



# MULTAN ELECTRIC POWER COMPANY LIMITED

## FINANCE DEPARTMENT

Phone #: 061-9220095

No. /FDM/Tariff/

5233

Fax #: 061-9220116

Dated: 12/09/2014

The Registrar,  
National Electric Power Regulatory Authority,  
NEPRA Tower, Atta Turk Avenue,  
Sector G- 5/1,  
Islamabad.

Subject: TARIFF PETITION FOR F.Y. 2014-15 – MEPCO (LICENSE # 06/DL/2002)

We are enclosing Tariff Petition for the Financial Year 2014-15. It is therefore, requested to admit attached petition for determination of consumer end tariff of the company for the financial year 2014-15.

It may please be acknowledged.

Eng. Muzaffar Ali Abbasi  
Chief Executive Officer

- DA/ 1. Affidavit in original (one page)  
2. Tariff Petition ( Pages)  
3. Distribution Forecast  
4. O&M Explanatory memo  
5. Calculations & W.A.C  
6. Cost & Service Study

For information & u/g n.  
DR/SAR-J

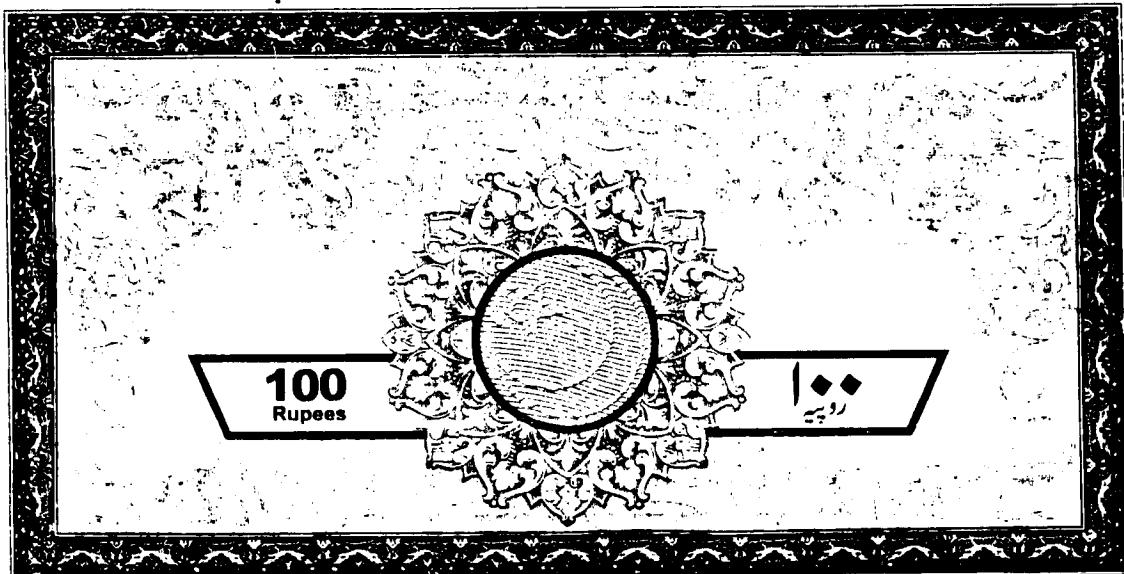
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cc: VC/mCGC  
- m CT  
- m CCA  
- m CRE

Entered	15-09-14	IP/3
By	Ho	7452
Registrar		



**Before the National Electric Power Regulatory Authority**

**Affidavit**

I, Muzaffar Ali Abbasi, Chief Executive Officer, Multan Electric Power Company Limited (Distribution License # 06/DL/2002) being duly authorized representative/ attorney of Multan Electric Power Company Limited, hereby solemnly affirm and declare that the contents of the accompanying petition/application No.FDM/Tariff/5233 dated 14 September, 2014 including all supporting documents are true and correct to the best of my knowledge and belief and that nothing has been concealed. I also affirm that all further documentation and information to be provided by me in connection with the accompanying petition shall be true to the best of my knowledge and belief.

DEPONENT  
Muzaffar Ali Abbasi  
 Chief Executive Officer,  
 Multan Electric Power Company Limited  
 (MEPCO)

Verified on oath this 14<sup>th</sup> day of September, 2014 that the contents hereof are true and correct to the best of my knowledge and belief and nothing has been concealed.

DEPONENT  
Muzaffar Ali Abbasi  
 Chief Executive Officer,  
 Multan Electric Power Company Limited  
 (MEPCO)  
TESTE  
MAILED HEREIN  
MUL



## MULTAN ELECTRIC POWER COMPANY LIMITED

Tele: 061-9210352  
PBX- 9210380-84

Office of the  
Chief Executive Officer

NO. 101 /Company Secy:

Dated 3rd July 2009

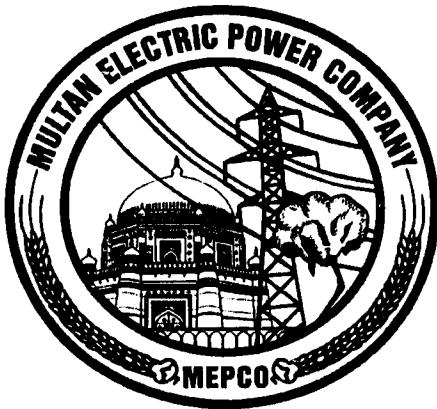
The Finance Director,  
MEPCO H.Q. Multan.

Subject: - **AUTHORIZATION TO CHIEF EXECUTIVE OFFICER TO FILE  
THE TARIFF PETITION**

It is informed that the Board of Directors in its 59<sup>th</sup> Meeting held on July 14, 2009 at MEPCO Head Quarter Multan has passed the below noted Resolution: -

“Resolved that Chief Executive Officer MEPCO be and is hereby authorized to file the Tariff Petition with NEPRA whenever required in future.”

(Engr. Shahbaz Ahmed Khan)  
Company Secretary MEPCO



# **MULTAN ELECTRIC POWER COMPANY LIMITED**

**TARIFF PETITION**

**F.Y. 2014-15**

**DISTRIBUTION LICENSE NO. 06/DL/2002**

**4<sup>th</sup> September 2014**

**MULTAN ELECTRIC POWER COMPANY LIMITED (MEPCO)**  
**TARIFF PETITION**  
**UNDER SECTION 3(1) OF PART II OF**  
**NATIONAL ELECTRIC POWER REGULATORY AUTHORITY**  
**(TARIFF STANDARDS AND PROCEDURE) RULES 1998**

**1. PETITION SUMMARY**

**1.1 The Petitioner**

**Multan Electric Power Company Limited (MEPCO)**

Multan Electric Power Company Limited, hereinafter referred to as MEPCO or Company, is a public limited company having its registered office at 414- Wapda House, Lahore and principal office at MEPCO Head Quarter, Khanewal Road, Multan. MEPCO as a public utility is engaged in distribution/supply of electric power in its licensed service territory comprising of 13 Administrative Districts of Southern Punjab.

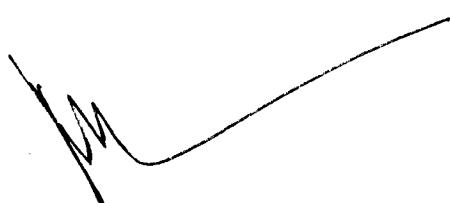
**1.1.1 MEPCO is Represented by:**

• Mr. Muzaffar Ali Abbasi	Chief Executive Officer
• Mian Ansar Mahmood	Finance Director.
• Mr. Rao Ziaurrehman Khan	C.E./ Customer Services director
• Mr. Malik Imtiaz Ahmad	Addl. Customer Services Director
• Mr. Jahangir Bhutta	Manager Finance (CP&C)

**1.1.3 Basis of Petition**

Under NEPRA Act 1997, NEPRA (Authority/Regulator) is responsible for determining tariffs and other terms and conditions for the supply of electricity by the generation, transmission and distribution companies and to recommend these, to the Federal Government for notification. NEPRA is also responsible for determining the process and procedures for reviewing tariffs and recommending tariff adjustments.

MEPCO is a licensee public utility responsible for distribution of electricity to its service area, as set out in MEPCO's Distribution license No. 06/DL/2002, granted by NEPRA under the NEPRA Act. In accordance with the requirements of the license,



MEPCO is hereby submitting a petition to determine tariffs in its license area for the year 2014-15.

This petition is, therefore, being filed under section 3(I) part II of NEPRA Tariff Standards and Procedure Rules 1998.

## 1.2 **Grounds of Petition**

MEPCO tariff has two components i.e pass through cost and distribution margin .The major portion of pass through cost is power purchased which the company must pay on regular basis to ensure continuous flow of power in its distribution system.

Distribution Margin is equally important, MEPCO must earn sufficient distribution margin and adequate stream of cash flow to maintain its system, discharge its financial commitments, invest on the augmentation and expansion of the network and a reasonable return to the sponsors on their investment.

MEPCO is submitting its tariff petition for the Financial Year 2014-15. Following are the factors responsible for filing fresh tariff petition.

- Low DM by not allowing genuine O&M costs.
  - ✓ Provision of Pension benefits for its employees.
  - ✓ Genuine Salary and wages cost of its employees.
- Increase in O&M cost.
- Low tariff rate due to unrealistic line losses.
- Markup cost on loans taken by CPPA to reduce circular Debt and supplemental charges.
- Working Capital requirement.
- Prior period Adjustment.
- Inadequate wheeling charges..
- Just return to sponsors on their investment.

These result in insufficient cash flow making it difficult for the company to :

- Pay for CPPA liabilities.
- Meet other obligations:
  - i. Investment on the system for maintenance and reduction of line losses.
  - ii. Augmentation of the system to cater for growing demand.
  - iii. Expansion of the system.
  - iv. Debt servicing.

## 1.3.0 **Relief sought**

We, therefore, submit to the Authority to seek the following relief.

- Determine consumer end tariff as submitted.
- Accept revenue requirement computed by the company.
- Ensure recovery of required revenue by timely determination.
- Allow adequate O & M.
- Resolution of UOSC
- Acceptance of Investment Plan.
- Any Other relief which the Authority may deem proper.

## **1.3 Key Aims and Features of the Petition**

### **1.3.1 Aims of the Petition**

This tariff petition sets out required revenues and timetable for rebalancing tariffs in MEPCO's distribution area for the year 2014-15. The aim of this petition is to obtain approval for the immediate implementation of cost reflective tariffs to yield MEPCO's required revenues. The implementation of cost reflective tariffs will benefit consumers and MEPCO as it will:

1. Enable the Company to pay its power purchase cost and play its role in mitigation of power shortage.
2. Enable the company to arrange funding to improve service quality and reliability.
3. Enable the company to arrange funds for its network expansion.
4. Provide signals for efficient usage of distribution network and investment
5. Give message for efficient use of electricity.
6. Promote financial sustainability of the company.

### **1.3.2 Features of the Petition**

The purpose of petition is as follows:

- Sufficient average tariff to enable MEPCO to recover prudently incurred operating costs and earn a reasonable return on its regulatory asset base to meet with its cash flow requirements.
- Incentive for MEPCO to make operating efficiencies.

### **1.3.3 Structure of the Petition**

This petition has three distinct components. The first part deals with the tariff methodology. This is the formula as explained in section 2 that will be used to determine MEPCO's distribution margin for the F.Y. year 2014-15 unless there is a fundamental change in the assumptions made. The second part covers the calculation of MEPCO's required revenues during the period. It explains the different components of required revenues including pass through costs (PPP, Income tax etc), operating costs. The third component covers investments costs, regulatory asset base and rate of return.

## **2. Tariff Review Formula and Process**

The tariff formula provides a transparent and predictable way of determining MEPCO's distribution margin on annual basis. A formula is advantageous as it reduces uncertainty for the utility and for customers. It also provides a simple way for NEPRA to provide incentive to the company to reduce losses and/or make operating efficiencies as required.



## **2.1 Tariff Methodology**

### **2.1.1 MEPCO's Margin**

The formula calculates MEPCO's distribution margin based on forecast unit sales, operating expenses, depreciation, investment and return on investment (cost of capital). Generation and transmission cost, built in the invoice from CPPA, are treated as pass-through. The formula determines revenues for the F.Y. year 2014-15. The profits or losses that arise from changes in efficiency or demand would, however, be retained by MEPCO.

Under the proposed tariff-setting methodology, the average retail tariff would consist of (i) the Power Purchase Price (PPP), which would be passed through to the end users in the retail tariff, and (ii) the average distribution margin, which would be set on the formula-based methodology.

#### **2.2.1 Power Purchase Price (PPP)**

MEPCO pays a Power Purchase Price (in Rs/kWh) for the electricity it procures from CPPA or from other sources on behalf of CPPA, which would include the generation and transmission charges (regulated by NEPRA). This Power Purchase Price, adjusted for MEPCO's distribution losses, would then be simply added to MEPCO's overall distribution margin to work out retail tariffs. Thus, the cost of the purchased electricity would be "passed through" to consumers through the retail tariff, *without affecting MEPCO's distribution margin*.

While passing through the PPP, it is recognized that all distribution companies experience some level of distribution losses, defined as the percentage of the difference between the units received by the company and the units invoiced to the consumers. The PPP should thus be adjusted such that MEPCO would be compensated for some losses, without hindering the incentive to eliminate the total losses.

$$\text{PPP} = \frac{\text{Unadjusted PPP}}{1-L}$$

Where:

- Unadjusted PPP is the cost of electricity supply charged by CPPA or any other source at any given time;
- L is the target T & D losses for the year, defined as a percentage of purchased units, in accordance with a schedule established for the control period.

The schedule of losses (Transmission & Distribution) is set to level of 16.50% for Financial Year 2014-15. Thereafter, the target losses will be reset to account any further improvement that may be deemed achievable in subsequent years through



investment in the system and other measures to achieve the target of 16.50% fixed for the current year.

Based on the above formula, the compensation for T&D losses would be automatically adjusted for any changes in the power purchase cost. The schedule of target losses, however, would be maintained for the whole year 2014-15, regardless of the actual T&D losses incurred by MEPCO. Thus, if MEPCO were not able to meet the target loss reduction, it would be penalized by not being able to recover the cost of extra units lost from the retail tariffs. If, on the other hand, MEPCO's actual loss reduction outperformed the target level, it would be able to gain extra revenues from the loss adjustments to the PPP.

### **2.3 Distribution Margin Formula**

The average distribution margin for the financial year 2014-15 would be set in accordance with MEPCO's expected revenue requirements, based on the following formula:

$$\text{Avg. Margin} = \frac{\text{O\&M} + \text{Depreciation} + \text{RORB} - (\text{Amortization} + \text{Other Income})}{\text{Total Unit Sales}}$$

Where:

**2.3.1 O&M** is the expected operating and maintenance cost per kWh , which includes the estimated cost of technical service and repair, necessary materials for operation, employees cost , administration, management and other operating costs related to MEPCO's distribution and supply business. The O&M component for the F.Y. 2014-15 would be established on the basis of forecast demand and inflation. The O&M cost is discussed in detail at Annex-A.

**2.3.2 Depreciation** Depreciation is provided in accordance with the company's policy, which is on straight line method on basis of useful life allocated to each class of asset. The depreciation detail of assets is given at form 13. However, the depreciation has been adjusted to the extent of amortization of deferred credit.

MEPCO in pursuance of policy for power demand management distributed CFLs worth Rs. 793 million. MEPCO has charged depreciation @ 50% as per useful life of CFLs i.e. 2 years.

**2.3.3 Profit Rate Base:** Profit Rate Base is defined as sum of existing fixed assets plus work-in-progress and new investment reduced by accumulated depreciation and deferred credit.

### **2.3.4 Average Rate of Return**

Average rate of return is a pre-tax return on the Profit Rate Base. The average rate of return is calculated under WACC, with cost of equity being calculated under CAPM. The investment is typically financed with a combination of debt and equity, therefore the appropriate rate of return would be a market-based weighted average of the cost of capital. However, Authority has started using post tax return on the plea that Distribution Company is not in profit. The post tax return was also used in determination of FY 2013-14 while quoting loss of Rs. 11 (b) for F.Y. 2012-13 which is not justified, when MEPCO had already posted a profit of Rs. 11.2 (b) for F.Y. 2012-13.

It must be pointed out that the current NEPRA practice of further decreasing this cost of debt by tax rate is erroneous. That tax rate reduction can only be used when tax is a liability of DISCO. In that case DISCO gets a tax shield benefit on interest payments and therefore its effective cost of debt is lowered by tax rate.

However, according to NEPRA tariff regime, taxes are a pass through item and are not absorbed by the DISCO. Therefore, there is no tax shield effect and the DISCO is effectively paying the same cost of debt as has been calculated above. Further reducing this would mean a lower WACC for DISCO than that based on its actual Cost of Debt.

Even for IPPs and other companies, NEPRA allows pass through of actual cost of debt and does not reduce it by tax rate as it realizes that there is no tax shield benefit. Therefore, there is no justification for changing this policy for DISCOs and thus ensuring a financial loss for them.

MEPCO has calculated return on investment @ 17.83% which includes the country risk also. Detail working is given at Annex-B.

- 2.3.5. Total Unit Sales:** A schedule of the total unit sales (in M/KWh) of MEPCO across all customer categories is forecast for the F.Y. year 2014-15. This forecast is used to determine the average distribution margin per unit (Rs/kWh) needed to cover the revenue requirement expected for the year.

#### **Customer-specific retail tariffs will be set as follows:**

$$\text{Category-specific Retail Tariff} = \text{PPP} + \text{Category-specific Distribution Margin}$$

The PPP is the power purchase price. It reflects the amount paid by MEPCO to CPPA. Since it is difficult to estimate future PPP with precision, the PPP is based on the Average PPP actual billed by CPPA during the financial year 2013-14. This will become the reference PPP for setting the tariff rate.



### **2.3.6. Working Capital requirement working is given as hereunder:**

One month PPP inclusive of GST and one and a half month O&M	Rs. 8,000 (m)
Rate of mark up (KIBOR+3%)	13%
Amount of markup	Rs. 1,040 (m)

### **2.4 Other Proposals**

**Exclusion of LPS from other income for tariff purposes** is required as the delay and nonpayment by consumers has become a major problem for the sector which has ultimately swelled the receivable of power distribution companies and in case of MEPCO we have had a huge increase in receivables pertaining to agriculture but the LPS charged on their bills will again benefit them and MEPCO will be left holding the all repercussions on delayed payment by consumers.

Furthermore, CPPA has been constantly issuing debit advices to MEPCO on account of supplemental charges paid by it to power generators. This has become a huge amount of Rs 9.6 (B) hanging between CPPA and MEPCO. This cost is principally paid by CPPA due to delay in its payments to power generators, similarly power distribution companies levy late payment surcharge on its non regular paying consumers but that same amount is again allowed for benefit of consumers by decreasing D.M. to that extent. The regulator has to ensure that whole sector works in an efficient manner and any party not fulfilling its duties is discouraged from doing so, but the regulator in its policy to include this in other income is again giving benefit to also those consumers which defaulted.

Therefore, it is prayed that the exclusion of LPS from other income be granted to promote equity between all stakeholders of the sector.

**2.5. Approval of Loan allocated to Mepco by CPPA** is required as CPPA through PHPL has taken loans to pay outstanding receivables of power generators which were basically payable by power distribution companies. The existence of such a heavy amount in sector in shape of circular debt was hindering in smooth operation of sector as a whole. These payables to CPPA are due to host of reasons like delayed determination of tariff and FPA, litigation in courts etc.

The loan of Rs 136 (B), Rs. 82 (B), Rs. 15 (B) and Rs. 6 (B) has been apportioned by CPPA which for MEPCO comes out to be Rs18.468 (B), Rs. 11.098 (B), Rs. 2.030(B) and Rs.0.8 (B) respectively. Its financial cost per year comes out to be about Rs 2.5(B) which may please be allowed by NEPRA

### **2.6.Revision of Retail Tariff**

While it is important for MEPCO to have certainty about the period of the review, of greater importance is the existence of clear rules about the procedures for re-setting tariffs.

Based on the methodology discussed above, possible adjustments to retail tariffs are strictly limited to the following items:

Scheduled Change in Distribution Margins: The retail tariff is subject to revision warranted by fundamental changes in the basic assumptions formulating tariff formula.

Changes in PPP: At any point in time, changes in the Power Purchase Price (e.g. due to fuel cost adjustments) would automatically result in a corresponding change in retail tariffs on monthly basis.

Inflation Adjustments: The O&M component of the distribution margin would be automatically adjusted for exceptional inflation.

## **2.7. Adjustment of PPP**

It is proposed that instead monthly adjustment of only EPP and that without loss adjustment may please be replaced in the full PPP adjusted with regulator approved loss target.

This methodology will not only stream line the cash flow of Power Distribution Companies but it will also reduce the Authority's calculation of quarterly determinations on these issues with issue pertaining to adjustment of variable O&M pending for quarterly adjustment.

## **2.8. NON PAYMENT OF UOSC**

MEPCO is situated in an area where major thermal generation of country takes place and NTDC does not evacuate all power directly from these power plants resultantly MEPCO transmission assets are used and for this service mepco has been allowed use of system charges but regrettfully the UoSC claims by MEPCO has not been catered for by other Companies despite the fact that these are also the licensee of NEPRA. The regulator while allowing 15% target duly supported by studies acknowledges this loss impact of 1.1% and decides that its compensation will be made through these payments but these payments never materialize. MEPCO currently has issued UoSC claims amounting to Rs. 9442 (m) for the period from F.Y. 2009-10 to F.Y. 2013-14 (March 2014). It is therefore again requested to resolve this long outstanding issue of MEPCO.



## **2.9. INADEQUATE WHEELING CHARGES**

NEPRA has allowed private to private sale of power where MEPCO will only act as transporter of power for the power generator. MEPCO raised number of issues in this regard , however the issue of just and adequate wheeling charge for this transaction needs to be decided through NEPRA determination and MEPCO did bring this issue up in its tariff review motion but the same has not been addressed in review motion determination. Therefore, the same is again submitted before regulator so that MEPCO does not suffer any loss in this regard.

The current wheeling charges formula does not cover the losses incurred by power wheeler in wheeling of power as evident from formula already given by NEPRA. Whereas NEPRA has been allowing these losses for general consumers but the same has not been allowed for this arrangement. Furthermore, it has been observed that in countries other than Pakistan where this arrangement is allowed, losses in wheeling of power have been allowed to power wheeler. Therefore, it is submitted that technical losses for each level( i.e 132 kv and 11 kv ) for wheeling of power may also be allowed to save MEPCO from loss in this regard.

## **3. PRIOR PERIOD ADJUSTMENT**

MEPCO has following issues whose cost needs to incorporated in tariff recovery.

- a. Mark Up on Loan allocated
- b. Supplemental Charges
- c. Cash Loss
- d. Stuck up arrear of Tubewell Consumers
- e. Depreciation on CFLs.

### **a. Markup On Loan allocated**

The power sector is experiencing acute liquidity crunch during which resulted in taking loans in order to bridge the gap of shortage of cash so that load shedding can be mitigated. The CPPA has given share from these loans to MEPCO but cushion for markup on these loans in tariff. Therefore, markup cost on these loans amounting to Rs. 6920 (m) is requested to be allowed as well as allowing the same for F.Y. 2014-15.



### **Mark up**

Year	Amount (Rs. Mill)
2012-13	2,379
2013-14	<u>4,541</u>
Total :-	<u>6,920</u>

### **b. Supplemental Charges**

The power distribution company bills amount of electricity sold to consumers and if the consumer does not pay the same to power distribution company then late payment surcharge is levied on them but regulator, while determining the tariff includes LPS as other income and effectively gives back the penalized amount to the consumer thus nullifying the penalty. Whereas, CPPA due to delay in funds for payment to IPPs is faced with penalties which in turn are allocated by CPPA to DISCOs as supplemental charges but MEPCO can not entertain these charges as there is no cushion of same in tariff. Detail is given below:

Year	Amount (Rs. Mill)
2009-10	968
2010-11	3,565
2011-12	2,844
2012-13	<u>2,223</u>
Sub-Total:-	<u>9,600</u>

### **c. Cash Loss**

NEPRA has disallowed salaries from F.Y. from F.Y. 2009-10 onward with a view that new induction cost be not given being not approved from regulator and MEPCO suffered cash loss of Rs. 727 (m) in this regard. Whereas, MEPCO working under (under Audit) clearly shows, that MEPCO saved employees cost, even after adjustment of recruitment cost with retirees cost.



d. **Stuck up of Arrear of Tubewell consumers**

Regulator does not allow any non recovery but MEPCO having large Tube Well consumers have been on a receiving end of Kissan Ittehad and has not been able to recover these stuck up arrears from Tube Well consumers upto a year. It is therefore, requested that these stuck arrear be also allowed in tariff as a onetime adjustment.

e. **Depreciation of CFLs**

MEPCO invested Rs. 793 (m) on CFLs and distributed among the domestic consumers as per GOP energy conservation policy. The life of CFLs is about two years. MEPCO has to book this expenditure in two years which comes to about Rs.400 (m) for F.Y.2013-14 is now being claimed in PYA as depreciation of CFLs on its useful life.

<u>Summary of Prior Period</u>	<u>Rs. Million</u>
Markup	6,920
Supplemental Charges	9,600
Cash Loss	727
Stuckup of arrears of tubewell consumers	5,881
Depreciation on CFLs	400
<b>Total:-</b>	<b>23,528</b>

Markup	6,920
Supplemental Charges	9,600
Cash Loss	727
Stuckup of arrears of tubewell consumers	5,881
Depreciation on CFLs	400
<b>Total:-</b>	<b>23,528</b>

**Sales Mix**

MEPCO has claimed claim of Rs.2169 (M) under sales mix variance due to increase in life line consumer during 2013-14.

**4. Investment**

MEPCO has proposed investment plan for F.Y. 2014-15 for Rs. 20,458 (m) detail given below:

	Amount (Rs. In Million)
STG	9767
DOP	2407
ELR	625
ELR (Replacement of 2 Leg Transformers)	350

ELR (Replacement of overloaded Transformers)	350
Consumer contribution	2,310
Deposit Work Including V.E.	2,100
Vehicles and Others	310
ERP	240
USAID Support Programme	<u>2,000</u>
<b>Total:-</b>	<b><u>20,459</u></b>

#### **4.1. STG**

STG investment is comprised of ADB Loan works agreed under load agreement under Tranche II, III and IV for Rs. 3024 (m), Rs. 1000(m) under sixth STG programme, Rs. 1510 (m) for connectivity to Captive Power Producers and Solar Park at BahawalPur, Rs. 132 (m) under PM package southern Punjab, Rs. 600 (m) for other works and Rs. 3501 (m) Transmission Line.

#### **4.2. DOP**

DOP includes Rs. 600(m) for works under PSDP and Rs. 1807 (m) for extension of the system.

#### **4.3. Consumer Contribution**

The amount received from the consumers for installation new connection.

#### **4.4. Deposit Work**

Deposit work is mainly based on the proposed village electrification programme by the Federal, Provincial and Local Governments, Electrification of Colonies etc.

### **5. SUBMISSION**

In the end NEPRA is requested to allow MEPCO its tariff determination sought, at its earliest so that MEPCO is able to pay power purchase cost, discharge its O&M cost for smooth operation and pursue its development plans for 2014-15 in order to serve better to its consumers.



Annex-A

# **Operating & Maintenance**

## **Expenses**

**F.Y. 2014-15**

## MULTAN ELECTRIC POWER COMPANY LIMITED (MEPCO)

### OPERATING AND MAINTENANCE

Distribution Margin comprises of O&M, depreciation and RORB. The O & M component is very important part of the D.M. and sufficient O & M is very essential to run the affairs of the company smoothly, which is briefly discussed below:

### COMPARISON OF OPERATING AND MAINTENANCE EXPENSES

Rs. In Million

DESCRIPTION	Estimated Actual F.Y 2014	Required for F.Y. 2015	VARIATION
Salaries and Benefits	8837	9924	1087
Repair And Maintenance	986	1300	314
Traveling Expenses	617	600	(17)
Vehicle Expenses	346	346	-
Other Expenses	657	1177	520
<b>Total:-</b>	<b>11443</b>	<b>13347</b>	<b>1904</b>

### O & M Expenses

The MEPCO requirement for Operating and Maintenance expenses for the financial year 2014-15 is Rs. 13347/- million against actual expenses of Rs. 11443/- million. The brief head wise detail is re-produced below and discussed against relevant head.



**Rs. In Million**

<b>DESCRIPTION</b>	<b>Actual (Audited)</b>	<b>Actual (Audited)</b>	<b>Actual (Audited)</b>	<b>Actual (Audited)</b>	<b>Actual (Audited)</b>	<b>Estimate Actual</b>	<b>Project</b>
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Employees Cost	3443	4433	5696	6994	8950	8837	9924
Repair and Maintenance	466	598	821	952	1007	986	1300
Travelling Expenses	216	239	381	406	675	617	600
Transportation	211	238	253	288	310	346	346
<b>Sub Total</b>	<b>4336</b>	<b>5508</b>	<b>7151</b>	<b>8640</b>	<b>10942</b>	<b>10786</b>	<b>12170</b>
Rent rates and taxes	7	11	11	15	14	16	20
Telephone and postage	27	29	29	28	33	36	43
Power light and water	35	37	44	48	48	54	60
Office supplies and other expenses	57	78	87	90	150	107	160
Insurance	7	6	11	11	17	17	22
Professional fee	17	27	46	51	50	29	60
Computer and outside services (Bill Distribution)	14	20	28	38	39	46	154
outside services (Janitorial Services)						0	55
Electricity bills collection charges	252	271	278	289	315	311	331
Management fees	25	10	34	21	25	25	40
Authority overheads	50	19	21	0	0	0	0
ERP implementation						0	55
Other charges	33	258	147	177	158	16	177
<b>Sub Total</b>	<b>524</b>	<b>766</b>	<b>736</b>	<b>768</b>	<b>849</b>	<b>657</b>	<b>1177</b>
<b>TOTAL</b>	<b>4860</b>	<b>6274</b>	<b>7887</b>	<b>9408</b>	<b>11791</b>	<b>11443</b>	<b>13347</b>
Prov. For bad debt		472	896	1594			

### **EMPLOYEES COST**

#### **Salaries Wages and Benefits**

It includes salary; house rent allowance, cash medical, adhoc allowance etc. employee's benefits. The Government of Pakistan has allowed 10% adhoc relief in annual budget for F.Y. 2014-15 and the same is to be allowed by MEPCO to its employees. Similarly 3% increase assumed from December 2014 and onward as annual increment and Rs. 275 million for new induction and proposed Bonus of Rs. 300 million. On this assumption of Salary, allowances and benefits comes to Rs. 6647/- million as shown in table below.

**Rs. In Million**

Description	2009-10	2010-11	2011-12	2012-13	Estimated Actual 2014	Projected 2014-15
Basic Pay	1231	1342	2174	2426	2545	2722
Allowance	1128	2100	1819	2418	2686	3200
Employee Benefits	315	387	474	554	633	725
Total	2674	3829	4467	5398	5864	6647
% Increase	16.81	43.19	16.66	20.84	08.63	13.35

### Employee's Retirement Benefits.

The employee's retirement benefits are based on actuarial valuation made by actuarial firm as detailed below in the table. It is further added that the provision for retirement benefits are provided for those employees who are on regular cadre. The recruitments made on contract basis after approval of the Government, provision of such employees has not been included in the above provision. Our submission to the Authority is to allow the Rs. 3277- million for retirement benefits.

Rs. In Million

Description	2009-10	2010-11	2011-12	2012-13	Estimated Actual 2014	Projected 2014-15
Pension	1241	1507	1681	2556	2330	2563
Medical	119	264	308	167	183	207
Utility Expenses	240	156	177	311	274	302
Leave Encashment	160	80	360	230	186	205
Total	1759	2009	2525	3264	2973	3277
% Increase	88.89	14.21	25.68	29.27	(1.00)	10.22
WAPDA pensioners					236	260

MEPCO is going for actuarial valuation and any change will be submitted on receipt of report.

### Repair and Maintenance.

The repair and maintenance expenses have been assumed at Rs. 1300/- million which is 31.85% above as compared to last year. As per normal practice the maintenance expenses are incurred @ 3.5% of the net fixed assets which comes to Rs.2113/- million but MEPCO has proposed 2.15 % of the amount of net fixed assets simply not to over burden the consumers. The Authority is requested to allow Rs. 1300/- million for financial Year 2014-15 for R&M.

Description	2009-10	2010-11	2011-12	2012-13	Estimated Actual 2014	Projected 2014-15
Offices & Residential Building	18	21	23	26	30	35
Grid Stations	33	52	67	45	45	250
Transmission Lines	6	5	4	4	8	50
Distribution Transformers	161	253	456	540	370	375
Service Drops	83	132	101	117	185	200
Meters etc.	286	345	284	247	318	350
General Equipments	6	8	11	21	15	30
Others	5	5	6	7	15	10
<b>Total</b>	<b>598</b>	<b>821</b>	<b>952</b>	<b>1007</b>	<b>986</b>	<b>1300</b>

### **Travelling Expenses.**

The MEPCO has the largest network in the country, the employees have to travel to attend the complaints, maintain the system to ensure the continuous supply and other matters for which they are paid TA/DA as per rates announced by Federal Government. The actual expense under this account head in the last year 2013-14 is Rs.617/- million. The no. of consumers is increasing day by day. The new Division / Sub-Division are expected to be operative in the Financial Year 2014-15. The Authority is requested to consider the fact and allow Rs. 600/- million.

### **Transportation / Vehicle Expenses.**

MEPCO's service area comprises of 13 districts of southern Punjab having largest network and consumers in the country. The vehicles have to run for attending complaints, maintenance of the system and other related matters of the company. There is continuous upsurge in the prices of the petrol, diesel, Mobil oil and spare parts of the vehicles. The actual expenses under this head were Rs.346/- million, as explained above, the service area of MEPCO is the largest among all DISCOs in the Punjab Province and largest network in the country, the comparison of vehicle expense with those other companies does not seem appropriate. Moreover, the MEPCO Board Directors has approved new operation sub-divisions. Under this head MEPCO has curtailed its requirement for financial year 2014-15 at Rs. 346/ million.

### **Other Operating Expenses**

Other operating expenses include rent rates & taxes, Utility expenses, communications, office supplies, professional fees, outside services employed, management fees, advertisement, collection expenses etc.

To provide the full security at Grid Stations and other installations of MEPCO 394 new security guards have been decided to be deployed through outsourcing @ 12500/- per month per security guard ( $394 \times 12500 \times 12 = 59.100$  (M) per annum but taken as 55 (M)). Similarly it has been decided that the Electricity bills of whole the company will be distributed through outsourcing which has been estimated as Rs.115 (M) for the next Financial Year 2014-15.

The actual other expenses for last year were Rs. 657 million and have projected for the next financial year 2014-15 at Rs. 1177 million. The amount has been demanded due to decision for getting many functions through outsources like Bill Distribution & Security (Janitorial Services) at Grid Stations and other MEPCO installations / Premises due to ban. The Authority is requested to please allow the same as under.

**Rs. In Million**

Description	2009-10	2010-11	2011-12	2012-13	Estimated Actual 2014	Projected 2014-15
Rent, Rates and Taxes	11	11	15	14	16	20
Utility expenses	37	44	48	48	54	60
Communication	29	29	28	33	36	43
Office Supplies and other expenses	78	87	90	150	107	160
Professional fees	27	46	51	50	29	60
Outsourced Services	20	28	13	12	46	209
Management Fees/AOH	30	55	21	25	25	40
Advertising & Pub.	231	114	148	120	13	100
Miscellaneous Expenses	48	51	66	83	20	99
ERP implementation						55
<b>Sub Total</b>	<b>511</b>	<b>465</b>	<b>480</b>	<b>535</b>	<b>346</b>	<b>846</b>
% Increase	79.30	(9.00)	3.22	11.46	(35)	145
Electricity Bills Collection Expenses	271	278	289	315	311	331

# **Distribution Formats**

**STANDARD PETITION FORMATS FOR DISTRIBUTION COMPANIES**  
**MULTAN ELECTRIC POWER COMPANY LIMITED**  
**INDEX**

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**FORM - 1**  
**MEPCO**  
**Company Statistics**

**Period- 2013-14**      **Period- 2014-15**

	Actual	Projected
--	--------	-----------

Peak demand during FY	3570	3749
Number of Consumers	4860295	4993467
Area	105505	105505
Circles	8	9
Divisions	35	36
Sub Divisions	159	162
Length of Feeders	70148	70948
Average Length of Feeders	68	67
Maximum Length of Feeder	338.9	338.9
Minimum Length of Feeder	1.8	1.8
Targe for new connections	218300	198000
Length of High Voltage Transmission lines (132 kV)	3169	4269
Length of STG lines (66 and 11 kV)	71302	64824
Length of Low Voltage Distribution lines (400 V)	46556	46906
Number of HV transformers		
Number of <b>burned down</b> HV transformers		
Number of STG transformers	242	264
Number of <b>burned down</b> STG transformers		
Number of LV transformers	145022	162315
Number of <b>burned down</b> LV transformers	1925	3250

	Strength		Cost	
	Period 2014		Period 2015	
	Actual	Projected	Actual	Projected
<b>Number of Employees</b>				
<b>A Qualified Professionals</b>				
Engineers	269	319	302	342
Others	209	231	204	230
	<b>478</b>	<b>550</b>		
<b>B Staff</b>				
Technical	11381	12081	3605	4074
Clerical	844	1044	357	407
Non Technical	4125	4325	1396	1594
	<b>16350</b>	<b>17450</b>	<b>5864</b>	<b>6647</b>
	<b>16828</b>	<b>18000</b>		



## FORM - 2

MEPCO

## Profit &amp; Loss Statement

	<b>Period 2013</b>	<b>Period 2014</b>	<b>Period 2015</b>
	Determined	Actual	Projected

**Power Balances**

Units Received	[MkWh]	12,701	13,859	14,073
Units Lost	[MkWh]	1,905	2,422	2,322
Units Lost	[%age]	15.00%	17.47%	16.50%
Units Sold	[MkWh]	10,796	11,437	11,751

**Revenue**

Sales Revenue	[Min Rs]	160,397	116,101	101,252
Subsidy	[Min Rs]		53,599	98,642
Fuel Price Adjustment	[Min Rs]	-	(1,426)	-
<b>Total Sales Revenue</b>	[Min Rs]	<b>160,397</b>	<b>168,274</b>	<b>199,894</b>
Rental & Service Income	[Min Rs]	282	291	296
Amortization of Def Credits	[Min Rs]	1,938	1,735	1,885
Other Income	[Min Rs]	1,576	2,785	2,740
<b>Total Revenue</b>	[Min Rs]	<b>164,193</b>	<b>173,084</b>	<b>204,815</b>

**Operating Cost**

Power Purchase Cost	[Min Rs]	137,997	145,798	148,046
Adjustment of Cr. Advice by CPPA on/a/c of PPP of previous years	[Min Rs]			
O&M Expenses	[Min Rs]	7,542	11,443	13,346
Depreciation	[Min Rs]	2,464	3,231	3,908
Amortization	[Min Rs]		-	-
Provision for Bad Debt	[Min Rs]	14	-	-
<b>Total Operating Cost</b>	[Min Rs]	<b>148,017</b>	<b>160,473</b>	<b>165,299</b>
<b>EBIT</b>	[Min Rs]	<b>16,176</b>	<b>12,611</b>	<b>39,515</b>
Financial Charges	[Min Rs]		794	22,056
<b>EBT</b>	[Min Rs]	<b>16,176</b>	<b>11,818</b>	<b>17,459</b>
Tax	[Min Rs]		-	6,111
<b>EAT</b>	[Min Rs]	<b>16,176</b>	<b>11,818</b>	<b>11,349</b>
WPPF	[Min Rs]		-	567
<b>Profit for the period</b>	[Min Rs]	<b>16,176</b>	<b>11,818</b>	<b>10,781</b>



**FORM - 3**  
**MEPCO**

**Profit & Loss Statement (F.Y. 2013-14)**

		Month 1 Actual	Month 2 Actual	Month 3 Actual	Month 4 Actual	Month 5 Actual	Month 6 Actual	2nd Qtr Actual	Month 7 Actual	Month 8 Actual	Month 9 Actual	3rd Qtr Actual	Month 10 Actual	Month 11 Actual	Month 12 Actual	4th Qtr Actual	Total Actual	
<b>Power Balances</b>																		
Units Received	[MkWh]	1,449	1,496	1,423	4,368	1,233	1,001	963	3,198	874	841	928	2,643	1,016	1,230	1,404	3,651	13,859
Units Lost	[MkWh]	407	345	242	994	205	88	80	373	75	64	171	310	181	250	314	745	2,422
Units Lost	[%age]	28.10%	23.05%	17.02%	22.76%	16.65%	8.77%	8.32%	11.67%	8.60%	7.60%	18.39%	11.72%	17.82%	20.34%	22.33%	20.40%	17.47%
Units Sold	[MkWh]	1,042	1,151	1,181	3,374	1,028	914	883	2,824	799	777	757	2,333	835	980	1,091	2,906	11,437
<b>Revenue</b>																		
Sales Revenue	[Min Rs]	8,956	10,387	11,375	30,718	9,620	10,297	9,932	29,849	7,772	8,340	7,787	23,900	10,429	10,260	10,945	31,634	116,101
Subsidy	[Min Rs]	6,596	7,094	6,069	19,760	4,856	3,740	3,466	12,062	3,148	3,262	3,124	9,534	3,486	4,177	4,581	12,243	53,599
Fuel Price Adjustment	[Min Rs]	(97)	(117)	116	(97)	261	105	270	635	474	(44)	(637)	(207)	(1,028)	(655)	(74)	(1,757)	(1,426)
<b>Total Sales Revenue</b>	[Min Rs]	15,455	17,365	17,560	50,380	14,737	14,141	13,668	42,546	11,394	11,559	10,274	33,227	12,887	13,782	15,451	42,121	168,274
Rental & Service Income	[Min Rs]	24	24	24	71	25	24	24	74	24	24	28	76	24	25	21	70	291
Amortization of Def Credits	[Min Rs]	140	141	142	423	143	143	144	430	145	145	146	436	147	148	151	446	1,735
Other Income	[Min Rs]	268	311	188	767	334	207	165	706	195	174	188	557	244	240	270	754	2,785
<b>Total Revenue</b>	[Min Rs]	15,887	17,840	17,913	51,641	15,239	14,516	14,001	43,756	11,758	11,902	10,636	34,296	13,302	14,196	15,894	43,392	173,084
<b>Operating Cost</b>																		
Power Purchase Cost	[Min Rs]	12,810	13,399	12,759	38,968	13,435	10,237	11,526	35,198	13,305	8,805	11,524	33,634	11,907	12,346	13,745	37,998	145,798
O&M Expenses	[Min Rs]	759	914	851	2,523	1,103	857	760	2,720	870	803	978	2,651	978	978	1,594	3,550	11,443
Depreciation	[Min Rs]	229	232	242	704	242	251	237	730	236	232	237	705	232	230	631	1,093	3,231
Amortization	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Provision for Bad Debt	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total Operating Cost</b>	[Min Rs]	13,798	14,545	13,851	42,195	14,780	11,344	12,523	38,647	14,411	9,840	12,739	36,990	13,116	13,554	15,970	42,641	160,473
<b>EBIT</b>	[Min Rs]	2,089	3,295	4,062	9,446	459	3,172	1,478	5,109	(2,652)	2,062	(2,104)	(2,694)	186	641	(76)	751	12,611
Financial Charges	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	794	794	
EBT	[Min Rs]	2,089	3,295	4,062	9,446	459	3,172	1,478	5,109	(2,652)	2,062	(2,104)	(2,694)	186	641	(870)	(43)	11,818
Tax	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
EAT	[Min Rs]	2,089	3,295	4,062	9,446	459	3,172	1,478	5,109	(2,652)	2,062	(2,104)	(2,694)	186	641	(870)	(43)	11,818
WPPF	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Profit for the period</b>	[Min Rs]	2,089	3,295	4,062	9,446	459	3,172	1,478	5,109	(2,652)	2,062	(2,104)	(2,694)	186	641	(870)	(43)	11,818

**MEPCO**

**Profit & Loss Statement (Projected\*2014-15)**

		Month 1 Total	Month 2 Total	Month 3 Total	1st Qrt's Total	Month 4 Total	Month 5 Total	Month 6 Total	2nd Qrt's Total	Month 7 Total	Month 8 Total	Month 9 Total	3rd Qrt's Total	Month 10 Total	Month 11 Total	Month 12 Total	4th Qrt's Total	Total 14
<b>Power Balances</b>																		
Units Received	[MkWh]	1,478	1,525	1,444	4,448	1,251	1,012	973	3,236	882	850	944	2,677	1,035	1,252	1,430	3,717	14,077
Units Lost	[MkWh]	408	343	231	982	196	73	66	334	62	51	167	280	177	246	309	731	2,326
Units Lost	[MwH]	27.58%	22.49%	16.00%	22.07%	15.63%	7.20%	6.74%	10.32%	7.03%	6.01%	17.63%	10.45%	17.07%	19.61%	21.61%	19.67%	16.5%
Units Sold	[MkWh]	1,071	1,182	1,213	3,466	1,056	939	907	2,902	820	799	778	2,397	858	1,007	1,121	2,986	11,751
<b>Revenue</b>																		
Sales Revenue	[Min Rs]	9,225	10,188	10,454	29,867	9,096	8,089	7,819	25,004	7,070	6,882	6,701	20,654	7,394	8,676	9,658	25,727	101,252
Subsidy	[Min Rs]	8,987	9,926	10,184	29,097	8,862	7,880	7,617	24,359	6,888	6,705	6,529	20,121	7,203	8,452	9,409	25,064	98,642
Fuel Price Adjustment	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Sales Revenue</b>	[Min Rs]	18,212	20,114	20,638	58,965	17,958	15,969	15,436	49,362	13,957	13,587	13,230	40,775	14,596	17,128	19,067	50,791	199,894
Rental & Service Income	[Min Rs]	25	25	25	74	25	25	25	74	25	25	25	74	25	25	25	74	296
Amortization of Def Credits	[Min Rs]	157	157	157	471	157	157	157	471	157	157	157	471	157	157	157	471	1,885
Other Income	[Min Rs]	228	228	228	685	228	228	228	685	228	228	228	685	228	228	228	685	2,740
<b>Total Revenue</b>	[Min Rs]	18,622	20,524	21,048	60,195	18,368	16,379	15,846	50,593	14,368	13,998	13,640	42,005	15,007	17,538	19,477	52,022	204,815
<b>Operating Cost</b>																		
Power Purchase Cost	[Min Rs]	13,066	13,667	12,950	39,684	13,637	10,339	11,642	35,617	13,438	8,893	11,732	34,063	12,121	12,569	13,993	38,682	148,046
O&M Expenses	[Min Rs]	1,112	1,112	1,112	3,336	1,112	1,112	1,112	3,336	1,112	1,112	1,112	3,336	1,112	1,112	1,112	3,336	13,346
Depreciation	[Min Rs]	326	326	326	977	326	326	326	977	326	326	326	977	326	326	326	977	3,908
Amortization	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Provision for Bad Debt	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Cost</b>	[Min Rs]	14,504	15,105	14,388	43,997	15,074	11,777	13,079	39,930	14,875	10,331	13,169	38,376	13,559	14,006	15,430	42,996	165,299
<b>EBIT</b>	[Min Rs]	4,118	5,419	6,660	16,198	3,294	4,602	2,766	10,662	(508)	3,666	471	3,629	1,448	3,532	4,046	9,026	39,515
Financial Charges	[Min Rs]	1,437	1,437	1,437	4,312	1,437	1,437	1,437	4,312	1,437	1,437	1,437	4,312	1,437	1,437	1,437	6,246	9,121
EBT	[Min Rs]	2,681	3,982	5,223	11,886	1,857	3,165	1,329	6,350	(1,945)	2,229	(966)	(682)	10	2,095	(2,200)	(95)	17,459
Tax	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,111	
EAT	[Min Rs]	2,681	3,982	5,223	11,886	1,857	3,165	1,329	6,350	(1,945)	2,229	(966)	(682)	10	2,095	(2,200)	(95)	11,349
WPPF	[Min Rs]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	567	
<b>Profit for the period</b>	[Min Rs]	2,681	3,982	5,223	11,886	1,857	3,165	1,329	6,350	(1,945)	2,229	(966)	(682)	10	2,095	(2,200)	(95)	10,781

\* Where actual figures are available, these should be replaced by the actual figures.

**FORM - 4**

**MEPCO**

**Balance Sheet [in million Rupees]**

Description	Previous Qrt/ FY as on June 30, 2013	Current Qrt/ FY as on June 30, 2014	Projected Qrt/ FY as on June 30, 2015
<b>Intangible Fixed Assets</b>			
Net Fixed Assets in Operations	54,966	60,625	73,562
<b>Total Net Fixed Assets in Operations</b>	<b>54,966</b>	<b>60,625</b>	<b>73,562</b>
Capital Work in Progress	9,155	8,279	11,893
Long Term Loans to Employees	35	62	75
Deferred Cost & Long Term Deposits	0.05	0.05	0.15
	9,191	8,341	11,968
<b>Current Assets</b>			
Stores & Spares	4,373	4,229	5,475
Trade Debts	16,091	21,147	20,550
Advances, Prepayments, Other Receivables	5,155	9,925	6,795
Tariff Subsidy (Receivable from GoP)	56,541	62,084	36,065
Receivable from Associated Companies	2,410	2,488	4,066
Cash & Bank Balances	4,520	6,527	7,992
<b>Total Current Assets</b>	<b>89,090</b>	<b>106,400</b>	<b>80,943</b>
<b>Total Assets</b>	<b>153,246</b>	<b>175,366</b>	<b>166,473</b>
Subscribed Equity	10,824	70,207	44,207
Unappropriated Profit	(56,715)	(9,954)	10,781
<b>Total Equity</b>	<b>(45,891)</b>	<b>60,253</b>	<b>54,988</b>
<b>Long Term Liability</b>			
Security Deposits	4,578	5,262	5,962
Employee Retirement Benefits	12,048	14,012	16,182
TFCs & SUKUK			
Deferred Credits	36,057	38,396	39,739
Total Long Term Loan	5,828	7,534	12,157
<b>Total Long Term Liability</b>	<b>58,511</b>	<b>65,204</b>	<b>74,040</b>
<b>Current Liability</b>			
Current Maturity on Long Term Loans	918	678	879
Subsidy Received in Advance from GoP	-		
Provision for Taxation & WPPF			6,678
Receipt Against Deposit work	13,594	13,390	11,245
Payable to NTDC/CPPA	114,154	17,987	12,106
Creditors, Accrued and Other Liabilities	11,961	17,223	6,537
<b>Total Current Liability</b>	<b>140,627</b>	<b>49,279</b>	<b>37,445</b>
<b>Total Liabilities and Commitments</b>	<b>199,139</b>	<b>114,483</b>	<b>111,485</b>
<b>Total Liabilities and Equity</b>	<b>153,247</b>	<b>174,736</b>	<b>166,473</b>



**MEPCO**  
**Cash Flow Statement [in million Rupees]**

Description	Previous for Qrt/FY ending June 30, 2013	Current for (T) Y ending June 30, 2014	Projected for Qrt/FY ending June 30, 2015
Average Monthly Demand Index (MDI)	[MW]	2,763	3,570
Units Purchased	[GWh]	13,859	14,073
Transmission Losses (132 kV)	[GWh]		
Distribution Losses	[GWh]		
Units Sold to Customers	[GWh]	11,437	11,751
Average Tariff Required	[Rs/unit]	14.713	17.011
Average Tariff Existing	[Rs/unit]	11.950	14.860
Tariff Difference	[Rs/unit]	2.763	2.151
Revenue from Sales			199,894
Collection from Required	[%]		100.0%
<b>Inflows from Operations</b>			
Collection from Current Sales			77,724
Prior Year Recovery			23,528
<b>Total Inflows from Operations</b>	0	0	101,251
<b>Outflow from Operations</b>			
Payment for electricity (to CPPA)			155,688
Distribution Service Cost (=DMC)			11,077
<b>Total Outflow from Operations</b>	0	0	166,764
<b>Surplus/Deficit from Operations</b>	-	-	(65,513)
<b>Inflows from Other Sources</b>			
Capital Contributions			4,410
Consumer Security Deposits			700
Other Incomes			3,036
GOP Subsidy (Actual and Estimated)			98,642
Long Term Loan / Redeemable Capital			4,623
<b>Total Inflows from Other Sources</b>	0	0	111,411
<b>Outflow Others</b>			
Financial Charges			22,056
Repayment of Long Term Loans			879
Investment Program			20,458
Working Capital/other Changes			1040
<b>Total Outflow Others</b>	0	0	44,433
<b>Surplus/Deficit Others</b>	-	-	66,978
<b>Total Inflows (Operations + Others)</b>	-	-	212,662
<b>Total Outflows (Operations + Others)</b>	-	-	211,197
<b>Opening Balance</b>		0	6,527
Surplus/Deficit for Fiscal Year	0	0	1,465
Deficit from Financing/Loans			
<b>Closing Balance</b>	0	0	7,992

**FORM - 6**  
**MEPCO**

**Power Purchase (Actual for Financial Year 2013-14)**

		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Demand & Energy	[Param]	1,440	1,485	1,473	1,233	1,001	983	874	841	928	1,018	1,230	1,404	13,559
MOI	[Param]	2,813	2,948	3,184	2,600	2,071	2,359	2,380	2,179	2,248	2,202	2,373	2,674	2,901
Energy Purchase Price	[Param]	6,9873	6,9736	6,7478	8,4636	7,6442	8,9006	12,0852	7,8320	9,1815	8,6524	7,8145	7,6655	8,0669
Capacity Purchase Price	[Param]	1,665	1,817	2,028	2,254	2,365	2,754	2,862	2,368	2,985	2,731	2,073	1,905	2,243
Transmission Charge	[Param]	8,187	8,189	8,191	8,181	8,212	8,253	8,279	0,285	0,248	0,222	8,198	0,195	0,208
Power Purchase Cost	[Param]	8,839	8,966	10,059	10,221	11,963	15,227	10,465	12,424	11,716	10,035	10	10,520	
Energy Charge	[Param]	10,127	10,429	9,862	10,433	7,656	8,632	10,534	8,590	8,516	8,905	9,614	10,190	31,681
Capacity Charge	[Param]	2,442	2,717	2,885	2,778	2,369	2,653	2,527	1,992	2,778	2,488	2,678	2,884	
Transmission Charge	[Param]	242	253	272	223	212	242	244	223	230	226	243	274	
Adjustment -	[Param]													
Total Operating Cost	[Param]	12,810	13,399	12,759	13,435	10,237	11,526	13,305	8,805	11,524	11,907	12,346	13,745	142,798

**FORM - 6(A)**  
**MEPCO**

**Power Purchase (Projected F.Y. 2014-15\*)**

		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Demand & Energy	[Param]	1,478	1,525	1,444	1,251	1,012	973	882	850	944	1,035	1,252	1,430	14,677
MOI	[Param]	2,869	3,007	3,211	2,639	2,075	2,343	2,404	2,200	2,289	2,242	2,418	2,722	2,940
Energy Purchase Price	[Param]	6,987	6,974	6,748	8,464	7,644	8,906	12,058	7,633	9,182	8,762	7,814	7,687	8,067
Capacity Purchase Price	[Param]	1,665	1,817	2,028	2,254	2,365	2,754	2,862	2,368	2,965	2,731	2,023	1,905	2,242
Transmission Charge	[Param]	8,187	8,189	8,191	8,181	8,212	8,253	8,279	0,285	0,248	0,222	8,198	0,195	0,208
Power Purchase Cost	[Param]	8,839	8,966	10,059	10,221	11,963	15,227	10,465	12,424	11,718	10,035	9,787	10,517	
Energy Charge	[Param]	10,329	10,659	9,746	10,590	7,732	8,713	10,640	6,656	8,670	9,066	9,787	10,990	113,569
Capacity Charge	[Param]	2,491	2,711	2,928	2,820	2,393	2,879	2,552	2,012	2,828	2,826	2,534	2,724	31,357
Transmission Charge	[Param]	247	258	276	227	214	244	246	225	234	230	247	279	2,828
Adjustment -	[Param]													
Total Operating Cost	[Param]	13,086	13,667	12,930	13,637	10,359	11,642	13,438	8,893	11,732	12,121	12,569	13,993	148,946

\*Where actual figures are available, these should be replaced by the actual figures.

\*\*In case of actual figures, adjustment should show monthly fuel adjustment separately and under the month to which it relates.

**FORM - 7**

**MEPCO**

**Line Losses (F.Y.2013-14)**

		Month 1 Actual	Month 2 Actual	Month 3 Actual	Month 4 Actual	Month 5 Actual	Month 6 Actual	Month 7 Actual	Month 8 Actual	Month 9 Actual	Month 10 Actual	Month 11 Actual	Month 12 Actual	Total Actual
<b>Power Balances</b>														
Units Received	[MkWh]	1,449	1,496	1,423	1,233	1,001	963	874	841	928	1,016	1,230	1,404	13,859
Units Sold	[MkWh]	1,042	1,151	1,181	1,028	914	883	799	777	757	835	980	1,091	11,437
Units Lost	[MkWh]	407	345	242	205	88	80	75	64	171	181	250	314	2,422
Units Lost	[%age]	28.10%	23.05%	17.02%	16.65%	8.77%	8.32%	8.60%	7.60%	18.39%	17.82%	20.34%	22.33%	17.47%
Technical Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Administrative Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Technical Losses at Different Levels</b>														
Transmission Losses 132 kV	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 kV Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LT Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Technical Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

**FORM - 7 (A)**

**MEPCO**

**Line Losses \* (Projected F.Y. 2014-15)**

		Month 1 Actual	Month 2 Actual	Month 3 Actual	Month 4 Actual	Month 5 Actual	Month 6 Actual	Month 7 Actual	Month 8 Actual	Month 9 Actual	Month 10 Actual	Month 11 Actual	Month 12 Actual	Total Actual
<b>Power Balances</b>														
Units Received	[MkWh]	1,478	1,525	1,444	1,251	1,012	973	882	850	944	1,035	1,252	1,430	14,077
Units Sold	[MkWh]	1,071	1,182	1,213	1,056	939	907	820	799	778	858	1,007	1,121	11,751
Units Lost	[MkWh]	408	343	231	196	73	66	62	51	167	177	246	309	2,326
Units Lost	[%age]	28%	22%	16.0%	16%	7%	7%	7%	6%	18%	17%	20%	22%	16.5%
Technical Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Administrative Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Technical Losses at Different Levels</b>														
Transmission Losses 132 kV	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11 kV Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LT Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Technical Losses	[%age]	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

\* Where actual figures are available , these should be replaced by the actual figures.

**Asset register as the year ended at date June 30, 2015 (Projected)**

No.	Description	Cost			Accumulated Depreciation			Book Value as on June 30,
		As at July 01,	Addition/ deletions	As at June 30, 0	As at July 01,	Charge during the year	Adjustments	
A. Land								
1 Freehold	181,232,255	65,000,000	246,232,255		0			246,232,255
2 Leasehold	2,277,338		2,277,338	790,184	0		790,184	1,487,174
Total	183,509,593	65,000,000	248,509,593	790,184	0	0	790,184	247,719,429
B. Buildings								
1 Residential Buildings	1,046,953,266	125,000,000	1,171,953,266	245,985,248	23,439,065			269,424,313
2 Non-Residential Buildings	642,904,113	125,000,000	787,904,113	158,000,015	15,358,082			173,358,097
3 GSO Residential Buildings	744,951,958	40,000,000	784,951,958	328,739,251	15,699,039			344,438,290
4 Non-GSO Residential Buildings	9,661,245	15,000,000	24,661,245	2,351,794	493,225			2,845,019
Total	2,444,470,582	305,000,000	2,749,470,582	735,076,308	54,989,412	0	790,065,720	1,959,404,862
C. Sub Transmission								
1 132 KV Sub Transmission Lines	6,040,238,820	4,801,000,000	10,841,238,820	2,063,310,326	357,760,881			2,421,071,207
2 66 KV Sub Transmission Lines	203,244,902		203,244,902	168,809,487	8,707,082			175,518,589
3 33 KV Sub Transmission Lines	0		0	0	0			0
Total	6,243,483,722	4,801,000,000	11,044,483,722	2,232,119,813	364,487,983	0	2,598,567,776	8,447,895,948
D. Grid Station								
1 132 KV Grid Station	8,775,715,832	5,268,000,000	14,041,715,532	1,534,221,432	449,334,897			1,983,558,329
2 66 KV Grid Station	3,528,804,201		3,528,804,201	1,438,835,575	114,611,387			1,553,448,962
3 33 KV Grid Station	0		0	0	0			0
Total	12,302,219,733	5,268,000,000	17,566,219,733	2,973,057,007	563,946,284	0	3,537,003,291	14,031,216,442
E. 11 KV Distribution Equipments								
1 11 KV Poles	5,763,459,147	550,000,000	6,313,459,147	2,059,312,523	208,344,152			2,267,856,875
2 11KV Line	13,171,662,113	1,185,000,000	13,356,662,113	4,189,815,170	434,091,519			4,803,906,889
3 Distribution Transformer	19,328,891,532	1,000,000,000	20,328,991,532	4,905,765,802	660,827,225			5,566,392,827
Total	37,262,112,792	2,735,000,000	39,997,112,792	11,134,893,295	1,303,082,895	0	12,437,958,190	27,559,156,602
F. LV Distribution Equipments								
1 LV Poles	4,912,299,481	527,700,000	5,439,999,481	1,661,462,123	179,519,962			1,840,982,105
2 440 LV Distribution Line	0		0	0	0			0
3 220 LV Distribution Line	7,028,935,062	331,800,000	7,357,735,082	2,272,036,880	242,805,258			2,514,842,138
4 KWh Meters & Service Cable	4,691,817,258	2,100,000,000	8,791,817,258	1,123,527,293	879,161,726			1,802,889,019
5 Misc. Equipment	10,844,746,798	579,500,000	11,424,248,796	3,824,735,683	371,288,086			4,198,023,789
Total	27,474,600,597	3,539,000,000	31,013,600,597	8,881,781,979	1,472,775,052	0	10,354,537,031	20,659,083,566
G. Vehicles								
1 132/66/33 KV GSO Vehicles	123,406,908	25,000,000	148,406,908	46,803,025	14,840,691			61,443,718
2 Vehicles	758,200,094	75,000,000	833,200,094	554,577,882	83,320,009			637,897,891
Total	881,807,002	100,000,000	981,807,002	601,180,907	98,160,700	0	699,341,607	282,285,395
H. Detail of General Plant Assets								
1 Computer Equipment	171,002,074		171,002,074	84,171,345	17,100,207			101,271,552
2 Furniture/Work shop/Mis.Equip.	287,872,388	35,000,000	322,872,388	223,479,306	32,287,239			255,768,545
3 Workshop Equipment	0		0	0	0			0
4 Laboratory Equipment	240,350		240,350	14,020	24,035			38,055
5 Misc. Equipment	30,512,613		30,512,613	25,512,613	3,051,261			28,583,874
Total	489,627,423	35,000,000	524,627,423	333,177,284	52,482,742	0	385,640,026	138,987,397
J. O&M Equipments								
Grand Total	87,281,831,444	16,848,000,000	104,127,831,444	26,892,056,757	3,909,865,047	0	30,801,921,804	73,325,709,640



**FORM - 8**  
**MEPCO**  
**Operational and Technical Information**

DISCO load factors on yearly basis                    2014-15                    **63%**

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NTDC/DISCO Delivery Points metering accuracy                    **98.00%**

DISCO metering accuracy  
For all customers (residential, commercial, industrial, etc.)                    **96.00%**

Estimated High Voltage Transmission lines losses (132 kV)                    **3.50%**

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## FORM - 9 MEPCO

**Average Rate per Unit Purchased and Sold  
- Weighted Average Cost per Unit Sold to Customers**

**10.01 Use of System Charges (NTDC)**

10.02 Estimated Average Rate	(Table 11 - 11.16)	[Rs/kW/Month]	<b>85.91</b>
10.03 Estimated Maximum Demand Indicator (MDI)	(Table 11 - 11.17)	[MW]	<b>2,538</b>
10.04 Number of Months (Fiscal Year)		[#]	<b>12</b>
10.05 Estimated Use of System Charges = $(10.02 \times 10.03 \times 10.04)$		[,000,000 Rs]	<b>2,928</b>

**10.06 Fixed/Capacity Charge**

10.07 Estimated Average Rate	(Table 11 - 11.33)	[Rs/kW/Month]	<b>1,036.12</b>
10.08 Estimated MDI	Form 6 (A)	[MW]	<b>2,538</b>
10.09 Number of Months (Fiscal Year)		[#]	<b>12</b>
10.10 Estimated Capacity Charge = $(10.07 \times 10.08 \times 10.09)$		[,000,000 Rs]	<b>31,558</b>

**10.11 Energy Charge**

10.12 Estimated Average Energy Charge	(Table 11 - 11.33)	[Rs/kWh]	<b>8.0671</b>
10.13 Estimated Energy Purchase for Fiscal Year		[GWh]	<b>14,077</b>
10.14 Estimated Energy Charges = $(10.12 \times 10.13)$		[,000,000 Rs]	<b>113,561</b>
10.15 Estimated Power Purchase Price = $(10.05 + 10.10 + 10.14)$		[,000,000 Rs]	<b>148,046</b>
10.16 Average Rate per Unit Purchased = $(10.15 / 10.13)$		[Rs/kWh]	<b>10.5189</b>
10.17 Estimated Energy Sold		[GWh]	<b>11,751</b>
10.18 Average Energy Rate per Unit Sold = $(10.15 / 10.17)$		[Rs/kWh]	<b>12.5990</b>
10.19 Distribution Margin		[,000,000 Rs]	<b>26,159</b>
10.20 Distribution Margin per Unit Sold = $(10.19 / 10.17)$		[Rs/kWh]	<b>2.2262</b>
10.21 Total Cost per Unit Sold to Customers = $(10.20 + 10.18)$		[Rs/kWh]	<b>14.8252</b>
10.22 Estimated Revenue from Energy Sold $(10.15 + 10.19)$		[,000,000 Rs]	<b>174,205</b>
10.23 Prior Period Adjustment (Uncovered Costs)		[,000,000 Rs]	<b>25,697</b>
10.24 Required Estimated Revenue from Energy Sold $(10.22 + 10.23)$		[,000,000 Rs]	<b>199,902</b>

While submitting Quarterly Petitions , this form should be submitted with actual amounts of previous quarters and projected figures of next quarter.

Figures in the forms should be substantiated with the forms below.



## FORM - 9 ( A )

Table 11 - CPPA Charges: Use of System, Capacity and Energy

11.01 Use of System Charges (NTDC)

11.02	Month	Year	Demand	Fixed Use of System Rate	Fixed Use of System Charges	Energy	Variable Use of System Rate	Variable Use of System Charges	Sum Use of System Charges
			[kW]	[Rs/kW]	[Rs]	[kWh]	[Rs/kWh]	[Rs]	[Rs]
11.03	1	3	2,669,440	85.910	248,513,577	1,478,265,600			246,513,577
11.04	Jul	10	3,007,197	85.910	259,348,291	1,525,435,500			256,348,291
11.05	Aug	10	3,211,082	85.910	275,864,896	1,444,326,730			275,864,896
11.06	Sep	10	2,639,548	85.910	226,677,707	1,251,215,875			226,677,707
11.07	Oct	10	2,075,438	85.910	178,300,732	1,011,500,860			178,300,732
11.08	Nov	10	2,382,843	85.910	204,718,603	972,835,020			204,718,603
11.09	Dec	10	2,403,708	85.910	206,502,402	882,498,820			206,502,402
11.10	Jan	11	2,200,273	85.910	189,025,457	849,780,670			189,025,457
11.11	Feb	11	2,286,752	85.910	196,628,717	944,249,972			196,628,717
11.12	Mar	11	2,241,929	85.910	192,604,161	1,034,606,670			192,604,161
11.13	Apr	11	2,415,986	85.910	207,555,816	1,252,429,112			207,555,816
11.14	May	11	2,722,116	85.910	233,856,986	1,429,772,856			233,856,986
11.15	Jun	11	30,457,402	85.910	2,616,595,144	14,077,020,485			2,616,595,144
11.16			Avg per month [MW]		Avg per month [MVh]	1,173,085,040			
11.17			2,538,117						

11.18 Capacity and Energy

11.19	Month	Year	Capacity Charge	Energy Charge	Sum of all Charges	Use Of System Rate per kWh	Capacity Rate per kWh [Rs/kWh]	Energy Rate per kWh [Rs/kWh]	Final Rate per kWh [Rs/kWh]	
			[Rs]	[Rs]	[Rs]	[Rs/kWh]	1 = 9 / 6	15 = 11 / 6	16 = 12 / 6	17 = 13 / 6
11.20	1	2	11	12	13 = 9 + 11 + 12	14 = 9 / 6	6	6	16	17 = 13 / 6
11.21	Jul	2,490,852,240	10,329,082,020	13,066,447,837	0.1668	1.884983	6.9873		8.8390	
11.22	Aug	2,771,141,100	10,837,780,540	13,667,249,931	0.1694	1.616623	8.9736		8.9596	
11.23	Sep	2,928,303,755	9,745,771,175	12,950,029,826	0.1910	2.027515	6.7476		6.9661	
11.24	Oct	2,820,050,625	10,589,778,185	13,638,506,517	0.1812	2.253848	8.4636		10.8986	
11.25	Nov	2,392,891,020	7,732,136,830	10,303,030,582	0.1763	2.365387	7.8442		10.1859	
11.26	Dec	2,079,423,950	6,718,054,370	11,602,196,923	0.2104	2.75396	6.9606		11.9249	
11.27	Jan	2,551,793,290	10,839,592,500	13,397,888,182	0.2340	2.891552	12.0562		15.1817	
11.28	Feb	2,012,000,800	6,655,971,710	8,656,997,967	0.2224	2.367871	7.8328		10.4227	
11.29	Mar	2,927,572,368	8,669,839,210	11,893,838,295	0.2082	2.994517	9.1615		12.3843	
11.30	Apr	2,625,743,022	9,065,608,634	12,083,955,817	0.1862	2.731219	6.7824		11.6797	
11.31	May	2,534,051,410	9,787,076,468	12,528,685,494	0.1857	2.023309	7.8145		10.0035	
11.32	Jun	2,723,771,998	10,989,956,430	13,947,585,414	0.1636	1.905038	7.6865		9.7551	
11.33			31,557,395,568	113,580,432,072	147,734,412,764	0.1859	2.2416	8.0871	10.4947	
11.34			Avg Cap. Charge =	1036.12						

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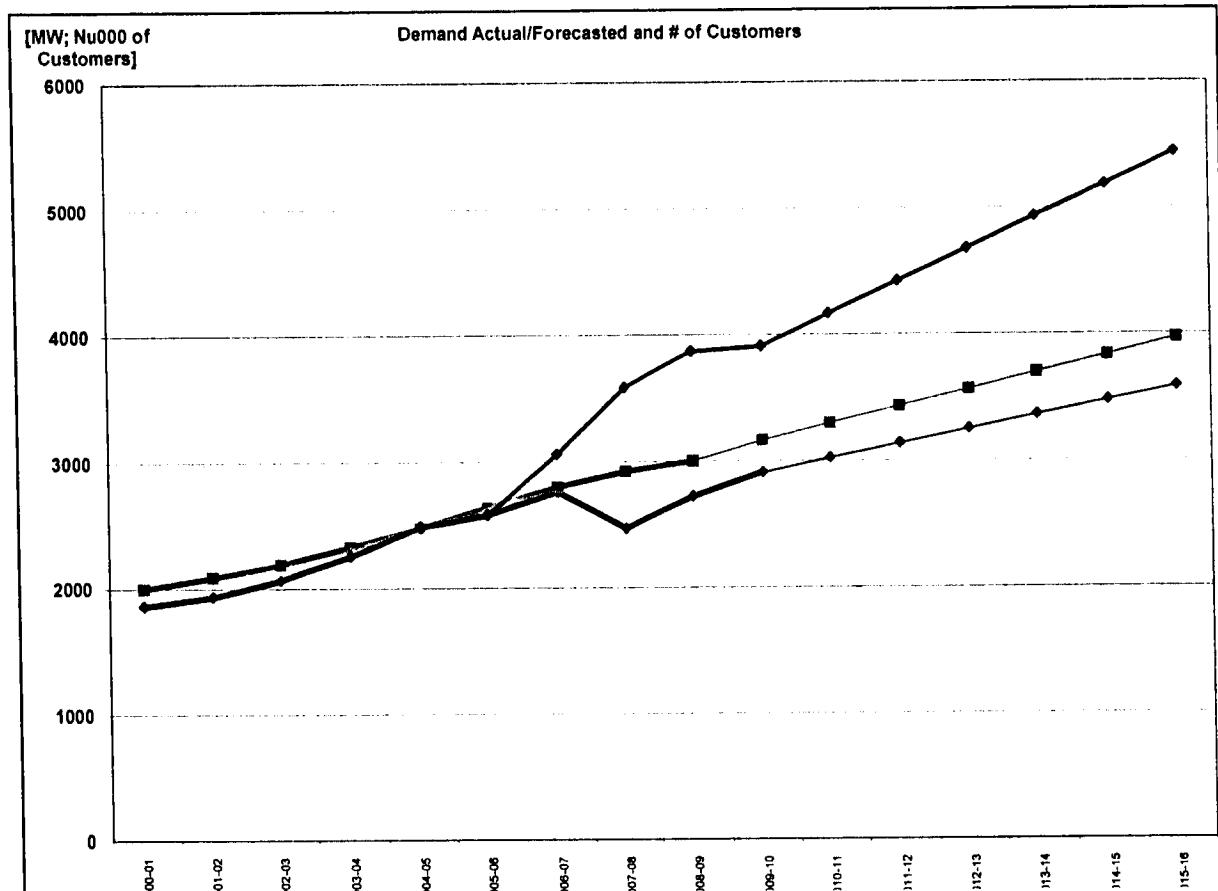


**FORM - 10**  
**MEPCO**  
**DEMAND (Actual and Calculated) and Number of Customers**

**A. Actuals for Demands and Number of Customers**

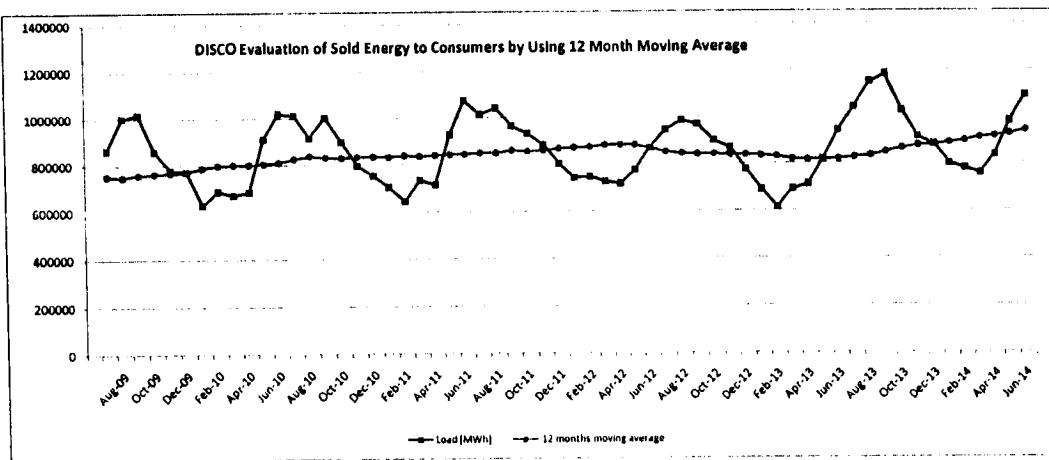
**B. Forecasted Demands and Number of Customers using regresion analysis**

Fiscal Year	Demand Actual /Forecast [ ,000 kW ]	change	Demand Calculated /Forecast [ ,000 kW ]	change	Number of Customers [ ,000 ]	change
12.01	2000-01	1,318	1,318			
12.02	2001-02	1,382	4.9%	1,382	4.9%	2,181
12.03	2002-03	1,453	5.1%	1,453	5.1%	2,308
12.04	2003-04	1,531	5.4%	1,531	5.4%	2,503
12.05	2004-05	1,618	5.7%	1,618	5.7%	2,758
12.06	2005-06	1,721	6.4%	1,721	6.4%	3,046
12.07	2006-07	1,831	6.4%	1,831	6.4%	3,371
12.08	2007-08	2,218	21.1%	2,218	21.1%	3,866
12.09	2008-09	2,412	8.7%	2,412	8.7%	3,842
12.10	2009-10	2,988	23.9%	2,373	-1.6%	4,041
12.11	2010-11	2,949	-1.3%	2,503	5.5%	4,260
12.12	2011-12	3,022	2.5%	2,634	5.2%	4,497
12.13	2012-13	3,360	11.2%	2,764	4.9%	4,674
12.14	2013-14	3,570	6.3%	2,895	4.7%	4,860
12.15	2014-15	3,750	5.0%	3,025	4.5%	4,993
12.16	2015-16	3,890	3.7%	3,156	4.3%	5,146



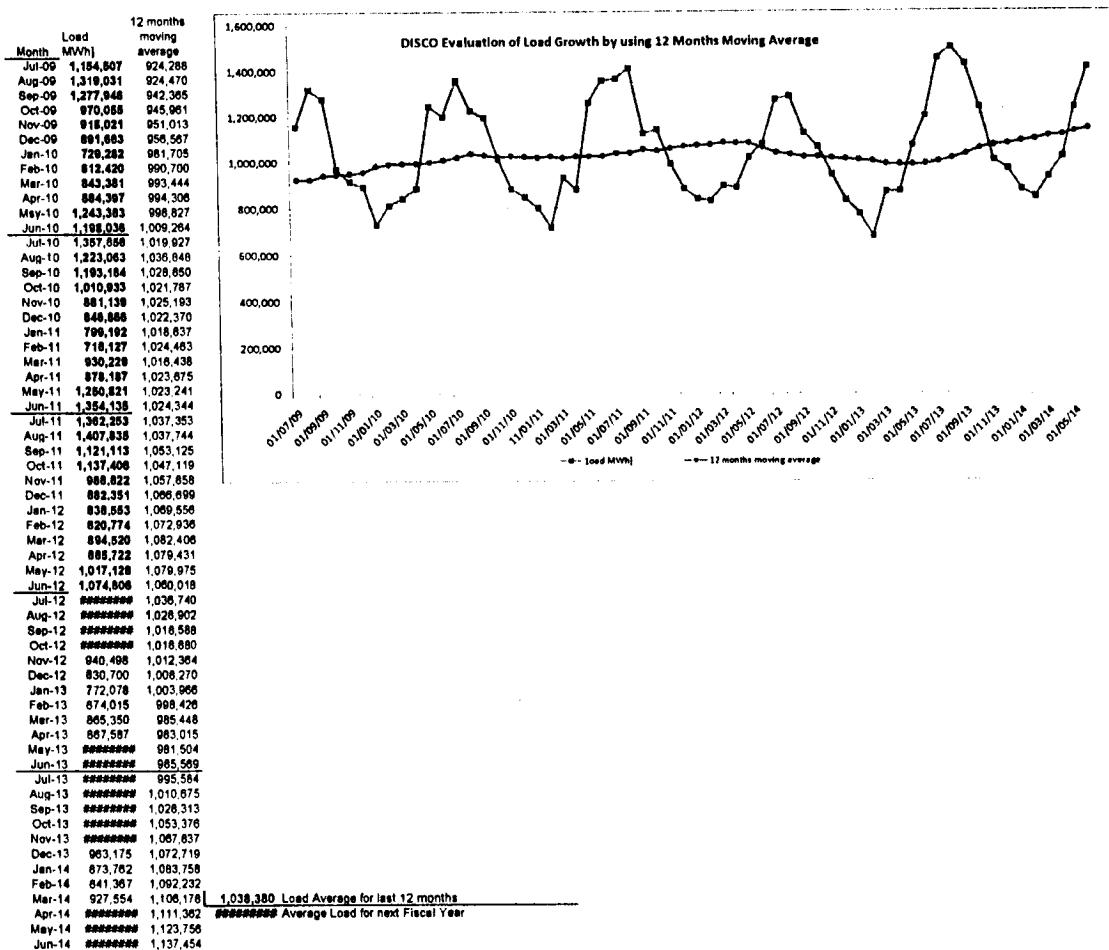
Table/Graph 14 - Sold Energy Evaluation and Setting up Sold Energy Average

Month	Load [MWh]	12 months moving average
Jul-09	884,168	754,208
Aug-09	1,002,648	750,678
Sep-09	1,019,085	759,965
Oct-09	858,453	784,453
Nov-09	776,456	768,434
Dec-09	772,293	772,257
Jan-10	831,737	768,833
Feb-10	891,108	769,112
Mar-10	674,167	801,850
Apr-10	887,804	802,516
May-10	911,613	806,648
Jun-10	1,022,346	811,756
Jul-10	1,013,762	828,315
Aug-10	817,733	838,781
Sep-10	1,003,293	831,705
Oct-10	889,781	830,389
Nov-10	766,556	833,667
Dec-10	762,955	835,009
Jan-11	706,017	833,397
Feb-11	845,269	839,587
Mar-11	733,808	835,767
Apr-11	716,482	840,738
May-11	926,239	843,128
Jun-11	1,079,688	844,522
Jul-11	1,015,609	849,043
Aug-11	1,042,874	849,213
Sep-11	984,584	659,642
Oct-11	933,447	856,418
Nov-11	884,147	859,304
Dec-11	802,423	866,886
Jan-12	742,674	870,808
Feb-12	746,428	873,683
Mar-12	725,960	882,293
Apr-12	717,048	881,838
May-12	773,303	881,664
Jun-12	869,540	888,773
Jul-12	944,922	851,519
Aug-12	965,632	845,612
Sep-12	969,577	840,925
Oct-12	999,934	841,349
Nov-12	889,456	838,557
Dec-12	774,884	837,335
Jan-13	889,829	835,038
Feb-13	814,330	830,643
Mar-13	881,884	819,635
Apr-13	711,821	818,796
May-13	817,986	818,344
Jun-13	942,120	820,042
Jul-13	1,042,041	826,091
Aug-13	1,180,889	834,164
Sep-13	1,180,849	847,870
Oct-13	1,027,497	865,488
Nov-13	913,679	878,098
Dec-13	885,179	879,781
Jan-14	799,804	888,807
Feb-14	777,433	897,863
Mar-14	756,903	911,455
Apr-14	835,158	918,881
May-14	980,033	927,178
Jun-14	1,090,920	940,705



858,733 Average Sold Energy for last 12 months  
10,280,769 Assumed Average Load for next Fiscal Year

Table/Graph 13 - Load Growth Evaluation and Setting up Load Average



**FORM - 14**

**Aging of Accounts Receivables as on 30th June .....**

	Actual for FY ending June 30, 2013	Actual for FY ending June 30, 2014	Projected for FY ending June 30, 2015
Outstanding for current year	Rs In Million 21,166	26,326	
Outstanding for more than 1 year	Rs In Million 1,477	1,013	
Outstanding for more than 2 years	Rs In Million 358	768	
Outstanding for more than 3 years	Rs In Million 260	344	
Outstanding for more than 4 years	Rs In Million 185	262	
Outstanding for more than 5 years	Rs In Million 1502	1808	
Total Receivables as on June 30, .....	<u>Rs In Million 24,947</u>	<u>30,523</u>	-

This form should be accompanied with a reconciliation of bad debts written off during the year.

In case of quarterly filing this form should be replaced with the most recent updated figures.

Govt Arrear	950	1916
Spill over	5499	
Govt Subsidy (GOP & GST)	8884	
Deferred Amount	1238	
Running (Pvt)	4383	
Disconnected (Pvt)	3065	

## FROM - 15

## Projected Energy Sales by Tariffs

Category	Voltage Level	Energy Purchased 0	Energy Sales 0	Distribution Losses	Sales Growth rate	Projection 1	Sales Growth rate	Projection 2
<b>A1 Domestic</b>								
Flat Rate Fata	LV					-		-
Upto - 50	LV		807.03		15.04	823		
1-100	LV		816.69		1.74	2,438		
101 - 300	LV		2,592.01		1.02	1,743		
301 - 700	LV		912.55		1.03	463		
above 700	LV		303.24		0.35	106		
Temporary Domestic	LV		0.56		10.00			
A1 (TOD)	LV		86.22		15.30	74		
Summary			5,518.30		3.68	5,645.71		
<b>A2 Commercial</b>								
A2 - A	LV		346.97		0.93	348		
> 20 kW	LV		0.89		15.80	28		
A2(2) TOD	LV		290.38		1.88	293		
Temporary Commercial	LV		1.87		3.28			
Summary			640.11		1.39	666.51		
<b>Industry</b>								
B-1 400 V Upto 40 kW	LV		39.85		15.98	81		
B1 (TOD)	LV		265.82		15.35	275		
B-2 400 V Upto (41-500 kW)	LV		3.85		15.48	4		
B-2 400 V (TOD)	LV		818.87		1.15	854		
B-3 11/33 KV	HV		-		-			
B-3 11/33 KV (TOD)	HV		1,384.09		7.00	1,372		
B-4 66/132/220 KV	STG		-		-			
B-4 66/132/220 KV (TOD)	STG		498.28		4.25	508		
Summary			2,990.57		5.78	3,073		
<b>Bulk Supply</b>								
C-1(a) upto 20 kW	LV		0.18		10.22	2		
C-1(b) above 20 kW	LV		29.45		8.97	49		
C-2 11/33 KV	HV		9.86		2.02	15		
C2 (TOD)	STG		122.14		0.12	129		
C-3 (66/132/220 KV)	STG		-		-			
C3 (TOD)	STG		11.01		1.94	6		
Temporary (E2-IIa,E2IIb,E2III)	HV							
K(A) - AJK	HV							
K(B) - KESC (Billing)	STG							
K(C) Rawal Lab	HV							
Summary			172.63		0.74	201		
<b>Tubewells</b>								
D-1 Scarp	LV		5.44					
D-1 (TOD)	LV		2,083.83		(30.27)	7		
D-2 (I) Punjab & Sind	LV		0.77		1.40			
D-2 (II) NWFP & Balochistan	LV							
AGRI T/W D-2 (I)STOD	LV							
D-2 (II) STOD	LV							
D-2 (I) TOD								
D-2 (II) TOD								
Summary			2,090.03		1.21	2,129		
<b>Others</b>								
G-1 Public Lighting	LV		17.26		1.75	24		
G-2 Public Lighting	LV							
H-1 Residential Colonies	HV		8.38		1.93			
H-2 Residential Colonies	HV							
I-Traction	HV							
J-Co-Generation	HV							
Summary			25.63		0.42	32		
Total			11,437.27		3.68	11,747		-

**FORM - 16**

**MEPCO**

**Operating Cost**

		<b>Period 2014</b>	<b>Period 2014</b>	<b>Period 2015</b>
		Determined	Actual	Projected

**A Power Purchase Cost**

Energy Charge	[Mln Rs]	103,712	111,834	113,560
Capacity Charge	[Mln Rs]	35,925	31,081	31,557
Transmission Charge	[Mln Rs]	3,330	2,884	2,928
Adjustment *	[Mln Rs]	-	-	-
<b>Total Power Purchase Cost</b>	<b>[Mln Rs]</b>	<b>142,967</b>	<b>145,798</b>	<b>148,046</b>

\* Provide the detail of adjustment

**B Operation & Maintenance \***

**Employees Cost \*\***

Salaries, Wages & Benefits	[Mln Rs]	5,422	5,864	6,647
Retirement Benefits	[Mln Rs]	900	2,973	3,277
<b>Total Employees Cost</b>	<b>[Mln Rs]</b>	<b>6,322</b>	<b>8,837</b>	<b>9,924</b>
Admin Expenses	[Mln Rs]	-	-	-
Repair & Maintenance	[Mln Rs]	726	986	1,300
Travelling	[Mln Rs]	558	617	600
Transportation	[Mln Rs]	279	346	345
Management Fee	[Mln Rs]	-	25	40
Misc./Other Expenses	[Mln Rs]	759	632	1,137
<b>Total O&amp;M</b>	<b>[Mln Rs]</b>	<b>8,644</b>	<b>11,443</b>	<b>13,346</b>

**C Depreciation & Amortization**

Depreciation	[Mln Rs]	2464	3235	3908
Amortization of Leased Assets	[Mln Rs]			0.00
<b>Total</b>	<b>[Mln Rs]</b>	<b>2,464</b>	<b>3,235</b>	<b>3,908</b>

**D Provision for Bad Debts**

Provision for bad debts *	[Mln Rs]	0
Bad debts written off	[Mln Rs]	



**FORM - 17 MEPCO****Distribution Margin Comparison:**

	2011	2012	2013	2014	2015
O&M Expenses	8,574	10,748	11,274	11,443	13,346
Increase in %	14.440	20.2%	4.9%	1.5%	16.6%
Depreciation	2,039	2,241	2,504	3,235	3,908
RORB	3,176	3,868	4,222	4,637	6,767
Interest on Loans of PHPL					3769
Interest on short term Loan (working Capital)					1040
Income Tax					
Other Income	(3,387)	(3,595)	(3,595)	(4,998)	(2,671)
Distribution Margin	10,402	13,262	14,405	14,317	26,159
Energy Sold	10,189	10,218	9,913	11,437	11751
DM per unit	1.02	1.30	1.45	1.25	2.23
DM per unit increase		0.28	0.16	-0.20	0.97



**FORM - 19****MEPCO****RORB Calculation**

	<b>Period 2014</b>	<b>Period 2014</b>	<b>Period 2015</b>
	Determined	Actual	Projected

Two years

A Gross Fixed Assets in Operation - Opening Bal	[Mln Rs]	79,019	79,019	87,163
B Addition in Fixed Assets	[Mln Rs]	8,813	8,144	16,846
C Gross Fixed Assets in Operation - Closing Bal	[Mln Rs]	87,832	87,163	104009
D Less: Accumulated Depreciation	[Mln Rs]	27,257	27,290	31,197
E Net Fixed Assets in Operation	[Mln Rs]	60,575	59,874	72811
F Add: Capital Work In Progress - Closing Bal	[Mln Rs]	9,039	8,279	11,893
G Investment in Fixed Assets	[Mln Rs]	69,614	68,153	84704
H Less: Deferred Credits	[Mln Rs]	43,697	37,214	39,739
I Regulatory Assets Base	[Mln Rs]	25,917	30,939	44965
J Average Regulatory Assets Base	[Mln Rs]	24,477	28,428	37,952
Rate of Return	[%age]	10.60	16.31	17.83
Return on Rate Base	[Mln Rs]	2,365	4,637	6,767



## Financial Charges

	<b>Period Determined</b>	<b>Period 2014 Actual</b>	<b>Period 2015 Projected</b>
<b>A Long Term Loans</b>	-	-	-
GOP loans	-	135	135
Foreign Loans	-	473	600
Bonds	-	-	-
TFCs	-	-	-
Others	-	-	-
<b>Total</b>	-	<b>608</b>	<b>735</b>
<b>B Short Term Loan</b>	-	-	-
Running Finance	-	-	1,040
Short Term Loan	-	-	-
Others (PHPL)	-	-	1,040
<b>Total</b>	-	-	<b>2,080</b>
<b>C Total Financial Charges (A+B)</b>	-	<b>608</b>	<b>2,815</b>

Note :-

The Interest on Long term Loans of World Bank, Asian Development Bank, and CDL from the Government of Pakistan is chargeable to the Project during construction



## FORM - 20

MEPCO

## Revenue Requirement



		Period 2013	Period 2014	Period 2015
		Determined	Actual	Projected
<b>A</b>	<b>Power Purchase Price</b>	[Min Rs]	137,998	145,798
<b>B</b>	<b>DM</b>			
	O&M	[Min Rs]	7,556	11,443
	Depreciation	[Min Rs]	2,464	3,235
	RORB	[Min Rs]	2,365	4,637
	Other Income	[Min Rs]	(3,796)	(4,998)
	Interest on Loan (PHPL) circular Debt			3,769
	Working Capital			1,040
	Impact of Disallowed Losses	[Min Rs]		
	Total DM	[Min Rs]	<b>8,589</b>	<b>14,317</b>
	Sales Mix			2,169
	Prior Period Adjustment	[Min Rs]	13,809	14,410.6
<b>C</b>	<b>Revenue Requirement (A+B)</b>	[Min Rs]	<b>160,396</b>	<b>174,526</b>
<b>D</b>	Less/ (Excess) Recovery	[Min Rs]	-	(6,252)
<b>E</b>	<b>Total Revenue Requirement (C+D)</b>	[Min Rs]	<b>160,396</b>	<b>168,274</b>
				<b>199,902</b>

## FORM - 20 ( A )

Revenue Requirement (*per unit sold*)

		Period 2013	Period 2014	Period 20145
		Determined	Actual	Projected
<b>A</b>	<b>Power Purchase Price</b>	[Rs/ kWh]	12.80	12.75
<b>B</b>	<b>DM</b>			
	O&M	[Rs/ kWh]	0.70	1.00
	Depreciation	[Rs/ kWh]	0.23	0.28
	RORB	[Rs/ kWh]	0.22	0.41
	Other Income	[Rs/ kWh]	(0.35)	(0.44)
	Interest on Loan (PHPL) circular Debt			0.32
	Working Capital			0.09
	Impact of Disallowed Losses	[Rs/ kWh]	-	-
	Total DM	[Rs/ kWh]	<b>0.80</b>	<b>1.25</b>
	Sales Mix			0.18
	Prior period Adejsutment		1.26	1.26
<b>C</b>	<b>Revenue Requirement (A+B)</b>	[Rs/ kWh]	<b>14.85</b>	<b>15.26</b>
<b>D</b>	Less/ (Excess) Recovery	[Rs/ kWh]	-	(0.55)
<b>E</b>	<b>Total Revenue Requirement (C+D)</b>	[Rs/ kWh]	<b>14.85</b>	<b>14.71</b>
				<b>17.01</b>

## Note:-

- 1- Amount of other income has been reduced by Rs. 2250 (m) comprising of Late payment Surcharge and Amortization of deferred credit on Deposit Work (Village Electrification)
- 2- Prior Period Adjustment comprises of markup on loans by PHPL on behalf of MEPCO Rs. 6848 (m) and Supplemental Charges Rs. 9600 (m) for the period 2009-10 to 2013-14 (March 2014) and Rs. 727 (m) on account inductions durind 2009-2014, maintenance admitted by Authority in Determination 2013-14 and CFLs depreciation @ 50% Rs. 400 (m) i.e useful life of the cfl


**Period 2011-13      Period 2013-14      Period 2015**

Actual (Audited)      Determined      Actual/ Revised      Projected

**A Investment Plan**

DOP	[Min Rs]	455	540	456	600
ELR	[Min Rs]	980	1440	551	625
STG (energy efficiency, capacitors)	[Min Rs]	2835	2332	2934	9766
Village Electrification/Deposit Work	[Min Rs]	2619		937	2100
Others ( Capital receipts)	[Min Rs]	1778	1800	2300	2310
Energy Efficiency (CFLs)			1250	793	
Misc Works incld ERP			130		5057
<b>Total</b>	<b>[Min Rs]</b>	<b>8667</b>	<b>7492</b>	<b>7971</b>	<b>20458</b>

**B Financing Arrangement**

Local	[Min Rs]			
Loan	[Min Rs]		1670	5502
PSDP / Own Resources	[Min Rs]		3064	7796
Grant (USAID)	[Min Rs]			2240
Consumer Contribution	[Min Rs]		2300	2820
Others (Please Mention) Deposit work	[Min Rs]		937	2100
<b>Total</b>	<b>[Min Rs]</b>		<b>7971</b>	<b>20458</b>

**MEPCO**  
**Interest on Development Loans**

Rs. Million

Sr. No.	Loans	Interest Rate %	FY				Total
			1st Quart	2nd Quart	3rd Quart	4th Quart	
1	Word Bank	17	398.272	398.272	398.272	398.272	1,593.088
2	ADB	17	150	150.000	150.000	150	600.00
3	CDL	17	33.75	33.750	33.750	33.75	135.00
		17	<b>582.022</b>	<b>582.022</b>	<b>582.022</b>	<b>582.022</b>	<b>2,328.09</b>



**MEPCO**  
Development Loan

Sr. No.	Loan	Interest Rate	Remaining Years	First Qrt of FY				Second Qrt of FY				Third Qrt of FY				Fourth Qrt of FY				
				O/Bal	Disbursement	Repayment	C/Bal	O/Bal	Disbursement	Repayment	C/Bal	O/Bal	Disbursement	Repayment	C/Bal	O/Bal	Disbursement	Repayment	C/Bal	
1	World Bank	17%		3240.34	152.20		3392.54	3392.54	152.20		3544.74	3544.74	152.20		3696.94	3696.94	152.20		3849.14	
2	Asian Bank	17%		2709.49			2709.49	2709.49			2709.49	2709.49	304.01		3013.50	3013.50			239.99	2773.51
3	CDL	17%		797.00			797.00	797.00			797.00	797.00			797.00	797.00			797.00	
				6,746.827	152.200	-	6,899.027	6,899.027	152.200	-	7,051.227	7,051.227	456.213	-	7,507.440	7,507.440	152.200	239.991	7,419.649	

This form should be submitted for each loan appearing on the DISCO's Balance Sheet



**MEPCO  
BONDS**

Particulars	Interest Rate	FY —			
		Opening Balance	Redemption	Closing Balance	Interest Charges
					<b>NIL</b>



**Domestic Consumers**

Slabs	No. of Customers	Domestic Consumers												
		0-50	1 - 100	101 - 200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	901-1000	1001-1100	Above 1100
0 - 50		1834336												
1 - 100			766508											
101 - 200				900711										
201 - 300					364567									
301 - 400						121258								
401-500							51847							
501-600								26476						
601-700									15801					
701-800										9549				
801-900											6801			
901-1000												4197		
1001-1100													3025	
Above 1100														11156
<b>Total</b>														<b>4116232</b>



**MEPCO**  
**Provision for Tax**

Rs. Million

Sr. No.	Provision for Tax allowed	Actual tax paid during the FY				Total
		1st Quart	2nd Quart	3rd Quart	4th Quart	
		6111				6,111
				-	-	6,110.795



## Existing &amp; Proposed Tariff Statement

(Monthly, Quarterly as well as Consolidated)

Category Description	Sales (MkWh)	Sales Mix (%)	No. of Consumers	Connected Load (kW)	Load Factor	Distribution Losses	NEPRA Existing Tariff		Proposed New Tariff		Difference (%)	
							Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)
<b>Residential</b>												
Up to 50 Units	823	7.00%	-	-	-	-	4.00	-	6.6	-	2.55	
For peak load requirement up to 5 kW												
01-100 Units	2,438	20.75%	-	-	-	-	13.50	-	15.61	-	2.11	
101-300 Units	1,743	15%	-	-	-	-	15.85	-	17.96	-	2.31	
301-700 Units	463	4%	-	-	-	-	17.65	-	20.20	-	2.55	
Above 700 Units	108	1%	-	-	-	-	19.50	-	22.44	-	2.94	
For peak load requirement exceeding 5 kW		0%										
Time of Use (TOU) - Peak	4	0%	-	-	-	-	19.50	-	22.29	-	2.79	
Time of Use (TOU) - Off-Peak	71	1%	-	-	-	-	14.00	-	16.16	-	2.16	
<b>Total Residential</b>	<b>5,646</b>	<b>48.05%</b>	-	-	-	-	-	-	-	-	-	
<b>Commercial - A2</b>												
Commercial -												
For peak load requirement up to 5 kW	348	2.958%	-	-	-	-	19.50	-	22.44	-	2.94	
Commercial (<100)	24	0.200%	-	-	-	-	400	18.00	500	18.45	100.00	
Commercial (>20 kW)		0.000%					400	16.00	500	18.45	100.00	
For peak load requirement exceeding 5 kW												
Regular	2	0.020%	-	-	-	-	400	18.00	500	18.45	100.00	
Time of Use (TOU) - Peak (A-2)	53	0.450%	-	-	-	-	400	19.50	500	22.39	100.00	
Time of Use (TOU) - Off-Peak (Temp)	241	2.048%	-	-	-	-	400	14.00	500	16.06	100.00	
<b>Total Commercial</b>	<b>667</b>	<b>5.7%</b>	-	-	-	-	-	-	-	-	-	
<b>Industrial</b>												
B1	61	0.520%	-	-	-	-	15.50	-	17.80	-	2.30	
B1 (b) (Peak)	43	0.370%	-	-	-	-	19.50	-	22.29	-	2.79	
B1 (b) (Off-Peak)	231	1.870%	-	-	-	-	14.00	-	16.06	-	2.06	
B2	4	0.030%	-	-	-	-	400	15.00	500	17.26	2.26	
B2 - TOU (Peak)	128	1.070%	-	-	-	-	400	19.50	500	22.34	2.84	
B2 - TOU (Off-peak)	729	6.200%	-	-	-	-	400	13.80	500	15.96	2.18	
B3 - TOU (Peak)	48	0.410%	-	-	-	-	380	19.50	450	22.39	2.89	
B3 - TOU (Off-peak)	1,324	11.265%	-	-	-	-	380	13.70	450	15.86	2.16	
B4 - TOU (Peak)	51	0.430%	-	-	-	-	380	19.50	430	22.34	2.84	
B4 - TOU (Off-peak)	457	3.891%	-	-	-	-	360	13.60	430	15.76	2.16	
<b>Total Industrial</b>	<b>3,073</b>	<b>26.2%</b>	-	-	-	-	-	-	-	-	-	
<b>Bulk</b>												
C1(a) Supply at 400 Volts - up to 5 kW	2	0.016%	-	-	-	-	15.00	-	17.30	-	2.30	
C1(b) Supply at 400 Volts - exceeding 5 kW	24	0.200%	-	-	-	-	400	14.50	500	16.76	2.26	
Time of Use (TOU) - Peak	5	0.040%	-	-	-	-	400	19.50	500	22.34	2.84	
Time of Use (TOU) - Off-Peak	24	0.200%	-	-	-	-	400	14.00	500	16.06	2.06	
C2 Supply at 11 KV	15	0.130%	-	-	-	-	380	14.40	450	16.56	2.16	
Time of Use (TOU) - Peak	24	0.200%	-	-	-	-	380	19.50	450	22.34	2.84	
Time of Use (TOU) - Off-Peak	106	0.900%	-	-	-	-	380	13.90	450	15.96	2.06	
C3 Supply above 11 KV		0.000%					360	14.30	430	18.46	2.16	
Time of Use (TOU) - Peak	1	0.008%	-	-	-	-	360	19.50	430	22.39	2.89	
Time of Use (TOU) - Off-Peak	5	0.040%	-	-	-	-	360	13.80	430	15.81	2.01	
<b>Total Single Point Supply</b>	<b>204</b>	<b>1.69%</b>	-	-	-	-	-	-	-	-	-	
<b>Agricultural Tube-wells - Tariff D</b>												
D1 Scarp	7	0.080%	-	-	-	-	15.50	-	17.90	-	2.40	
D2 Agricultural Tube-wells	1	0.010%	-	-	-	-	200	15.00	300	17.20	100	
Agricultural Tube-wells D-2 (ii)		0.000%										
Time of Use (TOU) - Peak D-2(i)		0.000%										
Time of Use (TOU) - Peak D-2	360	3.080%	-	-	-	-	200	19.50	300	22.29	100	
Time of Use (TOU) - Off-Peak D2	1,781	14.90%	-	-	-	-	200	13.80	300	15.96	100	
<b>Total Agricultural</b>	<b>2,129</b>	<b>18.1%</b>	-	-	-	-	-	-	-	-	-	
Public Lighting G	24	0.200%	-	-	-	-	16.00	-	16.35	-	2.35	
Residential Colonies H	8	0.070%	-	-	-	-	16.00	-	18.35	-	2.35	
Special Contracts - Tariff K (AJK)		0.000%										
Time of Use (TOU) - Peak		0.000%										
Time of Use (TOU) - Off-Peak		0.000%										
Railway Traction/Traction - 1		0.000%					16.00	-	18.35	-	2.35	
Co-Generation-J		0.000%										
<b>Grand Total</b>	<b>11,751</b>	<b>100%</b>	-	-	-	-	-	-	-	-	-	

11.751

2.129

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# MEPCO

## Existing & Proposed Tariff Statement

(Monthly, Quarterly as well as Consolidated)

Description	Annual Sales (MkWh)	Sales Mix (%)	No. of Consumers	Connected Load (kW)	Load Factor (%)	Distribution Losses (%)	NEPRA Existing Tariff		Proposed New Tariff		Difference	
							Fixed Charge (Min Rs)	Variable Charge (Min Rs)	Fixed Charge (Min Rs)	Variable Charge (Min Rs)	Fixed Charge (Min Rs)	Variable Charge (Min Rs)
<b>Residential</b>												
Up to 50 Units	822.57	7.00%	-	-	-	-	3,290	-	5,388	-	2,098	
For peak load requirement up to 5 kW												
01-100 Units	2,437.71	20.75%	-	-	-	-	32,909	-	38,050	-	5,141	
101-300 Units	1,742.65	14.83%	-	-	-	-	27,272	-	31,296	-	4,023	
301-700 Units	482.99	3.94%	-	-	-	-	8,172	-	9,352	-	1,180	
Above 700 Units	105.76	0.90%	-	-	-	-	2,062	-	2,374	-	311	
For peak load requirement exceeding 5 kW	-	0.00%	-	-	-	-	-	69	-	79	-	10
Time of Use (TOU) - Peak	3.53	0.03%	-	-	-	-	987	-	1,139	-	152	
Time of Use (TOU) - Off-Peak	70.51	0.60%	-	-	-	-	-	-	-	-	-	
<b>Total Residential</b>	<b>6,646.71</b>	<b>48.05%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>74,762</b>	<b>-</b>	<b>87,678</b>	<b>-</b>	<b>12,916</b>	
<b>Commercial - A2</b>												
Commercial -												
For peak load requirement up to 5 kW	347.53	2.96%	-	-	-	-	8,777	-	7,800	-	1,023	
Commercial (<100)	23.50	0.20%	-	-	9.70%	-	133	378	165.95	434	33	58
Commercial (<20 kW)	-	-	-	-	9.70%	-	-	-	-	-	-	-
For peak load requirement exceeding 5 kW	-	-	-	-	-	-	-	-	-	-	-	-
Regular	2.35	0.02%	-	-	9.70%	-	13	38	16.60	43	3	6
Time of Use (TOU) - Peak (A-2)	52.88	0.45%	-	-	9.70%	-	299	1,031	373.38	1,184	75	153
Time of Use (TOU) - Off-Peak (Temp)	240.60	2.05%	-	-	9.70%	-	1,359	3,368	1,698.88	3,864	340	496
<b>Total Commercial</b>	<b>668.88</b>	<b>5.66%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,804</b>	<b>11,590</b>	<b>2,255</b>	<b>13,325</b>	<b>451</b>	<b>1,735</b>
<b>Industrial</b>												
B1	81.11	0.52%	-	-	0.00%	-	-	947	-	1,088	-	141
B1 - TOU (Peak)	43.48	-	-	-	-	-	-	848	-	969	-	121
B1 - TOU (Off-peak)	231.49	-	-	-	-	-	-	3,241	-	3,717	-	476
B2	3.53	0.03%	-	-	33.00%	-	6	53	7.32	61	1	8
B2 - TOU (Peak)	125.74	1.07%	-	-	33.00%	-	209	2,452	260.97	2,809	52	358
B2 - TOU (Off-peak)	728.56	8.20%	-	-	33.00%	-	1,210	10,054	1,512.17	11,625	302	1,571
B3 - TOU (Peak)	48.18	0.41%	-	-	84.00%	-	39	939	46.41	1,079	7	139
B3 - TOU (Off-peak)	1,323.72	11.27%	-	-	64.00%	-	1,077	18,135	1,274.98	20,991	198	2,857
B4 - TOU (Peak)	50.53	0.43%	-	-	85.00%	-	38	985	45.79	1,129	7	144
B4 - TOU (Off-peak)	457.18	3.89%	-	-	85.00%	-	347	6,217	414.29	7,207	67	989
<b>Total Industrial</b>	<b>3,073</b>	<b>23.8%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,926</b>	<b>43,872</b>	<b>3,662</b>	<b>50,676</b>	<b>637</b>	<b>6,804</b>
<b>Bulk</b>												
C1(e) Supply at 400 Volts - up to 5 kW	1.82	0.02%	-	-	0.00%	-	-	27	-	32	-	4
C1(b) Supply at 400 Volts - exceeding 5 kW	23.50	0.20%	-	-	55.00%	-	23	341	29.27	366	6	25
Time of Use (TOU) - Peak	4.70	0.04%	-	-	55.00%	-	5	92	5.85	105	1	13
Time of Use (TOU) - Off-Peak	23.50	0.20%	-	-	55.00%	-	23	329	29.27	377	6	48
C2 Supply at 11 KV	15.28	0.13%	-	-	55.00%	-	14	220	17.12	253	3	33
Time of Use (TOU) - Peak	23.50	0.20%	-	-	55.00%	-	22	458	26.34	525	4	67
Time of Use (TOU) - Off-Peak	105.78	0.90%	-	-	55.00%	-	100	1,470	118.53	1,688	18	218
C3 Supply above 11 KV	-	0.00%	-	-	55.00%	-	-	-	-	-	-	-
Time of Use (TOU) - Peak	0.94	0.01%	-	-	55.00%	-	1	18	1.01	21	0	3
Time of Use (TOU) - Off-Peak	4.70	0.04%	-	-	55.00%	-	4	65	5.03	74	1	9
<b>Total Single Point Supply</b>	<b>204</b>	<b>1.69%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>193</b>	<b>3,020</b>	<b>232</b>	<b>3,441</b>	<b>39</b>	<b>418</b>
<b>Agricultural Tube-wells - Tariff D</b>					0.00%	-	-	-	-	-	-	-
D1 Scarp	7.05	0.06%	-	-	47.00%	-	-	109	-	126	-	17
D2 Agricultural Tube-wells	1.12	0.01%	-	-	47.00%	-	1	17	0.98	19	0	2
Time of Use (TOU) - Peak D-2	359.58	3.06%	-	-	47.00%	-	210	7,012	314.41	8,018	105	1,005
Time of Use (TOU) - Off-Peak D2	1,761.45	14.99%	-	-	47.00%	-	1,027	24,308	1,540.18	28,126	513	3,818
<b>Total Agricultural</b>	<b>2,129</b>	<b>16.12%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,237</b>	<b>31,446</b>	<b>1,858</b>	<b>36,288</b>	<b>619</b>	<b>4,842</b>
Public Lighting G	23.50	0.20%	-	-	-	-	-	378	-	431	-	55
Residential Colonies H	8.23	0.07%	-	-	-	-	-	132	-	151	-	19
Special Contracts - Tariff K (AJK)	-	-	-	-	-	-	-	-	-	-	-	-
Time of Use (TOU) - Peak	-	0.00%	-	-	-	-	-	-	-	-	-	-
Time of Use (TOU) - Off-Peak	-	0.00%	-	-	-	-	-	-	-	-	-	-
Railway Traction/Traction - I	-	0.000%	-	-	-	-	-	-	-	-	-	-
Co-Generation-J	-	0%	-	-	-	-	-	-	-	-	-	-
<b>Grand Total</b>	<b>11,751</b>	<b>98%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,160</b>	<b>165,197</b>	<b>7,905</b>	<b>191,990</b>	<b>1,745</b>	<b>26,788</b>

## Proposed Revenue &amp; Subsidy Statement

(Monthly, Quarterly as well as Consolidated)

Description	Sales (MkWh)	Sales in Millions (Rs)	Load Factor (%)	Revenue as per new proposed Tariff			Revenue as per GOP Notified Tariff			Subsidy		
				Fixed Charge (Rs/kW/M)	Variable Charge (Rs/kWh)	Subsidy (Rs/kWh)	Fixed Charge (Rs/kW/M)	Variable Charge (Rs/kWh)	Subsidy (Rs/kWh)	Fixed Charge (Rs/kW/M)	Variable Charge (Rs/kWh)	Subsidy (Rs/kWh)
<b>Residential</b>												
Up to 50 Units			0%		6.6			2.00				4.55
For peak load requirement up to 5 kW			0%									
01-100 Units			0%		15.61			5.79				9.82
101-300 Units			0%		17.98			8.11				9.85
301-700 Units			0%		20.20			12.33				7.87
Above 700 Units			0%		22.44			15.07				7.37
For peak load requirement exceeding 5 kW												
Time of Use (TOU) - Peak			0%		22.29			13.99				8.30
Time of Use (TOU) - Off-Peak			0%		16.16			8.22				7.94
<b>Total Residential</b>	-	-	0%	-	-	-	-	-	-	-	-	-
<b>Commercial - A2</b>												
Commercial -												
For peak load requirement up to 5 kW			0%		22.44			14.77				7.67
Commercial (<100)			0%	500	18.45		100	9.72		400	8.73	
Commercial (>20 kW)				500	18.45		100	9.72		400	9	
For peak load requirement exceeding 5 kW												
Regular			0%	500	18.45		100	9.72		400	8.73	
Time of Use (TOU) - Peak (A-2)			0%	500	22.39		100	13.20		400	9.19	
Time of Use (TOU) - Off-Peak (Temp)			0%	500	16.06		100	8.01		400	8.05	
<b>Total Commercial</b>	-	-	0%	-	-	-	-	-	-	-	-	-
<b>Industrial</b>												
B1			0%		-	17.80		-	10.51			7.29
B1 (b) (Peak)					-	22.29		-	13.99			8.30
B1 (b) (Off-Peak)				500	16.06		100	8.22		400	7.84	
B2			0%	500	17.26		100	9.14		400	8.12	
B2 - TOU (Peak)			0%	500	22.34		100	12.77		400	9.57	
B2 - TOU (Off-peak)			0%	500	15.96		100	8.01		400	7.95	
B3 - TOU (Peak)			0%	450	22.39		70	12.68		380	9.71	
B3 - TOU (Off-peak)			0%	450	15.86		70	7.75		380	8.11	
B4 - TOU (Peak)			0%	430	22.34		70	12.37		360	9.97	
B4 - TOU (Off-peak)			0%	430	15.76		70	7.46		360	8.30	
<b>Total Industrial</b>	-	-	0%	-	-	-	-	-	-	-	-	-
<b>Bulk</b>												
C1(a) Supply at 400 Volts - up to 5 kW			0%		-	17.30		-	11.55			5.75
C1(b) Supply at 400 Volts - exceeding 5 kW			0%	500	18.76		100	10.35		400	8.41	
Time of Use (TOU) - Peak			0%	500	22.34		100	13.01		400	9.33	
Time of Use (TOU) - Off-Peak			0%	500	16.06		100	8.01		400	8.05	
C2 Supply at 11 kV			0%	450	16.56		70	10.25		380	6.31	
Time of Use (TOU) - Peak			0%	450	22.34		70	12.60		380	9.74	
Time of Use (TOU) - Off-Peak			0%	450	15.96		70	7.75		380	8.21	
C3 Supply above 11 kV			0%	430	16.46		70	10.10		360	6.36	
Time of Use (TOU) - Peak			0%	430	22.39		70	12.18		360	10.21	
Time of Use (TOU) - Off-Peak			0%	430	15.81		70	7.35		360	8.46	
<b>Total Single Point Supply</b>	-	-	0%	-	-	-	-	-	-	-	-	-
<b>Agricultural Tube-wells - Tariff D</b>												
D1 Scarf			0%		-	17.90		-	10.00			7.90
D2 Agricultural Tube-wells			0%	300	17.20		180	6.77		120	10.43	
Time of Use (TOU) - Peak D-2			0%	300	22.29		100	13.00		200	9.29	
Time of Use (TOU) - Off-Peak D2			0%	300	15.96		100	8.00		200	7.96	
<b>Total Agricultural</b>	-	-	0%	-	-	-	-	-	-	520	-	-
<b>Public Lighting G</b>			0%			18.35			13.73			4.62
<b>Residential Colonies H</b>			0%			18.35			12.92			5.43
<b>Special Contracts - Tariff K (AJK)</b>												
Time of Use (TOU) - Peak			0%									
Time of Use (TOU) - Off-Peak			0%									
<b>Railway Traction Traction - 1</b>			0%			18.35			11.00			7.35
<b>Co-Generation-J</b>			0%									
<b>Grand Total</b>	-	-	0%	-	-	-	-	-	-	520	-	-

**MEPCO****Proposed Revenue & Subsidy Statement**

(Monthly , Quarterly as well as Consolidated)

Description	Sales (MkWh)	Sales Mix (%)	L285 Factor	Revenue as per new proposed Tariff			Tariff Subsidy			Total		
				Fixed Charge	Variable Charge	Total Revenue	Fixed Charge	Variable Charge	Total Subsidy	Fixed Charge	Variable Charge	Total Revenue
				(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)	(Min Rs)
<b>Residential</b>												
Up to 50 Units	823	#DIV/0!	0.00%	-	5,388	5,388	-	3,743	3,743	-	1,645	1,645
For peak load requirement up to 5 kW			0.00%									
01-100 Units	2,438	0%	0.00%		38,050	38,050		23,936	23,936		14,114	14,114
101-300 Units	1,743	0%	0.00%		31,296	31,296		17,163	17,163		14,133	14,133
301-700 Units	463	0%	0.00%		9,352	9,352		3,644	3,644		5,709	5,709
Above 700 Units	106	0%	0.00%		2,374	2,374		780	780		1,594	1,594
For peak load requirement exceeding 5 kW			0.00%									
Time of Use (TOU) - Peak	4	0%	0.00%		79	79		29	29		49	49
Time of Use (TOU) - Off-Peak	71	0%	0.00%		1,139	1,139		560	560		580	580
<b>Total Residential</b>	<b>5,646</b>	<b>#DIV/0!</b>		-	<b>87,678</b>	<b>87,678</b>	-	<b>49,854</b>	<b>49,854</b>	-	<b>37,824</b>	<b>37,824</b>
<b>Commercial - A2</b>												
Commercial - For peak load requirement up to 5 kW	348	0%	9.70%	-	7,800	7,800	-	2,667	2,667	-	5,133	5,133
Commercial (<100)	24	0%	9.70%	166	434	599	33	205	238	133	228	361
Commercial (>20 kW)			9.70%									
For peak load requirement exceeding 5 kW			9.70%									
Regular	2	0%	9.70%	17	43	60	3	21	24	13	23	38
Time of Use (TOU) - Peak (A-2)	53	0%	9.70%	373	1,184	1,558	75	486	561	299	698	997
Time of Use (TOU) - Off-Peak (Temp)	241	0%	9.70%	1,699	3,864	5,563	340	1,937	2,277	1,359	1,927	3,286
<b>Total Commercial</b>	<b>667</b>	<b>0%</b>		<b>2,256</b>	<b>13,325</b>	<b>15,580</b>	<b>451</b>	<b>5,316</b>	<b>5,767</b>	<b>1,804</b>	<b>8,009</b>	<b>9,813</b>
<b>Industrial</b>												
B1	61	0%	0.00%	-	1,086	1,088	-	446	446	-	642	642
B1 - TOU (Peak)	43				969	969		361	361		608	608
B1 - TOU (Off-peak)	231				3,717	3,717		1,814	1,814		1,903	1,903
B2	4	0%	33.00%	7	61	68	1	29	30	6	32	38
B2 - TOU (Peak)	126	0%	33.00%	261	2,809	3,070	52	1,204	1,256	209	1,606	1,814
B2 - TOU (Off-peak)	729	0%	33.00%	1,512	11,625	13,137	302	5,789	6,092	1,210	5,836	7,046
B3 - TOU (Peak)	48	0%	64.00%	46	1,079	1,125	7	468	475	39	611	650
B3 - TOU (Off-peak)	1,324	0%	64.00%	1,275	20,991	22,266	198	10,733	10,931	1,077	10,259	11,335
B4 - TOU (Peak)	51	0%	63.00%	46	1,129	1,175	8	504	512	40	625	665
B4 - TOU (Off-peak)	457	0%	63.00%	414	7,207	7,621	70	3,796	3,866	358	3,410	3,768
<b>Total Industrial</b>	<b>3,073</b>	<b>0%</b>		<b>3,562</b>	<b>50,675</b>	<b>54,238</b>	<b>539</b>	<b>25,144</b>	<b>25,782</b>	<b>2,938</b>	<b>25,532</b>	<b>28,470</b>
<b>Bulk</b>												
C1(a) Supply at 400 Volts - up to 5 kW	2	0%	0.00%	-	32	32	-	10	10	-	21	21
C1(b) Supply at 400 Volts - exceeding 5 kW	24	0%	55.00%	29	366	395	6	123	128	23	243	267
Time of Use (TOU) - Peak	5	0%	55.00%	6	105	111	1	44	45	5	61	66
Time of Use (TOU) - Off-Peak	24	0%	55.00%	29	377	407	6	189	195	23	188	212
C2 Supply at 11 kV	15	0%	55.00%	17	253	270	3	96	99	14	157	171
Time of Use (TOU) - Peak	24	0%	55.00%	26	525	551	4	229	233	22	296	318
Time of Use (TOU) - Off-Peak	106	0%	55.00%	119	1,688	1,806	18	868	886	100	820	920
C3 Supply above 11 kV	-	0%	55.00%	-	-	-	-	-	-	-	-	-
Time of Use (TOU) - Peak	1	0%	55.00%	1	21	22	0	10	10	1	11	12
Time of Use (TOU) - Off-Peak	5	0%	55.00%	5	74	79	1	40	41	4	35	39
<b>Total Single Point Supply</b>	<b>204</b>	<b>0%</b>		<b>232</b>	<b>3,441</b>	<b>3,673</b>	<b>39</b>	<b>1,609</b>	<b>1,648</b>	<b>193</b>	<b>1,832</b>	<b>2,026</b>
<b>Agricultural Tube-wells - Tariff D</b>												
D1 Scarp	7	0%	0.00%	-	126	126	-	56	56	-	71	71
D2 Agricultural Tube-wells	1	0%	47.00%	1	19	20	1	12	12	0	8	8
Time of Use (TOU) - Peak D-2	360	0%	47.00%	314	8,016	8,331	105	3,342	3,447	210	4,675	4,884
Time of Use (TOU) - Off-Peak D2	1,761	0%	47.00%	1,540	28,126	29,666	513	14,035	14,54B	1,027	14,092	15,118
<b>Total Agricultural</b>	<b>2,129</b>	<b>0%</b>		<b>1,856</b>	<b>36,288</b>	<b>38,144</b>	<b>819</b>	<b>17,444</b>	<b>18,063</b>	<b>1,237</b>	<b>18,844</b>	<b>20,081</b>
Public Lighting G	24	0%	0.00%	-	431	431	-	53	53	-	323	323
Residential Colonies H	8	0%	0.00%	-	151	151	-	25	25	-	106	106
Special Contracts - Tariff K (AJK)	-											
Time of Use (TOU) - Peak	-		0%									
Time of Use (TOU) - Off-Peak	-		0%									
Railway Traction/Traction - 1	-		0%	0.00%	-	-	-	-	-	-	-	-
Co-Generation-J	-		0%									
<b>Grand Total</b>	<b>11,751</b>	<b>#DIV/0!</b>		<b>7,905</b>	<b>191,990</b>	<b>199,894</b>	<b>1,748</b>	<b>99,445</b>	<b>101,192</b>	<b>6,172</b>	<b>92,471</b>	<b>98,642</b>

## Revenue &amp; Subsidy Statement

(Monthly, Quarterly as well as Consolidated)

Description	Sales (MWh)	No. of Consumers	Connected Load (kW)	Load Factor	NEPRA Determined Tariff	GOP Notified Tariff	Subsidy		
	(MWh)	(%age)	(kW)	(%age)	(Rs/kW/M)	(Rs/kWh)	(Rs/kW/M)	(Rs/kW/M)	(Rs/kWh)
<b>Residential</b>									
Up to 50 Units	823	7%				4.00		2.00	
For peak load requirement up to 5 kW									2.00
01-100 Units	2,438	0%				13.50		5.79	
101-300 Units	1,743	0%				15.85		8.11	
301-700 Units	463	0%				17.85		12.33	
Above 700 Units	106	0%				19.50		15.07	
For peak load requirement exceeding 5 kW									4.43
Time of Use (TOU) - Peak	4	0%				19.50		13.99	
Time of Use (TOU) - Off-Peak	71	0%				14.00		8.22	
<b>Total Residential</b>	<b>5,646</b>	<b>7%</b>							
<b>Commercial - A2</b>									
Commercial - For Sanctioned load less than 5 kW	348	0%			9.70%	19.50		14.77	
For Sanctioned load 5 kW & above	24	0%			9.70%	400	18.00	400.00	9.72
Commercial (<20 KW)									6.28
For peak load requirement exceeding 5 kW					9.70%	400	16.00	400.00	9.72
Regular	2	0%			9.70%	400	16.00	400.00	9.72
Time of Use (TOU) - Peak (A-2)	53	0%			9.70%	400	19.50	400.00	13.20
Time of Use (TOU) - Off-Peak (Temp)	241	0%			9.70%	400	14.00	400.00	8.01
<b>Total Commercial</b>	<b>667</b>	<b>0%</b>							
<b>Industrial</b>									
B1	61	0%					15.50		10.51
B1 (b) (Peak)	43						19.50		13.99
B1 (b) (Off-Peak)	231						14.00	400.00	8.22
B2	4	0%			33	400	15.00	400.00	9.14
B2 - TOU (Peak)	126	0%			33	400	19.50	400.00	12.77
B2 - TOU (Off-peak)	729	0%			33	400	13.80	400.00	8.01
B3 - TOU (Peak)	48	0%			64	380	19.50	380.00	12.68
B3 - TOU (Off-peak)	1,324	0%			64	380	13.70	380.00	7.75
B4 - TOU (Peak)	51	0%			63	360	19.50	360.00	12.37
B4 - TOU (Off-peak)	457	0%			63	360	13.60	360.00	7.46
<b>Total Industrial</b>	<b>3,073</b>	<b>0%</b>							
<b>Bulk</b>									
C1(e) Supply at 400 Volts - up to 5 kW	2	0%					15.00		11.55
C1(b) Supply at 400 Volts - exceeding 5 kW	24	0%			55	400	14.50	400.00	10.35
Time of Use (TOU) - Peak	5	0%			55	400	19.50	400.00	13.01
Time of Use (TOU) - Off-Peak	24	0%			55	400	14.00	400.00	8.01
C2 Supply at 11 kV	15	0%			55	380	14.40	380.00	10.25
Time of Use (TOU) - Peak	24	0%			55	380	19.50	380.00	12.60
Time of Use (TOU) - Off-Peak	106	0%			55	380	13.90	380.00	7.75
C3 Supply above 11 kV	-	0%			55	360	14.30	360.00	10.10
Time of Use (TOU) - Peak	1	0%			55	360	19.50	360.00	12.18
Time of Use (TOU) - Off-Peak	5	0%			55	360	13.80	360.00	7.35
<b>Total Single Point Supply</b>	<b>204</b>	<b>0%</b>							
<b>Agricultural Tube-wells - Tariff D</b>									
D1 Scarf	7	0%					15.50		10.00
D2 Agricultural Tube-wells	1	0%			47	200	15.00	120.00	6.77
Time of Use (TOU) - Peak D-2	360	0%			47	200	19.50	200.00	13.00
Time of Use (TOU) - Off-Peak D2	1,761	0%			47	200	13.80	200.00	8.00
<b>Total Agricultural</b>	<b>2,129</b>	<b>0%</b>							
<b>Public Lighting G</b>									
Residential Colonies H	24	0%					16.00		13.73
Special Contracts - Tariff K (AJK)	8	0%					16.00		12.92
Time of Use (TOU) - Peak	-	0%							2.27
Time of Use (TOU) - Off-Peak	-	0%							3.08
Railway Traction Traction - I	-	0%					16.00		11.00
Co-Generation-J	-	0%							5.00
<b>Grand Total</b>	<b>11,751</b>	<b>7%</b>							

**MEPCO****Revenue & Subsidy Statement**

(Monthly, Quarterly as well as Consolidated)

Description	Annual Sales (MkWh)	Sales Share (%)	No. of Consumers	Connected Load (kW)	Load Factor	NEPRA Determined Tariff		Tariff Subsidy		Revenue	
						Fixed Charge (Min Rs)	Variable Charge (Min Rs)	Fixed Charge (Min Rs)	Variable Charge (Min Rs)	Fixed Charge (Min Rs)	Variable Charge (Min Rs)
<b>Residential</b>											
Up to 50 Units	823	7%					3,290		1,645	-	1,645
For peak load requirement up to 5 kW											
01-100 Units	2,438	0%					32,909		18,795	-	14,114
101-300 Units	1,743	0%					27,272		13,140	-	14,133
301-700 Units	463	0%					8,172		2,463	-	5,709
Above 700 Units	106	0%					2,062		469	-	1,594
For peak load requirement exceeding 5 kW											
Time of Use (TOU) - Peak	4	0%					69		19	-	49
Time of Use (TOU) - Off-Peak	71	0%					987		408	-	580
Total Residential	5,646	7%	-			-	74,762	-	36,938	-	37,824
<b>Commercial - A2</b>											
Commercial -											
For peak load requirement up to 5 kW	348	0%					8,777		1,844	-	5,133
Commercial (<100)	24	0%			9.70%	133	376		148	133	228
Commercial (>20 KW)											
For peak load requirement exceeding 5 kW											
Regular	2	0%			9.70%	13	38		15	13	23
Time of Use (TOU) - Peak (A-2)	53	0%			9.70%	299	1,031		333	299	698
Time of Use (TOU) - Off-Peak (Temp)	241	0%			9.70%	1,359	3,368		1,441	1,359	1,927
Total Commercial	867	0%	-			1,804	11,590	-	3,580	1,804	8,009
<b>Industrial</b>											
B1	61	0%					947		305	-	642
B1 - TOU (Peak)	43						848		240		608
B1 - TOU (Off-peak)	231						3,241		1,338		1,903
B2	4	0%			33%	6	53	-	21	6	32
B2 - TOU (Peak)	126	0%			33%	209	2,452		846	209	1,606
B2 - TOU (Off-peak)	729	0%			33%	1,210	10,054		4,218	1,210	5,836
B3 - TOU (Peak)	48	0%			64%	39	939		329	39	611
B3 - TOU (Off-peak)	1,324	0%			64%	1,077	18,135		7,876	1,077	10,259
B4 - TOU (Peak)	51	0%			65%	38	985		360	38	625
B4 - TOU (Off-peak)	457	0%			65%	347	6,217		2,807	347	3,410
Total Industrial	3,073	0%	-			2,925	43,872	-	18,340	2,925	26,532
<b>Bulk</b>											
C1(a) Supply at 400 Volts - up to 5 kW	2	0%					27		6	-	21
C1(b) Supply at 400 Volts - exceeding 5 kW	24	0%			55%	23	341		98	23	243
Time of Use (TOU) - Peak	5	0%			55%	5	92		31	5	61
Time of Use (TOU) - Off-Peak	24	0%			55%	23	329		141	23	188
C2 Supply at 11 kV	15	0%			55%	14	220		63	14	157
Time of Use (TOU) - Peak	24	0%			55%	22	458		162	22	298
Time of Use (TOU) - Off-Peak	106	0%			55%	100	1,470		650	100	820
C3 Supply above 11 kV	-	0%			55%	-	-		-	-	-
Time of Use (TOU) - Peak	1	0%			55%	1	18		7	1	11
Time of Use (TOU) - Off-Peak	5	0%			55%	4	65		30	4	35
Total Single Point Supply	204	0%	-			193	3,020	-	1,188	193	1,832
<b>Agricultural Tube-wells - Tariff D</b>											
D1 Scarp	7	0%			47%	-	109		39	-	71
D2 Agricultural Tube-wells	1	0%			47%	1	17	0	9	0	8
Time of Use (TOU) - Peak D-2	380	0%			47%	210	7,012		2,337	210	4,875
Time of Use (TOU) - Off-Peak D2	1,781	0%			47%	1,027	24,308		10,218	1,027	14,092
Total Agricultural	2,129	0%	-			1,237	31,446	0	12,602	1,237	18,844
Public Lighting G	24	0%					376		53	-	323
Residential Colonies H	8	0%					132		25	-	106
Special Contracts - Tariff K (AJK)											
Time of Use (TOU) - Peak		0%									
Time of Use (TOU) - Off-Peak		0%									
Railway Traction Traction - 1	-	0%									
Co-Generation-J		0%									
Grand Total	11,751	7%	-			6,160	165,197	0	72,727	6,159	92,471



## **MULTAN ELECTRIC POWER COMPANY**

### **Proposed Tariff Structure**

TARIFF CATEGORIES			Projected Sales kWh	Projected Demand MW	Cost of Service Rates		Proposed Tariff				Revenue on Proposed Tariff (Rs.)	Cost of Service (Rs.)	Cross Subsidy - (Under) / Over Recovery (Rs.)	Overall Recovery %	
					Fixed Charge (Rs/kWh Month)	Variable Charge (Rs/kWh)	Fixed Charge (Rs/kW Month)	Variable Charge (Rs/kWh)	Fixed Charge (Rs)	Variable Charge (Rs)					
a)	Residential - A1														
H	Up to 50 Units		822,570,000		18.32	-	6.56	-	5,395,235,268	5,395,235,268	25,064,751,288	(9,669,515,900)	36%		
II	01-100 Units		2,437,710,000		18.31	-	15.61	-	38,040,464,550	38,040,464,550	44,644,826,057	(8,604,381,507)	85%		
III	101-300 Units		1,742,650,000		18.31	-	17.96	-	31,289,280,750	31,289,280,750	31,913,324,681	(626,493,951)	98%		
IV	301-700Units		462,989,400		18.31	-	20.20	-	9,350,070,933	9,350,070,933	8,479,307,800	870,788,193	110%		
Above 700 Units			105,759,000		18.31	-	22.44	-	2,972,703,165	2,972,703,165	1,938,896,579	435,806,586	123%		
b)	Time of Use (TOU) - Peak		3,525,300		16.24	-	22.29	-	78,592,777	78,592,777	1,201,911,183	18,159,657	101%		
	Time of Use (TOU) - Off-Peak		70,506,000		16.24	-	16.16	-	1,239,478,063	1,239,478,063					
	Total Residential - A1		5,645,709,700						87,845,828,506	87,845,828,506	105,243,012,468	(15,577,186,943)	85%		
Commercial - A2															
a)	Commercial -For peak load requirement up to 5 kW		347,530,000												
b)	Regular		25,852,200	30	932	11.60	500	18.45	182,546,250	476,897,276	6,364,750,688	1,435,186,873	123%		
c)	Time of Use (TOU) - Peak		52,879,500	345	932	11.60	500	22.39	2,072,723,690	1,184,179,604	3,256,453,294	419,15,016	239,728,509	157%	
	Time of Use (TOU) - Off-Peak		240,595,900			11.60		16.06		3,864,315,160	3,864,315,160		2,356,143,690	149%	
	Total Commercial - A2		646,837,600		376				2,254,419,940	15,325,829,800	15,380,149,540	11,549,090,468	4,031,059,072	135%	
Industrial B															
a)	B1		61,105,200			18.31	-	17.80	-	1,067,957,251	1,067,957,251	1,119,095,801	(31,138,550)	97%	
b)	B1- TOU (Peak)		43,478,700			16.24	-	22.29	-	969,310,915	969,310,915	4,464,241,537	222,280,236	105%	
B2 (a)	B1- TOU (Off-peak)		231,494,700			16.24	-	16.08	-	5,717,210,858	5,717,210,858				
B2 (b)	B2 - TOU (Peak)		3,525,300	1	932	11.60	500	17.26	7,316,936	60,836,986	68,153,922	57,233,866	10,920,056	129%	
	B2 - TOU (Off-peak)		125,735,700	296	932	11.60	500	22.34	1,773,137,809	2,809,429,181	4,582,568,770	13,869,679,494	2,338,171,425	117%	
B3	B3 - TOU (Peak)		726,562,000			11.60	-	15.96	-	11,625,278,149	11,625,278,149				
B3	B3 - TOU (Off-peak)		45,179,100	265	876	11.03	450	22.39	1,321,367,917	1,078,736,478	2,400,114,395	17,199,875,152	6,191,700,259	136%	
B4	B4 - TOU (Peak)		1,323,715,200			11.03	-	15.86	-	20,991,461,016	20,991,461,016				
B4	B4 - TOU (Off-peak)		50,519,300	69	705	10.04	430	22.34	460,080,788	1,129,022,934	1,589,103,722	7,206,349,730	1,509,269,916	121%	
	Total Industrial B		457,164,500			10.04	-	15.76	-	7,206,515,324	7,206,515,324				
			3,079,449,700		691				3,561,925,251	50,875,749,679	54,237,872,924	43,996,469,581	10,241,203,345	123%	
Bulk C															
C1 (a)	C1(a) - up to 5 kW		1,821,405			18.31	-	17.30	-	31,514,406	31,514,406	33,357,663	(1,843,257)	94%	
C1 (b)	C1(b) - exceeding 5 kW		23,502,000	5	932	11.60	500	16.78	29,267,746	393,889,814	423,157,560	361,559,106	41,596,454	111%	
C1 (c)	Time of Use (TOU) - Peak		4,700,400	6	932	11.60	500	22.34	35,121,295	105,025,389	140,148,884	457,072,927	39,657,570	113%	
	Time of Use (TOU) - Off-Peak		23,502,000			11.60	-	16.06	-	377,381,813	377,381,813				
C2	C2 Supply at 11 kV		15,276,300	3	876	11.03	450	16.56	17,121,631	252,965,781	270,087,392	191,523,832	78,563,561	141%	
	Time of Use (TOU) - Peak		23,502,000	27	876	11.03	450	22.34	144,675,342	525,126,946	670,022,288	1,620,586,267	737,007,339	145%	
C3 (a)	C3 Supply above 11 kV		105,759,000			11.03	-	15.96	-	1,687,591,918	1,687,591,918				
C3 (b)	Time of Use (TOU) - Peak		940,080	1	705	10.04	430	16.46	6,040,863	21,049,262	27,090,124	80,951,373	20,444,887	125%	
	Time of Use (TOU) - Off-Peak		4,700,400			10.04	-	15.81	-	74,306,135	74,306,135				
	Total Single Point Supply - C		203,703,585		42				232,428,878	3,468,860,844	3,701,277,722	2,766,848,167	935,428,585	134%	
Agriculture Tube Wells- Tariff D															
D1 (a)	D1 Scarp		7,050,600	2		18.24	-	17.30	-	126,238,589	126,238,589	114,467,732	11,770,857	110%	
D2	D2 Agricultural Tube-wells		1,116,345	0	932	11.60	300	17.20	976,110	19,203,590	20,178,641	16,124,056	2,054,583	111%	
D1 (b)	Time of Use (TOU) - Peak		359,380,600	513	932	11.60	300	22.39	1,854,389,507	8,016,463,244	9,671,052,751	34,435,331,025	3,552,841,154	110%	
	Time of Use (TOU) - Off-Peak		1,761,451,600			11.60	-	15.96	-	28,117,119,417	28,117,119,417				
	Total Agriculture - D		2,129,199,145		617				1,868,865,818	36,279,023,780	38,134,580,388	34,867,822,804	3,566,868,895	110%	
Public Lighting - Tariff G															
G	Public Lighting G		23,502,000			16.24	-	18.35	-	431,192,778	431,192,778	361,559,106	49,633,672	123%	
	Total Public Lighting G		23,502,000							431,192,778	431,192,778	361,559,106	49,633,672	113%	
Residential Colonies attached to Industries															
	Residential Colonies H		8,225,700												
	Total Residential Colonies H		8,225,700			12.54	-	16.35	-	150,917,472	150,917,472	103,128,217	47,789,255	146%	
Railway Traction I															
I	Railway Traction I					17.54	-	18.35	-	150,917,472	150,917,472	103,128,217	47,789,255	148%	
	Total Railway Traction I														
	Sub Total A		11,760,687,430	1,565					7,904,738,687	191,000,889,883	190,801,825,330	190,607,031,810	3,294,683,829	102%	
	Wheeling Charge: Export to DISCOs*														
	Export to DISCOs 132 kV		2,503,661,284		298	0.34	-	-	-	-	-	3,204,118,997	(3,204,118,997)	0%	
	Export to DISCOs 11 kV		39,643,010		584	1.28	-	-	-	-	-	90,474,532	(90,474,532)	0%	
	Sub Total B - Export to DISCOs		2,843,304,293									3,294,683,829	(3,294,683,829)	0%	
	Grand Total (A+B)		14,293,661,723	1,868					7,904,738,687	191,000,889,883	190,801,825,330	190,607,031,810	3,294,683,829	102%	

**Recruitment Plan  
For  
Financial Year 2014-15**

## STATUS OF CREATION / BIFURCATION CASES UNDER MEPCO

Sr. No.	Name of office to be created / bifurcated	Present status of the case	Staff strength required for new office	Financial Implication	Remarks
1	Creation of posts at 132Kv G/S Nawaz Abad Bhong	Recommendation of Scrutiny Committee obtained and case sent to Company Secretary for approval of BOD	18 Nos.	Rs: 5.346 Million per annum	Staff strength will be met initially from promotion process / re-adjustment till lifting of ban on fresh recruitment.
2	Creation of Rahim Abad Sub-Divin. Sadiq Abad after bifurcation of Ahmad Pur Lamma & Jamal Din Wali Sub-Divin.	-do-	89 Nos.	Rs: 30.724 Million per annum	-do-
3	Creation of posts at newly constructed 132Kv G/S Jail Road Multan	-do-	18 Nos.	Rs: 5.346 Million per annum	-do-
4	Creation of Posts for newly constructed 132Kv Grid Station Bahawalpur Cantt	-do-	18 Nos.	Rs: 5.346 Million per annum	-do-
5	Creation of posts regarding upgradation of 66Kv to 132Kv Grid Station Layyah	-do-	05 Nos.	0.888 Million per annum	
6	Creation of Operation Circle Khanewal after bifurcation of Operation Circle Multan	Under consideration before Scrutiny Committee established at MEPCO level	43 Nos.	38.441 Million per annum	
7	Creation of Operation Divin. Kehror Pacca after bifurcation of Operation Divin. Lodhran	-do-	62 Nos.	29.400 Million per annum	

Sr. No.	Name of office to be created / bifurcated	Present status of the case	Staff strength required for new office	Financial Implication	Remarks
8	Creation of new posts for Commercial Directorate Multan	Under consideration before Scrutiny Committee established at MEPCO level	28 Nos.	13.849 Million per annum	
9	Revision of yard stick of Operation Sub-Divin. Gujrat	-do-	77 Nos.	Rs: 2.467 Million per annum	
10	Revision / sanction of posts at 132Kv G/S Head Sidhnai	-do-	07 Nos.	1.060 Million per annum	
11	Establishment of Gillani Sub-Divin. After bifurcation of Operation Sub-Divin. Bosan Road Multan	-do-	90 Nos.	5.546 Million per annum	
12	Revision / Sanction of staff for 132Kv G/S Khair Pur Tamewali	-do-	07 Nos.	1.257 Million per annum	
13	Revision / Sanction of staff for 132Kv G/S Karor Lal Eason	In pipeline	07 Nos.	1.257 Million per annum	
14	Revision / Sanction of posts at 132Kv G/S Jampur	-do-	07 Nos.	1.1257 Million per annum	
15	Creation of additional posts of 132Kv G/S MEPCO Warehouse Khanewal Road Multan	-do-	25 Nos.	5.524 Million per annum	
16	Creation of MEPCO employees fund trust	-do-	04 Nos.	1.635 Million per annum	
17	Sanction of staff for newly constructed 132Kv G/S 3rd Sahiwal	-do-	18 Nos.	5.128 Million per annum	
18	Sanction of staff for SS&T Sub-Divin. Qasimpur Multan	-do-	11 Nos.	4.000 Million per annum	

Sr. No.	Name of office to be created / bifurcated	Present status of the case	Staff strength required for new office	Financial Implication	Remarks
19	Establishment of Career Management Cell in MEPCO	In pipeline	17 Nos.	7.421 Million per annum	
20	Creation posts in the Sports Office MEPCO Multan	-do-	02 Nos.	0.128 Million per annum	
21	Provision of staff for MEPCO Colony Farooq Pur Multan	-do-	06 Nos.	1.666 Million per annum	
22	Proposal for creation 02 Nos. Sub-Divin. (Qasba Maroot & Qasba Khichi Wala) and upgradation of Fort Abbas Sub-Divin. As Divin. With creation of R.O Office	Under process	02x No. S/D = 140 01x No. Divin = 21 <u>01x No. R.O = 41</u>  Total = 202	60.000 Million 14.5 Million 14.9 Million  <b>Total 89.4 Million</b>	
23	Requirement of additional staff for Transport Section	Under process	03 Nos.	0.555 Million per annum	
24	Creation of psots for office of Manager (M&S) Multan	-do-			
26	Creation of posts in RTC MEPCO Multan	-do-	66 Nos.	17.409 Million per annum	
<b>TOTAL</b>				<b>274.918</b>	



DEPUTY MANAGER (HRM)  
MEPCO MULTAN

Annex-B

# **Calculation of Weighted Average Cost**

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# **COST OF SERVICE STUDY FOR MEPCO**

## **APPROPRIATE RATE OF RETURN**

A key objective in setting an appropriate rate of return for a regulated utility is the promotion of certainty and predictability in the regulatory environment. According to Rule 17(3)(iii) of the NEPRA Tariff Standards and Procedure Rules 1998, tariffs should allow licensee a rate of return which promotes continued reasonable investment in equipment and facilities for improved and efficient service.

The rate of return should provide for a return which is commensurate with the prevailing cost of funds available in the market and with the risk involved in delivering the utility services. The rate of return may be set on the basis of a weighted average cost applicable to each source of funds, equity and debt. This weighted average cost is called the weighted average cost of capital (WACC). The cost of debt is estimated by considering the premium to the risk free rate at which the regulated utilities are likely to raise debt in current market conditions. For cost of equity estimation, the Capital asset pricing model (CAPM) is the most widely accepted procedure. CAPM has been applied by regulatory agencies all over the world to estimate the cost of capital for regulated utilities.

The formula for calculating the weighted average cost of capital is:

$$\text{WACC} = [\{k_d \times (1-T_c) \times (D / (V))\} + \{k_e \times (E / (V))\} + \{k_p \times (P / (V))\}]$$

where,

$k_e$  = cost of common equity

$k_p$  = cost of preferred equity

$k_d$  = cost of debt

D = the amount of debt in the capital structure

E = the amount of common equity in the capital structure

P = the amount of preferred equity in the capital structure

V = E+P+D

$T_c$  = Corporate tax rate

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Tax is a pass through item according to NEPRA's regulatory regime so any tax shield benefits are not relevant. Adjusting for this and in the absence of any preferred stocks, the WACC formula becomes:

$$\text{WACC} = \{k_e \times (E / (V))\} + \{k_d \times (D / (V))\}$$

### **WACC Parameters:**

#### **Cost of Equity:**

The cost of equity is the more important and more problematic component of WACC. Although there are several methods available for calculating cost of equity, the Capital Asset Pricing Model (CAPM) approach is the most prevalent. Cost of equity is usually determined utilizing the basic CAPM formula:

$$k_e = R_f + (R_m - R_f) \times \beta$$

where,

$R_f$  = Risk-free rate of return

$R_m$  = Market rate of return, also  $(R_m - R_f)$  is called market risk premium

$\beta$  = Beta, the measure of systematic risk

For estimation of MEPCO's cost of equity, these variables were calculated as follows:

#### **Risk Free Rate**

It is the rate of return that the investors expect to earn on investments that have virtually no risk of default. Investors who buy assets have a return in mind that they expect to make over the time horizon that they will hold the asset. The actual returns that they make over this holding period may by

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very different from the expected returns, and this is where the risk comes in. Risk in finance is viewed in terms of the variance in actual returns around the expected return. For an investment to be risk free in this environment, then, the actual returns should always be equal to the expected return.

Typically, the returns on government securities are used as risk-free rates. Choosing an appropriate government security to use depends on the investment horizon under consideration. If the investment horizon is long term, a long-term treasury bond may be used. On the other hand, if a short-term investment horizon is envisaged, a treasury bill may be more appropriate. In general, regulators tend to use the longer-term rates as the regulated assets are long term in nature.

For our calculations, yield on 10 year Pakistan Investment Bond (PIB) has been used as the risk free rate which is currently 12.83%.

### **Market Rate of Return**

The notion that risk matters, and that riskier investments should have a higher expected return than safer investments, to be considered good investments, is intuitive. Thus, the expected return on any investment can be written as the sum of the risk-free rate and an extra return to compensate for the risk. This extra return or 'risk premium' is computed as the difference between market rate of return and risk free return.

Generally, the return on stock market index is taken as a measure of market rate of return. For our calculation purposes, we have used the rate of return on KSE-100. The normal practice is to take a historical average so as to counter-balance the daily volatility of stock indices. Therefore, the return on KSE-100 over a 10 year period from 2002-2012 has been taken so as to smooth out the return and neutralize the impact of periods of extreme volatility. The rate of return on KSE-100 during this period was 22.79%.

DATE	30-Jun-05	30-Jun-06	29-Jun-07	30-Jun-08	30-Jun-09	30-Jun-10	30-Jun-11	29-Jun-12	01-Jul-13	27-Mar-14
------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

<b>KSE-100 INDEX</b>	7,450	9,989	13,772	12,289	7,162	9,721	12,496	13,801	21,006	27,165
<b>YOY %</b>	-41%	34%	38%	-11%	-42%	36%	29%	10%	52%	40%
<b>AVERAGE 10 YEARS</b>										<b>22.79%</b>

## Gearing

Gearing ratio of a firm is the total asset base that is financed by debt. Higher the gearing ratio, higher the weight applied to the cost of debt. The capital structure mix is a tradeoff between cost and risk and, as a result, debt and equity. Debt typically has a lower cost than equity, although the incremental cost of debt will increase as the amount of debt in the capital structure increases, assuming interest rates remain constant.

However, the level of gearing should not affect the cost of capital of a business. This is because the higher gearing tends to impact the WACC in two exactly offsetting ways:

- Reducing the WACC by giving greater weight to the relatively cheaper cost of debt than the cost of equity, and
- Increasing the WACC by increasing the debt premium and the equity beta.

In our calculations, we have used a target Debt/Equity ratio of 80/20 that is being used by NEPRA in its determinations.

## Beta

The risk in any investment has two components. There is a firm-specific component that measures risk that relates only to that investment and a market component that contains risk that affects a large subset or all investments. It is the latter risk that is not diversifiable and should be rewarded and that risk is denoted by  $\beta$  in the CAPM formula.

Beta is the measure of systematic risk, or in other words, the sensitivity of a stock to market variations. It measures the risk associated with holding a stock that cannot be eliminated through holding a diversified portfolio. The market capitalization weighted average beta across all investments, in the

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capital asset pricing model should be equal to one. A beta of 1.0 means that the stock has the same risk as the market whereas a high risk stock has a beta greater than 1.0.

The beta for any stock/investment can be estimated by regressing the returns on that stock against returns on an index representing the market portfolio, over a reasonable time period. This is easy to calculate for an organization with previous history in the market. But if a company has no appreciable track record in the market, then the determination of beta becomes more subjective in nature.

In that case, one or more 'proxy' companies with characteristics similar to the 'target' company may be utilized. The proxy beta is then un-leveraged to remove the effects of capital structure and re-leveraged again according to the target company's capital structure. This is done because the ratio of Debt/Equity can significantly impact a business's beta, with a high level of gearing increasing the variability of equity returns for any given variations in cash flows.

If a comparable company is not available in the local market, comparable companies from foreign markets may also be used.

The only distribution company in Pakistan that is also listed on stock exchange is Karachi Electric Supply Company (KESC). Although KESC also holds transmission and generation licenses but it is quite suitable to be used as a proxy company for MEPCO's beta calculations as it is primarily involved in electricity distribution business.

Date	30-Jun-05	30-Jun-06	29-Jun-07	30-Jun-08	30-Jun-09	30-Jun-10	30-Jun-11	29-Jun-12	1-Jul-13	27-Mar-14
KESC Stock Price (PKR)	5.45	7.70	6.75	5.47	2.65	2.23	2.15	3.24	7.05	6.36
% age change	-26%	41%	-12%	-19%	-52%	-16%	-4%	51%	118%	-10%
KSE-100 Index	7,450	9,989	13,772	12,289	7,162	9,721	12,496	13,801	21,006	27,165
% age Change	41%	34%	38%	-11%	-42%	36%	29%	10%	52%	29%
Beta					0.88					

Based on the past 10 year performance, the equity beta of KESC comes out to be 0.88. The current capital structure of KESC consists of 22% equity and 78% debt. The formula for un-leveraging this levered beta (or vice-versa) is:

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$$\beta_U = \frac{\beta_L}{[1 + (1 - T_c) \times (D/E)]}$$

Corporate tax is treated as a pass-through item in our calculations. Using the above formula, the unlevered beta is calculated as 0.19. Now, utilizing the target capital structure for MEPCO of 80% debt and 20% equity, the beta ( $\beta_L$ ) for MEPCO to be used in CAPM formula for calculation of cost of equity is calculated as 0.97.

Putting all these variables in the CAPM formula, the cost of equity for MEPCO comes out to:

$$\begin{aligned} k_e &= R_f + (R_m - R_f) \times \beta \\ &= 12.83\% + (22.79\% - 12.83\%) \times 0.97 \\ k_e &= 22.47\% \end{aligned}$$

### **Cost of Debt:**

The cost of debt used in WACC calculations is usually the 'prime rate', or the rate at which banks lend to their most valuable customers. It may also be calculated by adding a premium for borrowing over a risk-free rate.

In case of MEPCO, its long term loans portfolio consists of GoP loans and GoP Re-lent loans which need to be paid back to GoP at a rate of 17% except for Trance-II of GoP ADB Re-lent loan at 15%. The weighted cost of debt for historic loan portfolio of MEPCO thus becomes **16.67%** and this is the value used in WACC calculation.

### **WACC for MEPCO**

Inserting the cost of equity and cost of debt values (as determined above) in the WACC formula and using the target Debt/Equity ratio of 80/20, the weighted average cost of capital for MEPCO turns out to be:

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$$\begin{aligned} \text{WACC} &= \{k_e \times (E / (V))\} + \{k_d \times (D / (V))\} \\ &= \{22.47\% \times 0.2\} + \{16.67\% \times 0.8\} \end{aligned}$$

**WACC = 17.83%**

This value has been used as the required rate of return for MEPCO in our calculations.

The WACC approach used here is called "plain-vanilla" WACC and is used by many regulators around the world including OFGEM of UK and utility regulators in Australia among others.

# **Cost of Service Study**

## **(MEPCO)**



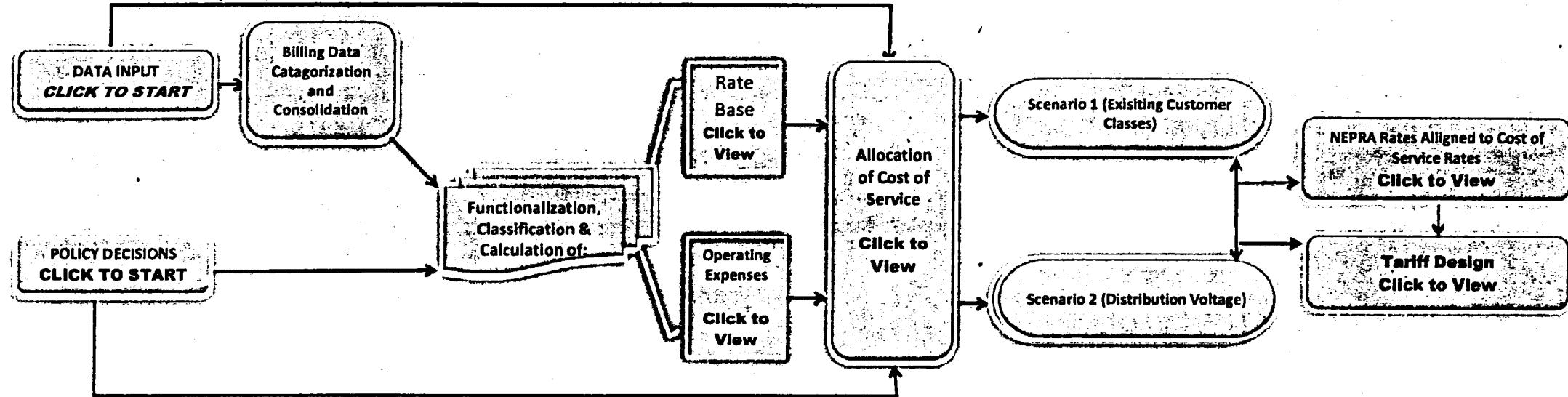
# USAID POWER DISTRIBUTION PROGRAM

## COST OF SERVICE MODEL for

### MULTAN ELECTRIC POWER COMPANY

Date:

12-Sep-14





# USAID POWER DISTRIBUTION PROGRAM

## COST OF SERVICE MODEL for MULTAN ELECTRIC POWER COMPANY

### INPUT ONE

- 1 Prepare forecasted Trial Balance for the DISCO, and than enter data by matching trial balance code of accounts.
- 2 Fill Data in Column H, I and Q marked in red

**CLICK TO ENTER DATA**

### INPUT TWO

- 1 Prepare monthly forecast of Sales in each category
- 2 This Data should include Projected No of Customers, Sales in kWh and MDI in kW
- 3 Consult Engineering & Customer Services Departments

**CLICK TO ENTER DATA**

### INPUT THREE

- 1 Determine/Obtain Voltage level (132/66kV, 11kV, 0.4kV, and 0.2kV) losses data
- 2 Refer to PDP Audit Report for DISCO or technical study for losses
- 3 Consult planning & Engineering Department to get this input.

**CLICK TO ENTER DATA**

### INPUT FOUR

- 1 Enter latest NEPRA determined tariff for DISCO.
- 2 Tariff Entered should be NEPRA determined and not Notified

**CLICK TO ENTER DATA**

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**USAID POWER DISTRIBUTION PROGRAM  
COST OF SERVICE MODEL**

FOR  
**MULTAN ELECTRIC POWER COMPANY**

WORKSHEETS	SCENARIO 1	SCENARIO 2
<u>Decision 1</u> <u>Decision 2</u> <u>Input One</u> <u>Input Two</u> <u>Input Three</u> <u>Input Four</u>	<b>Decision 1</b> <b>Decision 2</b> <b>Data for Rate Base and Revenue Requirement</b> <b>Input for Billing Data</b> <b>Load Data and Losses</b> <b>NEPRA Determined Tariff By Standard Customer Class Classification</b>	
<u>A1</u>	<b>A. Billing Determinants (STEP 1)</b> <u>Total Consolidated Billing data</u>	<b>A. Billing Determinants (STEP 1)</b> <u>A2 Total Sales by Voltage Classification</u>
<u>B1</u> <u>B2</u> <u>B3</u>	<b>B. Cost Functionalization (STEP 2)</b> <u>Minimum System Classification Coefficients</u> <u>Calculation of Functionally Classified Rate Base</u> <u>Calculation of Working Capital</u>	
<u>C1</u> <u>C2</u> <u>C3</u>	<b>C. Revenue Requirement Classification (STEP 3)</b> <u>Coefficients of Functionalized Operating Expense</u> <u>Functional Classification and Calculation of Operating Expense</u> <u>Total Revenue Requirement</u>	
<u>D1.1</u> <u>D1.2</u> <u>D1.3</u> <u>D1.4</u> <u>D1.5</u>	<b>D. Cost Allocation (STEP 4)</b> <u>Energy Allocation Factors by Standard Customer Classification</u> <u>Demand Allocation Factors by Standard Customer Classification</u> <u>Customer Allocation Factors by Standard Customer Classification</u> <u>Percentage Summary of Allocation Factors by Standard Customer Classification</u>  <u>Allocation of Revenue Requirement by Standard Customer Classification</u>	<b>D. Cost Allocation (STEP 4)</b> <u>D2.1 Energy Allocation Factors by Voltage Level Customer Classification</u> <u>D2.2 Demand Allocation Factors by Voltage Level Customer Classification</u> <u>D2.3 Customer Allocation Factors by Voltage Level Customer Classification</u> <u>D2.4 Percentage Summary of Allocation Factors by Voltage Level Customer Classification</u>  <u>D2.5 Allocation of Revenue Requirement by Voltage Level Customer Classification</u>
<u>E1.1</u> <u>E1.2</u> <u>E1.3</u> <u>E1.4</u> <u>E1.5</u>	<b>E. Cost of Service Results</b> <u>Revenue as per NEPRA Tariff by Existing Customer Classification</u> <u>Revenue to Cost Ratios by Standard Customer Classification</u> <u>Functionalized Rates by Existing Customer Classification</u> <u>Volumetric Rates by Existing Customer Classification</u> <u>Unbundled Rates by Existing Customer Classification</u>	<b>E. Cost of Service Results</b> <u>E2.1 Revenue as per NEPRA by Voltage Level Customer Classification</u> <u>E2.2 Revenue to Cost Ratios by Voltage Level Customer Classification</u> <u>E2.3 Functionalized Rates by Voltage Level Customer Classification</u> <u>E2.4 Volumetric Rates by Voltage Level Customer Classification</u> <u>E2.5 Unbundled Rates by Voltage Level Customer Classification</u>
<u>Tariff Option 1</u> <u>Tariff Option 2</u> <u>Tariff Option 3</u> <u>Tariff Option 4</u>	<b>TARIFF DESIGN OPTIONS</b> <u>Cost of Service Based Tariff without Cross Subsidization for Existing Customer Classification</u> <u>Cost of Service Based Tariff with Cross Subsidy to Residential Customers and No Cross Subsidy Increase from Current Levels</u> <u>Alternate Tariff Design</u> <u>Fully Allocated Cost of Service based Tariffs</u>	

# MULTAN ELECTRIC POWER COMPANY

## Cost of Service Model

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[\*\*Click to Decision 2\*\*](#)

<b>1</b>	<b>Allowed Rate of Return</b>	17.83%
	Allowed Rate of Return	
<b>2</b>	<b>Capital Work in Progress ("CWIP")</b>	Total CWIP
	Capital Work in Progress ("CWIP")	
<b>3</b>	<b>Inclusion of Working Capital in Rate Base</b>	
	No Working Capital	
<b>4</b>	<b>Inclusion of Working Capital Included in Revenue Requirement</b>	4,809,440,000
	As per Revenue Requirement Summary	
<b>6</b>	<b>Cost of Working Capital</b>	14.00%
	Cost of Working Capital	
<b>7</b>	<b>Generation Demand Allocation Methodology</b>	
	1 CP at Meter	
<b>8</b>	<b>Sales Growth %</b>	18.54%
<b>9</b>	<b>Consumer Growth %</b>	9.64%
<b>10</b>	<b>Prior Year Adjustment</b>	PKR 25,696,641,000
<b>11</b>	<b>LIFE LINE CUSTOMER (Defined in term of consumption-kWh)</b>	50

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**MULTAN ELECTRIC POWER COMPANY**  
Minimum System Classification Coefficients

# MULTAN ELECTRIC POWER COMPANY

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**Rate Base Computation**  
This column should be first punched with last year's asset base number before populating input one with next year's data so that rate base can be calculated on average of two years Asset base.

### 1.1 Inputs for Rate Base in Test Year

Line No.	PONR	EFFECT CODE OF ACCOUNTS	Description	Balance 12/31/14	Balance 12/31/15	Balance 12/31/16	Registration Function
1	DNA-17		INDEMNIFIABLE PLANT	0%	0	0%	100.00%
2	DNA-17		Organization	0%	0	0%	100.00%
3	DNA-17		Franchises and Contracts	0%	0	0%	100.00%
4	DNA-17		Maintainance, Intangible Plant	0%	0	0%	100.00%
5	DNA-17	010102	Distribution Plant	0%	2,272,928	2,400,706	100.00%
6	DNA-17	010101	Landhold Land	0%	10,341,348	10,431,216	100.00%
7	DNA-17	010103	Frushold Land	0%	0	0	100.00%
8	DNA-17	010203	Land Rights	0%	0	1,058,021,171	100.00%
9	DNA-17		Buildings and Pictures	1%	0	0	100.00%
10	DNA-17		Landbased Improvements	0%	0	0	100.00%
11	DNA-17	010601 & 010602	Transformer Station Equipment – Normally Primary above 50 kV	2%	12,292,511,708	14,499,351,193	100.00%
12	DNA-17	010603 & 010604	Distribution Station Equipment – Normally Primary below 50 kV	0%	0	0	100.00%
13	DNA-17		Storage Battery Equipment	0%	0	0	100.00%
14	DNA-17	010505 to 010510	Police, Towns and Firemen	3%	33,239,256,482	38,271,710,470	100.00%
15	DNA-17	010511	Underground Conductors and Devices	0%	0	0	100.00%
16	DNA-17	010512	Underground Conductors and Cables	0%	0	0	100.00%
17	DNA-17	106113	Underground Conductors and Devices	0%	53,225,343	53,225,343	100.00%
18	DNA-17		Line Transformations	1%	15,764,143,373	15,764,143,373	100.00%
19	DNA-17	106114	Services	1%	11,516,781,582	11,516,781,582	100.00%
20	DNA-17	106115	Meters	1%	10,311,070,762	12,331,664,590	100.00%
21	DNA-17		Leased Property on Customer's Premises	0%	0	0	100.00%
22	DNA-17	106116	Street, Lighting and Signal Systems	0%	3,419,292	4,153,043	100.00%
23	DNA-17		Sentinel Lighting Rental Units	0%	0	0	100.00%
24	DNA-17		Local Management Control - Customer Premises	0%	0	0	100.00%
25	DNA-17		Local Management Control - Utility Premises	0%	0	0	100.00%
26	DNA-17		System or Summary Equipment	0%	0	0	100.00%
27	DNA-17		Other Installations on Customer's Premises	0%	0	0	100.00%
28	DNA-17		General P.M.H.	0%	0	0	100.00%
29	DNA-17		Landhold Land	0%	0	0	100.00%
30	DNA-17		Frushold Land	0%	0	0	100.00%
31	DNA-17		Land Rights	0%	0	0	100.00%
32	DNA-17	010201 to 010202	Buildings and Pictures	2%	1,591,635,870	2%	100.00%
33	DNA-17		Landbased Improvements	0%	0	0	100.00%
34	DNA-17	010202	Office Furniture and Equipment	0%	14,231,113	15,872,386	100.00%
35	DNA-17	010701	Computer Equipment - Hardware	0%	122,488,381	147,740,681	100.00%
36	DNA-17	010703	Transportation Equipment (Motor vehicles)	1%	777,685,472	1%	100.00%
37	DNA-17		Motor Vehicles	0%	0	0	100.00%
38	DNA-17	010704	Station Equipment	0%	6,179,681	6,905,623	100.00%
39	DNA-17	010705	Tools, Shop and Garage Equipment	0%	26,437,527	27,300,708	100.00%
40	DNA-17	010706 to 07	Measurement and Testing Equipment	0%	64,947,401	72,341,577	100.00%
41	DNA-17	010708 & 010711	Fire Safety System	0%	4,279,348	4,737,913	100.00%
42	DNA-17		Power Operated Equipment	0%	0	0	100.00%
43	DNA-17	010710	Communication Equipment	0%	870,365	972,833	100.00%
44	DNA-17	010712	Medical and Hospital Equipment	0%	2,972,429	3,064,627	100.00%
45	DNA-17	010712	Library Books	0%	0	0	100.00%
46	DNA-17	107113	Miscellaneous Equipment	0%	10,065,347	211,052,906	100.00%
47	DNA-17		Water Heater Rental Units	0%	0	0	100.00%
48	DNA-17		Other Tangible Property	0%	10,764,556	11,440,263	100.00%
49	DNA-17		Assets Subject to Finance Lease	0%	0	0	100.00%
50	DNA-17		Contributions and Grants – Owner	0%	0	0	100.00%
51	DNA-17	010000 to 090102	Contributions and Grants – Creditor	0%	0	0	100.00%

3.1) Calculation of Construction Work in Progress in Test Year*						
Line No.	Item No.	Description or Accounts	Initial	Change	Balance	Balance Revised
1	0004-21	000000 to 001704 CWP 10% Complete			1,053,801,049	1,053,801,049
2		CWP 40% Complete			1,653,801,049	2,378,556,072
3		CWP 60% Complete			1,653,801,049	2,378,556,072
4		CWP 80% Complete			1,653,801,049	2,378,556,072
5		CWP 90% Complete			1,653,801,049	2,378,556,072
103	0004-53	200000 Deferred Tax Assets/ Liabilities				
104	0004-59	200000 and 200000 Deferred Credit (Income)				
105					3,721,350,950	3,721,350,950
					-26,738,900,000	100.00%

3.2) Calculation of Dissemination						
Line No.	Item No.	Description or Accounts	Initial	Change	Balance	Balance Revised
53	0004-22	Indebted Fleet			0	0
54	0004-22	Organization			0	0
55	0004-22	Franchises and Concessions			0	0
56	0004-22	Unconsolidated Interests in Firms			0	0
57	0004-22	Distribution Fleet			0	0
58	0004-22	Leasedhold Land			0	0
59	0004-22	Freehold Land			0	0
60	0004-22	Land Rights			0	0
61	0004-22	Buildings and Pictures			0	0
62	0004-22	Leasedhold Improvements			0	0
63	0004-22	000000 to 000010 CWP 0% to 10%			0	0
64	0004-22	000000 & 000004			0	0
65	0004-22	Transformer Station Equipment - Normally Primary below 50 kV			0	0
66	0004-22	Storage Battery Equipment			0	0
67	0004-22	Places, Towns and Pictures			0	0
68	0004-22	Overhead Conductors and Devices			0	0
69	0004-22	Underground Conductors and Devices			0	0
70	0004-22	Line Transformers			0	0
71	0004-22	Services			0	0
72	0004-22	Meters			0	0
73	0004-22	Leased Property on Customer's Premises			0	0
74	0004-22	Street Lighting and Signal Systems			0	0
75	0004-22	Sensational Lighting Lamp Units			0	0
76	0004-22	Load Management Controls - Customer Premises			0	0
77	0004-22	Load Management Controls - Utility Premises			0	0
78	0004-22	System Supervisory Equipment			0	0
79	0004-22	Other Installations on Customer's Premises			0	0
80	0004-22	General Fleet			0	0
81	0004-22	Leasedhold Land			0	0
82	0004-22	Freehold Land			0	0
83	0004-22	Land Rights			0	0
84	0004-22	Buildings and Pictures			0	0
85	0004-22	Leasedhold Improvements			0	0
86	0004-22	Office Furniture and Equipment			0	0
87	0004-22	Computer Equipment - Hardware			0	0
88	0004-22	Transportation Equipment (Motor Vehicles)			0	0
89	0004-22	Motor Vehicles			0	0
90	0004-22	Stamps, Equipment			0	0
91	0004-22	Communication Equipment			0	0
92	0004-22	Medical and Hospital Equipment			0	0
93	0004-22	Library Books			0	0
94	0004-22	Miscellaneous Equipment			0	0
95	0004-22	Water Heater, Boiler Units			0	0
96	0004-22	Other Tangible Property			0	0
97	0004-22	Assets Subject to Financial Leases			0	0
98	0004-22	Contributions and Grants - Credit			0	0
99	0004-22	Long Term Customer (Security) Deposits			0	0
100	0004-22	Deferred Tax Assets/ Liabilities			0	0
101	0004-22	000000 to 000002 Offset in 000002			0	0
102	0004-22	000000 to 000003 Offset in 000003			0	0
103	0004-53	200000 Deferred Credit (Income)			0	0
104	0004-59	200000 and 200000 Deferred Credit (Income)			0	0
105					3,721,350,950	100.00%

\* Due to non availability of CWP in each category we have assumed Total CWP is equally divided in the categories

## 4.) Working Capital Inputs for the Balance Sheet Method

Line No.	Point	Description or Accounts	Amount	Balance in Line 15
1	DRA-13	090101 and 090102		
2	DRA-35	100000 and 150000	4,489,159,408	
3	DRA-38	140102, 140103 and 140200	27,383,794,283	
4	DRA-39	130000	25,013,790,783	
5	DRA-38	141101 to 141104	22,955,911	
6	DRA-39	140300	0	
7	DRA-40	120000	0	
8	DRA-40	170000 to 170327	0	
9	DRA-13	310700	5,744,547,240	
10	DRA-35	Accrued Rent Up	1,064,372,566	
11	DRA-44	Current Portion of Redeemable Capital	0	
12		Current Portion of Long Term Loans		
13	DRA-47	Current Portion of Current Liabilities		
14		Current Portion of Liabilities against Assets Subject to Finance		
15	DRA-54	Current Portion of Customer (Security) Deposits		
16		Conditions, Accrued and Other Liabilities		
		Provision for Taxation	51,291,931,747	

## 2.1 Inputs for Revenue Requirements in Test Year

Line No.	Account	NEPRA Ld.	NEED CODE OR ACCOUNTS	Description	Balance Tdr-Amt-18
1	DNA-57	0270010	411000 & 411005	Other Income	21,494,778
2	DNA-57	0270020	412001	Meter Rental	0
3	DNA-57	0270030	412002	Interdepartmental Rent	644,675
4	DNA-57	0270040	412005	Connection Fee	9,318,500
5	DNA-57	0270050	412007	Reconnection Fee	70,064,771
6	DNA-57	0270060	412008	Labor Recovery on Meter	105,597,080
7	DNA-57	0270070	412004	Overhead Recovery on Meters	37,756
8	DNA-57	0270080	412008 & 421010 & 422001	Rent from Electric Property	202,408,977
9	DNA-57	0270090	412005	Other Utility Operating Income	1,564,027
10	DNA-57	0270090	411004	Other Electric Services	0
11	DNA-57	0270100	412005	Line Payment Charges	0
12	DNA-57	0270110	412005 to 420010 & 412003	Sales of Water and Water Power	0
13	DNA-60	0310100	51001 & 5110103	Miscellaneous Service Revenues	30,465,283
14	DNA-60	0310100	51001 & 5110103	Operating Expenses	
15	DNA-60	0320010	51002	Domestic Expenses	
16	DNA-60	0320010	51002	Energy Charge (10% per CPOA data of value to new CPOA data of value to Inter DISCO Power Purchases)	113,560,42,072
17	DNA-60	0320020	51002	Capacity Charged (CPO as per CPOA data of value to new CPOA data of value to Inter DISCO Power Purchases)	31,517,385,566
18	DNA-60	0310100	51002	Operation Supervision and Engineering	0
19	DNA-60	0310100	51002	Load Dispatching	0
20	DNA-60	0310100	51002	Transmission Services	0
21	DNA-60	0310200	51002	Cost of Power Adjustments	0
22	DNA-60	0310300	51002	Charger One-Time Purchase of Transmission and System Services (Inds at new CPOA data of value to Inter CO)	0
23	DNA-60	0310400	51002	Distribution Charges	0
24	DNA-60	0290030	51002	Distribution Charge recovered	0
25	DNA-60	0290040	51002	Other Expenses	0
26	DNA-60	0290050	51002	Station Building and Fixture Expenses	0
27	DNA-60	0290060	51002	Transformer Station Equipment- Operation Labor	0
28	DNA-60	0290070	51002	Distribution System Equipment- Operation	0
29	DNA-60	0290080	51002	Supplies and Expenses	0
30	DNA-60	0290090	51002	Overhead Distribution Lines and Feeders	0
31	DNA-60	0290100	51002	Operation Labor	0
32	DNA-60	0290110	51002	Overhead Distribution Lines and Feeders- Operation	0
33	DNA-60	0290120	51002	Underground Distribution Lines and Feeders- Operation	0
34	DNA-60	0290130	51002	Underground Distribution Lines and Feeders- Operation	0
35	DNA-60	0290140	51002	Underground Distribution Lines and Feeders- Operation	0
36	DNA-60	0290150	51002	Underground Distribution Transformer	0
37	DNA-60	0290160	51002	Operation	0
38	DNA-60	0290170	51002	Street Lighting and Signal System- Operation	0
39	DNA-60	0290180	51002	Meter Expenses	0
40	DNA-60	0290190	51002	Customer Premises- Operation Labor	0
41	DNA-60	0290200	51002	Customer Premises- Materials and Expenses	0
42	DNA-60	0290210	51002	Miscellaneous Distribution Expenses	0
43	DNA-60	0290220	51002	Underground Distribution Lines and Feeders- Rental Rental Paid	0
44	DNA-60	0290230	51002	Overhead Distribution Lines and Feeders- Rental Other Rent	0
			51002	Maintenance Reserve - Distribution Plant	

45	DRA-43	DRA0010	Maintenance Supervision and Engineering	0
46	DRA-43	DRA0020	Maintenance of Buildings and Facilities	4,028,773
47	DRA-43	DRA0030	Distribution Stations	54,570,317
48	DRA-43	DRA0040	Maintenance of Transformer Station Equipment	0
49	DRA-43	DRA0050	above 30 kV	0
50	DRA-43	DRA0060	Maintenance of Distribution Station Equipment	5,628,983
51	DRA-43	DRA0070	less than 30 kV	0
52	DRA-43	DRA0080	Maintenance of Poles, Towers and Poles	0
53	DRA-43	DRA0090	Maintenance of Overhead Conductors and	0
54	DRA-43	DRA0100	Devices	0
55	DRA-43	DRA0110	Maintenance of Underground Services	131,464,989
56	DRA-43	DRA0120	Maintenance of Line Transformers	688,377,408
57	DRA-43	DRA0130	Maintenance of Underground Conductors and	0
58	DRA-43	DRA0140	Devices	0
59	DRA-43	DRA0150	Maintenance of Underground Services	0
60	DRA-43	DRA0160	Maintenance of Line Transformers	0
61	DRA-43	DRA0170	Maintenance of Substation Lighting and Signal	0
62	DRA-43	DRA0180	Systems	0
63	DRA-43	DRA0190	Sentinel Lights, Labor	0
64	DRA-43	DRA0200	Sentinel Lights, Materials and Expenses	318,008,147
65	DRA-43	DRA0210	Maintenance of Motors	0
66	DRA-43	DRA0220	Maintenance Installation Equipment - Leased Property	0
67	DRA-43	DRA0230	Water Heater Rentals, Labor	0
68	DRA-43	DRA0240	Water Heater Rentals, Materials and Expenses	0
69	DRA-43	DRA0250	Water Heater Rentals, Labor	0
70	DRA-43	DRA0260	Water Heater Rentals, Materials and Expenses	0
71	DRA-43	DRA0270	Maintenance of Other Installation on Customer	0
72	DRA-43	DRA0280	Premises	0
73	DRA-43	DRA0290	Maintenance - Electrical Plant	0
74	DRA-43	DRA0300	Maintenance Computer and Office Equipment	25,777,571
75	DRA-43	DRA0310	Maintenance Furniture and Fixtures	154,595
76	DRA-43	DRA0320	Maintenance Store Equipment	0
77	DRA-43	DRA0330	Maintenance Workshop Equipment	268,191
78	DRA-43	DRA0340	Maintenance Laboratory Equipment	0
79	DRA-43	DRA0350	Maintenance Construction Equipment	0
80	DRA-43	DRA0360	Maintenance Communication Equipment	0
81	DRA-43	DRA0370	Maintenance Fire Safety Equipment	26,529
82	DRA-43	DRA0380	Maintenance Medical and Hospital	0
83	DRA-43	DRA0390	Maintenance Misc. Equipment	0
84	DRA-43	DRA0400	Maintenance of Industrial Plant	1,140,312
85	DRA-43	DRA0410	Organization	0
86	DRA-43	DRA0420	Franchises and Licenses	0
87	DRA-43	DRA0430	Miscellaneous Intangible Assets	0
88	DRA-44	DRA0020	Description of Distribution Plant	0
89	DRA-44	DRA0030	Leased Land	0
90	DRA-44	DRA0040	Land Rights	0
91	DRA-44	DRA0050	Buildings and Fixtures	40,036,561
92	DRA-44	DRA0060	Leasedhold Improvements	0
93	DRA-44	DRA0070	Transformer Station Equipment - Normally	533,021,972
94	DRA-44	DRA0080	Primary Above 30 kV	0
95	DRA-44	DRA0090	Distribution Station Equipment - Normally	0
96	DRA-44	DRA0100	Primary Below 30 kV	0
97	DRA-44	DRA0110	Storage Battery Equipment	1,448,740,798
98	DRA-44	DRA0120	Police, Trains and Pictures	0
99	DRA-44	DRA0130	Overhead Conductors and Devices	2,317,026
100	DRA-44	DRA0140	Underground Conduits	605,123,507
101	DRA-44	DRA0150	Underground Conductors and Devices	505,612,082
102	DRA-44	DRA0160	Line Transformer	469,214,945
103	DRA-44	DRA0170	Services	0
104	DRA-44	DRA0180	Meters	0
105	DRA-44	DRA0190	Leased Property on Customer's Premises	0
106	DRA-44	DRA0200	Street Lighting and Signal Systems	151,180
107	DRA-44	DRA0210	Sentinel Lighting Rental Units	0
108	DRA-44	DRA0220	Load Management Controls - Customer Premises	0
109	DRA-44	DRA0230	System Supervisory Equipment	0
110	DRA-44	DRA0240	Other Installations on Customer's Premises	0
111	DRA-44	DRA0250	Description of General Plant	0
112	DRA-44	DRA0260	Leased Land	0
113	DRA-44	DRA0270	Land Rights	0
114	DRA-44	DRA0280	Buildings and Fixtures	107,188,811
115	DRA-44	DRA0290	Leasedhold Improvements	0
116	DRA-44	DRA0300	Office Furniture and Equipment	0
117	DRA-44	DRA0310	Computer Equipment - Hardware	12,202,651



172	DNA-46	0280010		Regulatory Delays	0
173	DNA-46	0280020		Regulatory Credits	0
174	DNA-46	0280030		Revenue from Electric Plants Landed to Others	286,107
175	DNA-46	0280040		Revenue from Merchandise, Supplies, etc.	0
176	DNA-46	0280070		Profits/(Losses) from Financial Instrument Sales	0
177	DNA-46	0280080		Accumulation of Deferred Income Taxes/(Credits) from Disposition of Future Utility Plant	1,184,785,790
178	DNA-46	0280090		Gains/(Losses) from Disposition of Utility and Other Property	0
179	DNA-46	0280110		Gains/(Losses) on Disposal of Other Assets	0
180	DNA-46	0280130		Foreign Exchange Gains and (Losses)	0
181	DNA-46	0280140		Misclassified Non-Operating Income	334,075,974
182	DNA-46	0280150		Expenses of Electric Plant Landed to Others	0
183	DNA-46	0280050		Cost and Expenses of Merchandise and Jobbing	0
184	DNA-46	0280060			
185	DNA-73	0410100		Taxes	
185	DNA-73	0410100		Current Income Taxes	0
185	DNA-73	0410100		Deferred Income Taxes	0
185	DNA-73	0410100		Taxes Other than Income Taxes	0
185	DNA-73	0720100		Allowances for Bad Debts	0

**MULTAN ELECTRIC POWER COMPANY**  
Inputs for Billing Data

Inputs for Billing Data

**MULTAN ELECTRIC POWER COMPANY**  
*Source for Billing Data*

Service by William Ball

## CONSUMER GROWTH

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MULTAN ELECTRIC POWER COMPANY  
Inputs for Billing Data

Inputs for Billing Data

CONSUMER GROWTH		9.64%	
SALES GROWTH		28.54%	
		Am	Bal
On-Peak Revenue (PKR)	113,138,000	104,251,952	11,287,052
Off-Peak Revenue (PKR)	51,222	12,071,960	12,020,420
Using Current (PKR)		32,664	32,662
<b>CHARGE FOR REVENUE AT 10% &amp; ADDITIONAL LOCAL SERVICE 4,000 PKR</b>	<b>C2 (A)</b>		
Customer	0	0	0
Sales (PKR)	0	0	0
Fund Charge (PKR)	0	0	0
Revenue (PKR)	0	0	0
<b>CHARGE FOR REVENUE AT 10% &amp; ADDITIONAL LOCAL SERVICE 4,000 PKR</b>	<b>C2 (B)</b>		
Customer	1	1	1
Sales (PKR)	10,192,140	10,192,140	10,192,140
On-Peak Revenue (PKR)	10,192,140	10,192,140	10,192,140
Off-Peak Revenue (PKR)	1,722,260	1,722,260	1,722,260
Fund Charge (PKR)	4,000	4,000	4,000
Holding Current (PKR)	1,440	1,440	1,440
<b>Tariff: Agricultural Table-Wells – Tarif D</b>			
<b>Water Data</b>			
<b>D-1 (A) – SCRAPED AND BOTTLED 4,000</b>	<b>D1 (A)</b>		
Customer	3,813	3,810	3,809
Sales (PKR)	1,204,512	1,214,527	1,207,524
Revenue (PKR)	18,362,323	18,364,629	18,364,629
<b>D-1 (B) – SCRAPED AND BOTTLED 100 &amp; ABOVE</b>	<b>D1 (B)</b>		
Customer	64,279	66,207	59,611
Sales (PKR)	28,105,328	28,105,139	19,928,365
Revenue (PKR)	186,893,613	186,893,271	113,892,697
On-Peak Sales (PKR)	561,320,569	560,010,826	305,321,778
Peak Revenue (PKR)	2,165,302,824	2,074,461,401	1,875,364,447
Off-Peak Revenue (PKR)	184,200,402	180,275,800	172,200,400
Fund Charge (PKR)	821,942	800,829	801,026
Holding Demand (PKR)	1,004	1,000	1,000
<b>D-2 – Agricultural Table</b>	<b>D2</b>		
Customer	8,503	8,600	8,500
Sales (PKR)	128,797	112,792	124,798
Revenue (PKR)	132,800	128,800	131,800
Fund Charge (PKR)	1,500,500	1,500,000	1,500,500
Holding Demand (PKR)	1,500	1,500	1,500
<b>Tariff: Temperature Service – E</b>			
<b>Water Data</b>			
<b>E-1 (A) – Basic Temperature Service</b>	<b>E1 (A)</b>		
Customer	798	798	801
Sales (PKR)	42,491	22,446	19,796
Revenue (PKR)	790,280	402,678	370,666
<b>E-1 (B) – Basic Temperature Service</b>	<b>E1 (B)</b>		
Customer	1,046	1,054	1,056
Sales (PKR)	179,592	137,579	160,020
Revenue (PKR)	3,973,408	2,962,440	3,911,083
<b>E-2 – Intelligent Temperature Service</b>	<b>E2</b>		
Customer	62	62	62
Sales (PKR)	11,956	9,671	8,882
Revenue (PKR)	159,860	148,401	125,560
<b>Tariff: Public Lighting – G</b>	<b>G</b>		
Customer	1,206	1,140	1,210
Sales (PKR)	1,307,222	1,187,444	1,470,303
Revenue (PKR)	21,024,303	18,000,828	20,000,000
<b>Tariff: Residential Consumption – H</b>			
Customer	104	105	106
Sales (PKR)	710,222	706,708	729,488
Revenue (PKR)	1,061,674	940,744	1,000,544
<b>Tariff: Residential Consumption – I</b>			
Customer	11	11	11
Sales (PKR)	1,251,200	1,135,776	1,251,200
Revenue (PKR)	0,603,744	0,520,544	0,727,216
<b>Tariff: Railways Traction – J</b>			
Customer	1	1	1
Sales (PKR)	10,192,140	10,192,140	10,192,140
Revenue (PKR)	1,722,260	1,722,260	1,722,260
<b>Total</b>			
Am	80,220,742	80,220,742	80,220,742
Bal	80,220,742	80,220,742	80,220,742
Min	79,723,065	79,723,065	79,723,065
Avg	81,460,023	81,460,023	81,460,023
Max	81,460,023	81,460,023	81,460,023
Total	14,200,432	14,200,432	14,200,432
Projected Sales	18,673,400	18,673,400	18,673,400

CONSUMER GROWTH		9.64%	
SALES GROWTH		28.54%	
		Am	Bal
On-Peak Revenue (PKR)	113,138,000	104,251,952	11,287,052
Off-Peak Revenue (PKR)	51,222	12,071,960	12,020,420
Using Current (PKR)		32,664	32,662
<b>CHARGE FOR REVENUE AT 10% &amp; ADDITIONAL LOCAL SERVICE 4,000 PKR</b>	<b>C1 (A)</b>		
Customer	0	0	0
Sales (PKR)	0	0	0
Fund Charge (PKR)	0	0	0
Revenue (PKR)	0	0	0
<b>CHARGE FOR REVENUE AT 10% &amp; ADDITIONAL LOCAL SERVICE 4,000 PKR</b>	<b>C1 (B)</b>		
Customer	1	1	1
Sales (PKR)	10,192,140	10,192,140	10,192,140
On-Peak Revenue (PKR)	10,192,140	10,192,140	10,192,140
Off-Peak Revenue (PKR)	1,722,260	1,722,260	1,722,260
Fund Charge (PKR)	4,000	4,000	4,000
Holding Current (PKR)	1,440	1,440	1,440
<b>Tariff: Agricultural Table-Wells – Tarif D</b>			
<b>Water Data</b>			
<b>D-1 (A) – SCRAPED AND BOTTLED 4,000</b>	<b>D1 (A)</b>		
Customer	3,813	3,810	3,809
Sales (PKR)	1,204,512	1,214,527	1,207,524
Revenue (PKR)	18,362,323	18,364,629	18,364,629
<b>D-1 (B) – SCRAPED AND BOTTLED 100 &amp; ABOVE</b>	<b>D1 (B)</b>		
Customer	64,279	66,207	59,611
Sales (PKR)	28,105,328	28,105,139	19,928,365
Revenue (PKR)	186,893,613	186,893,271	113,892,697
On-Peak Sales (PKR)	561,320,569	560,010,826	305,321,778
Peak Revenue (PKR)	2,165,302,824	2,074,461,401	1,875,364,447
Off-Peak Revenue (PKR)	184,200,402	180,275,800	172,200,400
Fund Charge (PKR)	821,942	800,829	801,026
Holding Demand (PKR)	1,004	1,000	1,000
<b>D-2 – Agricultural Table</b>	<b>D2</b>		
Customer	8,503	8,600	8,500
Sales (PKR)	128,797	112,792	124,798
Revenue (PKR)	132,800	128,800	131,800
Fund Charge (PKR)	1,500,500	1,500,000	1,500,500
Holding Demand (PKR)	1,500	1,500	1,500
<b>Tariff: Temperature Service – E</b>			
<b>Water Data</b>			
<b>E-1 (A) – Basic Temperature Service</b>	<b>E1 (A)</b>		
Customer	798	798	801
Sales (PKR)	42,491	22,446	19,796
Revenue (PKR)	790,280	402,678	370,666
<b>E-1 (B) – Basic Temperature Service</b>	<b>E1 (B)</b>		
Customer	1,046	1,054	1,056
Sales (PKR)	179,592	137,579	160,020
Revenue (PKR)	3,973,408	2,962,440	3,911,083
<b>E-2 – Intelligent Temperature Service</b>	<b>E2</b>		
Customer	62	62	62
Sales (PKR)	11,956	9,671	8,882
Revenue (PKR)	159,860	148,401	125,560
<b>Tariff: Public Lighting – G</b>	<b>G</b>		
Customer	1,206	1,140	1,210
Sales (PKR)	1,307,222	1,187,444	1,470,303
Revenue (PKR)	21,024,303	18,000,828	20,000,000
<b>Tariff: Residential Consumption – H</b>			
Customer	104	105	106
Sales (PKR)	710,222	706,708	729,488
Revenue (PKR)	1,061,674	940,744	1,000,544
<b>Tariff: Residential Consumption – I</b>			
Customer	11	11	11
Sales (PKR)	1,251,200	1,135,776	1,251,200
Revenue (PKR)	0,603,744	0,520,544	0,727,216
<b>Tariff: Railways Traction – J</b>			
Customer	1	1	1
Sales (PKR)	10,192,140	10,192,140	10,192,140
Revenue (PKR)	1,722,260	1,722,260	1,722,260
<b>Total</b>			
Am	80,220,742	80,220,742	80,220,742
Bal	80,220,742	80,220,742	80,220,742
Min	79,723,065	79,723,065	79,723,065
Avg	81,460,023	81,460,023	81,460,023
Max	81,460,023	81,460,023	81,460,023
Total	14,200,432	14,200,432	14,200,432
Projected Sales	18,673,400	18,673,400	18,673,400

Billable Date

**MULTAN ELECTRIC POWER COMPANY**  
Inputs for Billing Data

CONSUMER GROWTH		9.6%		18.5%																PROJECTED SALES		
RESIDENTIAL	Commercial																					
Sales (kWh)	Sales (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenue (PKR)	Revenue (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fuel Charge (PKR)	Fuel Charge (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B/T-C Demand (kW)	B/T-C Demand (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Export To DISCO 132 KV</b>	<b>Customer</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>													
Sales (kWh)	Sales (kWh)	227,846,000	261,944,000	153,156,840	174,827,460	143,416,000	154,950,040	106,653,010	124,000,000	141,363,000	152,622,200	176,383,000	199,705,510	2,112,045,000	2,400,001,244	2,479,279	2,479,279	2,479,279	2,479,279	2,479,279	2,479,279	2,479,279
B/T-C Demand (kW)	B/T-C Demand (kW)	973,011	959,200	656,200	667,811	582,200	587,700	367,672	364,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	363,600	
<b>Export To DISCO 11 KV</b>	<b>Customer</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>													
Sales (kWh)	Sales (kWh)	3,782,450	4,028,800	2,946,510	2,687,211	2,565,451	2,481,800	2,182,867	1,968,240	2,113,000	2,205,600	2,344,517	2,582,010	2,842,518	2,842,518	2,842,518	2,842,518	2,842,518	2,842,518	2,842,518	2,842,518	
B/T-C Demand (kW)	B/T-C Demand (kW)	9,126	9,131	4,928	4,272	3,610	3,700	4,447	5,468	5,800	6,920	8,040	9,160	9,160	9,160	9,160	9,160	9,160	9,160	9,160	9,160	

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**MULTAN ELECTRIC POWER COMPANY**  
**Load Data and Losses**  
**Back to Overview**

**Table 1: Development of Energy Loss Allowance Factors**

Customer Class	Meter	(0.2kV)	(0.4kV)	(11 kV)	(132-66kV)
T & D Technical Loss (%)		0.80%	5.09%	9.01%	3.50%
Aggregate T&D Loss(%)			16.53%		

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**Table 1. Peak Demand (at Meter) MW**

**Table 2. Peak Demand (at Meter) MW**

**MULTAN ELECTRIC POWER COMPANY**  
**NEPRA Determined Tariff By Standard Customer Class Classification**

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		17-Jan-14	
TARIFF CATEGORIES		Fixed Charges Rs/kW/M	Variable Charges Rs/kWh
A1(a)	<b>RESIDENTIAL -A1</b>		
I	Up to 50 Units	0.0	4.00
II	01-100 Units	0.0	13.00
III	101-300 Units	0.0	16.89
IV	301-700 Units	0.0	17.90
V	Above 700 Units	0.0	19.00
A1(b)	Time of Use (TOU) - Peak		19.00
	Time of Use (TOU) - Off-Peak		13.30
E-1(I)	Temporary E-1 (I)		19.00
	<b>COMMERCIAL - A2</b>		
A2 (a)	Commercial - For peak load requirement up to 5 kW		19.00
A2 (b)	Regular	400	16.00
A2 (c)	Time of Use (TOU) - Peak (A-2)	400	19.00
	Time of Use (TOU) - Off-Peak		13.30
E-1 (II)	Temporary E-1 (II)		19.00
	<b>INDUSTRIAL</b>		
B1(a)	B1		15.50
B1(b)	B1- TOU (Peak)		19.00
	B1 - TOU (Off-peak)		13.30
B2 (a)	B2	400	15.00
B2 (b)	B2 - TOU (Peak)	400	19.00
	B2 - TOU (Off-peak)		13.10
B3	B3 - TOU (Peak)	380	19.00
	B3 - TOU (Off-peak)		13.00
B4	B4 - TOU (Peak)	360	19.00
	B4 - TOU (Off-peak)		12.90
E-2	Temporary E-2		15.50
	<b>BULK</b>		
C1 (a)	C1(a) Supply at 400 Volts - up to 5 kW		16.00
C1 (b)	C1(b) Supply at 400 Volts -exceeding 5 kW	400	15.50
C1 (c)	Time of Use (TOU) - Peak	400	19.00
	Time of Use (TOU) - Off-Peak		13.30
C2 (a)	C2 Supply at 11 kV	380	15.30
C2 (b)	Time of Use (TOU) - Peak	380	19.00
	Time of Use (TOU) - Off-Peak		13.10
C3 (a)	C3 Supply above 11 kV	360	15.20
C3 (b)	Time of Use (TOU) - Peak	360	19.00
	Time of Use (TOU) - Off-Peak		13.00
	<b>AGRICULTURAL TUBE WELLS - Tariff D</b>		
D1 (a)	D1 Scarp	0	15.50
D2	D2 Agricultural Tubeewells	200	15.00
D1 (b)	Time of Use (TOU) - Peak	200	19.00
	Time of Use (TOU) - Off-Peak		13.00
G	Public Lighting G		15.00
H	Residential Colonies H		15.00
I	Railway Traction I		15.00

## MULTAN ELECTRIC POWER COMPANY

## **Summary of Revenue Requirement**

Description		REMARKS		
Proj. Units Purchased (GWh)	14,077	Cell is FIXED and can not be cha	14,000	A1 (a)
Proj. Units Sold (GWh) to MEPCO Consumers	11,751	Cell is FIXED	11,760	i
Assessed T&D Losses	16.53%	FIXED: to make changes one need to select technical losses	16.00%	ii
<b>POWER PURCHASE PRICE</b>	<b>Rs In Million</b>		<b>Rs In Million</b>	<b>iii</b>
Energy Charge	113,560		111,827	iv
Capacity Charge	31,557		32,755	v
Transmission Charge	2,928		3,163	A1(b)
<b>TOTAL</b>	<b>148,046</b>		<b>147,745</b>	
<b>DISTRIBUTION MARGIN</b>				<b>A2 (a)</b>
Pay & Allowances	6,647		6,394	A2 (b)
Provision for Retirement Benefits	3,277		3,270	A2 (c)
Maintenance	1,300		1,052	B1(a)
Traveling allowance	600		572	B1(b)
Vehicle maintenance	345		329	
Elec. Bills Collection Charges	300		327	
Other expenses	877		387	B2 (a)
<b>TOTAL O&amp;M COST</b>	<b>13,346</b>		<b>12,332</b>	B2 (b)
Provision for bad debts	0		0	
Other Income (Excluding LPS)	786		1,778	B3
Amortization of Deferred Credit	1,885		1,934	
Depreciation	3,908		3,037	B4
Agricultural Subsidy	0		0	
Return on Assets	6,767		5,741	C1 (a)
Working Capital	4,809		0	C1 (b)
<b>TOTAL DISTRIBUTION MARGIN</b>	<b>26,159</b>		<b>17,397</b>	C1 (c)
Prior Year Adjustment	25,697		0	
PPP Adj . 1st Qrt	0		0	C2 (a)
PPP Adj . 2nd Qrt	0		0	C2 (b)
<b>TOTAL REVENUE REQUIREMENT</b>	<b>199,902</b>		<b>165,142</b>	
<b>FY 2014-15</b>				<b>C3 (a)</b>
<b>AVERAGE TARIFF (Rs/kWh)</b>				<b>C3 (b)</b>
Power Purchase Price-Unadj.	10.52		10.55	
Power Purchase Price-Adjusted	12.60		12.56	D1 (a)
Distribution Margin	2.23		1.48	D2
PPP Adjustments	0.00		0.00	D1 (b)
Prior Year Adjustment	2.19		0.00	
<b>Annual FY 2014-15</b>	<b>17.01</b>		<b>14.04</b>	<b>E-1(i)</b>
<b>Annual FY 2013-14</b>	<b>14.65</b>		<b>14.65</b>	<b>E-1 (ii)</b>

## Projected Sales for FY 2014-15

TARIFF CATEGORIES	As per Petition	Actual	Actual
	FY 2014-15	Mix	FY 2012-13
<b>RESIDENTIAL -A1</b>			
Up to 50 Units	822,570,000	9%	847,097,534
01-100 Units	2,437,710,000	21%	2,083,598,813
101-300 Units	1,742,650,000	15%	1,485,649,770
301-700 Units	462,989,400	4%	360,793,383
Above 700 Units	105,759,000	1%	90,049,085
Time of Use (TOU) - Peak	3,525,300	0%	11,761,467
Time of Use (TOU) - Off-Peak	70,506,000	1%	59,666,036
Commercial - For peak load up to 5 kW	347,530,000	3%	309,793,533
Regular	25,852,200	0%	1,420,841
Time of Use (TOU) - Peak (A-2)	52,879,500	0%	47,875,336
Time of Use (TOU) - Off-Peak	240,595,900	2%	218,442,123
B1	61,105,200	0%	44,663,681
B1- TOU (Peak)	43,478,700	0%	37,709,462
B1 - TOU (Off-peak)	231,494,700	2%	207,100,814
B2	3,525,300	0%	10,372,707
B2 - TOU (Peak)	125,735,700	1%	117,905,977
B2 - TOU (Off-peak)	728,562,000	7%	650,871,930
B3 - TOU (Peak)	48,179,100	1%	95,376,748
B3 - TOU (Off-peak)	1,323,715,200	10%	1,011,609,428
B4 - TOU (Peak)	50,529,300	1%	61,133,170
B4 - TOU (Off-peak)	457,164,500	4%	391,629,692
C1(a) Supply at 400 Volts - up to 5 kW	1,821,405	0%	145,962
C1(b) Supply at 400 Volts -exceeding 5 kW	23,502,000	0%	1,799,352
Time of Use (TOU) - Peak	4,700,400	0%	4,305,740
Time of Use (TOU) - Off-Peak	23,502,000	0%	19,849,839
C2 Supply at 11 kV	15,276,300	0%	10,988,849
Time of Use (TOU) - Peak	23,502,000	0%	20,267,050
Time of Use (TOU) - Off-Peak	105,759,000	1%	93,527,525
C3 Supply above 11 kV	-	0%	0
Time of Use (TOU) - Peak	940,080	0%	822,720
Time of Use (TOU) - Off-Peak	4,700,400	0%	4,022,160
D1 Scarp	7,050,600	0%	9,122,112
D2 Agricultural Tube-wells	1,116,345	0%	923,818
Time of Use (TOU) - Peak	359,580,600	2%	244,096,191
Time of Use (TOU) - Off-Peak	1,761,451,600	13%	1,333,536,656
Temporary E-1 (i)	-	0%	353,599
Temporary E-1 (ii)	-	0%	1,666,201
Temporary E-2	-	0%	99,577
Public Lighting G	23,502,000	0%	16,223,568
Residential Colonies H	8,225,700	0%	6,777,608
<b>Sub Total MEPCO consumers</b>	<b>11,750,687,430</b>	<b>100%</b>	<b>9,913,050,057</b>
Export to DISCOs 132 kV	2,503,661,284		2,112,124,910
Export to DISCOs 11 kV	39,643,010		33,443,417
<b>Sub Total Export</b>	<b>2,543,304,293</b>		<b>2,145,568,327</b>
<b>TOTAL</b>	<b>14,293,991,723</b>		<b>12,058,618,384</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Cost of Service Model**  
**Calculation of Billing Determinants**

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**Worksheet      Description**

- |    |   |
|----|---|
| A1 | Total Sales by Standard Rate Classification |
| A2 | Total Sales by Voltage Classification       |

Classification by Voltage Level				
Voltage	1	2	3	4
132/66kV				0.2 kV
B4	B3	A1b		A1a
C3a	C2a	A2b		A2a
C3b	C2b	A2c		B1a
H		B1b		C1a
I	B2a			E
	B2b			
	C1b			
	C1c			
	D1a			
	D1b			
	D2			
	G			

Customer Class

MULTAN ELECTRIC POWER COMPANY

### Total Sales by Standard Rate Classification

MULTAN ELECTRIC POWER COMPANY

Total sales by standard Kappa classification

# **MULTAN ELECTRIC POWER COMPANY**

## **Total Sales by Voltage Classification**

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### **Total Sales by Voltage level**

Total Sales by Voltage level	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		Jun	
Aggregate Data	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)																							
Customers	4,443,545	4,456,012	4,471,423	4,490,221	4,513,484	4,541,156	4,573,105	4,598,233	4,621,059	4,637,776	4,657,386	4,674,111	4,686,459																							
Sales (kWh)	1,186,637,063	1,244,824,070	1,155,731,391	1,077,460,752	1,015,298,862	932,206,725	881,134,992	739,878,739	835,584,660	867,087,115	997,780,614	1,144,965,401	12,056,618,384																							
Revenues (PKR)	11,971,908,398	14,281,258,550	14,035,178,294	12,747,444,245	12,245,349,419	10,639,638,898	9,184,003,741	8,044,294,710	9,194,781,407	9,595,135,344	11,257,093,250	13,311,728,231	136,508,814,484																							
Fixed Charges (PKR)	488,789,380	503,779,240	510,539,800	520,011,580	538,241,240	526,549,820	518,834,640	508,676,200	514,080,680	503,491,620	508,845,360	519,257,820	6,161,097,180																							
Non-Time of Use Customers																																				
Customers	4,338,565	4,350,239	4,364,950	4,383,174	4,405,709	4,432,532	4,463,490	4,487,415	4,509,196	4,525,443	4,544,413	4,560,576	4,447,142																							
Sales (kWh)	766,627,559	833,022,785	775,123,429	669,099,319	609,737,080	539,474,552	490,333,644	432,350,314	460,589,714	526,202,922	610,279,784	714,267,216	7,427,108,320																							
Revenues (PKR)	6,711,425,586	8,270,530,808	8,507,446,058	6,804,264,735	6,321,112,365	4,908,556,602	3,779,820,861	3,529,432,366	3,704,624,797	4,616,405,884	6,637,110,481	7,071,399,867	69,861,289,891																							
Fixed Charges (PKR)	4,043,860	4,474,260	4,112,200	3,979,160	5,089,820	4,124,340	4,173,040	3,554,680	2,584,000	2,378,280	2,561,920	2,900,220	43,976,760																							
Time of Use Customers																																				
Customers	104,980	105,773	106,473	107,047	107,775	108,624	109,615	110,818	111,863	112,333	112,973	113,535	109,317																							
Peak Sales (kWh)	56,082,970	57,565,284	48,789,340	54,680,198	58,237,425	55,879,648	52,347,005	49,437,644	56,997,569	49,554,171	48,834,035	52,638,572	841,253,861																							
Off-Peak Sales (kWh)	363,926,534	354,236,001	331,818,622	353,871,235	347,322,357	336,852,525	318,454,343	258,090,781	317,997,377	291,330,022	338,666,795	377,889,611	3,900,256,203																							
Peak Revenues (PKR)	995,351,862	1,122,523,038	961,302,130	1,066,458,861	1,135,629,788	1,089,653,136	1,020,766,588	964,034,058	1,111,452,596	966,308,334	952,263,663	1,030,352,154	12,406,184,237																							
Off-Peak Revenues (PKR)	4,265,130,949	4,888,204,704	4,576,340,106	4,876,720,849	4,788,807,247	4,641,629,159	4,384,416,282	3,550,828,625	4,378,704,013	4,012,423,326	4,667,719,097	5,209,976,210	64,240,700,366																							
Fixed Charges (PKR)	484,745,520	499,304,980	506,427,600	518,032,420	533,151,420	522,425,480	514,661,600	505,121,540	511,496,680	501,113,340	506,283,440	618,357,400	6,117,121,420																							
0.2kV																																				
Customers	4,323,005	4,334,686	4,349,445	4,367,896	4,390,258	4,417,104	4,448,085	4,472,042	4,493,861	4,510,110	4,528,093	4,545,268	4,431,721																							
Sales (kWh)	518,600,366	569,065,379	583,408,755	486,052,869	458,033,493	376,701,577	314,339,376	302,707,244	313,623,901	367,268,320	426,569,204	507,540,654	6,223,811,138																							
Revenues (PKR)	6,625,130,731	8,182,083,738	8,420,508,998	6,719,325,850	6,230,731,054	4,824,670,786	3,705,994,402	3,466,370,052	3,654,239,772	4,562,822,473	5,581,274,700	7,013,217,353	68,986,389,908																							
Fixed Charges (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Non-Time of Use Customers																																				
Customers	4,323,005	4,334,686	4,349,445	4,367,896	4,390,258	4,417,104	4,448,085	4,472,042	4,493,861	4,510,110	4,529,093	4,545,268	4,431,721																							
Sales (kWh)	518,600,366	569,065,379	583,408,755	486,052,869	458,033,493	376,701,577	314,339,376	302,707,244	313,623,901	367,268,320	426,569,204	507,540,654	6,223,911,138																							
Revenues (PKR)	6,625,130,731	8,182,083,738	8,420,508,998	6,719,325,850	6,230,731,054	4,824,670,786	3,705,994,402	3,466,370,052	3,654,239,772	4,562,822,473	5,581,274,700	7,013,217,353	68,986,389,908																							
Fixed Charges (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Time of Use Customers																																				
Customers	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Peak Sales (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Off-Peak Sales (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Peak Revenues (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Off-Peak Revenues (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Fixed Charges (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0																							
0.4kV																																				
Customers	120,117	120,802	121,554	122,098	122,796	123,623	124,588	125,758	126,762	127,227	127,855	128,403	124,307																							
Sales (kWh)	313,619,345	307,201,295	257,126,814	277,426,091	269,640,965	247,273,035	215,683,192	144,913,628	215,463,167	194,276,277	258,106,012	292,254,148	2,992,983,969																							
Revenues (PKR)	4,037,609,474	4,524,988,036	3,769,827,206	4,059,587,560	3,956,440,063	3,648,157,608	3,224,564,383	2,172,701,785	3,181,441,810	2,874,688,763	3,796,000,605	4,296,783,969	43,842,801,191																							
Average Customer Consumption (kWh)	2,611	2,541	2,115	2,272	2,196	2,000	1,731	1,152	1,700	1,527	2,019	2,276	24,077																							
Fixed Charges (PKR)	354,704,200	373,069,600	371,106,000	382,106,800	398,753,200	388,120,600	391,463,200	372,098,200	376,881,600	365,497,800	374,069,400	379,140,400	4,827,011,000																							
Non-Time of Use Customers																																				
Customers	15,419	15,411	15,383	15,335	16,308	15,287	15,262	15,230	15,192	15,190	15,178	15,165	15,278																							
Sales (kWh)	4,273,074	3,898,603	3,755,150	3,933,522	4,507,971	4,237,062	3,457,313	2,847,731	2,295,057	2,356,209	2,312,702	1,967,974	39,862,398																							
Revenues (PKR)	58,622,115	60,336,808	58,288,978	61,219,610	69,681,830	65,774,892	53,699,794	44,436,024	35,917,868	36,932,564	36,101,238	30,704,950	811,716,265																							
Fixed Charges (PKR)	2,711,200	3,232,800	2,827,800	2,808,000	4,315,000	3,405,000	3,050,400	2,781,500	1,748,000	1,613,400	1,644,600	1,666,000	31,723,800																							
Time of Use Customers																																				
Customers	104,698	105,491	106,191	106,763	107,488	108,336	109,528	111,570	112,037	112,677	113,238	109,029																								
Peak Sales (kWh)	46,785,995	47,251,721	35,993,864	37,748,464	38,327,798	38,576,397	41,227,478	28,343,014	34,574,718	31,911,876	38,910,498	44,022,350	483,684,173																							
Off-Peak Sales (kWh)	262,580,276	258,050,971	217,377,800	235,744,105	226,805,196	204,459,546	170,998,401	113,722,883	178,593,392	160,006,192	216,882,812	246,243,824	2,488,467,398																							
Peak Revenues (PKR)	839,515,171	921,408,560	701,880,348	736,095,048	747,392,061	752,239,742	803,935,825	552,688,773	674,207,002	622,281,562	758,754,712	858,435,825	8,968,834,642																							
Off-Peak Revenues (PKR)	3,139,472,188	3,543,242,869	3,009,657,681	3,262,272,902	3,139,368,372	2,830,142,975	2,366,928,768	1,575,578,688	2,471,316,641	2,215,474,618	3,001,144,655	3,407,653,125	33,962,250,281																							
Fixed Charges (PKR)	351,993,000	360,836,800	366,278,200	379,298,800	384,318,200	384,715,600	388,402,800	389,336,600	375,133,800	363,984,400	372,424,600	377,444,400	4,495,287,200																							

# **MULTAN ELECTRIC POWER COMPANY**

## Total Sales by Voltage Classification

Back to Index	Total Sales by Voltage level													May (11)	Jun (12)	Jul (13)					
	Jul (1)		Aug (2)		Sep (3)		Oct (4)		Nov (5)		Dec (6)		Jan (7)		Feb (8)		Mar (9)		Apr (10)		
<b>11kV</b>																					
Customers	396	397	397	400	403	402	405	406	409	412	411	413	404								
Sales (kWh)	80,614,555	79,548,535	90,352,212	100,140,756	103,857,132	111,110,803	116,668,464	122,344,236	122,926,778	110,646,321	95,605,007	104,732,411	1,238,847,208								
Revenues (PKR)	947,764,470	1,128,522,623	1,289,470,147	1,441,053,286	1,504,155,355	1,591,399,747	1,639,309,023	1,766,375,129	1,783,246,372	1,580,206,900	1,344,535,232	1,467,470,720	17,489,809,803								
Average Customer Consumption (kWh)	203,572	200,374	227,587	250,352	257,710	276,395	288,070	301,340	300,554	268,559	232,618	253,589	3,063,815								
Fixed Charges (PKR)	104,048,940	102,055,080	108,702,040	107,728,860	110,409,760	108,705,480	99,019,640	107,793,840	107,535,440	108,107,340	105,019,080	109,450,260	1,278,676,740								
Non-Time of Use Customers																	123				
Customers	122	123	123	124	124	122	124	124	124	124	124	124	124				124				
Sales (kWh)	2,039,182	1,867,037	1,905,174	1,588,257	1,384,281	1,193,653	1,331,280	1,245,398	969,750	1,112,691	1,303,232	1,825,522	17,786,457								
Revenues (PKR)	27,672,740	28,110,462	28,648,083	23,719,275	20,899,701	18,110,925	19,926,666	18,625,850	14,467,158	16,650,648	19,734,542	27,477,565	263,843,716								
Fixed Charges (PKR)	1,332,860	1,241,460	1,284,400	1,171,160	774,820	719,340	1,112,840	783,060	836,000	864,880	917,320	1,204,220									
Time of Use Customers																	281				
Customers	274	274	274	276	279	280	281	282	285	288	288	289	281								
Peak Sales (kWh)	5,147,370	5,829,683	8,089,796	11,262,359	13,504,082	11,445,181	6,571,257	15,000,550	16,733,006	11,693,105	5,431,292	4,846,117	116,643,798								
Off-Peak Sales (kWh)	73,428,003	71,851,815	80,357,242	87,280,140	88,968,760	98,471,969	104,765,927	106,007,288	105,224,020	87,840,525	88,870,483	98,060,772	1,105,136,953								
Peak Revenues (PKR)	68,111,430	113,678,819	157,751,022	219,616,001	263,329,599	223,181,030	128,130,512	294,265,725	326,293,617	228,015,548	105,910,194	94,469,282	2,242,781,776								
Off-Peak Revenues (PKR)	831,980,300	986,733,343	1,103,071,041	1,197,718,010	1,220,126,055	1,350,107,792	1,491,243,645	1,453,483,453	1,442,485,596	1,341,540,704	1,218,890,496	1,345,493,873	14,882,874,311								
Fixed Charges (PKR)	102,716,280	100,813,820	107,417,540	106,557,700	109,634,940	107,986,120	97,907,000	107,000,780	106,869,440	107,242,460	104,101,760	108,246,040	1,266,323,780								
<b>132kV/66kV</b>																					
Customers	8	8	8	8	8	8	8	8	8	8	8	8	8				8				
Sales (kWh)	32,087,860	30,817,095	38,789,260	36,316,365	37,953,937	39,779,080	43,238,285	44,364,660	39,869,810	39,430,495	37,405,745	37,555,120	467,807,742								
Revenues (PKR)	361,403,722	445,664,152	555,371,944	527,477,549	554,022,947	575,610,757	614,935,133	638,847,744	575,863,454	571,417,209	535,282,714	534,246,260	6,490,133,583								
Average Customer Consumption (kWh)	4,010,983	3,852,137	4,848,658	4,539,546	4,744,242	4,972,385	5,404,786	5,545,586	4,983,726	4,928,812	4,875,716	4,894,390	67,200,968								
Fixed Charges (PKR)	30,036,240	28,654,560	30,731,760	30,175,920	29,078,280	29,723,780	28,351,800	28,784,160	29,663,640	29,886,480	29,758,880	30,666,960	365,510,440								
Non-Time of Use Customers																	0				
Customers	0	0	0	0	0	0	0	0	0	0	0	0	0				0				
Sales (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0				0				
Revenues (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0				0				
Fixed Charges (PKR)	0	0	0	0	0	0	0	0	0	0	0	0	0				0				
Time of Use Customers																	8				
Customers	8	8	8	8	8	8	8	8	8	8	8	8	8				8				
Peak Sales (kWh)	4,169,605	4,483,880	4,705,680	5,679,375	6,406,545	5,658,070	4,548,270	6,004,080	5,889,845	5,949,190	4,492,245	3,970,105	61,955,890								
Off-Peak Sales (kWh)	27,918,255	26,333,215	34,083,580	30,636,990	31,548,392	33,921,010	38,690,015	38,360,610	34,179,965	33,481,305	32,913,500	33,585,015	395,661,652								
Peak Revenues (PKR)	67,725,262	87,435,660	91,780,760	110,747,813	124,908,128	114,232,365	88,691,265	117,079,560	110,951,978	118,009,205	87,598,778	77,417,048	1,194,557,819								
Off-Peak Revenues (PKR)	293,678,461	358,228,492	463,611,184	416,729,738	429,114,819	461,378,392	526,243,868	521,768,164	484,901,476	455,408,004	447,683,936	456,829,212	6,295,675,794								
Fixed Charges (PKR)	30,036,240	28,654,560	30,731,760	30,175,920	29,078,280	29,723,780	28,351,800	28,784,160	29,663,640	29,886,480	29,758,880	30,666,960	365,510,440								
<b>11kV Export to DISCOs</b>																	3				
Customers	3	3	3	3	3	3	3	3	3	3	3	3	3				3				
Sales (kWh)	3,768,937	4,026,986	2,948,510	2,697,221	2,395,445	2,481,590	2,352,857	1,468,259	2,115,106	2,833,502	3,205,666	3,149,558	33,443,417								
Billing Demand (kW)	9,104	5,131	4,926	4,272	3,510	3,620	3,790	3,498	4,447	5,456	5,600	5,550	58,904								
<b>132/ 66 kV Export to DISCOs</b>																	16				
Customers	16	16	16	16	16	16	16	16	16	16	16	16	16				16				
Sales (kWh)	237,946,000	254,164,800	183,105,840	174,827,450	143,415,890	154,860,640	168,853,018	124,080,682	141,585,600	152,632,200	176,838,980	199,763,510	2,112,124,910								
Billing Demand (kW)	659,069	578,011	635,030	467,811	392,238	483,709	397,672	384,690	303,499	349,941	686,683	696,362	8,005,715								

# MULTAN ELECTRIC POWER COMPANY

## Cost of Service Model

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### Worksheet      Description

<u>B1</u>	Minimum System Classification Coefficients
<u>B2</u>	Calculation of Functionally Classified Rate Base
<u>B3</u>	Calculation of Working Capital

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# MULTAN ELECTRIC POWER COMPANY

## Minimum System Classification Coefficients

## Minimum System Classification Coefficients



Line No.	Form	NEPRA LN.	Label	Total Balance 30-Jun-15	Regulated Function	Average Utility Balance 30-Jun-15	Distribution												Check
							(132kV/66kV)		(11 kV)		(0.4 kV/ 0.2 kV)		Services Customer	Meters Customer	Street Customer	Accounting Customer	Sales Customer		
							Demand	Customer	Demand	Customer	Demand	Customer							
135	DRA-53	D240090	Long Term Customer (Security) Deposits	0	100.00%	0	53%	2.8%	17.4%	0.9%	0.1%	0.0%	13.5%	12.0%	0.0%	0.0%	0.0%	OK	
136	DRA-49		Deferred Tax (Asset)/Liability	0	100.00%	0	53%	2.8%	17.4%	0.9%	0.1%	0.0%	13.5%	12.0%	0.0%	0.0%	0.0%	OK	
			Deferred Credit (Income)	-39,738,903.000	100.00%	-39,738,903.000	53%	3%	17%	1%	0%	0%	14%	12%	0%	0%	0%	OK	
137			Total	-39,738,903.000		-39,738,903.000	63.3%	2.8%	17.4%	0.9%	0.1%	0.0%	13.5%	12.0%	0.0%	0.0%	0.0%	OK	
138																			
139																			
140																			
141			Total Rate Base	44,965,242,036		44,965,242,036	63.3%	2.8%	17.4%	0.9%	0.1%	0.0%	13.5%	12.0%	0.0%	0.0%	0.0%	OK	

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### MULTAN ELECTRIC POWER COMPANY Calculation of Functionally Classified Rate Base

Line No.	Form	NEPAL L.M.	Description	Total Balance*	Total Balance	Regulated Function	Average Balance 30-Jun-18	(1) (2) (3) (4) (5)		(6) (7) (8) (9) (10)		(11) (12) (13) (14) (15)		Meters Count Customer Count	Demand Consumption (16) (17)	Demand Consumption (18) (19)	Demand Consumption (20) (21)	Demand Consumption (22) (23)
								(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
<b>Generation</b>																		
1	DNA-17	D100010	Distribution Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	DNA-17	D100020	Transmission Distribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	DNA-17	D100030	Substation Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	DNA-17	D100040	Organisation, Franchises and Consents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	DNA-17	D100050	Landscaping and Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	DNA-17	D100060	Total Irrigation Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	DNA-17	D100070	Distribution Station Equipment - Normality Primary	2,272,938	2,460,760	100.00%	2,386,937	2,248,814	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OK
8	DNA-17	D100080	Transformer Equipment	180,681,300	195,831,219	100.00%	184,362,204	176,928,450	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OK
9	DNA-17	D100090	Building and Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	DNA-17	D100100	Landscape Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	DNA-17	D100110	Total Irrigation Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	DNA-17	D100120	Distribution Station Equipment - Normality Primary	12,292,517,784	14,040,591,023	100.00%	12,118,301,714	874,562,722	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OK
13	DNA-17	D100130	Transformer Equipment	2,460,760	2,248,814	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	OK
14	DNA-17	D100140	Floodlight Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	DNA-17	D100150	Land Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	DNA-17	D100160	Buildings and Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	DNA-17	D100170	Landscape Improvements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	DNA-17	D100180	Total Irrigation Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	DNA-17	D100190	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	DNA-17	D100200	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	DNA-17	D100210	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	DNA-17	D100220	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	DNA-17	D100230	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	DNA-17	D100240	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	DNA-17	D100250	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	DNA-17	D100260	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	DNA-17	D100270	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	DNA-17	D100280	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	DNA-17	D100290	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	DNA-17	D100300	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	DNA-17	D100310	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	DNA-17	D100320	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	DNA-17	D100330	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	DNA-17	D100340	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	DNA-17	D100350	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	DNA-17	D100360	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	DNA-17	D100370	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	DNA-17	D100380	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	DNA-17	D100390	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	DNA-17	D100400	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	DNA-17	D100410	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	DNA-17	D100420	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	DNA-17	D100430	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	DNA-17	D100440	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	DNA-17	D100450	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	DNA-17	D100460	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	DNA-17	D100470	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	DNA-17	D100480	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	DNA-17	D100490	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	DNA-17	D100500	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	DNA-17	D100510	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	DNA-17	D100520	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	DNA-17	D100530	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	DNA-17	D100540	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	DNA-17	D100550	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	DNA-17	D100560	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	DNA-17	D100570	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	DNA-17	D100580	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	DNA-17	D100590	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	DNA-17	D100600	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	DNA-17	D100610	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	DNA-17	D100620	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	DNA-17	D100630	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	DNA-17	D100640	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	DNA-17	D100650	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	DNA-17	D100660	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67	DNA-17	D100670	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	DNA-17	D100680	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DNA-17	D100690	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DNA-17	D100700	Underground Cables and Cables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	DNA-17	D100710	Underground Cables and Cables	0														

# MULTAN ELECTRIC POWER COMPANY

## Calculation of Functionally Classified Rate Base

## Calculation of Functionally Classified Rate Base

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**MULTAN ELECTRIC POWER COMPANY**  
Calculation of Working Capital

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**45 day Method**

Line No.	Form	NEPRA LN.	Label	-1
1			Operating Expenses – Distribution	
2	DRA-60	D310010	Power Purchases:	
3			Energy Charges	
4			Capacity Charges	
5			Other Charges	
6	DRA-60	D290010	Operation Supervision and Engineering	
7	DRA-60	D290020	Load Dispatching	
8	DRA-60	D290030	Station Buildings and Fixture Expenses	0
9	DRA-60	D290040	Transformer Station Equipment- Operation Labor	0
10	DRA-60	D290050	Transformer Station Equipment- Operation Supplies and Expense	0
11	DRA-60	D290060	Distribution Station Equipment- Operation Labor	0
12	DRA-60	D290070	Distribution Station Equipment- Operation Supplies and Expense	0
13	DRA-60	D290080	Overhead Distribution Lines and Feeders- Operation Labor	0
14	DRA-60	D290090	Overhead Distribution Lines and Feeders- Operation Supplies and Expenses	0
15	DRA-60	D290100	Overhead Sub Transmission Feeders- Operation	0
16	DRA-60	D290110	Overhead Distribution Transformers- Operation	0
17	DRA-60	D290120	Underground Distribution Lines and Feeders- Operation Labor	0
18	DRA-60	D290130	Underground Distribution Lines and Feeders- Operation Supplies and Expenses	0
19	DRA-60	D290140	Underground Sub transmission Feeders- Operation	0
20	DRA-60	D290150	Underground Distribution Transformers- Operation	0
21	DRA-60	D290160	Street Lighting and Signal System Expense	0
22	DRA-60	D290170	Meter Expense	0
23	DRA-60	D290180	Customer Premises- Operation Labor	0
24	DRA-60	D290190	Customer Premises- Materials and Expenses	0
25	DRA-60	D290200	Miscellaneous Distribution Expense	0
26	DRA-60	D290210	Underground Distribution Lines and Feeders- Rental Pad	0
27	DRA-60	D290220	Overhead Distribution Lines and Feeders- Rental Pad	0
28	DRA-60	D290230	Other Rent	0
29			Total Operating Expenses – Distribution	0
30				
31			Other Power Expenses	
32	DRA-60	D310020	Cost of Power Adjustments	
33	DRA-60	D310030	Charges- One-Time	
34	DRA-60	D330010	Purchase of Transmission and System Services	
35	DRA-60	D330020	Distribution Charges	
36	DRA-60	D330030	Distribution Charges recovered	
37	DRA-60	D310040	Other Expenses	
38				
39			Sub - Total	0
40				
41			Total Other Power Expenses	0
42				
43			Maintenance Expense – Distribution Plant	
44	DRA-63	D300010	Maintenance Supervision and Engineering	0
45	DRA-63	D300020	Maintenance of Buildings and Fixtures- Distribution Stations	4,028.773
46	DRA-63	D300030	Maintenance of Transformer Station Equipment	58,570.317
47	DRA-63	D300040	Maintenance of Distribution Station Equipment	0
48	DRA-63	D300050	Maintenance of Poles, Towers and Fixtures	5,626.983
49	DRA-63	D300060	Maintenance of Overhead Conductors and Devices	0
50	DRA-63	D300070	Maintenance of Overhead Services	0
51	DRA-63	D300080	Overhead Distribution Lines and Feeders- Right of Way	0
52	DRA-63	D300090	Maintenance of Underground Conduit	0
53	DRA-63	D300100	Maintenance of Underground Conductors and Devices	0
54	DRA-63	D300110	Maintenance of Underground Services	151,484.989
55	DRA-63	D300120	Maintenance of Line Transformers	0
56	DRA-63	D300130	Maintenance of Street Lighting and Signal Systems	0
57	DRA-63	D300140	Sentinel Lights- Labour	0
58	DRA-63	D300150	Sentinel Lights- Materials and Expenses	318,085.167
59	DRA-63	D300160	Maintenance of Meters	0
60	DRA-63	D300170	Customer Installation Expenses- Leased Property	0
61	DRA-63	D300180	Water Heater Rentals- Labour	0
62	DRA-63	D300190	Water Heater Rentals- Materials and Expenses	0
63	DRA-63	D300200	Water Heater Controls- Labour	0
64	DRA-63	D300210	Water Heater Controls- Materials and Expenses	0
65	DRA-63	D300220	Maintenance of Other Installation on Customer Premises	0
66			Total Maintenance Expense of Distribution Plant	537,776.230
67				
68			Maintenance Expense – General Plant	
69	DRA-63	D320010	Maintenance Computers and Office Equipment	154,938
70	DRA-63	D320020	Maintenance Furniture and Fixture	0
71	DRA-63	D320030	Maintenance Store Equipment	246,191
72	DRA-63	D320040	Maintenance Workshop	0
73	DRA-63	D320050	Maintenance Laboratory Equipment	0

**Balance Sheet Method**

Line No.	Form	NEPRA LN.	Label	-2
1			CURRENT ASSETS	
2			Inventory	4,469,193.406
3			Accounts Receivable	27,383,784.293
4			Loans and Advances	25,013,769.789
5			Interest accrued	22,805.911
6			Prepayments and other contributions	0
7			Advance income tax ( A/C D180080)	0
8			Short term investments	0
9			Cash and bank balances	5,744,587.820
10			Total current Assets	62,654,241.319
11				
12			CURRENT LIABILITIES	
13			Short Term Loans	1,968,322.566
14			Current Portion of Redeemable Capital	0
15			Current Portion of Long Term Loans	0
16			Current Portion of Custom Debentures	0
17			Current Portion of Liabilities against Assets Subject to Finance Lease	0
18			Current Portion of Customers (Security) Deposits	0
19			Creditors, Accrued and Other Liabilities	51,262,937.717
20			Provision for taxation	0
21				
22			Total Current Liabilities	53,261,260.283
23				

**MULTAN ELECTRIC POWER COMPANY**

Calculation of Working Capital

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45 day Method				Balance Sheet Method
74	DRA-63	D320060	Maintenance Construction Equipment	0
75	DRA-63	D320070	Maintenance Communication Equipment	28,528
76	DRA-63	D320080	Maintenance Fire Safety Equipment	0
77	DRA-63	D320090	Maintenance Medical and Hospital	11,820,012
78	DRA-63	D320100	Maintenance Misc. Equipment	0
79				
80			Total Maintenance Expense of General Plant	11,247,667
81				
82			Sales Expenses	
83	DRA-67	D360010	Supervision	0
84	DRA-67	D360020	Demonstrating and selling Expenses	0
85	DRA-67	D360030	Advertising Expenses	32,649,400
86	DRA-67	D360040	Miscellaneous Sales Expenses	0
87			Total Sales Expenses	32,649,400
88				
89			Billing and Collection	
90	DRA-67	D340010	Supervision	0
91	DRA-67	D340020	Meter Reading Expenses	0
92	DRA-67	D340040	Customer Billing	0
93	DRA-67	D340030	Collecting	300,000,000
94	DRA-67	D340050	Collecting- Cash Over and Short	0
95	DRA-67	D340060	Collection Charges	0
96	DRA-67	D340070	Bad Debt Expenses	0
97	DRA-67	D340080	Miscellaneous Customer Accounts Expenses	0
98			Total Billing and Collection	300,000,000
99				
100			Community Relations	
101	DRA-67	D350010	Supervision	0
102	DRA-67	D350020	Community Relations- Sundry	0
103	DRA-67	D350030	Conservation	0
104	DRA-67	D350040	Community Safety Program	0
105	DRA-67	D350050	Miscellaneous Customer Service and Informational Expenses	0
106			Total Community Relations	0
107				
108			Administrative Expenses	
109	DRA-68	D370010	Executive Salaries and Expenses	0
110	DRA-68	D370020	Management Salaries and Expenses	0
111	DRA-68	D370030	General Administrative Salaries and Expenses	8,647,000,000
112	DRA-68	D370040	Office Supplies and Expenses	258,199,845
113	DRA-68	D370050	Administrative Expenses Transferred - Credit	0
114	DRA-68	D370060	Outside Services Employed - Janitorial and Others	0
115	DRA-68	D370070	Insurance	39,113,192
116	DRA-68	D370080	Injuries and Damages	5,327,996
117	DRA-68	D370090	Employees Pensions and Benefits	3,277,000,000
118	DRA-68	D370100	Franchise Requirements - Fees	0
119	DRA-68	D370110	Regulatory Expenses	108,854,586
120	DRA-68	D370120	General Advertising Expenses	0
121	DRA-68	D370130	Miscellaneous General Expenses	147,057,741
122	DRA-68	D370140	Rent, Rates and Taxes	148,440,205
123	DRA-68	D370150	Communications	74,381,232
124	DRA-68	D370160	Store Keeping Cost/Store Handling Expenses	9,617,963
125	DRA-68	D370170	Subscription and Periodicals	1,441,170
126	DRA-68	D370180	Traveling Expenses	945,000,000
127	DRA-68	D370190	Bad and Doubtful Receivables	0
128	DRA-68	D370200	Collecting Expenses	0
129	DRA-68	D370210	Directors' Fees - Legal and Professional Charges	9,367,746
130	DRA-68	D370220	Auditor's Remuneration	44,172,350
131	DRA-68	D370230	Repairs and Maintenance - Non-Regulated	2,375,824
132	DRA-68	D370240	Total Administrative Expenses	25,871,122
133			Total Maintenance Expense	11,247,667
134				
135				

# MULTAN ELECTRIC POWER COMPANY

## Cost of Service Model

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### Worksheet    Description

<u>C1</u>	Coefficients of Functionalized Operating Expenses
<u>C2</u>	Functional Classification and Calculation of Operating Expenses
<u>C3</u>	Total Revenue Requirement

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# MULTAN ELECTRIC POWER COMPANY

## Classification of Functionalized Operating Expenses

# MULTAN ELECTRIC POWER COMPANY

## Classification of Functionalized Operating Expenses

# MULTAN ELECTRIC POWER COMPANY

## Classification of Functionalized Operating Expenses

MULTAN ELECTRIC POWER COMPANY  
Classification of Functionalized Operating Expense

## **Classification of Functionalized Operating Expenses**

**MULTAN ELECTRIC POWER COMPANY**  
*Functional Classification and Calculation of Operating Expenses*

Functional Classification and Computation of Profitability															
Line No.	Item	NIPPA Val.	Total Business												
			Sales & Distribution			Transportation			(122500000)			(119100000)			
			Revenue	Cost	Margin	Revenue	Cost	Margin	Revenue	Cost	Margin	Revenue	Cost	Margin	Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	Other Income														
2	Interest Income														
3	Bank Interest														
4	Customer Interest														
5	Bank Recovery Fee														
6	Customer Recovery on Assets														
7	Other Recovery on Assets														
8	Return from Electric Property														
9	Other Utility Operations														
10	Other Electric Revenue														
11	Local Payment Checks														
12	Sales of Water and Power														
13	Non-Utility Services														
14	Business - Other Operational Revenues														
15	Operating Expenses														
16	Product Distribution														
17	DRA-40	170000													
18	DRA-40	170000													
19	DRA-40	170000													
20	DRA-40	170000													
21	DRA-40	170000													
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136	DRA-40	170000													
137	DRA-40	170000													
138	DRA-40	170000													



**MULTAN ELECTRIC POWER COMPANY**  
Functional Classification and Calculation of Operating Expense

Functional Classification and Calculation of Operating Expenses

**MULTAN ELECTRIC POWER COMPANY**  
Functional Classification and Calculation of Operating Expenses

**MUL TAN ELECTRIC POWER COMPANY**  
Functional Classification and Calculation of Operating Expenses

Line No.	Item Code	Description	Total Revenue		Generation		Transmission		Distribution		Sales Tax		Customer		Customer		Customer	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
220	DE94-73	Delivery Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221	DE94-73	Delivery Time Times Other than Delivery Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224		Total Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	DEPA-35	Allowance for Bad Debts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
227	DPY000	Allowance for Bad Debts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228		Other Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229		Power Plant Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230		Provisional Contract	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231		Adjusted Contract Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232		Revised Contract Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233		Revised Contract Rates of Return	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234		Revised Contract Rates of Return Based on New Basis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
235		Total Operational Cost	192,921,229	118,315,415,273	38,410,441,063	3,377,073,068	13,800,924,555	165,378,678	6,357,443,792	336,707,773	481,542,737	25,771,777	2,241,051,553	2,240,101,210	0	201,417,725	2,242,544	OK

**MULTAN ELECTRIC POWER COMPANY**  
**Calculation of Revenue Requirements**

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Line No.	Description	Balance
1	Power Purchase Cost	PKR 148,045,570,542
2	<b>DISTRIBUTION MARGIN</b>	
A	<b>Operation and Maintenance Expense</b>	<b>PKR 18,155,440,000</b>
a)	Distribution Charges/Wheeling Charges	PKR 0
b)	Maintenance Expense – Distribution Plant	PKR 1,236,153,638
c)	Maintenance Expense – General Plant	PKR 37,975,240
d)	Sales Expenses	PKR 32,649,400
e)	Billing and Collection	PKR 300,000,000
f)	Community Relations	PKR 0
g)	Administrative Expenses	PKR 11,739,221,722
h)	Inclusion of Working Capital in Revenue Requirement	PKR 4,809,440,000
B	Depreciation of Distribution Plant	PKR 3,907,871,684
C	Return on Rate Base	PKR 6,766,892,043
	<b>GROSS DISTRIBUTION MARGIN</b>	<b>PKR 28,830,203,727</b>
D	Less: Other Income	PKR 2,670,789,930
	<b>NET DISTRIBUTION MARGIN</b>	<b>PKR 26,159,413,797</b>
E	PRIOR YEAR ADJUSTMENTS	PKR 25,696,641,000
	<b>TOTAL REVENUE REQUIRED</b>	<b>PKR 199,901,625,339</b>

**C RETURN ON RATE BASE**

Regulatory Asset Rate Base  
 Average Asset Rate Base  
 Requested Rate of Return  
 Return on Rate Base

30-Jun-14	30-Jun-15
PKR 30,939,323,789	PKR 44,965,242,036
PKR 37,952,282,913	
	17.83%
	PKR 6,766,892,043

# MULTAN ELECTRIC POWER COMPANY

## Cost of Service Model

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<u>Worksheet</u>	<u>Description</u>
<u>D1.1</u>	Energy Allocation Factors by Standard Customer Classification
<u>D1.2</u>	Demand Allocation Factors by Standard Customer Classification
<u>D1.3</u>	Customer Allocation Factors by Standard Customer Classification
<u>D1.4</u>	Percentage Summary of Allocation Factors by Standard Customer Classification
<u>D1.5</u>	Allocation of Revenue Requirement by Standard Customer Classification
<u>D2.1</u>	Energy Allocation Factors by Voltage Level Customer Classification
<u>D2.2</u>	Demand Allocation Factors by Voltage Level Customer Classification
<u>D2.3</u>	Customer Allocation Factors by Voltage Level Customer Classification
<u>D2.4</u>	Percentage Summary of Allocation Factors by Voltage Level Customer Classification
<u>D2.5</u>	Allocation of Revenue Requirement by Voltage Level Customer Classification

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**MULTAN ELECTRIC POWER COMPANY**  
**Energy Allocation Factors by Standard Customer Classification**

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**Table 1: Development of Energy Loss Allowance Factors**

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)	Substation
Load at output of element (kWh)		0	5,982,135,005	9,760,938,874	11,849,021,160	16,038,613,411	16,620,324,778
Loss of element (kWh)			48,243,024	523,781,976	1,172,596,687	581,711,367	
Cumulative Loss			48,243,024	572,025,001	1,744,621,688	2,326,333,055	16.53%
Sales							
Residential – A1(a)	0.2kV	5,571,678,400	5,571,678,400	0	0	0	0
Residential – A1(b)	0.4kV	74,031,300	0	74,031,300	0	0	0
Commercial – A2(a)	0.2kV	347,530,000	347,530,000	0	0	0	0
Commercial – A2(b)	0.4kV	25,652,200	0	25,652,200	0	0	0
Commercial – A2(c)	0.4kV	293,475,400	0	293,475,400	0	0	0
Industrial – B1(a)	0.2kV	61,105,200	61,105,200	0	0	0	0
Industrial – B2(a)	0.4kV	3,525,300	0	3,525,300	0	0	0
Industrial – B1(b)	0.4kV	274,973,400	0	274,973,400	0	0	0
Industrial – B2(b)	0.4kV	854,297,700	0	854,297,700	0	0	0
Industrial – B3	11kV	1,371,894,300	0	0	1,371,894,300	0	0
Industrial – B4	132/66kV	507,883,800	0	0	0	507,693,800	0
Single Point Supply – C1(a)	0.2kV	1,821,405	1,821,405	0	0	0	0
Single Point Supply – C1(b)	0.4kV	23,502,000	0	23,502,000	0	0	0
Single Point Supply – C2(a)	11kV	15,276,300	0	0	15,276,300	0	0
Single Point Supply – C3(a)	132/66kV	0	0	0	0	0	0
Single Point Supply – C1(c)	0.4kV	28,202,400	0	28,202,400	0	0	0
Single Point Supply – C2(b)	11kV	129,261,000	0	0	129,261,000	0	0
Single Point Supply – C3(b)	132/66kV	5,840,480	0	0	0	5,640,480	0
Agricultural – D1(a)	0.4kV	7,050,600	0	7,050,600	0	0	0
Agricultural – D2	0.4kV	1,116,345	0	1,116,345	0	0	0
Agricultural – D1(b)	0.4kV	2,121,032,200	0	2,121,032,200	0	0	0
Temporary Supply – E1(i)	0.2kV	0	0	0	0	0	0
Temporary Supply – E1(ii)	0.2kV	0	0	0	0	0	0
Temporary Supply – E2	0.2kV	0	0	0	0	0	0
Public Lighting – G	0.4kV	23,502,000	0	23,502,000	0	0	0
Residential Colonies – H	11kV	8,225,700	0	0	8,225,700	0	0
Railway Traction - I	11kV	0	0	0	0	0	0
Export to Discos 132 kV	132kV	2,503,661,284	0	0	0	2,503,661,284	0
Export to DISCOS 11 kV	11kV	39,643,010	0	0	39,643,010	0	0
Loss as a percentage of element		14,293,991,723	0.8065%	5.365%	9.896%	3.627%	16.53%

**MULTAN ELECTRIC POWER COMPANY**  
**Energy Allocation Factors by Standard Customer Classification**

**Table 2: Percentage Energy Losses**

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)	Substation
Residential – A1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Residential – A1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Commercial – A2(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Commercial – A2(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Commercial – A2(c)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Industrial – B2(a)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B2(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B3	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Industrial – B4	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Single Point Supply – C1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Single Point Supply – C1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Single Point Supply – C2(a)	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Single Point Supply – C3(a)	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Single Point Supply – C1(c)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Single Point Supply – C2(b)	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Single Point Supply – C3(b)	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Agricultural – D1(a)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Agricultural – D2	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Agricultural – D1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Temporary Supply – E1(i)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Temporary Supply – E1(ii)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Temporary Supply – E2	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Public Lighting – G	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Residential Colonies – H	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Railway Traction - I	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Export to Discos 132 kV	132kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Export to DISCOS 11 kV	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	

**MULTAN ELECTRIC POWER COMPANY**  
**Energy Allocation Factors by Standard Customer Classification**  
Table 3: Energy Sales with Loss Allowance

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)
Residential – A1(a)	0.2kV	5,571,678,400	5,618,611,290	5,918,004,404	8,503,658,887	6,739,542,868
Residential – A1(b)	0.4kV	74,031,300	0	76,003,895	85,723,276	88,832,411
Commercial – A2(e)	0.2kV	347,530,000	350,332,661	369,131,871	405,661,707	420,374,826
Commercial – A2(b)	0.4kV	25,852,200	0	27,239,456	29,835,112	31,020,842
Commercial – A2(c)	0.4kV	293,475,400	0	309,223,591	339,824,815	352,150,067
Industrial – B1(a)	0.2kV	61,105,200	81,597,984	64,903,395	71,326,331	73,913,296
Industrial – B2(a)	0.4kV	3,525,300	0	3,714,471	4,062,061	4,230,115
Industrial – B1(b)	0.4kV	274,973,400	0	289,728,754	318,400,741	329,848,954
Industrial – B2(b)	0.4kV	854,297,700	0	900,140,169	989,219,396	1,025,097,820
Industrial – B3	11kV	1,371,894,300	0	0	1,507,658,992	1,582,340,925
Industrial – B4	132/66kV	507,693,800	0	0	0	526,107,565
Single Point Supply – C1(a)	0.2kV	1,821,405	1,836,094	1,934,820	2,126,073	2,203,185
Single Point Supply – C1(b)	0.4kV	23,502,000	0	24,763,141	27,213,739	28,200,785
Single Point Supply – C2(a)	11kV	15,276,300	0	0	18,788,065	17,396,859
Single Point Supply – C3(a)	132/66kV	0	0	0	0	0
Single Point Supply – C1(c)	0.4kV	28,202,400	0	29,715,770	32,856,486	33,840,916
Single Point Supply – C2(b)	11kV	129,261,000	0	0	142,052,860	147,205,036
Single Point Supply – C3(b)	132/66kV	5,840,480	0	0	0	5,845,057
Agricultural – D1(a)	0.4kV	7,050,600	0	7,428,842	8,164,122	8,460,230
Agricultural – D2	0.4kV	1,118,345	0	1,178,249	1,292,653	1,339,536
Agricultural – D1(b)	0.4kV	2,121,032,200	0	2,234,648,960	2,456,012,924	2,545,091,113
Temporary Supply – E1(i)	0.2kV	0	0	0	0	0
Temporary Supply – E1(ii)	0.2kV	0	0	0	0	0
Temporary Supply – E2	0.2kV	0	0	0	0	0
Public Lighting – G	0.4kV	23,502,000	0	24,763,141	27,213,739	28,200,785
Residential Colonies – H	11kV	8,225,700	0	0	9,039,727	9,367,593
Railway Traction - I	11kV	0	0	0	0	0
Export to Discos 132 kV	132kV	2,503,661,284	0	0	0	2,594,467,651
Export to DISCOS 11 kV	11kV	39,843,010	0	0	43,586,141	45,148,260
<b>Total</b>		<b>14,293,991,723</b>	<b>6,030,378,029</b>	<b>10,284,720,851</b>	<b>13,021,617,848</b>	<b>16,620,324,778</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Energy Allocation Factors by Standard Customer Classification**  
Table 4: Class Share in Sales with Loss Allowance

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)
Residential – A1(a)	0.2kV	38.98%	93.14%	57.54%	49.95%	40.55%
Residential – A1(b)	0.4kV	0.52%	0.00%	0.76%	0.66%	0.53%
Commercial – A2(a)	0.2kV	2.43%	5.81%	3.59%	3.12%	2.53%
Commercial – A2(b)	0.4kV	0.18%	0.00%	0.26%	0.23%	0.19%
Commercial – A2(c)	0.4kV	2.05%	0.00%	3.01%	2.61%	2.12%
Industrial – B1(a)	0.2kV	0.43%	1.02%	0.63%	0.55%	0.44%
Industrial – B2(a)	0.4kV	0.02%	0.00%	0.04%	0.03%	0.03%
Industrial – B1(b)	0.4kV	1.82%	0.00%	2.82%	2.45%	1.99%
Industrial – B2(b)	0.4kV	5.98%	0.00%	8.75%	7.60%	6.17%
Industrial – B3	11kV	9.60%	0.00%	0.00%	11.58%	9.40%
Industrial – B4	132/66kV	3.55%	0.00%	0.00%	0.00%	3.17%
Single Point Supply – C1(a)	0.2kV	0.01%	0.03%	0.02%	0.02%	0.01%
Single Point Supply – C1(b)	0.4kV	0.18%	0.00%	0.24%	0.21%	0.17%
Single Point Supply – C2(a)	11kV	0.11%	0.00%	0.00%	0.13%	0.10%
Single Point Supply – C3(a)	132/66kV	0.00%	0.00%	0.00%	0.00%	0.00%
Single Point Supply – C1(c)	0.4kV	0.20%	0.00%	0.29%	0.25%	0.20%
Single Point Supply – C2(b)	11kV	0.90%	0.00%	0.00%	1.09%	0.89%
Single Point Supply – C3(b)	132/66kV	0.04%	0.00%	0.00%	0.00%	0.04%
Agricultural – D1(a)	0.4kV	0.05%	0.00%	0.07%	0.06%	0.05%
Agricultural – D2	0.4kV	0.01%	0.00%	0.01%	0.01%	0.01%
Agricultural – D1(b)	0.4kV	14.84%	0.00%	21.73%	18.86%	15.31%
Temporary Supply – E1(i)	0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%
Temporary Supply – E1(ii)	0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%
Temporary Supply – E2	0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%
Public Lighting – G	0.4kV	0.16%	0.00%	0.24%	0.21%	0.17%
Residential Colonies – H	11kV	0.06%	0.00%	0.00%	0.07%	0.06%
Railway Traction – I	11kV	0.00%	0.00%	0.00%	0.00%	0.00%
Export to Discos 132 kV	132kV	17.52%	0.00%	0.00%	0.00%	15.81%
Export to DISCOS 11 kV	11kV	0.28%	0.00%	0.00%	0.33%	0.27%
<b>Total</b>		100.00%	100.00%	100.00%	100.00%	100.00%

# MULTAN ELECTRIC POWER COMPANY

## Demand Allocation Factors by Standard Customer Classification

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**Table 1. Peak Demand (at Meter) MW**

**Table 2. Development of Demand Loss Allowance Factors (MW)**

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)	Substation
Load at output of element (MW)		0	1,919	2,860	3,150	4,277	4,432
Loss of element (MW)			15.48	153.48	311.74	155.12	
Cumulative Loss			15	169	481	636	16.87%
<b>Customer Class 1CP</b>							
Residential -- A1(a)	0.2kV	1712.646	1,713	0	0	0	
Residential -- A1(b)	0.4kV	34.036	0	34	0	0	
Commercial -- A2(a)	0.2kV	174.910	175	0	0	0	
Commercial -- A2(b)	0.4kV	0.828	0	1	0	0	
Commercial -- A2(c)	0.4kV	78.280	0	78	0	0	
Industrial -- B1(a)	0.2kV	31.536	32	0	0	0	
Industrial -- B2(a)	0.4kV	67.824	0	68	0	0	
Industrial -- B1(b)	0.4kV	88.065	0	88	0	0	
Industrial -- B2(b)	0.4kV	232.669	0	233	0	0	
Industrial -- B3	11kV	100.446	0	0	100	0	
Industrial -- B4	132/66kV	148.171	0	0	0	148	
Single Point Supply -- C1(a)	0.2kV	0.154	0	0	0	0	
Single Point Supply -- C1(b)	0.4kV	3.929	0	4	0	0	
Single Point Supply -- C2(a)	11kV	2.980	0	0	3	0	
Single Point Supply -- C3(a)	132/66kV	0.000	0	0	0	0	
Single Point Supply -- C1(c)	0.4kV	5.867	0	8	0	0	
Single Point Supply -- C2(b)	11kV	24.536	0	0	25	0	
Single Point Supply -- C3(b)	132/66kV	8.244	0	0	0	8	
Agricultural -- D1(a)	0.4kV	16.157	0	18	0	0	
Agricultural -- D2	0.4kV	30.417	0	30	0	0	
Agricultural -- D1(b)	0.4kV	362.996	0	363	0	0	
Temporary Supply -- E1(i)	0.2kV	0.000	0	0	0	0	
Temporary Supply -- E1(ii)	0.2kV	0.000	0	0	0	0	
Temporary Supply -- E2	0.2kV	0.000	0	0	0	0	
Public Lighting -- G	0.4kV	4.501	0	5	0	0	
Residential Colonies -- H	11kV	3.020	0	0	3	0	
Railway Traction - I	11kV	0.000	0	0	0	0	
Export to Discos	132kV	658.683	0	0	0	658	
Export to Discos	11kV	5.600	0	0	8	0	
Total		3,796	1,919	925	137	815	16.87%
Loss as a percentage of element			0.806%	5.366%	9.896%	3.627%	

**Table 3: Percentage Demand Losses**

Customer Class	Voltage	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)	Substation
Residential – A1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Residential – A1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Commercial – A2(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Commercial – A2(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Commercial – A2(c)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Industrial – B2(a)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B2(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Industrial – B3	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Industrial – B4	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Single Point Supply – C1(a)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Single Point Supply – C1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Single Point Supply – C2(a)	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Single Point Supply – C3(a)	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Single Point Supply – C1(c)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Single Point Supply – C2(b)	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Single Point Supply – C3(b)	132/66kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Agricultural – D1(a)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Agricultural – D2	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Agricultural – D1(b)	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Temporary Supply – E1(i)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Temporary Supply – E1(ii)	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Temporary Supply – E2	0.2kV	100.0%	100.8%	106.2%	116.7%	121.0%	
Public Lighting – G	0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%	
Residential Colonies – H	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Railway Traction - I	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	
Export to Discos	132kV	100.0%	0.0%	0.0%	0.0%	103.6%	
Export to Discos	11kV	100.0%	0.0%	0.0%	109.9%	113.9%	

Table 4: 1CP with Loss Allowance

<b>Customer Class</b>	<b>Voltage</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/ 66kV)</b>	<b>For Demand Cost Allocation</b>		
							<b>(11 kV)</b>	<b>(132kV/66kV)</b>	
Residential – A1(a)	0.2kV	1,713	1,726	1,819	1,699	2,072	1,699	2,072	
Residential – A1(b)	0.4kV	34	0	36	39	41	39	41	
Commercial – A2(a)	0.2kV	175	176	186	204	212	204	212	
Commercial – A2(b)	0.4kV	1	0	1	1	1	1	1	
Commercial – A2(c)	0.4kV	78	0	82	91	94	91	94	
Industrial – B1(a)	0.2kV	32	32	33	37	38	37	38	
Industrial – B2(a)	0.4kV	68	0	71	79	81	79	81	
Industrial – B1(b)	0.4kV	88	0	93	102	106	102	106	
Industrial – B2(b)	0.4kV	233	0	245	269	279	269	279	
Industrial – B3	11kV	100	0	0	110	114	110	114	
Industrial – B4	132/66kV	148	0	0	0	154	0	154	
Single Point Supply -- C1(a)	0.2kV	0	0	0	0	0	0	0	
Single Point Supply – C1(b)	0.4kV	4	0	4	5	5	5	5	
Single Point Supply – C2(a)	11kV	3	0	0	3	3	3	3	
Single Point Supply -- C3(a)	132/66kV	0	0	0	0	0	0	0	
Single Point Supply – C1(c)	0.4kV	6	0	6	7	7	7	7	
Single Point Supply – C2(b)	11kV	25	0	0	27	28	27	28	
Single Point Supply -- C3(b)	132/66kV	8	0	0	0	9	0	9	
Agricultural –D1(a)	0.4kV	16	0	17	19	19	19	19	
Agricultural –D2	0.4kV	30	0	32	35	36	35	36	
Agricultural –D1(b)	0.4kV	363	0	382	420	436	420	436	
Temporary Supply – E1(i)	0.2kV	0	0	0	0	0	0	0	
Temporary Supply -- E1(ii)	0.2kV	0	0	0	0	0	0	0	
Temporary Supply – E2	0.2kV	0	0	0	0	0	0	0	
Public Lighting – G	0.4kV	5	0	5	5	5	5	5	
Residential Colonies – H	11kV	3	0	0	3	3	3	3	
Railway Traction - I	11kV	0	0	0	0	0	0	0	
Export to Discos	132kV	859	0	0	0	683	0	24	
Export to Discos	11kV	6	0	0	6.15	6.38	0.55	0.78	
<b>Total</b>			<b>3,796</b>	<b>1,935</b>	<b>3,014</b>	<b>3,462</b>	<b>4,432</b>	<b>3,456</b>	<b>3,768</b>

**Table 5: Class Share in 1CP with Loss Allowance**

**MULTAN ELECTRIC POWER COMPANY**  
**Customer Allocation Factors by Standard Customer Classification**

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**Table 1: Customers Revenues and Other Allocation Factors, 1**

Customer Class	Customers		Sales	
	No.	%	(kWh)	%
Residential -- A1(a)	4,385,361	87.8%	5,571,678,400	38.98%
Residential -- A1(b)	9,149	0.2%	74,031,300	0.52%
Commercial -- A2(a)	454,047	9.1%	347,530,000	2.43%
Commercial -- A2(b)	73	0.0%	25,852,200	0.18%
Commercial -- A2(c)	11,443	0.2%	293,475,400	2.05%
Industrial -- B1(a)	17,282	0.3%	61,105,200	0.43%
Industrial -- B2(a)	1,978	0.0%	3,525,300	0.02%
Industrial -- B1(b)	26,023	0.5%	274,973,400	1.92%
Industrial -- B2(b)	6,264	0.1%	854,297,700	5.98%
Industrial -- B3	274	0.0%	1,371,894,300	9.60%
Industrial -- B4	8	0.0%	507,893,800	3.55%
Single Point Supply -- C1(a)	37	0.0%	1,821,405	0.01%
Single Point Supply -- C1(b)	151	0.0%	23,502,000	0.18%
Single Point Supply -- C2(a)	15	0.0%	15,276,300	0.11%
Single Point Supply -- C3(a)	0	0.0%	0	0.00%
Single Point Supply -- C1(c)	208	0.0%	28,202,400	0.20%
Single Point Supply -- C2(b)	33	0.0%	129,261,000	0.90%
Single Point Supply -- C3(b)	1	0.0%	5,640,480	0.04%
Agricultural -- D1(a)	3,748	0.1%	7,050,600	0.05%
Agricultural -- D2	9,352	0.2%	1,116,345	0.01%
Agricultural -- D1(b)	66,449	1.3%	2,121,032,200	14.84%
Temporary Supply -- E1(i)	0	0.0%	0	0.00%
Temporary Supply -- E1(ii)	0	0.0%	0	0.00%
Temporary Supply -- E2	0	0.0%	0	0.00%
Public Lighting -- G	1,449	0.0%	23,502,000	0.16%
Residential Colonies -- H	116	0.0%	8,225,700	0.06%
Railway Traction - I	4	0.0%	0	0.00%
Export to Discos 132 kV	18	0.0%	2,503,661,284	17.52%
Export to DISCOS 11 kV	3	0.0%	39,643,010	0.28%
<b>Total</b>	<b>4,993,488</b>	<b>100.0%</b>	<b>14,293,991,723</b>	<b>100.00%</b>

**Table 2: Customers Revenues and Other Allocation Factors, 2**

Customer Class	Average	Weight	Adjusted Customers	
	Size - Month (kWh)		No.	%
Residential -- A1(a)	105.88	2	7,279,382	47.42%
Residential -- A1(b)	674.30	11	96,722	0.63%
Commercial -- A2(a)	63.78	1	454,047	2.96%
Commercial -- A2(b)	29,511.25	463	33,776	0.22%
Commercial -- A2(c)	2,137.15	34	383,425	2.50%
Industrial -- B1(a)	294.65	5	79,834	0.52%
Industrial -- B2(a)	148.52	2	4,606	0.03%
Industrial -- B1(b)	880.55	14	359,252	2.34%
Industrial -- B2(b)	11,364.49	178	1,116,138	7.27%
Industrial -- B3	416,540.92	6,531	1,792,376	11.68%
Industrial -- B4	5,512,638.62	86,427	663,301	4.32%
Single Point Supply -- C1(a)	4,071.77	64	2,380	0.02%
Single Point Supply -- C1(b)	12,967.88	203	30,705	0.20%
Single Point Supply -- C2(a)	83,433.15	1,308	19,958	0.13%
Single Point Supply -- C3(a)	0.00	0	0	0.00%
Single Point Supply -- C1(c)	11,287.00	177	36,846	0.24%
Single Point Supply -- C2(b)	322,124.22	5,050	168,879	1.10%
Single Point Supply -- C3(b)	428,718.05	6,721	7,369	0.05%
Agricultural -- D1(a)	156.75	2	9,212	0.06%
Agricultural -- D2	9.95	0	1,459	0.01%
Agricultural -- D1(b)	2,659.97	42	2,771,123	18.05%
Temporary Supply -- E1(i)	0.00	0	0	0.00%
Temporary Supply -- E1(ii)	0.00	0	0	0.00%
Temporary Supply -- E2	0.00	0	0	0.00%
Public Lighting -- G	1,351.91	21	30,705	0.20%
Residential Colonies -- H	5,926.20	93	10,747	0.07%
Railway Traction -- I	0.00	0	0	0.00%
Export to Discos 132 kV	0.00	0	0	0.00%
Export to DISCOS 11 kV	0.00	0	0	0.00%
<b>Total</b>	<b>2,862.53</b>	<b>63.78</b>	<b>15,352,241</b>	<b>100.00%</b>

**Table 3: Customers by Sub-function**

<u>Customer Class</u>	<u>Meter</u>	<u>(0.2 kV)</u>	<u>(0.4 kV)</u>	<u>(11 kV)</u>	<u>(132kV/66kV)</u>
Residential -- A1(a)	4,385,361	4,385,361	4,385,361	4,385,361	4,385,361
Residential -- A1(b)	9,149	0	9,149	9,149	9,149
Commercial -- A2(a)	454,047	454,047	454,047	454,047	454,047
Commercial -- A2(b)	73	0	73	73	73
Commercial -- A2(c)	11,443	0	11,443	11,443	11,443
Industrial -- B1(a)	17,282	17,282	17,282	17,282	17,282
Industrial -- B2(a)	1,978	0	1,978	1,978	1,978
Industrial -- B1(b)	26,023	0	26,023	26,023	26,023
Industrial -- B2(b)	6,264	0	6,264	6,264	6,264
Industrial -- B3	274	0	0	274	274
Industrial -- B4	8	0	0	0	8
Single Point Supply -- C1(a)	37	37	37	37	37
Single Point Supply -- C1(b)	151	0	151	151	151
Single Point Supply -- C2(a)	15	0	0	15	15
Single Point Supply -- C3(a)	0	0	0	0	0
Single Point Supply -- C1(c)	208	0	208	208	208
Single Point Supply -- C2(b)	33	0	0	33	33
Single Point Supply -- C3(b)	1	0	0	0	1
Agricultural -- D1(a)	3,748	3,748	3,748	3,748	3,748
Agricultural -- D2	9,352	9,352	9,352	9,352	9,352
Agricultural -- D1(b)	66,449	0	66,449	66,449	66,449
Temporary Supply -- E1(i)	0	0	0	0	0
Temporary Supply -- E1(ii)	0	0	0	0	0
Temporary Supply -- E2	0	0	0	0	0
Public Lighting -- G	1,449	0	1,449	1,449	1,449
Residential Colonies -- H	116	0	0	116	116
Railway Traction - I	4	4	4	4	4
Export to Discos 132 kV	0	0	0	0	0
Export to Discos 11 kV	0	0	0	0	0
<b>Total Customers</b>	<b>4,993,467</b>	<b>4,869,832</b>	<b>4,993,019</b>	<b>4,993,458</b>	<b>4,993,467</b>

**Table 4: Percentage of Customers by Sub-function**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/66kV)</b>
Residential -- A1(a)	87.8%	90.1%	87.8%	87.8%	87.8%
Residential -- A1(b)	0.2%	0.0%	0.2%	0.2%	0.2%
Commercial -- A2(a)	9.1%	9.3%	9.1%	9.1%	9.1%
Commercial -- A2(b)	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial -- A2(c)	0.2%	0.0%	0.2%	0.2%	0.2%
Industrial -- B1(a)	0.3%	0.4%	0.3%	0.3%	0.3%
Industrial -- B2(a)	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial -- B1(b)	0.5%	0.0%	0.5%	0.5%	0.5%
Industrial -- B2(b)	0.1%	0.0%	0.1%	0.1%	0.0%
Industrial -- B3	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial -- B4	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C1(a)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C1(b)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C2(a)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C3(a)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C1(c)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C2(b)	0.0%	0.0%	0.0%	0.0%	0.0%
Single Point Supply -- C3(b)	0.0%	0.0%	0.0%	0.0%	0.1%
Agricultural -- D1(a)	0.1%	0.1%	0.1%	0.1%	0.2%
Agricultural -- D2	0.2%	0.2%	0.2%	0.2%	0.2%
Agricultural -- D1(b)	1.3%	0.0%	1.3%	1.3%	1.3%
Temporary Supply -- E1(i)	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary Supply -- E1(ii)	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary Supply -- E2	0.0%	0.0%	0.0%	0.0%	0.0%
Public Lighting -- G	0.0%	0.0%	0.0%	0.0%	0.0%
Residential Colonies -- H	0.0%	0.0%	0.0%	0.0%	0.0%
Railway Traction - I	0.0%	0.0%	0.0%	0.0%	0.0%
Export to Discos 132 kV	0.0%	0.0%	0.0%	0.0%	0.0%
Export to Discos 11 kV	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Customers</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 5: Adjusted Average Customer by Sub-function.**

<u>Customer Class</u>	<u>Meter</u>	<u>(0.2 kV)</u>	<u>(0.4 kV)</u>	<u>(11 kV)</u>	<u>(132kV/66kV)</u>
Residential -- A1(a)	7,279,382	7,279,382	7,279,382	7,279,382	7,279,382
Residential -- A1(b)	96,722	0	96,722	96,722	96,722
Commercial -- A2(a)	454,047	454,047	454,047	454,047	454,047
Commercial -- A2(b)	33,776	0	33,776	33,776	33,776
Commercial -- A2(c)	383,425	0	383,425	383,425	383,425
Industrial -- B1(a)	79,834	79,834	79,834	79,834	79,834
Industrial -- B2(a)	4,606	0	4,606	4,606	4,606
Industrial -- B1(b)	359,252	0	359,252	359,252	359,252
Industrial -- B2(b)	1,116,138	0	1,116,138	1,116,138	1,116,138
Industrial -- B3	1,792,376	0	0	1,792,376	1,792,376
Industrial -- B4	863,301	0	0	0	863,301
Single Point Supply -- C1(a)	2,380	2,380	2,380	2,380	2,380
Single Point Supply -- C1(b)	30,705	0	30,705	30,705	30,705
Single Point Supply -- C2(a)	19,958	0	0	19,958	19,958
Single Point Supply -- C3(a)	0	0	0	0	0
Single Point Supply -- C1(c)	36,846	0	36,846	36,846	36,846
Single Point Supply -- C2(b)	168,879	0	0	168,879	168,879
Single Point Supply -- C3(b)	7,369	0	0	0	7,369
Agricultural -- D1(a)	9,212	9,212	9,212	9,212	9,212
Agricultural -- D2	1,459	1,459	1,459	1,459	1,459
Agricultural -- D1(b)	2,771,123	0	2,771,123	2,771,123	2,771,123
Temporary Supply -- E1(i)	0	0	0	0	0
Temporary Supply -- E1(ii)	0	0	0	0	0
Temporary Supply -- E2	0	0	0	0	0
Public Lighting -- G	30,705	0	30,705	30,705	30,705
Residential Colonies -- H	10,747	0	0	10,747	10,747
Railway Traction - I	0	0	0	0	0
Export to Discos 132 kV	0	0	0	0	0
Export to Discos 11 kV	0	0	0	0	0
<b>Total Customers</b>	<b>15,352,241</b>	<b>7,826,313</b>	<b>12,689,610</b>	<b>14,681,571</b>	<b>15,352,241</b>

**Table 6: Percentage of Adjusted Average Customer by Sub-function**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/66kV)</b>
Residential – A1(a)	47.4%	93.0%	57.4%	49.6%	47.4%
Residential – A1(b)	0.6%	0.0%	0.8%	0.7%	0.6%
Commercial – A2(a)	3.0%	5.8%	3.6%	3.1%	3.0%
Commercial – A2(b)	0.2%	0.0%	0.3%	0.2%	0.2%
Commercial – A2(c)	2.5%	0.0%	3.0%	2.6%	2.5%
Industrial – B1(a)	0.5%	1.0%	0.6%	0.5%	0.0%
Industrial – B2(a)	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial – B1(b)	2.3%	0.0%	2.8%	2.4%	2.3%
Industrial – B2(b)	7.3%	0.0%	8.8%	7.6%	7.3%
Industrial – B3	11.7%	0.0%	0.0%	12.2%	11.7%
Industrial – B4	4.3%	0.0%	0.0%	0.0%	4.3%
Single Point Supply -- C1(a)	0.0%	0.0%	0.0%	0.0%	0.2%
Single Point Supply -- C1(b)	0.2%	0.0%	0.2%	0.2%	0.1%
Single Point Supply -- C2(a)	0.1%	0.0%	0.0%	0.1%	0.0%
Single Point Supply -- C3(a)	0.0%	0.0%	0.0%	0.0%	0.2%
Single Point Supply -- C1(c)	0.2%	0.0%	0.3%	0.3%	0.2%
Single Point Supply -- C2(b)	1.1%	0.0%	0.0%	1.2%	1.1%
Single Point Supply -- C3(b)	0.0%	0.0%	0.0%	0.0%	0.0%
Agricultural – D1(a)	0.1%	0.1%	0.1%	0.1%	0.1%
Agricultural – D2	0.0%	0.0%	0.0%	0.0%	0.0%
Agricultural – D1(b)	18.1%	0.0%	21.8%	18.9%	18.1%
Temporary Supply – E1(i)	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary Supply – E1(ii)	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary Supply – E2	0.0%	0.0%	0.0%	0.0%	0.2%
Public Lighting -- G	0.2%	0.0%	0.2%	0.2%	0.1%
Residential Colonies – H	0.1%	0.0%	0.0%	0.1%	0.0%
Railway Traction - I	0.0%	0.0%	0.0%	0.0%	0.0%
Export to Discos 132 kV	0.0%	0.0%	0.0%	0.0%	0.0%
Export to Discos 11 kV	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Customers</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Percentage Summary of Allocation Factors by Standard Customer Classification**

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Line No.	Form	NEPRA LN.		Voltage	Generation		Transmission		Distribution							
					Energy	Demand	Demand		(132kV/66kV)		(11 kV)		(0.4 kV/ 0.2 kV)		Services (Service Drop) Customer	Meters Customer
							Demand	Customer	Demand	Customer	Demand	Customer	Demand	Customer		
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1					0.2kV	47.88%	54.98%	54.98%	46.74%	47.42%	57.75%	49.58%	60.36%	57.36%	93.01%	47.42%
					0.4kV	0.63%	1.08%	1.08%	0.92%	0.63%	1.14%	0.66%	1.19%	0.76%	0.00%	0.63%
2					0.2kV	2.99%	5.62%	5.62%	4.77%	2.96%	5.90%	3.09%	6.16%	3.58%	5.80%	2.96%
3					0.4kV	0.22%	0.02%	0.02%	0.02%	0.22%	0.02%	0.23%	0.02%	0.27%	0.00%	0.22%
4					0.4kV	2.50%	2.49%	2.49%	2.12%	2.50%	2.62%	2.61%	2.74%	3.02%	0.00%	2.50%
5					0.4kV	0.53%	1.01%	1.01%	0.86%	0.52%	1.06%	0.54%	1.11%	0.63%	1.02%	0.52%
6					0.2kV	0.03%	2.16%	2.16%	1.84%	0.03%	2.27%	0.03%	2.37%	0.04%	0.00%	0.03%
7					0.4kV	2.34%	2.80%	2.80%	2.38%	2.34%	2.95%	2.45%	3.08%	2.83%	0.00%	2.34%
8					0.4kV	7.28%	7.41%	7.41%	6.30%	7.27%	7.78%	7.60%	8.14%	8.80%	0.00%	7.27%
9					11kV	11.10%	3.04%	3.04%	2.58%	11.68%	3.19%	12.21%	0.00%	0.00%	0.00%	11.68%
10					132/66kV	3.74%	4.08%	4.08%	3.46%	4.32%	0.00%	0.00%	0.00%	0.00%	0.00%	4.32%
11					0.2kV	0.02%	0.00%	0.00%	0.00%	0.02%	0.01%	0.02%	0.01%	0.02%	0.03%	0.02%
12					0.4kV	0.20%	0.13%	0.13%	0.11%	0.20%	0.13%	0.21%	0.14%	0.24%	0.00%	0.20%
13					11kV	0.12%	0.09%	0.09%	0.08%	0.13%	0.09%	0.14%	0.00%	0.00%	0.00%	0.13%
14					132/66kV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15					0.4kV	0.24%	0.19%	0.19%	0.16%	0.24%	0.20%	0.25%	0.21%	0.29%	0.00%	0.24%
16					0.4kV	0.24%	0.19%	0.19%	0.16%	0.24%	0.20%	0.25%	0.21%	0.29%	0.00%	0.24%
17					11kV	1.05%	0.74%	0.74%	0.63%	1.10%	0.78%	1.15%	0.00%	0.00%	0.00%	0.05%
18					132/66kV	0.04%	0.23%	0.23%	0.19%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%
19					0.4kV	0.06%	0.51%	0.51%	0.44%	0.06%	0.54%	0.06%	0.56%	0.07%	0.12%	0.06%
20					0.4kV	0.01%	0.97%	0.97%	0.82%	0.01%	1.02%	0.01%	1.06%	0.01%	0.02%	0.01%
21					0.4kV	18.08%	11.56%	11.56%	9.83%	18.05%	12.14%	18.87%	12.69%	21.84%	0.00%	18.05%
22					0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
23					0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
24					0.2kV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
25					0.4kV	0.20%	0.14%	0.14%	0.12%	0.20%	0.15%	0.21%	0.16%	0.24%	0.00%	0.20%
26					11kV	0.07%	0.09%	0.09%	0.08%	0.07%	0.10%	0.07%	0.00%	0.00%	0.00%	0.07%
27					11kV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
28					132kV	0.65%	0.63%	0.63%	15.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
29					11kV	0.04%	0.02%	0.02%	0.14%	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%
30					Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Date Prepared: Sep 26, 2013

# MULTAN ELECTRIC POWER COMPANY

## Allocation of Revenue Requirement by Standard Customer Classification

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Line No.	Customer Type	Voltage	Total Cost	Generation		Transmission		(132kV/66kV)				(11 kV)				Distribution		
				Energy	Demand	Demand	PKR	PKR	PKR	Customer	Demand	Demand	Customer	PKR	Services (Service Drop)	Meters		
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1	Tariff: Residential-A1(a)	0.2kV	100,619,717,401	62,712,317,758	20,013,677,075	1,856,779,327	6,394,635,822	361,818,648	3,694,294,777	166,945,618	295,590,627	14,784,528	3,033,918,537	1,872,971,686	0	24,886,312		
2	Tariff: Residential- A1(b)	0.4kV	1,495,020,952	826,597,065	394,561,653	36,605,663	126,067,692	4,807,511	72,831,547	2,218,219	5,827,451	196,443	0	116,825,452	0	8,890,458		
3	Tariff: Commercial-A2 (a)	0.2kV	7,566,679,480	3,911,642,099	2,043,969,563	189,830,342	653,075,441	22,568,215	377,293,291	10,413,130	30,188,268	922,176	189,238,795	0	98,654,494	0	20,541,083	
4	Tariff: Commercial- A2(b)	0.4kV	311,698,259	288,652,943	7,277,939	675,215	2,325,398	1,678,813	1,343,424	774,616	107,491	68,599	0	0	0	0	1,185,062	
5	Tariff: Commercial-A2(c )	0.4kV	4,867,094,949	3,276,801,898	907,445,320	84,168,713	289,940,840	19,057,969	167,503,977	8,793,478	13,402,451	778,741	0	33,273,313	0	92,434,874	0	
6	Tariff: Industrial-B1(a)	0.2kV	1,342,271,194	687,772,776	368,521,757	34,189,798	117,747,599	3,968,104	68,024,881	1,830,911	5,442,857	162,144	0	0	0	0	287,180,144	
7	Tariff: Industrial-B2(a)	0.4kV	1,308,113,699	39,361,765	786,234,239	72,943,292	251,212,289	228,929	145,129,805	105,629	11,612,233	9,354	0	0	0	0	170,668,008	
8	Tariff: Industrial-B1(b)	0.4kV	4,835,981,118	3,070,217,671	1,020,884,248	94,713,068	326,186,086	17,856,469	168,443,500	8,239,098	15,077,880	729,846	0	0	0	0	461,175,071	
9	Tariff: Industrial-B2(b)	0.4kV	14,256,373,253	9,538,867,722	2,697,176,212	250,231,930	861,783,647	55,477,150	497,867,731	25,597,536	39,835,759	2,266,891	0	0	0	0	0	
10	Tariff: Industrial-B3	11kV	16,893,922,416	14,537,784,259	1,105,128,555	102,528,878	353,103,261	89,089,302	203,994,030	41,106,418	0	0	0	0	0	0	0	
11	Tariff: Industrial-B4	132/66kV	7,194,092,875	4,895,498,897	1,483,378,132	137,621,180	473,959,028	32,969,075	0	0	332,819	54,575	26,630	4,833	991,801	0	612,282	
12	Tariff: Bulk Supply-C1(a)	0.2kV	25,190,256	20,500,919	1,803,031	167,277	576,092	118,280	0	0	672,733	62,363	0	0	0	0	7,900,417	
13	Tariff: Bulk Supply-C1(b)	0.4kV	346,020,827	262,411,767	45,549,023	4,225,834	14,553,518	1,526,194	8,407,826	704,196	0	0	0	0	0	0	5,135,271	
14	Tariff: Bulk Supply-C2(a)	11kV	220,829,039	161,880,951	32,790,472	3,042,153	10,476,992	992,026	6,052,744	457,728	0	0	0	0	0	0	0	
15	Tariff: Bulk Supply-C3(a)	132/66kV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43,452,291	
16	Tariff: Bulk Supply-C1(c)	0.4kV	436,739,053	314,894,120	68,007,172	6,309,401	21,729,195	1,831,433	12,553,342	845,036	1,004,427	74,835	0	0	0	0	1,896,100	
17	Tariff: Bulk Supply-C2(b)	11kV	1,856,579,242	1,369,761,891	269,962,111	25,045,876	86,256,482	8,394,067	49,831,903	3,873,080	0	0	0	0	0	0	2,370,125	
18	Tariff: Bulk Supply-C3(b)	132/66kV	173,208,427	54,389,011	82,530,555	7,656,815	26,369,609	366,287	0	0	2,766,277	18,709	3,839,228	0	0	0	375,270	
19	Tariff: Agriculture D-1(a)	0.4kV	387,650,664	78,723,530	187,297,443	17,376,618	59,844,022	457,858	34,572,955	211,259	5,207,726	2,962	607,878	0	0	0	713,004,766	
20	Tariff: Agriculture D-2	0.4kV	682,256,727	12,464,559	352,601,696	32,712,806	112,660,928	72,494	65,086,221	33,449	0	0	0	0	0	0	0	
21	Tariff: Agriculture D-1(b)	0.4kV	31,387,162,670	23,682,401,795	4,207,973,523	390,396,938	1,344,503,468	137,737,491	776,743,551	63,553,028	62,149,376	5,628,189	0	0	0	0	0	
22	Tariff: Temporary Service -E-1(i)	0.2kV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Tariff: Temporary Service -E-1(ii)	0.2kV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,900,417	
24	Tariff: Temporary Service- E-2	0.2kV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,765,146	
25	Tariff: Public Lighting - G	0.4kV	356,756,736	262,411,767	52,173,391	4,840,414	16,670,092	1,526,194	9,630,608	704,196	770,571	62,363	0	0	0	0	0	
26	Tariff: Residential Colonies- H	11kV	143,782,669	67,166,666	33,230,350	3,082,963	10,617,539	534,168	6,133,941	246,469	0	0	0	0	0	0	0	
27	Railway Traction - I	11kV	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Export to Discos 132 kV	132kV	3,204,118,997	844,964,990	230,797,993	21,412,404	2,106,943,609	0	0	11,372,920	0	0	0	0	0	0	0	
29	Export to Discos 11 kV	11kV	90,474,532	51,208,453	7,510,430	696,784	19,685,845	0	0	0	0	0	0	0	0	0	3,950,103,230	
<b>Total</b>			<b>199,901,625,339</b>	<b>130,988,495,273</b>	<b>36,400,481,883</b>	<b>3,377,073,688</b>	<b>13,680,924,595</b>	<b>763,076,678</b>	<b>6,397,445,793</b>	<b>336,707,673</b>	<b>489,682,757</b>	<b>25,772,777</b>	<b>3,261,869,553</b>	<b>3,950,103,230</b>				

# MULTAN ELECTRIC POWER COMPANY

## Energy Allocation Factors by Voltage Level Customer Classification

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**Table 1: Development of Energy Loss Allowance Factors**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132/66kV)	Substation
Load at output of element (kWh)	0	5,982,135,005	9,760,938,874	11,849,021,160	16,038,613,411	16,620,324,778
Loss of element (kWh)		48,243,024	523,781,976	1,172,596,687	581,711,367	
Cumulative Loss		48,243,024	572,025,001	1,744,621,688	2,326,333,055	16.53%
<b>Sales</b>						
0.2 kV	5,982,135,005	5,982,135,005	0	0	0	0
0.4kV	3,730,560,845	0	3,730,560,845	0	0	0
11kV	1,524,657,300	0	0	1,524,657,300	0	0
11kV (Export to DISCOs)	39,643,010	0	0	39,643,010		
132/66 kV	513,334,280	0	0	0	513,334,280	0
132/66 kV (Export to DISCOs)	2,503,661,284	0	0		2,503,661,284	
Loss as a percentage of element	14,293,991,723	0.806%	5.366%	9.896%	3.627%	16.53%

**Table 2: Percentage Energy Losses**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132/66kV)
0.2 kV	100.0%	100.8%	106.2%	116.7%	121.0%
0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%
11kV	100.0%	0.0%	0.0%	109.9%	113.9%
11kV (Export to DISCOs)	100.0%	0.0%	0.0%	109.9%	113.9%

<b>132/66 kV</b>	100.0%	0.0%	0.0%	0.0%	103.6%
<b>132/66 kV (Export to DISCOs)</b>	100.0%	0.0%	0.0%	0.0%	103.6%

**Table 3: Energy Sales with Loss Allowance**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132/66kV)</b>
0.2 kV	5,982,135,005	6,030,378,029	6,353,974,290	6,982,772,999	7,236,034,196
0.4kV	3,730,560,845	0	3,930,746,560	4,319,739,063	4,476,413,537
11kV	1,524,657,300	0	0	1,675,539,645	1,736,310,513
11kV (Export to DISCOs)	39,643,010	0	0	43,566,141	45,146,260
132/66 kV	513,334,280	0	0	0	531,952,622
132/66 kV (Export to DISCOs)	2,503,661,284	0	0	0	2,594,467,651
<b>Total</b>	<b>14,293,991,723</b>	<b>6,030,378,029</b>	<b>10,284,720,851</b>	<b>13,021,617,848</b>	<b>16,620,324,778</b>

**Table 4: Class Share in Sales with Loss Allowance**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132/66kV)</b>
0.2 kV	41.85%	100.00%	61.78%	53.62%	43.54%
0.4kV	26.10%	0.00%	38.22%	33.17%	26.93%
11kV	10.67%	0.00%	0.00%	12.87%	10.45%
11kV (Export to DISCOs)	0.28%	0.00%	0.00%	0.33%	0.27%
132/66 kV	3.59%	0.00%	0.00%	0.00%	3.20%
132/66 kV (Export to DISCOs)	17.52%	0.00%	0.00%	0.00%	15.61%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

**For Energy Cost Allocation**

<b>(11 kV)</b>	<b>(132/66kV)</b>
6,982,772,999	7,236,034,196
4,319,739,063	4,476,413,537
1,675,539,645	1,736,310,513
3,923,131	5,503,250
0	531,952,622
0	90,806,368
<b>12,981,974,838</b>	<b>14,077,020,485</b>

**For Energy Cost Allocation**

<b>(11 kV)</b>	<b>(132/66kV)</b>
53.79%	51.40%
33.27%	31.80%
12.91%	12.33%
0.03%	0.04%
0.00%	3.78%
0.00%	0.65%
<b>100.00%</b>	<b>100.00%</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Demand Allocation Factors by Voltage Level Customer Classification**

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**Table 1. Maximum Demand (at Meter)**

Customer Class	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Average	1CP 12CP
0.2 kV													1,919	1,919
0.4kV													925	925
11kV													131	131
11kV (Export to DISCOs)													6	6
132/66 kV													156	156
132/66 kV (Export to DISCOs)													659	659
<b>Total</b>													<b>3,796</b>	<b>3,796</b>
Date													28-May	
Hour													17:00	

**Table 2. Development of Demand Loss Allowance Factors**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)	Substation
Load at output of element (MW)	0	1,919	2,860	3,150	4,277	4,432
Loss of element (MW)		<b>15.48</b>	<b>153.48</b>	<b>311.74</b>	<b>155.12</b>	
<b>Customer Class 1CP</b>						
0.2 kV	1,919	1,919	0	0	0	0
0.4kV	925	0	925	0	0	0
11kV	131	0	0	131	0	0
11kV (Export to DISCOs)	6	0	0	6	0	0
132/66 kV	156	0	0	0	156	0
132/66 kV (Export to DISCOs)	659	0	0	0	659	0
<b>Total</b>	<b>3,796</b>	<b>1,919</b>	<b>925</b>	<b>137</b>	<b>815</b>	
Loss as a percentage of element		<b>0.81%</b>	<b>5.37%</b>	<b>9.90%</b>	<b>3.63%</b>	<b>16.87%</b>

**Table 3: Percentage Demand Losses**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)
0.2 kV	100.0%	100.8%	106.2%	116.7%	121.0%
0.4kV	100.0%	0.0%	105.4%	115.8%	120.0%
11kV	100.0%	0.0%	0.0%	109.9%	113.9%
11kV (Export to DISCOs)	100.0%	0.0%	0.0%	109.9%	113.9%
132/66 kV	100.0%	0.0%	0.0%	0.0%	103.6%
132/66 kV (Export to DISCOs)	100.0%	0.0%	0.0%	0.0%	103.6%

**Table 4: 1CP with Loss Allowance**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)
0.2 kV	1,919	1,935	2,039	2,240	2,322
0.4kV	925	0	975	1,072	1,110
11kV	131	0	0	144	149
11 kV (Export to DISCOS)	6	0	0	6	6
132/66 kV	156	0	0	0	162
132/66 kV (Export to DISCOs)	659	0	0	0	683
Total	3,796	1,935	3,014	3,462	4,432

**For Demand Cost Allocation**

(11 kV)	(132kV/66kV)
2,240	2,322
1,072	1,110
144	149
1	1
0	162
0	24
3,456	3,768

**Table 5: Class Share in 1CP with Loss Allowance**

Customer Class	Meter	(0.2 kV)	(0.4 kV)	(11 kV)	(132kV/66kV)
0.2 kV	50.56%	100.00%	67.65%	64.71%	52.38%
0.4kV	24.38%	0.00%	32.35%	30.95%	25.05%
11kV	3.45%	0.00%	0.00%	4.16%	3.37%
11 kV (Export to DISCOS)	0.15%	0.00%	0.00%	0.18%	0.14%
132/66 kV	4.12%	0.00%	0.00%	0.00%	3.66%
132/66 kV (Export to DISCOs)	17.35%	0.00%	0.00%	0.00%	15.40%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

**for Demand Cost Allocation**

(11 kV)	(132kV/66kV)
64.82%	61.61%
31.00%	29.47%
4.16%	3.96%
0.02%	0.02%
0.00%	4.30%
0.00%	0.63%
100.00%	100.00%

# MULTAN ELECTRIC POWER COMPANY

## Customer Allocation Factors by Voltage Level Customer Classification

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**Table 1: Customers Revenues and Other Allocation Factors, 1**

Customer Class	Customers		Sales		
	No.	%	(kWh)	%	Units Lost (kWh)
0.2 kV	4,856,727	97.3%	5,982,135,005	41.85%	
0.4kV	136,288	2.7%	3,730,560,845	26.10%	
11kV	443	0.0%	1,524,657,300	10.67%	
11kV (Export to DISCos)	3	0.0%	39,643,010	0.28%	0
132/66 kV	9	0.0%	513,334,280	3.59%	
132/66 kV (Export to DISCOs)	18	0.0%	2,503,661,284	17.52%	0
<b>Total</b>	<b>4,993,488</b>	<b>100.0%</b>	<b>14,293,991,723</b>	<b>100.00%</b>	

**Table 2: Customers Revenues and Other Allocation Factors, 2**

Customer Class	Average	Weight	Adjusted Customers	
	Size - Month		No.	%
0.2 kV	103	1.0	4,856,727	50.91%
0.4kV	2,281	22.2	3,028,737	31.75%
11kV	286,667	2,792.8	1,237,826	12.98%
11kV (Export to DISCos)	0	0.0	0	0.00%
132/66 kV	4,877,149	47,515.4	416,762	4.37%
132/66 kV (Export to DISCOs)	0	0.0	0	0.00%
<b>Total</b>	<b>2,863</b>	<b>27.89</b>	<b>9,540,052</b>	<b>100.00%</b>

**Table 3: Customers by Sub-function**

<b>Customer Class</b>	<b>Meter (0.2 kV)</b>	<b>Meter (0.4 kV)</b>	<b>(11 kV)</b>	<b>(132 kV/ 66 kV)</b>
0.2 kV	4,856,727	4,856,727	4,856,727	4,856,727
0.4kV	136,288	0	136,288	136,288
11kV	443	0	0	443
11kV (Export to DISCos)	0	0	0	0
132/66 kV	9	0	0	9
132/66 kV (Export to DISCOs)	0	0	0	0
<b>Total Customers</b>	<b>4,993,467</b>	<b>4,856,727</b>	<b>4,993,015</b>	<b>4,993,458</b>
				<b>4,993,467</b>

**Table 4: Percentage of Customers by Sub-function**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/66kV)</b>
0.2 kV	97.26%	100.00%	97.27%	97.26%	97.26%
0.4kV	2.73%	0.00%	2.73%	2.73%	2.73%
11kV	0.01%	0.00%	0.00%	0.01%	0.01%
11kV (Export to DISCos)	0.00%	0.00%	0.00%	0.00%	0.00%
132/66 kV	0.00%	0.00%	0.00%	0.00%	0.000%
132/66 kV (Export to DISCOs)	0.00%	0.00%	0.00%	0.00%	0.000%
<b>Total Customers</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 5: Adjusted Average Customer by Sub-function.**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/66kV)</b>
0.2 kV	4,856,727	4,856,727	4,856,727	4,856,727	4,856,727
0.4kV	3,028,737	0	3,028,737	3,028,737	3,028,737
11kV	1,237,826	0	0	1,237,826	1,237,826
11kV (Export to DISCos)	0	0	0	0	0
132/66 kV	416,762	0	0	0	416,762
132/66 kV (Export to DISCOs)	0	0	0	0	0
<b>Total Customers</b>	<b>9,540,052</b>	<b>4,856,727</b>	<b>7,885,464</b>	<b>9,123,290</b>	<b>9,540,052</b>

**Table 6: Percentage of Adjusted Average Customer by Sub-function**

<b>Customer Class</b>	<b>Meter</b>	<b>(0.2 kV)</b>	<b>(0.4 kV)</b>	<b>(11 kV)</b>	<b>(132kV/66kV)</b>
0.2 kV	50.9%	100.0%	61.6%	53.23%	50.9%
0.4kV	31.7%	0.0%	38.4%	33.20%	31.7%
11kV	13.0%	0.0%	0.0%	13.57%	13.0%
11kV (Export to DISCos)	0.0%	0.0%	0.0%	0.000%	0.000%
132/66 kV	4.4%	0.0%	0.0%	0.00%	4.4%
132/66 kV (Export to DISCOs)	0.0%	0.0%	0.0%	0.00%	0.0%
<b>Total Customers</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Percentage Summary of Allocation Factors by Voltage Level Customer Classification**

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**MULTAN ELECTRIC POWER COMPANY**  
**Allocation of Revenue Requirement by Voltage Level Customer Classification**

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Line No.	VOLTAGE	Generation		Transmission		Distribution				Meters	Street Lighting	Accounting	Sales					
		Total Cost		(132kV/66kV)		(11 kV)		(0.4 kV/0.2 kV)										
		Energy	Demand	Demand	Customer	Demand	Customer	Demand	Customer									
		PKR	PKR	PKR	PKR	PKR	PKR	PKR	PKR									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
1	0.2 kV	109,558,305,438	67,332,233,552	22,427,971,426	2,080,766,744	7,166,034,854	388,473,248	4,139,945,767	179,244,234	331,248,382	15,873,680	3,261,869,553	2,010,950,504	0	201,737,981	21,955,413		
2	0.4kV	60,566,311,802	41,653,606,603	10,727,181,859	995,219,891	3,427,477,176	242,258,506	1,980,114,487	111,779,744	158,434,375	9,899,096	0	1,254,062,839	0	5,661,120	816,103		
3	11kV	19,115,113,468	16,156,593,767	1,441,111,488	133,699,870	460,454,274	99,009,563	266,012,819	45,683,695	0	0	0	512,527,778	0	18,410	2,004		
4	11kV (Export to DISCOs)	90,474,532	51,208,453	7,510,430	696,784	19,685,945	0	11,372,920	0	0	0	0	0	0	0	0		
5	132/66 kV	7,367,301,102	4,949,887,908	1,565,908,687	145,277,995	500,328,638	33,335,362	0	0	0	0	0	172,562,108	0	364	40		
6	132/66 kV(Export to DISCOs)	3,204,118,997	844,964,990	230,797,993	21,412,404	2,106,943,609	0	0	0	0	0	0	0	0	0	0		
<b>Total</b>		<b>199,901,625,339</b>	<b>130,988,495,273</b>	<b>36,400,481,883</b>	<b>3,377,073,588</b>	<b>13,680,924,595</b>	<b>763,076,678</b>	<b>6,397,445,793</b>	<b>336,707,673</b>	<b>489,682,757</b>	<b>25,772,777</b>	<b>3,261,869,553</b>	<b>3,950,103,230</b>	<b>0</b>	<b>207,417,875</b>	<b>22,573,564</b>		

**MULTAN ELECTRIC POWER COMPANY**  
**Cost of Service Model**  
**Cost of Service Rates**  
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**Worksheet      Description**

<b>E1.1</b>	Revenue as per NEPRA Tariff by Existing Customer Classification
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**MULTAN ELECTRIC POWER COMPANY**  
Revenue as per NEPRA Tariff by Existing Customer Classification

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TARIFF CATEGORIES		Voltage	Sales (Projected)	Sales Mix	Demand	Annual Demand	Existing NEPRA Rate		Revenue as per NEPRA Rates		
							Fixed Charge	Variable Charge	Fixed Charge	Variable Charge	
A1 (a)	Residential -A1	0.2kV	822,570,000	7.00%	252.85		-	4.00	-	3,290,280,000	
I	Up to 50 Units	0.2kV	2,437,710,000	20.75%	749.31		-	13.00	-	31,690,230,000	
II	01-100 Units	0.2kV	1,742,650,000	14.83%	535.06		-	16.89	-	29,433,358,500	
III	101-300 Units	0.2kV	462,989,400	3.94%	142.32		-	17.90	-	8,287,510,260	
IV	301-700 Units	0.2kV	105,759,000	0.90%	32.51		-	19.00	-	2,009,421,000	
V	Above 700 Units	0.2kV	3,525,300	0.03%	34.04	13.66	-	19.00	-	66,980,700	
A1(b)	Time of Use (TOU) - Peak	0.4kv	70,506,000	0.60%					13.30	-	937,729,800
	Time of Use (TOU) - Off-Peak	0.4kv									
	Total Residential-A1		8,648,709,700	46.06%	1,746.88	13.68	-				78,716,610,260
	Commercial - A2		-								
A2 (a)	Commercial -	0.2kV	347,530,000	2.96%	174.91		-	19.00	-	6,603,070,000	
	For peak load requirement up to 5 kW										
A2 (b)	Regular	0.4kv	25,852,200	0.22%	0.63	0.69	400	16.00	3,013,552	413,635,200	
A2 (c)	Time of Use (TOU) - Peak (A-2)	0.4kv	52,879,500	0.45%	78.26	130.74	400	18.00	375,742,904	1,004,710,500	
	Time of Use (TOU) - Off-Peak	0.4kv	240,595,900	2.05%				13.30	-	3,196,925,470	
	Total Commercial-A2		664,857,600	5.68%	283.82	131.43			378,768,486	11,221,341,170	
	Industrial-B		-								
B1(a)	B1	0.2kV	61,105,200	0.52%	31.54		-	15.50	-	947,130,600	
B1(b)	B1 - TOU (Peak)	0.4kv	43,478,700	0.37%	88.07		-	19.00	-	826,096,300	
	B1 - TOU (Off-peak)	0.4kv	231,494,700	1.97%			-	13.30	-	3,078,879,510	
B2 (a)	B2	0.4kv	3,525,300	0.03%	67.82	4.69	400	15.00	325,553,430	52,879,500	
B2 (b)	B2 - TOU (Peak)	0.4kv	125,735,700	1.07%	232.67	364.69	400	19.00	1,116,810,897	2,386,978,300	
	B2 - TOU (Off-peak)	0.4kv	728,582,000	6.20%				13.10	-	9,544,162,200	
B3	B3 - TOU (Peak)	11kV	48,179,100	0.41%	100.45	265.50	380	18.00	458,044,469	915,402,900	
	B3 - TOU (Off-peak)	11kV	1,323,716,200	11.27%				13.00	-	17,208,297,800	
B4	B4 - TOU (Peak)	132/66kV	50,529,300	0.43%	148.17	82.47	380	19.00	640,100,388	960,056,700	
	B4 - TOU (Off-peak)	132/66kV	457,164,500	3.89%				12.80	-	5,897,422,050	
	Total Industrial-B		3,073,489,700	26.16%	688.71	717.38			2,640,809,183	41,819,304,680	
	Bulk-C		-								
C1 (a)	C1(a) Supply at 400 Volts - up to 5 kW	0.2kV	1,821,405	0.02%	0.15		-	18.00	-	29,142,480	
C1 (b)	C1(b) Supply at 400 Volts - exceeding 5 kW	0.4kv	23,502,000	0.20%	3.93	0.48	400	15.50	18,860,334	364,281,000	
C1 (c)	Time of Use (TOU) - Peak	0.4kv	4,700,400	0.04%	5.87	7.74	400	19.00	26,159,507	69,307,600	
	Time of Use (TOU) - Off-Peak	0.4kv	23,502,000	0.20%				13.30	-	312,576,600	
C2 (a)	C2 Supply at 11 kV	11kv	15,276,300	0.13%	2.98	2.69	380	15.30	13,590,721	233,727,390	
C2 (b)	Time of Use (TOU) - Peak	11kv	23,502,000	0.20%	24.54	23.50	380	19.00	111,891,645	446,538,000	
	Time of Use (TOU) - Off-Peak	11kV	105,759,000	0.90%				13.10	-	1,385,442,900	
C3 (a)	C3 Supply above 11 kV	132/66kV	-	0.00%	-		360	15.20			
C3 (b)	Time of Use (TOU) - Peak	132/66kV	940,080	0.01%	6.24		360	19.00	35,813,199	17,861,520	
	Time of Use (TOU) - Off-Peak	132/66kV	4,700,400	0.04%				13.00	-	81,105,200	
	Total Single Point Supply-C		203,703,686	1.73%	48.71	34.40			208,116,408	2,938,982,690	
	Agricultural Tube-wells - Tariff D		-								
D1 (a)	D1 Scarp	0.4KV	7,050,600	0.08%	16.18		-	15.50	-	109,284,300	
D2	D2 Agricultural Tube-wells	0.4KV	1,116,345	0.01%	30.42	1.49	200	15.00	73,000,313	16,745,175	
D1 (b)	Time of Use (TOU) - Peak	0.4KV	359,580,600	3.06%	363.00	685.54	200	19.00	871,190,889	8,832,031,400	
	Time of Use (TOU) - Off-Peak	0.4KV	1,781,451,600	14.99%				13.00	-	22,898,670,800	
	Total Agricultural-D		2,129,199,145	16.12%	408.57	687.03			944,191,202	29,856,931,875	
	Temporary Supply - Tariff E		-								
E-1(I)	Temporary Supply E-1 (I)	0.2kV	-	0.00%	-		-	19.00	-		
E-1(II)	Temporary Supply E-1 (ii)	0.2kV	-	0.00%	-		-	19.00	-		
E-2	Temporary Supply E-2	0.2kV	-	0.00%	-		-	15.50	-		
	Total Temporary-E		-	0.00%	-	-	-	-	-	-	
G	Public Lighting G	0.4KV	23,502,000	0.20%	4.50		-	15.00	-	352,530,000	
H	Residential Colonies H	11kv	6,225,700	0.07%	3.02		-	15.00	-	123,385,500	
I	Railway Traction - I	11kv	-	0.00%	-		-	15.00	-		
	Sub Total		11,780,687,430	100.0%	3,132	1,784		14.14	4,071,572,248	162,028,985,955	

### **Wheeling Charges**

	Export to DISCOS	132kV	2,503,861.284		658.88		-	0.00	-	-
	Export to DISCOS	11kV	39,643.010		5.60		-	0.00	-	-

**Grand Total** 14,293,991,723 3,796 ||| 4,071,572,248 162,028,985,955

**MULTAN ELECTRIC POWER COMPANY**  
Revenue to Cost Ratios by Standard Customer Classification

Line No.	NEPRA LN.	Back to Index	TARIFF CATEGORIES	Sales kwh	Demand MW	Revenue as per NEPRA Tariff		Cost Distribution		Difference		Revenue to Cost Ratio		
						Voltage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1			Residential - A1(a)	0.2kV 5,971,678,400	1,712.8	0	74,710,790,760	0	100,819,717,401	0	-25,908,917,541	0	0.7425	
2			Residential - A1(b)	0.4kV 74,031,300	34.0	0	1,004,710,500	0	1,495,020,952	0	-490,310,452	0	0.6720	
3			Commercial - A2(a)	0.2kV 347,530,000	174.9	0	6,603,070,000	0	7,566,670,480	0	-963,609,480	0	0.8727	
4			Commercial - A2(b)	0.4kV 25,852,200	0.8	3,013,552	413,635,200	11,729,487	299,866,793	-8,715,914	113,766,407	0.2589	1.3794	
5			Commercial - A2(c)	0.4kV 293,475,400	78.3	375,742,804	4,204,635,870	1,462,481,302	3,404,613,847	-1,086,738,368	800,022,323	0.2589	1.2350	
6			Industrial - B1(a)	0.2kV 61,105,200	31.5	0	947,130,600	0	1,342,271,194	0	-395,140,594	0	0.7056	
7			Industrial - B2(a)	0.4kV 3,525,300	87.8	325,553,430	52,879,500	1,287,131,857	40,981,843	-841,578,427	11,897,657	0.2588	1.2903	
8			Industrial - B1(b)	0.4kV 274,973,400	88.1	0	3,904,974,810	0	4,835,981,118	0	-931,006,308	0	0.8075	
9			Industrial - B2(b)	0.4kV 854,297,700	232.7	1,116,810,897	11,933,140,500	4,348,895,279	8,809,477,974	-3,230,084,381	2,023,862,526	0.2588	1.2042	
10			Industrial - B3	11kV 1,371,984,300	100.4	458,044,469	18,123,700,500	1,764,754,725	15,129,187,861	-1,306,710,255	2,994,532,809	0.2588	1.1879	
11			Industrial - B4	132/66kV 507,893,800	148.2	840,100,388	8,857,478,750	2,084,958,341	5,000,134,334	-1,454,857,953	1,756,344,416	0.3055	1.3448	
12			Single Point Supply - C1(a)	0.2kV 1,821,405	0.2	0	29,142,480	0	25,190,256	0	3,952,224	0	1.1569	
13			Single Point Supply - C1(b)	0.4kV 23,502,800	3.8	18,860,334	364,281,000	73,408,835	272,811,893	-54,548,800	91,860,107	0.2588	1.3363	
14			Single Point Supply - C2(a)	11kV 15,278,300	3.0	13,580,721	233,727,300	82,362,361	168,466,678	-38,771,840	85,260,712	0.2588	1.3874	
15			Single Point Supply - C3(a)	132/66kV 0	0.0	0	0	0	0	0	0	1.0000	1.0000	
16			Single Point Supply - C1(c)	0.4kV 28,202,400	5.9	28,150,307	401,884,200	109,003,534	327,135,514	-81,444,032	74,748,686	0.2588	1.2285	
17			Single Point Supply - C2(b)	11kV 129,261,000	24.5	111,891,845	1,831,980,900	431,096,372	1,425,482,870	-319,204,727	406,498,030	0.2588	1.3939	
18			Single Point Supply - C3(b)	132/66kV 5,640,480	6.2	36,613,199	78,966,720	118,556,979	56,651,448	-80,943,781	22,315,272	0.3055	0.2819	
19			Agricultural - D1(a)	0.4kV 7,050,800	16.2	0	108,284,300	0	387,650,664	0	-278,366,364	2,757,825	0.1285	1.1972
20			Agricultural - D2	0.4kV 1,118,345	30.4	73,000,313	16,745,175	568,299,377	13,887,350	-495,269,064	5,125,516,385	0.1285	1.2083	
21			Agricultural - D1(b)	0.4kV 2,121,032,200	363.0	871,190,889	29,730,902,200	6,781,766,855	24,605,385,815	-5,910,575,966	0	1.0000	1.0000	
22			Temporary Supply - E1(I)	0.2kV 0	0.0	0	0	0	0	0	0	0	1.0000	
23			Temporary Supply - E1(II)	0.2kV 0	0.0	0	0	0	0	0	0	0	1.0000	
24			Temporary Supply - E2	0.2kV 0	0.0	0	0	0	0	0	0	0	0.9882	
25			Public Lighting - G	0.4kV 23,502,800	4.5	0	352,530,000	0	356,750,736	0	-4,226,736	0	0.8581	
26			Residential Colonies - H	11kV 8,225,700	3.0	0	123,385,500	0	143,782,560	0	-20,397,063	0	1.0000	
27			Railway Traction - I	11kV 0	0.0	0	0	0	202	0	-202	0	1.0000	
28				<b>Sub Total</b>		<b>11,750,687,430</b>	<b>3,132.0</b>	<b>4,071,572,248</b>	<b>162,028,985,955</b>	<b>19,081,015,387</b>	<b>177,526,016,423</b>		<b>0.2134</b>	<b>0.9127</b>

\* Demand Charge include Generation, Transmission and Distribution Demand Charge

Wheeling Charges:													
Export to DISCOS	132 kV	2,503,661,284	658,6830	0	0	2,350,154,006	844,984,990	-2,359,154,006	-844,984,990	0	0.0000	0.0000	
Export to DISCOS	11 kV	39,643,010	5,6001	0	0	39,266,079	51,208,453	-39,266,079	-51,208,453	0	0.0000	0.0000	
<b>Sub Total</b>		<b>2,543,304,293</b>	<b>664,3</b>	<b>0</b>	<b>0</b>	<b>2,398,420,085</b>	<b>896,173,444</b>						
<b>Grand Total</b>		<b>14,293,991,723</b>	<b>3,756</b>	<b>4,071,572,248</b>	<b>162,028,985,955</b>	<b>21,479,435,472</b>	<b>178,422,189,867</b>						

# **MULTAN ELECTRIC POWER COMPANY**

## **Functionalized Rates by Existing Customer Classification**

### **Wheeling Charges:**

Whittington	132kV	18	2,503,661,284	844,964,990	230,797,993	21,412,404	2,106,945,303	0	1.29	112	10	462	0
Export to Discos 132 kV	132kV	18	2,503,661,284	844,964,990	230,797,993	21,412,404	2,106,945,303	0	1.29	112	10	462	0
Export to DISCOS 11 kV	11kV	3	39,643,010	51,208,453	7,510,430	896,784	31,058,865	0	0.35	30	3	268	0
Total			2,543,304,294	896,174,843	238,308,421	22,109,188	2,138,002,474	0	1.29	112	10	462	0
			2,543,304,294	896,174,843	238,308,421	22,109,188	2,138,002,474	0	1.29	112	10	462	0

**MULTAN ELECTRIC POWER COMPANY**  
**Volumetric Rates by Existing Customer Classification**

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Line No.		Voltage kV	Sales kWh	Allocated Cost		Fixed Charge Rs/kW/Month	Variable Charge Rs/kWh
				Fixed Cost	Variable Cost		
1	Residential – A1(a)	0.2kV	5,571,678,400	32,254,977,828	68,364,739,774	1,569	12.27
2	Residential – A1(b)	0.4kV	74,031,300	635,894,006	859,128,946	1,557	11.60
3	Commercial – A2(a)	0.2kV	347,530,000	3,294,156,905	4,272,522,575	1,569	12.29
4	Commercial – A2(b)	0.4kV	25,852,200	11,729,487	299,868,793	1,557	11.60
5	Commercial – A2(c)	0.4kV	293,475,400	1,482,481,302	3,404,813,647	1,557	11.60
6	Industrial – B1(a)	0.2kV	81,105,200	593,926,892	748,344,302	1,569	12.25
7	Industrial – B2(a)	0.4kV	3,525,300	1,287,131,857	40,981,843	1,557	11.63
8	Industrial – B1(b)	0.4kV	274,973,400	1,645,304,782	3,190,678,337	1,557	11.60
9	Industrial – B2(b)	0.4kV	854,297,700	4,346,895,279	9,909,477,974	1,557	11.60
10	Industrial – B3	11kV	1,371,894,300	1,764,754,725	15,129,187,691	1,464	11.03
11	Industrial – B4	132/66kV	507,683,800	2,094,958,341	5,099,134,334	1,178	10.04
12	Single Point Supply – C1(a)	0.2kV	1,821,405	2,905,849	22,284,406	1,569	12.23
13	Single Point Supply – C1(b)	0.4kV	23,502,000	73,408,935	272,811,893	1,557	11.60
14	Single Point Supply – C2(a)	11kV	15,278,300	52,382,361	168,466,878	1,464	11.03
15	Single Point Supply – C3(a)	132/66kV	-	-	-	-	0.00
18	Single Point Supply – C1(c)	0.4kV	28,202,400	109,803,538	327,135,514	1,557	11.60
17	Single Point Supply – C2(b)	11kV	129,281,000	431,098,372	1,425,482,870	1,464	11.03
18	Single Point Supply – C3(b)	132/66kV	5,640,480	116,556,979	56,651,448	1,178	10.04
19	Agricultural – D1(a)	0.4kV	7,050,800	301,857,315	85,793,349	1,557	12.17
20	Agricultural – D2	0.4kV	1,118,345	568,269,377	13,987,350	1,557	12.53
21	Agricultural – D1(b)	0.4kV	2,121,032,200	8,781,788,855	24,805,385,815	1,557	11.60
22	Temporary Supply – E1(i)	0.2kV	0	0	0	#DIV/0!	#DIV/0!
23	Temporary Supply – E1(ii)	0.2kV	0	0	0	#DIV/0!	#DIV/0!
24	Temporary Supply – E2	0.2kV	0	0	0	#DIV/0!	#DIV/0!
25	Public Lighting – G	0.4kV	23,502,000	64,085,075	272,871,681	1,557	11.60
26	Residential Colonies – H	11kV	8,225,700	53,064,793	90,717,778	1,464	11.03
27	Railway Traction - I	11kV	-	-	202	-	-
<b>Sub Total</b>			<b>11,750,687,430</b>	<b>57,947,188,631</b>	<b>138,659,843,179</b>	<b>1,542</b>	<b>11.80</b>

**Wheeling Charges:**

28	Export to DISCOS	132kV	2,503,661,284	2,359,154,006	844,964,990	298	0.34
29	Export to DISCOS	11kV	39,843,010	39,268,079	51,208,453	584	1.29
	<b>Sub Total</b>		<b>2,543,304,293</b>	<b>2,398,420,085</b>	<b>896,173,444</b>	<b>301</b>	<b>0.35</b>

<b>Grand Total</b>		<b>14,293,991,723</b>	<b>60,345,608,717</b>	<b>139,556,016,623</b>			
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**MULTAN ELECTRIC POWER COMPANY**  
**Unbundled Rates by Existing Customer Classification**

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Line No.		Voltage kV	Customer No.	Sales kWh	Generation Cost	Transmission Cost	Distribution Cost
		(1)	(2)	(3)	(4)	(5)	(6)
1	Residential – A1(a)	0.2kV	4,385,361	5,571,678,400	82,725,994,833	1,856,779,327	16,036,943,242
2	Residential – A1(b)	0.4kV	9,149	74,031,300	1,221,158,718	36,605,663	237,256,571
3	Commercial – A2(a)	0.2kV	454,047	347,530,000	5,955,611,662	189,630,342	1,421,437,476
4	Commercial – A2(b)	0.4kV	73	25,852,200	295,930,882	675,215	14,992,162
5	Commercial – A2(c)	0.4kV	11,443	293,475,400	4,184,247,219	84,188,713	598,659,018
6	Industrial – B1(a)	0.2kV	17,282	61,105,200	1,056,294,533	34,189,798	251,786,863
7	Industrial – B2(a)	0.4kV	1,978	3,525,300	825,596,004	72,943,292	409,574,404
8	Industrial – B1(b)	0.4kV	26,023	274,973,400	4,091,101,920	94,713,068	650,166,130
9	Industrial – B2(b)	0.4kV	6,264	854,297,700	12,235,843,934	250,231,930	1,770,297,389
10	Industrial – B3	11kV	274	1,371,894,300	15,642,912,814	102,528,878	1,148,480,724
11	Industrial – B4	132/66kV	8	507,693,800	6,378,877,030	137,621,180	677,594,466
12	Single Point Supply – C1(a)	0.2kV	37	1,821,405	22,303,950	187,277	2,719,029
13	Single Point Supply – C1(b)	0.4kV	151	23,502,000	307,960,790	4,225,834	33,834,203
14	Single Point Supply – C2(a)	11kV	15	15,276,300	194,671,423	3,042,153	23,115,463
15	Single Point Supply – C3(a)	132/66kV	-	-	-	-	-
16	Single Point Supply – C1(c)	0.4kV	208	28,202,400	382,901,293	6,309,401	47,528,359
17	Single Point Supply – C2(b)	11kV	33	129,261,000	1,639,724,002	25,045,876	191,809,364
18	Single Point Supply – C3(b)	132/66kV	1	5,640,480	136,919,566	7,656,815	28,632,048
19	Agricultural – D1(a)	0.4kV	3,748	7,050,600	266,020,973	17,376,618	104,253,073
20	Agricultural – D2	0.4kV	9,352	1,116,345	365,066,255	32,712,806	184,477,667
21	Agricultural – D1(b)	0.4kV	66,449	2,121,032,200	27,890,375,317	390,396,938	3,106,380,415
22	Temporary Supply – E1(i)	0.2kV	0	0	0	0	0
23	Temporary Supply – E1(ii)	0.2kV	0	0	0	0	0
24	Temporary Supply – E2	0.2kV	0	0	0	0	0
25	Public Lighting – G	0.4kV	1,449	23,502,000	314,585,157	4,840,414	37,331,166
26	Residential Colonies – H	11kV	116	8,225,700	120,397,016	3,082,963	20,302,589
27	Railway Traction - I	11kV	4	0	0	0	202
Sub Total			4,993,467	11,750,687,430	166,254,495,289	3,354,964,500	26,997,572,021

**Wheeling Charges:**

28	Export to DISCOS	132kV	18	2,503,661,284	1,075,762,984	21,412,404	2,106,943,609
29	Export to DISCOS	11kV	3	39,643,010	58,718,883	696,784	31,058,865
Sub Total			21	2,543,304,293	1,134,481,867	22,109,188	2,138,002,474
Grand Total			4,993,488	14,293,991,723	167,388,977,156	3,377,073,688	29,135,574,495

# MULTAN ELECTRIC POWER COMPANY

Revenue as per NEPRA by Voltage Level Customer Classification

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TARIFF CATAGORIES	Sales (Projected) (kWh)	Demand MW	NEPRA Revenue	
			Fixed Charge Rs	Variable Charge Rs
0.2kV TARIFF CATAGORIES				
TOTAL 0.2 KV	5,982,135,005	1,919.25	73,000,313	82,416,172,315
0.4kV TARIFF CATAGORIES				
TOTAL 0.4 KV	3,730,560,845	925.37	2,739,331,513	52,363,573,880
11kV TARIFF CATAGORIES				
11 Kv (MEPCO Consumers)	1,524,657,300	130.99	583,526,836	20,312,794,290
132/66kV TARIFF CATAGORIES				
132/66 KV (MEPCO Consumers)	513,334,280	156.42	675,713,586	6,936,445,470
SUB TOTAL	11,750,687,430	3,132	4,071,572,248	162,028,985,955

**MULTAN ELECTRIC POWER COMPANY**  
**Revenue to Cost Ratios by Voltage Level Customer Classification**

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Line No.	Sales (kWh)	Demand (MW)	NEPRA Revenue (PKR)		Cost Distribution (PKR)		Difference (PKR)		Revenue to Cost Ratio	
			Demand Charge*	Energy Charge	Demand Cost*	Energy Cost	Demand Cost*	Energy Cost	Demand Charge	Energy Charge
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1 0.2 kV	5,982,135,005	1,919.25	73,000,313	82,416,172,315	0	109,558,305,438	73,000,313	-27,142,133,123	-	0.75
2 0.4kV	3,730,560,845	925.37	2,739,331,513	52,383,573,880	14,621,286,609	45,945,025,193	-11,881,955,096	6,418,548,687	0.19	1.14
3 11kV	1,524,657,300	130.99	583,526,836	20,312,704,280	2,248,213,458	16,866,900,010	-1,664,686,622	3,445,894,280	0.26	1.20
4 132/66 kV	513,334,280	156.42	675,713,586	6,936,445,470	2,211,515,320	5,155,785,782	-1,535,801,734	1,780,659,688	0.31	1.35
<b>Sub Total</b>	<b>11,750,687,430</b>	<b>3,132</b>	<b>4,071,572,248</b>	<b>162,028,985,955</b>	<b>19,081,015,387</b>	<b>177,526,016,423</b>			<b>0.21</b>	<b>0.91</b>

\* Demand Charge includes Generation, Transmission and Distribution Demand Charge

**Wheeling Charges:**

5 11kV (Export to DISCOs)	39,643,010	5.60	-	-	7,468,154	83,006,378	-7,468,154	-83,006,378	-	-
6 132/66 kV (Export to DISCOs)	2,503,661,284	658.68	-	-	252,210,397	2,951,908,599	-252,210,397	-2,951,908,599	-	-

**Grand Total**

**14,293,991,723 3,796 4,071,572,248 162,028,985,955 19,340,693,939 180,560,931,400**

**MULTAN ELECTRIC POWER COMPANY**  
Functionalized Rates by Voltage Level Customer Classification

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Line No.	Customer No.	Sales kWh	Generation Cost		Transmission Cost	Distribution Cost		Tariffs		Total Tariff									
			Distribution Margin			Generation Tariff	Transmission	Demand	Energy (Rs/kWh)	Demand (Rs/kW/Month)	Demand (Rs/kW/Month)	Energy (Rs/kWh)	Distribution Margin (Rs/kWh)	Demand (Rs/kW/Month)	Total Cost (Rs/kWh)				
			Energy	Demand		Demand	Customer	Cost	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16
1 0.2 kV	4,856,727	5,982,135,005	67,332,233,552	22,427,971,426	2,080,766,744	11,637,229,104	6,080,104,613	11.26	974	90	505	104	11.26	2.98	1,569	18.31			
2 0.4kV	136,288	3,730,560,845	41,653,606,603	10,727,181,859	995,219,891	5,568,026,038	1,624,277,413	11.17	966	90	501	993	11.17	1.93	1,557	18.24			
3 11kV	443	1,524,857,300	16,156,593,767	1,441,111,488	133,899,870	726,466,893	857,241,450	10.60	917	85	462	123,575	10.60	0.91	1,484	12.54			
4 132/66 kV	9	513,334,280	4,949,887,908	1,565,908,687	145,277,995	500,328,638	205,897,874	9.84	834	77	267	1,856,219	9.84	1.38	1,178	14.35			
<b>Sub Total</b>		<b>4,993,467</b>	<b>11,750,687,430</b>	<b>130,092,321,829</b>	<b>36,162,173,460</b>	<b>3,354,964,500</b>	<b>18,430,050,671</b>	<b>8,567,521,350</b>	<b>11.07</b>	<b>962</b>	<b>89</b>	<b>490</b>	<b>143</b>	<b>11.07</b>	<b>2.30</b>	<b>1,051</b>	<b>16.73</b>		

**Wheeling Charges:**

5 11kV (Export to DISCOs)	3	39,643,010	51,208,453	7,510,430	696,784	31,058,865	0	1.29	112	10	462	0	1.29	0.78	584	2.28
8 132/66 kV (Export to DISCOs)	18	2,503,661,284	844,964,990	230,797,993	21,412,404	2,106,943,808	0	0.34	29	3	267	0	0.34	0.84	298	1.28
<b>Sub Total</b>	<b>21</b>	<b>2,543,304,293</b>	<b>896,173,444</b>	<b>238,308,423</b>	<b>22,109,188</b>	<b>2,138,002,474</b>										

**Grand Total**

4,993,468 : 14,293,991,723 : 130,988,495,273 : 36,400,481,883 : 3,377,073,688 : 20,568,053,145 : 8,567,521,350

# MULTAN ELECTRIC POWER COMPANY

## Volumetric Rates by Voltage Level Customer Classification

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Line No.	Sales kWh	Allocated Cost		Fixed Charge Rs/kW/Month	Variable Charge Rs/kWh	Total Rate Rs/kWh
		Fixed Cost (2)	Variable Cost (3)			
1 <b>0.2 kV</b>	5,982,135,005	36,145,967,274	73,412,338,165	1,569	12.27	18.31
2 <b>0.4kV</b>	3,730,560,845	17,288,427,787	43,277,884,015	1,557	11.60	16.24
3 <b>11kV</b>	1,524,657,300	2,301,278,251	16,813,835,217	1,464	11.03	12.54
4 <b>132/66 kV</b>	513,334,280	2,211,515,320	5,155,785,782	1,178	10.04	14.35
<b>Sub Total</b>	<b>11,750,687,430</b>	<b>57,947,188,631</b>	<b>138,659,843,179</b>	<b>1,542</b>	<b>11.80</b>	<b>16.73</b>

### Wheeling Charges:

5 <b>11kV (Export to DISCOs)</b>	39,643,010	39,266,079	51,208,453	584	1.29	2.28
6 <b>132/66 kV (Export to DISCOs)</b>	2,503,661,284	2,359,154,006	844,964,990	298	0.34	1.28
<b>Sub Total</b>	<b>2,543,304,293</b>	<b>2,398,420,085</b>	<b>896,173,444</b>	<b>301</b>	<b>0.35</b>	<b>1.30</b>
<b>Grand Total</b>	<b>14,293,991,723</b>	<b>60,345,608,717</b>	<b>139,556,016,623</b>			

**MULTAN ELECTRIC POWER COMPANY**  
**Unbundled Rates by Voltage Level Customer Classification**

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Line No.	Customer No.	Sales kWh	Generation Cost	Transmission Cost	Distribution Cost	Generation per kWh	Transmission per kWh	Distribution per kWh	Total Rate per kWh	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	
1	0.2 kV	4,856,727	5,982,135,005	89,760,204,977	2,080,766,744	17,717,333,717	15.00	0.35	2.96	18.31
2	0.4kV	136,288	3,730,560,845	52,380,788,461	995,219,891	7,190,303,450	14.04	0.27	1.93	16.24
3	11kV	443	1,524,657,300	17,597,705,255	133,699,870	1,383,708,343	11.54	0.09	0.91	12.54
4	132/66 kV	9	513,334,280	6,515,796,595	145,277,995	706,226,512	12.69	0.28	1.38	14.35
<b>Sub Total</b>		<b>4,993,467</b>	<b>11,750,687,430</b>	<b>166,254,495,289</b>	<b>3,354,964,500</b>	<b>26,997,572,021</b>	<b>14.15</b>	<b>0.29</b>	<b>2.30</b>	<b>16.73</b>

**Wheeling Charges:**

5	11kV (Export to DISCOs)	3	39,643,010	58,718,883	696,784	31,058,865	1.48	0.02	0.78	2.28
6	132/66 kV (Export to DISCOs)	18	2,503,661,284	1,075,762,984	21,412,404	2,106,943,609	0.43	0.01	0.84	1.28
<b>Sub Total</b>		<b>21</b>	<b>2,543,304,293</b>	<b>1,134,481,867</b>	<b>22,109,188</b>	<b>2,138,002,474</b>	<b>0.45</b>	<b>0.01</b>	<b>0.84</b>	<b>1.30</b>
<b>Grand Total</b>		<b>4,993,488</b>	<b>14,293,991,723</b>	<b>167,388,977,156</b>	<b>3,377,073,688</b>	<b>29,135,574,495</b>				

## MULTAN ELECTRIC POWER COMPANY

### Cost of Service Model

#### Tariff Design Options

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Worksheet	Description
<a href="#"><u>Tariff Option 1</u></a>	Fully Allocated Cost of Service based Tariffs
<a href="#"><u>Tariff Option 2</u></a>	Cost of Service Based Tariff with Cross Subsidy to Residential Customers and No Cross Subsidy Increase from Current Levels
<a href="#"><u>Tariff Option 3</u></a>	Cost of Service Based Tariff Without Cross Subsidy
<a href="#"><u>Tariff Option 4</u></a>	Alternate Tariff Design

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# MULTAN ELECTRIC POWER COMPANY

## Fully Allocated Cost of Service based Tariffs

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TARIFF CATEGORIES	Sales (Projected)	Peak Load	Current Tariff		CoS Rate :		CoS Revenue		Allocated cost
			Fixed Charge (Rs/kW/M)	Variable Charge (Rs/kWh)	Fixed Charge (Rs/kW/M)	Variable Charge (Rs/kWh)	Rs	Rs	
0.2kV Tariff Categories					939	12.27	36,145,967,274	73,412,338,165	109,553,858,332
TOTAL 0.2 kV	6,982,135,005	1,919.25							
0.4 kV Tariff Categories					932	11.60	17,288,423,787	43,277,884,015	60,570,758,908
TOTAL 0.4 kV	3,730,580,845	925.37							
11 kV Tariff Categories					876	11.03	2,301,278,251	16,813,835,217	19,115,113,468
TOTAL 11 kV	1,524,657,300	130.98							
132/66 kV Tariff Categories					705	10.04	2,211,515,320	5,155,785,782	7,367,301,102
TOTAL 132/66 kV	613,334,280	156.42					57,947,188,631	138,659,843,179	196,607,031,810
<b>SUB TOTAL A</b>	<b>11,750,687,430</b>	<b>3,132</b>							
Over Recovery /(Under Recovery)									
<b>Wheeling Charges:</b>									
Export to DISCOs (11 kV)	39,643,010	6	-	-	584	1.29	39,266,079	51,208,453	90,474,532
Export to DISCOs (132 kV)	2,503,661,284	659	-	-	298	0.34	2,359,154,006	844,964,990	3,204,118,997
<b>Sub Total B</b>	<b>2,543,304,293</b>	<b>664</b>					2,398,420,085	896,173,444	3,294,593,529
<b>GRAND TOTAL</b>	<b>14,293,991,723</b>	<b>3,796</b>					<b>60,345,608,717</b>	<b>139,556,016,623</b>	<b>199,901,625,339</b>

**MULTAN ELECTRIC POWER COMPANY**  
**Cost of Service Based Tariff with Cross Subsidy to Residential Customers and No Cross Subsidy Increase from Current Levels**

Part I (Index)

TARIFF CATEGORIES		VOLTAGE KV	Projected Sales kWh	Billing Demand kW	Billing MIDI Billing Demand	Faulted Charge	Faulted Variable Charge	Faulted Charge (kWh/kWh)	Faulted Charge	Proposed Tariff	Revenue on Proposed Tariff	Cost of Revenue	Cross Subsidy Over Recovery	Cost Recovery
<b>A1(a) Residential - A1</b>		0.7	622,610,000	-	-	-	-	-	-	15.084,751,168	[11,219,523,307]	20%		
Up to 50 Units		0.7	3,627,710,600	-	-	-	-	-	-	3,608,217,981	[7,600,000,333]	60%		
51-100 Units		0.2	1,424,650,600	-	-	-	-	-	-	37,041,727,724	44,644,020,067	10%		
101-200 Units		0.2	420,660,400	-	-	-	-	-	-	34,400,020,022	31,915,320,081	24,461,220,240	11%	
201-1,000+Units		0.2	106,769,000	-	-	-	-	-	-	8,680,700,451	8,470,000,000	1,204,465,660	12.1%	
Above 700 Units		0.4	3,525,300	-	13,95	-	-	-	-	2,944,860,137	1,930,000,578	412,043,578	10.3%	
A1(b) Time of Use (TOU) - Peak		0.4	-	-	-	-	-	-	-	1,150,000,400	1,201,000,193	20,973,123	10.3%	
Time of Use (TOU) - Off-Peak		0.4	-	-	-	-	-	-	-	88,000,000	102,243,012,000	[14,873,814,109]	60%	
<b>Total Residential-A1</b>		-	6,646,700,700	13,95	-	-	-	-	-	88,000,000	102,243,012,000	[14,873,814,109]	60%	
<b>Commercial - A2</b>		-	-	-	-	-	-	-	-	-	-	-	-	
A2(a) Commercial Fair peak load requirement up to 5 kW		0.7	-	347,500,000	-	-	-	-	-	7,800,078,400	6,304,750,000	1,201,000,702	10%	
A2(b) Regular		0.4	-	32,878,500	130,74	400	10,00	10,00	410,000	410,000,016	80,076,196	10%		
Time of Use (TOU) - Peak (4-7)		0.4	-	26,565,000	-	-	-	-	-	1,060,000,000	1,704,024,703	80,060,164	11.0%	
Time of Use (TOU) - Off-Peak		0.4	-	-	-	-	-	-	-	3,100,000,000	4,100,000,000	1,000,000,000	11.0%	
<b>Total Commercial-A2</b>		-	664,847,000	13,95	-	-	-	-	-	1,060,000,000	1,704,024,703	80,060,164	11.0%	
<b>Industrial-B</b>		-	-	-	-	-	-	-	-	-	-	-	-	
B1) Time of Use (TOU) - Peak		0.2	-	91,000,200	-	-	-	-	-	15,50	18,31	-	21.77	
B1) TOU (Peak)		0.4	-	43,478,700	73,51	-	-	-	-	10,00	10,24	-	-	
B1) TOU (Off-Peak)		0.4	-	221,494,700	-	-	-	-	-	13,20	16,24	-	-	
B2) TOU (Peak)		0.4	-	3,525,300	4,00	-	-	-	-	4,00	4,02	-	-	
B2) TOU (Off-Peak)		0.4	-	125,355,700	364,90	-	-	-	-	400	10,00	-	-	
B3) TOU (Peak)		0.4	-	724,562,000	-	-	-	-	-	13,10	13,10	-	-	
B3) TOU (Off-Peak)		0.4	-	46,179,100	266,60	-	-	-	-	266,60	470	-	-	
B4) TOU (Peak)		0.4	-	1,323,715,200	-	-	-	-	-	13,00	11,93	-	-	
B4) TOU (Off-Peak)		0.4	-	50,520,300	82,47	-	-	-	-	300	10,00	-	-	
<b>Total Industrial-B</b>		-	1,326,000	-	-	-	-	-	-	12,80	10,04	-	-	
<b>Bank-C</b>		-	-	-	-	-	-	-	-	10,00	10,31	-	-	
C1(a) Supply at 5000 units ... up to 5 kW		0.2	-	1,271,400	-	-	-	-	-	10,00	10,31	-	-	
C1(a) Time of Use (TOU) - Peak		0.4	-	22,500,000	0,48	-	-	-	-	400	15,50	-	-	
C1(a) Supply at 4000 units ... decreasing 5 kW		0.4	-	4,760,400	7,74	-	-	-	-	400	10,00	-	-	
C1(a) Time of Use (TOU) - Off-Peak		0.4	-	22,502,000	-	-	-	-	-	13,20	13,30	-	-	
C1(a) Supply at 1 kW		0.4	-	11,76	2,00	-	-	-	-	10,00	6,76	-	-	
C1(a) Time of Use (TOU) - Peak		0.4	-	23,502,000	23,50	-	-	-	-	300	10,00	-	-	
C1(a) Time of Use (TOU) - Off-Peak		0.4	-	106,760,000	-	-	-	-	-	10,00	476	-	-	
C2 Supply above 1 kW		0.4	-	132,000	-	-	-	-	-	300	10,00	-	-	
C2 Supply above 10 kW		0.4	-	860,000	-	-	-	-	-	10,00	10,00	-	-	
C2 Time of Use (TOU) - Peak		0.4	-	132,000	-	-	-	-	-	10,00	10,04	-	-	
C2 Time of Use (TOU) - Off-Peak		0.4	-	860,000	-	-	-	-	-	13,00	10,04	-	-	
<b>Total Supply-C</b>		-	263,703,000	24,48	-	-	-	-	-	7,719,520,700	43,900,000,563	8,700,000,000	11.0%	
<b>Agricultural-Tube-wells - Tariff D</b>		-	-	-	-	-	-	-	-	-	-	-	-	
D1(a) 01) Agricultural tube-wells		0.4	-	7,050,000	-	-	-	-	-	10,00	10,31	-	-	
D1(b) 02) Agricultural tube-wells		0.4	-	11,635	1,48	-	-	-	-	200	10,00	-	-	
D1(b) Time of Use (TOU) - Peak		0.4	-	300,500,000	865,54	865,54	-	-	-	10,00	11,60	-	-	
<b>Total Agricultural-D</b>		-	2,128,195,142	247,02	-	-	-	-	-	13,00	11,60	-	-	
<b>Temporary E</b>		-	-	-	-	-	-	-	-	-	-	-	-	
E-1(a) Temporary E-1 (a)		0.2	-	-	-	-	-	-	-	10,00	10,31	-	-	
E-1(a) Temporary E-1 (b)		0.2	-	-	-	-	-	-	-	10,00	10,31	-	-	
E-1(b) Temporary E-2		0.2	-	-	-	-	-	-	-	10,00	10,31	-	-	
<b>Total Temporary-E</b>		-	-	-	-	-	-	-	-	-	-	-	-	
<b>Public Lighting - Tariff G</b>		-	-	-	-	-	-	-	-	-	-	-	-	
G1) Public Lighting - G		0.4	-	23,502,000	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-H		0.4	-	8,225,700	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-I		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-J		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-K		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-L		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-M		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-N		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-O		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-P		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-Q		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-R		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-S		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-T		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-U		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-V		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-W		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-X		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-Y		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-Z		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-A		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-B		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-C		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-D		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-E		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-F		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-G		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-H		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-I		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-J		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-K		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-L		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-M		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-	-	
G1) Residential Customers-N		0.4	-	2,451,200	-	-	-	-	-	10,00	10,31	-		

**MULTAN ELECTRIC POWER COMPANY**  
**Cost of Service Based Tariff Without Cross Subsidy**

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TARIFF CATEGORIES			Projected Sales kWh	Billing Demand MW	Existing Rates		CoR Rates		Proposed Tariff		Total Revenue	Cost of Service Rs	Cross Subsidy Over/(Under) Recovery Rs	CoR Recovery			
					Fused Charge (Rs/kWh Month)	Variable Charge (Rs/kWh Month)	Fixed Charge (Rs/kWh Month)	Variable Charge (Rs/kWh Month)	Fixed Charge (Rs/kWh Month)	Variable Charge (Rs/kWh Month)							
A1(a)	Residential - A1																
I	Up to 50 Units		822,370,000														
II	51-100 Units		2,447,70,000														
III	101-300 Units		1,742,540,000														
IV	301-700 Units		462,980,400														
V	Above 700 Units		105,750,000														
A1(b)	Time of Use (TOU) - Peak		8,525,300	14													
	Time of Use (TOU) - Off-Peak		70,506,000														
	Total Residential - A1		56,445,700,700	14								91,790,062,032	109,348,012,460	(11,572,060,487)	89%		
Commercial - A2																	
A2 (a)	Commercial - For peak load requirement up to 5 kW		347,520,000														
	Regular		29,957,300	1	400	16.00	1557	11.40	9.42	18.50	7,366,340,237	6,364,750,688	1,004,568,549	110%			
A2 (b)	Time of Use (TOU) - Peak (A-2)		52,279,500	141	400	19.00	1557	11.60	9.42	18.70	5,348,517,964	4,764,624,761	822,931,811	117%			
A2 (c)	Time of Use (TOU) - Off-Peak		240,595,900														
Total Commercial - A2			866,537,800	131								33,642,742,276	11,549,880,686	1,099,551,886	110%		
Industrial - B																	
B1(a)	B1		61,105,300														
B1(b)	B1 - TOU (Peak)		48,478,700	234													
	B1 - TOU (Off-peak)		231,494,700														
B2 (a)	B2		8,525,300	5	400	15.00	1557	11.40	9.42	18.50	21.20	1,299,550,547	1,119,089,031	176,464,746	110%		
B2 (b)	B2 - TOU (Peak)		125,715,700	365	400	19.00	1557	11.60	9.42	18.70	11,294,430,649	4,464,241,541	810,589,112	107%			
	B2 - TOU (Off-peak)		728,542,000														
B3	B3 - TOU (Peak)		48,174,100	266	300	19.00	1464	11.03	8.76	17.51	19,729,459,799	17,199,875,152	2,523,584,646	115%			
	B3 - TOU (Off-peak)		1,123,715,200														
B4	B4 - TOU (Peak)		50,520,300	82	300	19.00	1178	11.04	7.05	21.64	4,656,216,307	3,206,549,730	1,372,066,477	119%			
	B4 - TOU (Off-peak)		45,164,500														
Total Industrial - B			8,073,488,700	861								50,882,145,375	43,396,968,583	6,685,875,794	115%		
Build - C																	
C1 (a)	C1(a) Supply - up to 5 kW		1,821,405														
C1 (b)	C1(b) Supply - exceeding 5 kW		22,502,000	0	400	15.50	1557	11.40	9.42	18.53	21.20	441,667,180	381,999,106	59,388,024	110%		
C1 (c)	Time of Use (TOU) - Peak		4,703,400	8	400	19.00	1557	11.40	9.42	18.96	485,104,853	457,870,537	27,233,936	106%			
	Time of Use (TOU) - Off-Peak		22,502,000														
C2 (a)	C2 Supply at 11 kV		15,276,300	3	300	19.40	1464	11.03	8.76	17.71	263,364,122	191,523,332	71,840,291	134%			
C2 (b)	Time of Use (TOU) - Peak		23,502,000	21	300	19.00	1464	11.03	8.76	17.71	1,284,446,412	1,640,584,267	341,783,145	121%			
	Time of Use (TOU) - Off-Peak		105,750,000														
C3 (a)	C3 Supply above 11 kV																
C3 (b)	C3 - TOU (Peak)		940,000	1	300	19.00	1178	10.04	7.05	21.22	98,171,181	60,951,375	17,416,808	122%			
	C3 - TOU (Off-Peak)		4,703,400														
Total Single Supply - C			203,708,585	35								3,290,694,000	2,765,849,387	524,844,313	110%		
Agricultural Tube Wells - D																	
D1 (a)	D1 Scarp		7,050,600														
D2	D2 Agricultural Tube-wells		1,116,445	1	300	15.00	1557	11.60	9.17	11.17	13,362,802	114,467,732	52,084,873	111%			
D1 (b)	Time of Use (TOU) - Peak		260,500,600	866	300	19.00	1557	11.60	9.16	20.02	36,634,700,421	34,435,331,015	2,199,366,406	106%			
	Time of Use (TOU) - Off-Peak		1,761,461,600														
Total Agricultural - D			2,128,199,143	867								36,779,381,001	34,567,922,004	2,251,464,377	106%		
E-1 (i)	Temporary Supply - E																
E-1 (ii)	Temporary E-1 (i)																
E-1 (ii)	Temporary E-1 (ii)																
E-2	Temporary E-2																
Total Temporary - E																	
Public Lighting G																	
	Public Lighting G		13,502,000														
	Total Public Lighting - G		23,502,000														
Residential Colonies attached to Industrial Premises - H																	
H	Residential Colonies H		8,325,700														
	Total Residential Colonies - H		8,325,700														
I	Railway Traction - I																
	Railway Traction - I																
	Total Railway Traction I																
	A. Sub Total - MEPCO Consumers		31,750,667,490	2,019										100%			

Assumptions - Control Panel									
Category	CoR +/ Subsidy Cross-Subsidy Factor	Voltage Level (Two Part Tariff Categories Only)		Grid Station Level Peak Load Allocation	MDI Rate MW	MDI Peak Load Allocation Ratio			
A1 (a)50 Units	0.3835								
A1 (a)100 Units	0.8404								
A1 (a)300 Units / Agriculture-D	1.1057								
Other except A1b & B1b	1.1577								
Total	1208.27	2018.93	1 5709						
Check - Cos Recovery Over/(Under)	0								
Peak/OffPeak Factor	1.44								

	Export to DISCO	Import from DISCO								
Export to DISCO	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Import from DISCO										
B Sub Total - Export to DISCO	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Grand Total (A+B)	10,201,901,771	2,000,000	10,201,901,771	2,000,000	10,201,901,771	2,000,000	10,201,901,771	2,000,000	10,201,901,771	2,000,000

The proposed rates of B2a and C3a are calculated in combination with B2b and C3b respectively.

# MULTAN ELECTRIC POWER COMPANY

## Alternate Tariff Design

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TARIFF CATEGORIES		Projected Sales kWh	Billing Demand MW	Recommended Rates		Revenue Rs	
				Fixed Charge Rs/kW/Month	Variable Charge Rs/kWh	Fixed Charge	Variable Charge
<b>0.2 KV</b>	<b>Quaternary</b>				16.45	-	91,667,935,462
i	Residential	5,571,678,400			16.45	-	5,717,730,875
ii	Commercial	347,530,000			16.45	-	1,005,332,169
iii	Industrial	61,105,200			16.45	-	29,966,632
iv	Other	1,821,405			16.45	-	98,420,965,138
	<b>TOTAL QUATERNARY</b>	<b>5,982,135,005</b>	-				
<b>0.4 KV</b>	<b>Tertiary</b>						
i	Residential					-	80,127,412
	Time of Use (TOU) - Peak	3,525,300	13.66		22.73	-	1,144,677,317
	Time of Use (TOU) - Off-Peak	70,506,000			16.24	-	132,591,789
ii	Agriculture	8,166,945	1.49		16.24	-	1,200,067,637
iii	Non TOU Consumers	76,381,500	5.87	932	15.71	65,591,012	
iv	TOU Consumers					-	
	Time of Use (TOU) - Peak	586,374,900	1,623	932	18.33	18,143,339,929	10,748,298,095
	Time of Use (TOU) - Off-Peak	2,985,606,200			13.09	-	39,090,283,404
	<b>TOTAL TERTIARY</b>	<b>3,730,560,845</b>	<b>1,644</b>			<b>18,208,930,941</b>	<b>52,396,045,654</b>
<b>11 KV</b>	<b>Secondary</b>						
i	Export to DISCOs	39,643,010			2.28	-	90,474,532
ii	Non TOU Consumers	23,502,000	2.69	876	13.81	28,250,444	324,452,332
iii	TOU Consumers					-	
	Time of Use (TOU) - Peak	71,681,100	289.00	876	16.11	3,038,658,800	1,154,509,547
	Time of Use (TOU) - Off-Peak	1,429,474,200			11.50	-	16,445,275,490
	<b>TOTAL SECONDARY</b>	<b>1,564,300,310</b>	<b>291.69</b>			<b>3,066,909,244</b>	<b>18,014,711,901</b>
<b>132/66 KV</b>	<b>Primary</b>						
i	Export to DISCOS	2,503,661,284			1.28	-	3,204,118,997
ii	TOU Consumers					-	
	Time of Use (TOU) - Peak	51,469,380	84	705	15.43	706,985,280	793,953,179
	Time of Use (TOU) - Off-Peak	461,864,900			11.02	-	5,089,005,007
	<b>TOTAL PRIMARY</b>	<b>3,016,995,564</b>	<b>84</b>			<b>706,985,280</b>	<b>8,087,077,182</b>
		<b>14,293,991,723</b>	<b>2,019</b>			<b>21,982,825,464</b>	<b>177,918,799,875</b>

### Assumptions

No fixed charges at 0.2 KV and for all residential consumers	0.898 X CoS
All 0.2 KV consumers subsidized @	1.4
Peak/Off-peak Ratio	1.0 X CoS
Off-peak rates	1.2 X CoS
Non TOU Rates (ex 0.2kV)	(0)

**MULTAN ELECTRIC POWER COMPANY**  
**Cost of Service Model**  
**Reference Sheets**

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**Worksheet**

[Trial Balance](#)

[Load Summary](#)

[Feeder List with Load](#)

[Load Data](#)

[FEEDER-TARIFF-WISE-STAT](#)

[CDP Data May 2013](#)

[CDP Load Reconciliation](#)

**Description**

**Projected Trial Balance of MEPCO**

Summary of Load recorded on MEPCO tariff Categories on Maximum demand date

List of MEPCO Feeders with Load on maximum demand date

From Feeder Wise Statistics Load profile of each tariff category is being calculated

**Detail Feeder wise Statistics**

Common Delivery Point readings for the month of Maximum Demand of MEPCO

Reconciliation done to match the load summary data with the maximum demand of MEPCO on that particular date.

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