.14.3 The Commission considers KESCO’s view and the same shall be subject to true-up based on the audited accounts and the provisions of Distribution Tariff Regulations. The estimated amount on account of Contribution to Contingency Reserve for representation purpose only is given in **TABLE 2-41** below for reference:

**TABLE 2-41: ESTIMATED AMOUNT FOR CONTRIBUTION TO CONTINGENCY RESERVE (Rs. Cr)**

Item	FY 2009-10 Approved
Opening Balance of GFA	313.88
%age Contribution	0.5%
Contribution to Contingency Reserve	1.57



## 2.15 APPROVED ARR SUMMARY:

2.15.1 The ARR summary as submitted by KESCO in the ARR/Tariff Petition for FY 2007-08, FY 2008-09 & FY 2009-10 vis-a-vis the figures approved in Tariff Order for FY 2007-08 & FY 2008-09 are given in the **TABLE 2-42** below:

**TABLE 2-42: ARR SUMMARY – PETITION (Rs. Cr)**

S.N	Item	FY 2007-08 Tariff Order	FY 2007-08 Actual Unaudited	FY 2008-09 Tariff Order	FY 2008-09 Submitted	FY 2009-10 Projections
1	Power Purchase Expenses (incl. PGCIL charges)	618.52	628.69	678.33	650.19	807.83
2	Transmission Charges - Intra state	50.03	50.61	59.23	57.91	67.46
3	Employee cost	59.53	55.79	63.40	59.58	81.68
4	A&G expenses	9.85	10.77	10.49	12.96	13.95
5	R&M expenses	10.79	17.61	11.50	17.91	19.60
6	Interest & Finance charges	20.70	14.42	26.61	24.02	21.67
7	Depreciation	32.23	24.22	39.63	28.03	33.69
<b>8</b>	<b>Gross Expenditure</b>	<b>801.64</b>	<b>802.11</b>	<b>889.19</b>	<b>850.60</b>	<b>1,045.88</b>
<b>Less</b>	<b>Expense capitalization</b>					
9	Employee cost capitalized	8.93	9.02	9.51	8.94	12.25
10	Interest capitalized	1.97	3.52	2.63	4.78	6.96
11	A&G expenses capitalized	1.48	0.58	1.57	1.94	2.09
<b>12</b>	<b>Net Expenditure</b>	<b>789.27</b>	<b>788.98</b>	<b>875.47</b>	<b>834.94</b>	<b>1,024.58</b>
<b>Add</b>	<b>Special Appropriations</b>					
13	Provision for Bad & Doubtful debts	-	30.15	-	32.04	33.16
14	Provision for Contingency Reserve	-	-	-	-	-
15	Prior Period Adjustments	-	-	-	-	-
<b>16</b>	<b>Total net expenditure with provisions</b>	<b>789.27</b>	<b>819.13</b>	<b>875.47</b>	<b>866.98</b>	<b>1,057.74</b>
17	Add: Return on Equity	-	11.80	-	14.65	18.62
18	Less: Non Tariff Income	2.89	3.12	3.03	2.68	2.88
<b>19</b>	<b>Annual Revenue Requirement (ARR)</b>	<b>786.39</b>	<b>827.81</b>	<b>872.44</b>	<b>878.95</b>	<b>1,073.47</b>

2.15.2 In the preceding sections, the Commission has detailed out expenses under various heads as approved by the Commission. The approved ARR for is Rs. **866.32** cr for FY 2009-10 as given in **TABLE 2-43** below.



**TABLE 2-43: ARR SUMMARY – APPROVED (Rs. Cr)**

S.N	Item	FY 2009-10	FY 2009-10
		Projections	Approved
1	Power Purchase Expenses (incl. PGCIL charges)	807.83	697.22
2	Transmission Charges - Intra state	67.46	33.22
3	Employee cost	81.68	70.96
4	A&G expenses	13.95	13.95
5	R&M expenses	19.60	19.51
6	Interest & Finance charges	21.67	25.23
7	Depreciation	33.69	24.32
<b>8</b>	<b>Gross Expenditure</b>	<b>1,045.88</b>	<b>884.41</b>
<b>Less</b>	<b>Expense capitalization</b>		
9	<i>Employee cost capitalized</i>	12.25	10.64
10	<i>Interest capitalized</i>	6.96	2.47
11	<i>A&amp;G expenses capitalized</i>	2.09	2.09
<b>12</b>	<b>Net Expenditure</b>	<b>1,024.58</b>	<b>869.21</b>
<b>Add</b>	<b>Special Appropriations</b>		
13	<i>Provision for Bad &amp; Doubtful debts</i>	33.16	-
14	<i>Provision for Contingency Reserve</i>	-	-
15	<i>Prior Period Adjustments</i>	-	-
<b>16</b>	<b>Total net expenditure with provisions</b>	<b>1,057.74</b>	<b>869.21</b>
17	Add: Return on Equity	18.62	-
18	Less: Non Tariff Income	2.88	2.88
<b>19</b>	<b>Annual Revenue Requirement (ARR)</b>	<b>1,073.47</b>	<b>866.32</b>

## 2.16 COST OF SUPPLY:

2.16.1 Based on the approved ARR, the average cost of supply works out to Rs. **4.16** / kWh (Rs. **866.32** Cr/ **2,083** MUs) for FY 2009-10 as against projected average cost of supply of Rs. 5.23/kWh (Rs. 1073.47 Cr/ 2054 MUs) for FY 2009-10 by KESCO.

## 2.17 WHEELING AND RETAIL SUPPLY:

2.17.1 As per Distribution Tariff Regulations, the annual expenditure of the distribution licensee shall be proportionately allocated towards both Wheeling & Retail Supply Business.

2.17.2 In this regard, KESCO has submitted that since segregation of accounts between Wheeling and retail supply has not yet taken place; therefore it has adopted the basis of allocation of the expenses in line with the methodology used by Commission in its last Tariff Order.



2.17.3 In view of the above, the Commission has decided to continue with the allocation as approved in the Clause 4.22 of the last Tariff Order for FY 2007-08 & FY 2008-09. In this regard, the Commission redirects KESCO to submit the ARR expenses for next ARR & tariff filing by having a proper mechanism for separation of accounts into wheeling and supply function.

2.17.4 The allocation of projected and approved ARR into Wheeling and Retail Supply for FY 2009-10 is given in the **TABLE 2-44** below:

**TABLE 2-44: WHEELING & RETAIL SUPPLY ARR (Rs. Cr)**

Allocation of KESCO ARR for FY 2009-10 into Wires & Supply Business								
Particulars	Allocation %		FY 2009-10 (Projections)			FY 2009-10 (Approved)		
	Wheeling	Supply	Wheeling	Supply	Total	Wheeling	Supply	Total
Power Purchase Expenses	0.0%	100.0%	-	807.83	<b>807.83</b>	-	697.22	<b>697.22</b>
Transmission Charges - Intra stat	0.0%	100.0%	-	67.46	<b>67.46</b>	-	33.22	<b>33.22</b>
Employee cost	60.0%	40.0%	49.01	32.67	<b>81.68</b>	42.58	28.38	<b>70.96</b>
A&G expenses	40.0%	60.0%	5.58	8.37	<b>13.95</b>	5.58	8.37	<b>13.95</b>
R&M expenses	90.0%	10.0%	17.64	1.96	<b>19.60</b>	17.56	1.95	<b>19.51</b>
Interest charges	90.0%	10.0%	19.50	2.17	<b>21.67</b>	22.71	2.52	<b>25.23</b>
Depreciation	90.0%	10.0%	30.32	3.37	<b>33.69</b>	21.89	2.43	<b>24.32</b>
<b>Gross Expenditure</b>			<b>122.05</b>	<b>923.83</b>	<b>1,045.88</b>	<b>110.31</b>	<b>774.10</b>	<b>884.41</b>
<b>Expense capitalization</b>								
<i>Employee cost capitalized</i>	60.0%	40.0%	7.35	4.90	<b>12.25</b>	6.39	4.26	<b>10.64</b>
<i>Interest capitalized</i>	90.0%	10.0%	6.26	0.70	<b>6.96</b>	2.23	0.25	<b>2.47</b>
<i>A&amp;G expenses capitalized</i>	40.0%	60.0%	0.84	1.26	<b>2.09</b>	0.84	1.26	<b>2.09</b>
<b>Net Expenditure</b>			<b>107.60</b>	<b>916.98</b>	<b>1,024.58</b>	<b>100.86</b>	<b>768.34</b>	<b>869.21</b>
<b>Special Appropriations</b>								
<i>Provision for Bad &amp; Doubtful debts</i>	0.0%	100.0%	-	33.16	<b>33.16</b>	-	-	-
<i>Provision for Contingency Reserve</i>	0.0%	100.0%	-	-	-	-	-	-
<i>Prior Period Adjustments</i>	0.0%	100.0%	-	-	-	-	-	-
<b>Total net expenditure with provisions</b>			<b>107.60</b>	<b>950.14</b>	<b>1,057.74</b>	<b>100.86</b>	<b>768.34</b>	<b>869.21</b>
Add: Reasonable Return / Return on Equity	90.0%	10.0%	16.76	1.86	<b>18.62</b>	-	-	-
Less: Non Tariff Income	0.0%	100.0%	-	2.88	<b>2.88</b>	-	2.88	<b>2.88</b>
<b>Annual Revenue Requirement (ARR)</b>			<b>124.36</b>	<b>949.12</b>	<b>1,073.47</b>	<b>100.86</b>	<b>765.46</b>	<b>866.32</b>



## Chapter 3. OPEN ACCESS CHARGES:

### 3.1 BACKGROUND:

- 3.1.1 The Commission has issued Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2004 (in short 'UPERC Open Access Regulations') vide notification no. UPERC/Secy./Regulations/05-249 dated 7.6.05 to operationalize long term and short term open access in State network. The Regulations also provides that effective from 1st April, 2008 any consumer with demand of above 1 MW can avail open access of transmission and distribution systems.
- 3.1.2 State Transmission Utility (Nodal Agency for Long Term Open Access) and State Load Despatch Centre (Nodal Agency for Short Term Open Access) were directed by the said Regulations to develop certain procedures and guidelines under various provisions.

### 3.2 RECENT DEVELOPMENTS:

- 3.2.1 In absence of procedures and guidelines from State Transmission Utility (in short 'STU') and State Load Despatch Centre (in short 'SLDC'), the Commission, on its own motion, has made detailed procedures for long term and short term open access which covers all aspects, which the Regulations direct by way of an amendment. The "Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) (First Amendment) Regulations, 2009 dated 18.6.09", shall come into force from the date it is notified in the Gazette.
- 3.2.2 The said amendment, which includes procedures for Long-Term Open Access and Short-Term Open Access mainly, focuses on:
- i. Operationalisation of long-term and short-term use of intra-State transmission and distribution system by generating companies including captive plants/renewable energy plants, distribution/trading licensees and open access consumers with sustained development of transmission and distribution systems in 'proper and coordinated' manner for conveyance of electricity.
  - ii. Operationalisation of time-block wise accounting of the quantity of electricity transmitted through State grid and stating the responsibilities of STU for weekly metering and of SLDC for scheduling, despatch and energy accounting including UI accounting.



- iii. Requirement of Bulk Power Transmission Agreement for use of transmission network and Bulk Power Wheeling Agreement for use of distribution network for long-term open access transactions.

3.2.3 The Commission has finalized model Bulk Power Transmission Agreement (BPTA) and Supplementary BPTA for availing transmission services of UPPTCL.

3.2.4 The Commission has also finalized model Bulk Power Wheeling Agreement (BPWA) which is to be signed between a distribution licensee and long term customer to agree therein, inter alia, to make payment of wheeling charge, surcharge and additional surcharge, if any, for use of the distribution system.

### **3.3 OPEN ACCESS CHARGES - TRANSMISSION CHARGES:**

3.3.1 The Commission in the Tariff Order for UPPTCL and the 4 distribution licensees dated 31st March, 2010 has determined the Transmission Charges payable by the Open Access users for use of the UPPTCL transmission network for transmission of electricity. Similarly, the Commission had also determined the wheeling charges payable by the Open Access users for utilising the distribution network of the distribution licensees for wheeling of electricity. On the same lines, the Commission in the present order determines the wheeling charges payable for use of KESCO's distribution network for wheeling of energy.

### **3.4 WHEELING CHARGES:**

3.4.1 Clause 2.1 (2) & (3) of the Distribution Tariff Regulations provide that ARR/Tariff filing by the Distribution Licensee shall separately indicate Aggregate Revenue Requirement (ARR) for Wheeling function and Retail Supply function embedded in the distribution function and that till such time complete segregation of accounts between Wheeling and Retail Supply function takes place, ARR proposals for Wheeling and Retail Supply function shall be submitted on the basis of an allocation statement left to be prepared by the distribution licensee to the best of their judgment.

3.4.2 KESCO has submitted the segregation of the distribution ARR into Retail Supply and Wheeling Function as per the methodology adopted by the Commission in last Tariff Order. The approved ARR for KESCO into wheeling function and retail function is Rs. **100.86** cr and Rs. **765.46** cr respectively as detailed in section **2.17**. The retail sales approved by Commission for KESCO are **2,083** MUs as detailed in section **2.2.1**.



- 3.4.3 Based on the same, the wheeling charges for FY 2009-10 are Rs. **0.484** /kWh. The details of the same are given in **TABLE 3-1** below:

**TABLE 3-1: WHEELING CHARGES – APPROVED (Rs. /kWh)**

Details	Units	FY 2009-10
		Approved
Net Approved Distribution (Wheeling Function) ARR	Rs.Cr	100.86
Retail Sales by KESCO	MUs	2,083
Wheeling Charges	Rs/kWh	0.484

- 3.4.4 The Commission in order to encourage Open Access transactions in the State has further tried to segregate the wheeling charges payable by consumers seeking Open Access based on the voltage levels at which they are connected to the distribution network. However, in absence of voltage level wise break-up of expenses and asset details, the Commission has considered an interim allocation of costs at various voltage levels and approved the following wheeling charges payable by Open Access customers based on the voltage level at which they are connected with the distribution network.

- 3.4.5 The charges have been worked out on the assumption that the wheeling expenses at 11 kV voltage level shall be **80%** of the average wheeling charges determined for the Wheeling function of KESCO and that for wheeling at voltages above 11 kV shall be **50%** of the average wheeling charges. The wheeling charges for the short term open access customers remain the same as approved in previous Tariff Order dated 9th July 2010.

**TABLE 3-2: VOLTAGE LEVEL WHEELING CHARGES – APPROVED (Rs. /kWh)**

Details	Units	FY 2009-10
		(Approved)
Connected at 11 kV Voltage Level	Rs/kWh	0.387
Connected above 11 kV Voltage Level	Rs/kWh	0.242

- 3.4.6 In addition to the payment of wheeling charges, the customers also have to bear the wheeling losses in kind. The Commission has been seeking voltage level loss data from the utility but the same has not been forthcoming. Further, it is also logical that the open access customers have to bear only the technical losses in the system, and should not be asked to bear any part of the commercial losses.

- 3.4.7 The Commission has estimated that the technical losses at 11 kV voltage level would be in the range of 8% to 9%, and the technical losses above 11 kV voltage level and upto 132 kV would be in the range of 7% to 8%. Hence, the Commission



has decided that the wheeling loss applicable for Open Access transactions entailing drawal at 11 kV voltage level shall be 8%, and that for drawal at voltages above 11 kV voltage level shall be 7%.

3.4.8 The open access charges and the losses to be borne by the Open Access customers may be reviewed by the Commission on submission of the relevant information by the Distribution licensee.

3.4.9 The wheeling charges determined above shall not be payable if the Open Access customer is availing supply directly from the state transmission network.

### **3.5 CROSS SUBSIDY SURCHARGE:**

3.5.1 The cross-subsidy surcharge for Open Access consumers will be zero as per the computation based on the methodology prescribed by the Commission in the terms of regulations framed by the Commission for determination of tariff for transmission & distribution licensee

3.5.2 However, the impact of migration of consumers from the network of the incumbent distribution licensee on the consumer mix and revenues of a particular distribution licensee shall be reviewed by the Commission from time to time as may be considered appropriate.

### **3.6 ADDITIONAL SURCHARGE:**

3.6.1 For the present order, additional surcharge is determined to be **zero**.

### **3.7 OTHER CHARGES:**

3.7.1 The Open Access Regulations, 2008 notified by CERC specifies:

*“Unless specified otherwise by the concerned State Commission, UI rate for intra-State entity shall be 105% (for over-drawals or under generation) and 95% (for under-drawals or over generation) of UI rate at the periphery of regional entity.”*

And which further provides that:

*“In an interconnection (integrated A.C. grid), since MW deviations from schedule of an entity are met from the entire grid, and the local utility is not solely responsible for absorbing these deviations, restrictions regarding magnitude of deviations (except on account of over-stressing of concerned transmission or distribution system), and charges other than those applicable in accordance with these regulation (such as standby*



*charges, grid support charges, parallel operation charges) shall not be imposed by the State Utilities on the customers of inter-State open access.”*

- 3.7.2 The Commission prescribes to the philosophy specified by CERC for the unscheduled interchange and also rules that the standby, grid support and parallel operations charges shall be **zero** in case of an Open Access customer.



## Chapter 4. TREATMENT TO REVENUE GAP:

### 4.1 REVENUE GAP AS PROPOSED BY KESCO:

4.1.1 KESCO has projected a revenue gap of Rs. 293.34 cr in FY 2009-10 in the ARR petition. The proposal submitted to bridge the revenue gap is given in the **TABLE 4-1** below:

**TABLE 4-1: DETAILS OF REVENUE GAP FOR FY 2009-10 - PETITION**

Particulars	FY 2009-10 (Rs. Cr)
Annual Revenue Requirement	1073.47
Less: Revenue from Existing Tariffs	780.13
Total Revenue Gap for FY 2009-10	293.34
<b>Proposed Sources to Cover the Revenue Gap:</b>	
1. Additional Revenue from Proposed Tariff Increase	150.38
2. Creation of Provisional Regulatory Asset	142.96

4.1.2 The licensee has evaluated the Revenue Gap of Rs.293.34 cr at existing tariff. Licensee has further submitted that it plans to cover a part of this gap i.e. around Rs.150.38 cr through the tariff increase proposed by the state-owned distribution companies in the Tariff Petition for the FY 2009-10 filed on July 30, 2009. The licensee has also submitted that through the appointment of distribution franchisee it expects to bring efficiency in operations to the expected benchmark levels. However, in the interim period, it is not possible for the licensee to recover the residual revenue gap of Rs.142.96 cr.

### 4.2 REVENUE FROM SALE OF POWER AT EXISTING TARIFF FOR FY 2009-10:

4.2.1 The approval of the category wise sales for FY 2009-10 has already been discussed in section **2.2.1**

4.2.2 It is also very pertinent to mention that the licensee has not been providing the category-wise and slab-wise details regarding sales, connected load and number of consumers alongwith the Time of Day (HV-2 category) slab wise consumption which is necessary for the purpose of revenue determination. Hence, the revenue computation has been carried out by the Commission based on best judgement basis.

4.2.3 The Commission vide its Tariff Order for 4 DISCOMS and UPPTCL dated 31st March, 2010 had approved the retail tariffs for different category of consumers of the state. Same tariffs were also made provisionally applicable in the area of



supply of KESCO. The Commission retains the tariffs approved in Tariff Order for 4 DISCOMS and UPPTCL dated 31st March, 2010 for KESCO and approves the same as final tariffs. Based on the, approved tariff rates & existing tariff rates (approved in the last Tariff Order), the estimated revenue for KESCO from the approved sale of power to consumers is given in **TABLE 4-2** below:

**TABLE 4-2: REVENUE FROM SALE OF POWER AT EXISTING TARIFF AND APPROVED TARIFF-FY 2009-10 (Rs. Cr)**

Consumer Categories	Approved Sales (MU)	Revenue at Existing Tariff (Rs Cr)	Revenue at Approved Tariff (Rs Cr)	Extra Revenue from Tariff Increase (Rs Cr)
LMV-1: Domestic Light, Fan & Power	973	304	343	38
LMV-2: Non Domestic Light, Fan & Power	244	122	140	18
LMV-3: Public Lamps	52	23	28	5
LMV-4: Insitutions	36	17	19	2
LMV-5: Private Tube Wells	-	-	-	-
LMV 6: Small and Medium Power	197	81	93	12
LMV-7: Public Water Works	41	18	20	2
LMV-8: S T W and Pumped Canals	-	-	-	-
LMV-9: Temporary Supply	0.71	0.44	0.51	0
LMV-10: Deptt. Emp. and Pensioners	16	2	3	0
HV-1: Non Industrial Bulk Loads	100	42	50	8
HV-2: Large and Heavy Power	423	212	242	30
HV-3: Railway Traction	-	-	-	-
HV-4: Lift Irrigation Works	-	-	-	-
<b>GRAND TOTAL</b>	<b>2,083</b>	<b>823</b>	<b>938</b>	<b>116</b>

#### 4.3 TREATMENT OF REVENUE GAP FOR FY 2009-10:

4.3.1 As per the approved ARR of Rs. **866.32** for FY 2009 - 10 for KESCO, the net revenue gap after considering revenue at existing tariffs as Rs. **822.65** cr is Rs. **43.67** cr as indicated below:

Approved ARR	:	Rs. <b>866.32</b> cr
<u>Less:</u> Revenue at existing tariff	:	Rs. <b>822.65</b> cr
Net Revenue Gap	:	Rs. <b>43.67</b> cr

4.3.2 Based on the approved sales, the revenue from sale of power with approved tariff is Rs. **938.28** cr as against KESCO's estimates of Rs.**930.51** cr (Rs.780.13 cr + Rs. 150.38 cr tariff increase) for FY 2009-10 at proposed tariff. Thus, the tariff increase on account of approved tariff is Rs. **115.63** cr (Revenue from Approved tariff is Rs. **938.28** cr less Revenue from Existing tariff i.e. Rs. **822.65** cr).



4.3.3 The summary of the revenue gap in FY 2009-10 is as given in the **TABLE 4-3** below:

**TABLE 4-3: TREATMENT OF REVENUE GAP FOR FY 2009-10 (Rs. Cr)**

<b>Particulars</b>	<b>FY 2009-10 (Projections)</b>	<b>FY 2009-10 (Approved)</b>
Gross ARR	1,073.47	866.32
Revenue from Existing Tariff	780.13	822.65
<b>Net Revenue Gap</b>	<b>293.34</b>	<b>43.67</b>
Funded Through:		
<b>Revenue from Approved Tariff of 15.04.2010</b>		938.28
<i>Tariff Increase</i>	150.38	115.63
<i>Provisional Regulatory Asset</i>	142.96	
<i>Efficiency Measures</i>		
<b>Net Revenue Surplus Carried Forward</b>	<b>0.00</b>	<b>(71.96)</b>

4.3.4 Thus, the Commission finds that approved tariffs are sufficient to meet the current year ARR and also past gaps, if any. The Commission will adjust the gap/ (surplus), if any, in true-up process.

4.3.5 Further, the Commission feels that there is substantial scope for improvement in the operations of the licensee and if suitable steps are taken by them in this direction it can result in enormous financial savings. These steps could range from;

- a) Savings in power procurement
- b) Enhancement in operational efficiencies
- c) Improvement in collection and distribution losses
- d) Effective Demand Supply Management (DSM)

4.3.6 The Commission in the next Chapter on 'Way Forward' has dealt with DSM in detail and has also mentioned that cost for implementation of such measures will be allowed as pass through in the ARR / Tariff process.



## Chapter 5. WAY FORWARD:

### 5.1 BACKGROUND:

5.1.1 The Commission through its orders on KESCO as well as other distribution licensees have always maintained that implementation of reforms is a never ending exercise that leads power sector of the State on a path of dynamic self sustainable growth.

5.1.2 The Commission does understand that there is multitude of issues plaguing the power sector of the state; which the Commission has tried to address through its various orders. However, notwithstanding the various reforms initiated by the Commission, the speed of implementation of these reforms by the licensees including KESCO has been a worry. This could be gauged from the fact that even after ten years of incorporation of KESCO;

- Autonomy in management is yet to be fully achieved;
- Emphasis on accountability is still inadequate;
- Adequate development of institutional capacity is incomplete;

### 5.2 PROACTIVES MEASURES BY COMMISSISON IN IMPLEMENTATION OF REFORMS:

5.2.1 The Commission, in its endeavour to expedite implementation of the various reforms has taken proactive measures in the following areas;

- Open Access on Distribution Network;
- Execution of Bulk Power Transmission Agreement;
- Power Trading and Market Development;
- Power Exchange;

### 5.3 OPEN ACCESS ON DISTRIBUTION NETWORK:

5.3.1 Besides preparing the procedures for grant of Open Access, the Commission also finalised the model Bulk Power Wheeling Agreement (BPWA) which is to be signed between a distribution licensee and long term customer to agree therein, interalia, to make payment of wheeling charge, surcharge and additional surcharge, if any, for use of the distribution system.

### 5.4 BULK POWER TRANSMISSION AGREEMENT:

5.4.1 The Commission has also prepared & finalised the procedures for grant of Open Access, the Model Bulk Power Transmission Agreement (BPTA) and the Supplementary BPTA that mainly focus on long - term use of Intra - State transmission system by distribution licensees, in a 'proper and coordinated' manner.



## **5.5 POWER TRADING AND MARKET DEVELOPMENT:**

5.5.1 With the power market opening up and in view of power shortage, the development of a strong power trading mechanism is the need of the future. Capacity building and Institutional strengthening is the first step in this direction. This can be achieved with the creation of a Trading Desk for:

- Real time monitoring;
- External information and networking;
- Skill sets development & training;

The Trading Desk must ensure availability & optimum utilisation of power.

5.5.2 Though, the Commission understands that UPPCL procures power on KESCO's behalf. But, considering the growing demand of power in the licensee's area of supply, the Commission expects that KESCO shall be undertaking concrete steps to procure power from the outside. Thus, in this regard, the Commission directs KESCO to submit within 2 months from the date of issue of this Tariff Order the status on development of the Trading Desk.

## **5.6 POWER EXCHANGE:**

5.6.1 The Power Exchanges have vast opportunities which can be availed by KESCO. It could be worthwhile to tap the possibilities available for use of Power Exchanges to meet its power demand. Electricity bought from a power exchange where multiple sellers are available on a common platform shall bring economy in power purchases for KESCO. However, to exploit the potential of the power exchanges to the fullest extent, the utility need to nurture and develop a team with appropriate skill sets. The team participating in the power exchange on behalf of the utility would need to have adequate knowledge of the power sector, the electricity grid code provisions, open access related issues, balancing and settlement of Open Access intra - state and inter – state transactions, metering, availability based tariff regimen, unscheduled interchange mechanism, scheduling dispatch and energy accounting procedures.

## **5.7 OTHER DEVELOPMENTS – NEED FOR THE FUTURE:**

5.7.1 KESCO is on the verge of a new development i.e. take-over of operations by a distribution franchisee. Apart from that, the Commission would also like to highlight here some of the recent developments that have taken place in the power sector which have strived to fulfil the objectives of the Electricity Act, 2003 in its true spirit. The key issues addressed here are of paramount



importance and their implementation and will help the power sector in up in the near future. These issues are as described below:

- Responsibility of the Distribution licensee in a Franchisee Regime;
- Roadmap for reduction of cross subsidy;
- Demand side management;
- Multi Year Tariff (MYT) framework;
- Loss Reduction Strategies.

## **5.8 RESPONSIBILITY OF THE DISTRIBUTION LICENSEE IN A FRANCHISEE REGIME:**

5.8.1 KESCO has appointed a distribution franchisee to take over its business operations in its licensed area of supply, in an attempt to improve the power supply conditions and to pass on the benefits of privatization to the consumers.

5.8.2 Notwithstanding, the fact that this type of arrangement shall be in place shortly, but in no way can, KESCO, the distribution licensee of the area shall shirk way from its duties as laid down in the Electricity Act, 2003 and the policies i.e. National Electricity Policy (NEP) and Tariff Policy are well implemented. KESCO shall continue to be the agency/authority responsible to Commission and compliance of its directives.

5.8.3 Moreover, the license has submitted that Distribution franchisee shall be reducing AT&C losses to about 15% in span of 7 years from the takeover of business operations. In this regard, the Commission does expect that licensee need to come up with a yearly loss reduction trajectory so that the Commission can take cognizance of the trajectory while reviewing the performance of the utility at the time of ARR / True-up exercise.

5.8.4 Further, the current impasse, in which the takeover of business operations is being postponed continuously and new investments required for further reduction of losses and improvement of power supply conditions are being shunned; has resulted in a loss of almost a year of loss reduction measures. In this regard, the Commission does expect that there won't be any co-ordination delays in various timelines being given to KESCO from time to time.

## **5.9 ROADMAP FOR REDUCTION OF CROSS SUBSIDY:**

5.9.1 National Tariff Policy (NTP) lays stress on adopting a  $\pm 20\%$  band across average cost of supply while determining tariffs. Clause 8.3 of the NTP mandates that SERCs need to notify a roadmap to achieve this by 2010 - 11 at the latest.



5.9.2 The Commission has decided to adopt the average cost approach in the current Tariff Order. However, to 'go forward', in the coming years the tariffs for subsidised categories of consumers will have to be increased and aligned to the average cost of supply thereby reducing the cross subsidy levels.

5.9.3 In this regard, KESCO should address the following issues at the time of filing of next ARR / Tariff petition.

- Average cost, Voltage - wise cost and / or consumer category wise cost.
- Roadmap period for reduction of Cross Subsidy.

The tariff petition should be supported by above details and KESCO should try to align the tariffs as per National Tariff Policy.

#### **5.10 DEMAND SIDE MANAGEMENT:**

5.10.1 The gap between demand and supply of electricity is common knowledge. The two obvious ways to reduce it are:

- i. Increase Supply
- ii. Reduce Demand

Increase in supply suffers from following impediments:

- a) Long gestation period that consumes a lot of quality time;
- b) Large scale capital investment required for new / expansion of projects;
- c) Scarce fossil fuels are consumed;

5.10.2 Therefore it is prudent to contain demand through Demand Side Management (DSM) measures. KESCO need to make full utilisation of the available resources in this regard. They should work out strategies with Uttar Pradesh Power Corporation Limited (UPPCL), the State Designated Agency (SDA) to associate with Bureau of Energy Efficiency (BEE) which has been implementing many DSM projects.

5.10.3 To hasten the process of demand reduction, KESCO must create DSM cell with dedicated staff, resources and budget allocations to plan, develop, monitor and implement DSM initiatives on a sustainable basis. In this regard, KESCO is expected to take up the following steps:

- Prepare DSM plan and allocate budget for implementation of the plan.
- Develop & institutionalize bidding mechanism for implementation of DSM projects aimed at savings in terms of MW of load avoided and / or kWh of energy purchase avoided in identified places such as distribution



transformers, feeders, or large bulk consumers like airports, shopping malls, commercial complexes, etc.

- Verification of results of DSM programs / projects through third party or expert(s).
- Consideration of the projected feasible savings through Energy Conservation and Energy Efficiency measures in power procurement plans.
- Capacity building of staff through domestic / international visits to places and exposure to successful DSM projects that have been implemented.
- Utilities may use pre - Identified sources of funds for financing DSM activities.

5.10.4 However, DSM plan should be backed with systematic load research to provide data in terms of expected savings in energy and reductions in demand. This shall also endeavour to provide an insight in to consumer load profile and valuable inputs on cost of service and profitability analysis. This in turn would help KESCO in rate design, load forecasting, load control and load management.

5.10.5 Some of the common measures for DSM that can be taken up are:

- Reduction of Technical & Commercial Losses of Distribution System;
- Energy Efficient Pumps for lifting water;
- Use of CFL / LED lamps in place of Incandescent lamps;
- Energy Efficient Lighting Controls;
- Widespread use of solar water heating system for which capital and interest subsidies are also available;
- Replacement of existing Magnetic Ballasts with use of Electronic Ballasts;
- Automatic Power Factor Controllers;
- Energy Efficient Motors / Fans including water pumping;
- Energy efficient Transformers;
- Energy Audit of large Government / Commercial / Industrial Consumers;

5.10.6 KESCO should also give wide publicity to 'day to day' DSM measures for public awareness on benefits of conservation of electricity. These include:

- Completely switching off AC, TV, Computers and other electrical appliances when not in use;
- Using white paint for roof tops and walls to enhance reflection for energy saving;
- Defrosting of refrigerators for half an hour during peak load period;
- Encouraging replacement of the conventional electric geysers with energy efficient gas geysers.



5.10.7 The effect of Demand Side Management should reflect in lesser purchase of costly power due to effective energy conservation measures. This shall reduce the revenue requirement of KESCO. The cost of such DSM projects would be offset by the savings in power purchase cost due to reduction in demand. This should be represented as a separate cost element which shall be allowed by the Commission as a part of the Annual Revenue Requirement of KESCO.

5.10.8 The benefits of DSM can be summarised as below:

- Reduction in customer energy bills;
- Reduction in peak power prices for electricity.
- Reduction in need for new power plant, transmission & distribution network;
- Reduction in air pollution;
- Reduction in dependency on foreign energy sources;
- Creation of long - term jobs to cater to new innovations and technologies;
- Increasing competitiveness of local enterprises;
- Stimulating economic development;

5.10.9 Moreover, the State Government may consider reduction in taxes on certified energy efficient appliances.

5.10.10 The Commission directs KESCO to forward within a period of two months from the date of issue of this Tariff Order the DPR of at least two or three DSM measures it intends to take up initially, for approval of the Commission.

5.10.11 Further KESCO may refer to the “REPORT ON DSM & ENERGY EFFICIENCY” of the Forum of Regulators issued in September, 2008 for detailed information and guidance.

## **5.11 MULTI YEAR TARIFF FRAMEWORK:**

5.11.1 The Commission on careful evaluation of the tariff system prevalent across the country feels that annual revision of performance norms and tariff might not always be desirable. Hence there is a need for a Multi Year Tariff (MYT) framework wherein a multi - year trajectory is specified for performance parameters and ARR and Tariff is determined on an annual basis.

5.11.2 During the first control period (of five or three years), the performance norms may be specified as close as possible to the actual level of performance in accordance to the Tariff Policy even though better levels may have been



specified in the past and a trajectory of improvement of norms to the desired level shall be set along with adequate incentive and disincentive mechanisms.

5.11.3 For subsequent control periods, the opening levels shall be considered at closing levels specified by the Commission for the preceding control period. Thus, in a way, the MYT framework shall allow the utilities to start afresh.

5.11.4 However, for implementation of the said framework it is to be ensured that firm data is used as a base for the first control period and therefore the licensee, in their own interest, is expected to see that its accounts are audited till the last financial year.

5.11.5 The Commission further directs KESCO to undertake the various benchmarking studies such as energy audit, assessment of Cost of Supply, Load Forecasting Study, O&M expenditure study, Actuarial Valuation study for employee cost etc. for determination of desired performance standards and submit the same to the Commission. However, before conducting the studies, KESCO has to submit within three months from the date of the issue of this Tariff Order the Terms of Reference of study for approval of the Commission.

5.11.6 Six months prior to submission of the MYT petition, KESCO shall have to submit Business Plan and Power Purchase Plan covering following aspects:

- Category-wise sales projections;
- Load growth details;
- Power procurement plan indicating long-term and short-term sources;
- Details of load shedding;
- Capital expenditure and capitalisation plans, financing pattern and impact on related expenses;
- Employee rationalisation etc.

5.11.7 Further, KESCO may also refer to the “REPORT ON MULTI-YEAR TARIFF FRAMEWORK & DISTRIBUTION MARGIN” of the Forum of Regulators issued in November, 2008 for detailed information and guidance.

## **5.12 LOSS REDUCTION STRATEGIES:**

5.12.1 Loss reduction has been the top most priority of KESCO. Numerous measures have been undertaken by utilities across the country to achieve loss reduction.



- 5.12.2 However, over the years it has been observed that losses of utilities fluctuate a lot and it appears that actual loss reduction is at variance with whatever is observed. Then there has always been the issue related to the methodology adopted for loss estimation.
- 5.12.3 Therefore, firmed up figures are needed for evaluation of the losses. Compilation of baseline data should be the starting point for energy accounting and audit. Energy audit has to start from DTs to 11kV feeders to 33/11kV substations of the entire area selected for auditing. Numerous measures that utilities may consider are as follows:
- Sub-Station wise monthly energy balance be examined for loss estimation;
  - Feeder Metering be done to monitor quality of power supplied to the consumers;
  - Installation of smaller capacity Transformers be undertaken at the respective load centers;
- 5.12.4 The Commission directs KESCO to compute the AT&C loss figures considering differential analysis of technical losses, non-technical losses and collection efficiency.
- 5.12.5 The technical and commercial losses are to be monitored separately. In the first control period the MYT trajectory could give a combined target for technical and commercial losses. Further, the MYT trajectory shall be distribution licensee specific.
- 5.12.6 Distribution Loss Study and other benchmarking studies need to be undertaken for implementation of MYT framework. Based on the opening loss levels as derived from the above study long term and short term targets for loss reduction are to be determined to bring down the distribution losses (both technical and commercial) gradually within the acceptable norms of efficiency.
- 5.12.7 The Commission therefore directs KESCO to undertake loss studies for proper segregation of technical and commercial losses on a sample basis for atleast 2 divisions of one / two circles. However, before conducting the studies, KESCO is directed to submit within three months from the date of issue of this Tariff Order the Terms of Reference of the study for approval of the Commission.



5.12.8 Further KESCO may also refer to the “REPORT ON LOSS REDUCTION STRATEGIES” of the Forum of Regulators issued in September, 2008 for detailed information and guidance.

**5.13 CONCLUSION:**

5.13.1 The Commission, through this particular chapter, has touched upon some of the new developments taking place in the power sector. From this it can be seen that there are some areas where KESCO need to further focus its efforts. The Commission can act as a facilitator, but the actual efforts need to be put in by KESCO itself to achieve the desired results.

5.13.2 As has always been the case, KESCO must aim to carry out improvements in service and efficiency and thereby make their area of business an attractive destination for investments in the power sector.



## Chapter 6. DIRECTIONS TO KESCO:

### 6.1 DIRECTIVES FOR KESCO:

6.1.1 The Commission had issued several directives to the licensee in the Tariff Order for FY 2008–09. This chapter deliberates upon the status of compliance of those directives. The Licensee, in their ARR and Tariff petition for FY 2009 – 10, did not provide any status on compliance of the directives. Subsequently, in reply of the detailed deficiency letter No. UPERC/Secy. /D (Tariff)-1049 dated 13th/ 14th October, 2009 submitted the directives status.

6.1.2 The Commission once again directs the licensee to comply with the balance directives issued in the Tariff Order for FY 2008 - 09 and submit to the Commission within one month from the date of issue of this Tariff Order the compliance report along with reasons for non - compliance, if any. The licensee's response / latest status of the directives issued in the last Tariff Order are given in **ANNEXURE III**.

6.1.3 Further, some of the directives issued by the Commission in the present Tariff Order are in continuation or similar to the directives issued in the Tariff Order for FY 2008 - 09. In case KESCO have not complied with the same earlier, it shall be necessary for them to provide reasons for non - compliance and further comply with the same as per the time-lines prescribed in the present Tariff Order.

6.1.4 The directives to KESCO as issued under the present Tariff Order along with the time frame for compliance are given in **TABLE 6-1** below:

**TABLE 6-1: DIRECTIVES**

S. N	Ref.	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order
1	1.4.7	The Commission directs KESCO to expedite the process of finalization of audited accounts and submit the same for true-up exercise.	Next Filing
2	2.3.6	The Commission re-directs KESCO to carry out the energy audit / estimation study with voltage wise break up of distribution losses into technical loss and commercial loss alongwith a 5 year loss reduction trajectory for technical as well as commercial losses based on above study for the consideration of the Commission. KESCO should intimate the Commission with regards	6 months  2 months



S. N	Ref.	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order
		to the progress on the study to be undertaken in terms of the finalised scope of work, whether the study is being undertaken departmentally or help of some experts in the field is being availed, the methodology being adopted for undertaking the study, etc	
3	2.3.7	The Commission directs KESCO to report the status of the metering / meter checking / meter replacement and other such initiatives, for the purpose of bringing down the losses along with the proposed plan to undertake the metering for the remaining points within 1 month from the date of issue of the order. KESCO shall also report the status of the progress on this front to the Commission on a monthly basis along with reasons for deviation from the plan, if any.	1 month
4	2.7.3.8	The Commission directs KESCO to suggest an appropriate policy on capitalization of salaries & wages.	3 month
5	2.7.3.9	The Commission directs KESCO to submit the Fresh Actuarial Valuation Study Report in respect to employee cost.	3 month
6	2.7.4.4	The Commission directs KESCO to capitalise the expenditure based on the actual A&G expenses incurred/ projected to be incurred and based on the past audited accounts. Further, KESCO should have proper accounting system to capture the expenses related to capital schemes rather than assuming a standard capitalisation % age.	Next Filing
7	2.8.9	The Commission directs the licensee to submit the investment plan for next year filing strictly in accordance with Distribution Tariff Regulation failing which no investments would be approved in future.  The Commission further directs the licensee to submit the progress details regarding the major schemes under implementation for review by the Commission on a quarterly basis.	Next Filing  Quarterly
8	2.10.2.6	The Commission directs KESCO to develop a system whereby the actual interest accrued/ incurred till the capital scheme is completed and put to use gets captured in separate account typically called as 'Interest during Construction' (IDC) rather than assuming a standard capitalisation %age.	Next Filing
9	2.11.5	The Commission directs KESCO to submit 10 sample cases of LT consumers where orders have been issued for writing of bad debts clearly depicting the	1 month



S. N	Ref.	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order
		procedure adopted for writing off bad debts alongwith a policy framework for approval.	
10	2.17.3	The Commission redirects KESCO to submit the expenses with a proportionate allocation towards wheeling and retail supply business in the next ARR filing.	Next Filing
11	5.5.2	The Commission directs KESCO to submit the status on development of the Trading Desk.	2 months
12	5.10.10	The Commission directs KESCO to forward the DPR of at least two or three DSM measures it intends to take up initially, for approval of the Commission.	2 months
13	5.11.5	The Commission directs KESCO to undertake benchmarking studies such as Incentive - disincentive mechanism for distribution utilities, energy audit, assessment of Cost of Supply, Load Forecasting Study, O&M expenditure study, Actuarial Valuation study for employee cost etc. for determination of desired performance standards and submit the same to the Commission. Further, KESCO are directed to submit the Terms of Reference of study for approval of the Commission.	3 months
14	5.12.4	The Commission directs KESCO to compute the AT&C loss figures considering differential analysis of technical losses, non-technical losses and collection efficiency.	Next filing
15	5.12.7	The Commission directs KESCO to undertake loss studies for proper segregation of technical and commercial losses on a sample basis for atleast 2 urban and 2 rural divisions of one / two circles. Further, KESCO is directed to submit Terms of Reference of the study for approval of the Commission.	3 months

The Commission would like to mention here that the list given above may not be exhaustive and the licensee is directed adhere to all the directives given in the text of this Tariff Order.



## **Chapter 7. APPLICABILITY OF THE ORDER:**

- 7.1** The retail tariffs as determined under the Commission's Order dated 31st March, 2010 (Case No. 624,625,626,627 & 628 of 2009) shall continue to apply in the area of operations of M/s. KESCO, and shall, unless amended or revoked, till issuance of next Tariff Order.

(Rajesh Awasthi)  
Chairman

Dated: 14th October, 2010  
Lucknow



**ANNEXURE I - DETAILS OF NUMBER OF CONSUMERS, CONNECTED LOAD & SALES - PETITION**

Consumer Categories	FY 2007-08			FY 2008-09			FY 2009-10		
	No of Consumers	Connected Load (kW)	Sales (MU)	No of Consumers	Connected Load (kW)	Sales (MU)	No of Consumers	Connected Load (kW)	Sales (MU)
LMV-1: Domestic Light, Fan & Power	377,312	658,824	807	399,495	904,958	920	412,736	981,700	998
LMV-2: Non Domestic Light, Fan & Power	84,178	233,649	214	86,245	216,559	232	90,406	238,357	255
LMV-3: Public Lamps	19	11,414	39	18	13,294	50	18	13,958	52
LMV-4: Insitutions	821	18,863	118	884	14,809	34	912	16,084	37
LMV-5: Private Tube Wells	-	-	-	-	-	-	-	-	-
LMV 6: Small and Medium Power	6,773	127,978	168	8,582	94,679	187	9,146	105,945	210
LMV-7: Public Water Works	438	10,441	36	720	18,527	41	756	20,425	45
LMV-8: S T W and Pumped Canals	-	-	-	-	-	-	-	-	-
LMV-9: Temporary Supply	-	-	-	-	-	-	-	-	-
LMV-10: Deptt. Emp. and Pensioners	-	-	-	-	-	-	-	-	-
HV-1: Non Industrial Bulk Loads	-	-	-	-	-	-	-	-	-
HV-2: Large and Heavy Power	520	188,290	321	541	161,832	403	584	188,670	457
HV-3: Railway Traction	-	-	-	-	-	-	-	-	-
HV-4: Lift Irrigation Works	-	-	-	-	-	-	-	-	-
Extra State Consumers	-	-	-	-	-	-	-	-	-
<b>GRAND TOTAL</b>	<b>470,061</b>	<b>1,249,459</b>	<b>1,703</b>	<b>496,485</b>	<b>1,424,657</b>	<b>1,867</b>	<b>514,558</b>	<b>1,565,141</b>	<b>2,054</b>



**ANNEXURE II - DETAILS OF NUMBER OF CONSUMERS, CONNECTED LOAD – APPROVED**

<b>No of Consumers &amp; Connected Load Approved for FY 2009-10</b>		
<b>Consumer Categories</b>	<b>No of Consumers</b>	<b>Connected Load (kW)</b>
LMV-1: Domestic Light, Fan & Power	412,736	981,700
LMV-2: Non Domestic Light, Fan & Power	90,438	227,071
LMV-3: Public Lamps	19	14,032
LMV-4: Insitutions	921	16,084
LMV-5: Private Tube Wells	-	-
LMV 6: Small and Medium Power	9,146	94,525
LMV-7: Public Water Works	720	18,527
LMV-8: S T W and Pumped Canals	-	-
LMV-9: Temporary Supply	244	488
LMV-10: Deptt. Emp. and Pensioners	3,268	10,023
HV-1: Non Industrial Bulk Loads	104	38,556
HV-2: Large and Heavy Power	569	167,246
HV-3: Railway Traction	-	-
HV-4: Lift Irrigation Works	-	-
Extra State Consumers	-	-
<b>GRAND TOTAL</b>	<b>518,165</b>	<b>1,568,251</b>



**ANNEXURE III – COMPLIANCES OF LAST TARIFF ORDER’S DIRECTIVES**

S. N	Ref. given in TO for FY 2007-08 & FY 2008-09	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order	Status of Directives (as per FY2009-10 filing & data gaps submission)
1		The Commission directs the licensee to ensure finalization of the accounts for the past years at the earliest and ensure that the finalisation of the Annual Accounts for the future years happens within a reasonable time frame. KESCO is directed to submit the audited accounts for perusal of the Commission along with the next ARR filing	Next ARR Filing	Based on the directive from the Hon’ble Commission the audit of financial statements for the FY 2003-04, 2004-05 and 2005-06 have been completed.
2	2.4.9.1	The Licensee in the filing has not provided information regarding the status of compliance with the Commission’s directives. The Commission directs the licensee to provide the same along with compliance report for directives from the past Tariff Orders within 1 month from the date of issue of this Tariff Order.	1 month	Compliance to UPERC directives is hereby enclosed
3	4.4.6	The Commission directs the licensee to carry out the energy audit studies to determine the voltage wise break up of distribution losses within 6 months from the date of the issue of this Tariff Order. However, the Licensee should intimate the Commission within 1 month from the date of issuance of the Tariff Order the progress made by it to conduct such an study in terms of the finalised scope of work, whether the study is being undertaken departmentally or with the help of some experts in the field, the methodology being	6 months  2 months	Work of energy audit has already being taken up. However study of voltage wise distribution losses require more time. The status report in this matter shall be submitted separately study is being done departmentally





S. N	Ref. given in TO for FY 2007-08 & FY 2008-09	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order	Status of Directives (as per FY2009-10 filing & data gaps submission)
6	4.11.9.3	The Commission also directs the Licensee to carry out a proper cost benefit analysis before taking up any new initiatives and submit the same for the approval to the Commission		Action being taken as per the Commission's directive
7	4.12.10	While approving the investments for the ABC installation scheme, the Commission directs the licensee to submit information to the Commission on a bi-monthly basis with regards to the status of implementation of the scheme and submit information with regards to the benefits accrued on account of the scheme as projected by the licensee in the project report. The report of benefits accrued shall be submitted on a six monthly basis and also along with the next ARR filing	Bi-monthly  6 months/Next ARR filing	Instructions have been issued to the respective units and report to this effect would be submitted to the Commission separately
8	4.12.18	The Commission directs the licensee to submit the investment plan for next year filing strictly in accordance with Distribution Tariff Regulation failing which no investments would be approved in future. As regards to the investments approved for FY 2007-08 and FY 2008-09, the Commission directs the licensee to submit the necessary information required under the Distribution Tariff Regulations approved by the Commission within two months from the issue of this Tariff Order, failing which, the Commission is likely to reverse the approvals given for the years under consideration	Next ARR filing  2 months	No new investments for FY 2009-10 are proposed.



S. N	Ref. given in TO for FY 2007-08 & FY 2008-09	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order	Status of Directives (as per FY2009-10 filing & data gaps submission)
		and the effect of the same may be adjusted in the next tariff determination process. The Commission further directs the licensee to submit the progress details regarding the major schemes under implementation for review by the Commission on a quarterly basis. The Licensee shall get the formats for submission of such information approved by the Commission.	Quarterly	
9	4.13.6	The Licensee is directed to ensure proper and detailed Fixed Assets Registers are maintained at the field offices	Before the Next ARR Filing	Fixed Assets Registers have been prepared upto FY 2007-08.
10	4.15.7	The Commission hereby directs the licensee to form a clear policy as defined in UPERC (Terms and Conditions of Distribution Tariff) Regulations, 2006 with regards to identification and write-off of bad and doubtful debts	3 months	Action being taken as per the directive
11	4.22.5	The commission directs the licensee to submit the expenses with a proportionate allocation towards wheeling and retail supply business in the next ARR filing	Next ARR filing	Expenses with proportionate allocation for wheeling and retail supply business are being submitted separately
12	6.22.2	The Commission directs the licensee to submit the tariff category-wise and tariff slab-wise (including BPL category under LMV-1) details regarding sales, connected load and number of consumers, Time of Day slab wise consumption details with the next tariff filing along with the linked excel based revenue model used by the licensee to estimate the revenue in the year under consideration.	Next ARR filing	It would be submitted shortly



Order on ARR and Tariff Petition for KESCO for FY 2009-10

S. N	Ref. given in TO for FY 2007-08 & FY 2008-09	Description of Directive	Time Period for compliance from the date of issue of the Tariff Order	Status of Directives (as per FY2009-10 filing & data gaps submission)
13		As per provisions of Tariff Regulations, KESCO is directed to submit its long term business plan for perusal of the Commission.	3 months	With the handing over of the operations to the Distribution Franchisee, all distribution functions would be performed by the Franchisee. The Infrastructure Roll-out plan by the franchisee would be submitted to the Commission.
14		In line with its own submission related to inefficient power procurement by UPPCL on behalf of KESCO, KESCO may agitate the issue related to allocation of PPA directly to KESCO before the State Government and intimate the Commission on a quarterly basis about the progress made in this regard.	Quarterly basis	Action being taken as per the directive



## ANNEXURE IV – LIST OF ABBREVIATIONS

List of Abbreviations	
Abbreviation	Description
A & G	Administrative & General
ABC	Arial Bunch Conductor
ARR	Annual Revenue Requirement
A T & C	Aggregate Technical & Commercial
ATE	Apellate Tribunal Electricity
BEE	Bureau of Energy Efficiency
CAGR	Compounded Average Growth Rate
CAPEX	Capital Expenditure
CoS	Cost of Supply
Cr.	Crores
CWIP	Capital Works In Progress
DA	Dearness Allowance
DISCOM	Distribution Company
DPS	Delayed Payment Surcharge
DSM	Demand Supply Management
EA 2003	The Electricity Act 2003
FY	Financial Year
GFA	Gross Fixed Assets
GoUP	Government of Uttar Pradesh
HT	High Tension
KV	Kilo Volt
KVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
kW	Kilo Watt
kWh	Kilo Watt Hours
KESCO	Kanpur Electricity Supply Company
LT	Low Tension
MU	Million Units
MVA	Mega Volt Ampere
MW	Megawatt
MYT	Multi Year Tariff
O&M	Operation and Maintenance
PF	Power Factor
PGCIL	Power Grid Corporation of India Limited
PLR	Prime Lending Rate
PTW	Private Tube Wells
R&M	Repairs and Maintenance



<b>List of Abbreviations</b>	
<b>Abbreviation</b>	<b>Description</b>
RBI	Reserve Bank of India
RoE	Return on Equity
Rs.	Indian National Rupees
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLDC	State Load Despatch Centre
STU	State Transmission Utility
T & D	Transmission & Distribution
TOD	Time Of the Day
TRANSCO	Transmission Company
UI	Unscheduled Interchange
UPPCL	Uttar Pradesh Power Company Limited
UPPTCL	Uttar Pradesh Power Transmission Company Limited
UPERC	Uttar Pradesh Electricity Regulatory Commission
UPSEB	Uttar Pradesh State Electricity Board
w.e.f	with effect from
CPI	Consumer Price Index
WIP	Work In Progress
WPI	Wholesale Price Index