TRF-127

MULTAN ELECTRIC POWER COMPANY LIMITED

TARIFF PETITION

F.Y. 2009-10

3rd Quarter (Jan-Mar 2010)

DISTRIBUTION LICENSE NO.06/DL/2002

30th April 2010

MULTAN ELECTRIC POWER COMPANY LIMITED (WAPDA)

OFFICE OF THE CHIEF EXECUTIVE

NO.3651 /FDM/Tariff DATE: 30/04/2010

The Registrar,
National Electric Power Regulatory Authority,
2nd Floor, OPF Building,
Sector G-5/2,
Islamabad.

Received one Original alongwith 01 Copy

Subject: - **TARIFF PETITION – MEPCO (LICENSE # 06/DL/2002)**

Ref:- Your memo No.NEPRA/R/TRF/ /MEPCO 2010 dated April 2010

We are enclosing Tariff Petition for the third quarter (January-March 2010) for financial year 2009-10 for determination of tariff in accordance with Rule-3 (1) of NEPRA Tariff Standard & Procedure, 1998.

It is therefore, requested to admit attached petition for determination of Tariff for the 3rd Quarter (January-March 2010) as detailed in petition.

It may please be acknowledged.

30/4

CH. GUFTAR AHMAD
Chief Executive Officer.

DA/
1. Affidavit in Original (One page)
2. Tariff Petition (15 pages)

2827
06-5-10

O/C 30/04/10

For information & n/a pl.

– DG (Tariff)

– AD (MR)
to process pl.

6/5

6/5

cc: Chairman
Member (Lic)
Member (T)
Member (SBP)
Member (CA)

MULTAN ELECTRIC POWER COMPANY

Tel: 061-/9210352
061/9210380/2005

Office of the
Chief Executive

No. 10801 /Company : Secy

Dated 30-09-09

The Finance Director,
MEPCO H/Q Multan.

Sub:- **AUTHORIZATION TO CHIEF EXECUTIVE OFFIER TO FILE TARIFF PETITION.**

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

"Resolved that CEO MEPCO be and is hereby authorized to file Tariff Petition with NEPRA whenever required in future".

(Engr. Shahbaz Ahmed Khan)
Company Secretary MEPCO

MULTAN ELECTRIC POWER COMPANY LIMITED (WAPDA)

OFFICE OF THE
CHIEF EXECUTIVE

NO.13657/FDM/Tariff DATE: 30/04/2010

The Registrar,
National Electric Power Regulatory Authority,
2nd Floor, OPF Building,
Sector G-5/2,
Islamabad.

Subject: - **TARIFF PETITION – MEPCO (LICENSE # 06/DL/2002)**

Ref:- Your memo No.NEPRA/R/TRF/ /MEPCO 2010 dated April 2010

We are enclosing Tariff Petition for the third quarter (January-March 2010) for financial year 2009-10 for determination of tariff in accordance with Rule-3 (1) of NEPRA Tariff Standard & Procedure, 1998.

It is therefore, requested to admit attached petition for determination of Tariff for the 3rd Quarter (January-March 2010) as detailed in petition.

It may please be acknowledged.

30/4

CH. GUFTAR AHMAD
Chief Executive Officer.

DA/

1. Affidavit in Original (One page)
2. Tariff Petition (15 pages)

Multan Electric Power Company Limited

Tariff Petition – 30th April 2010

Contents

Section	Description	Pages
1.	**Petition Summary.**	
	1.1 The Petitioner.	1
	1.1.2 Basis of Petition	1
	1.2. Ground of Petition	2
	1.3.0 Relief Sought	3
	1.4 Key Aims and Features of the Petition.	3
2.	**Tariff Review Formula and Process.**	4
	2.1 Tariff Methodology.	4-5
	2..1.1 MEPCO's Margin Formula.	5-9
	2.4 Revision of Tariff.	9
3.	**Calculating MEPCO's Revenue Requirement.**	10
	3.1 Current Tariffs.	10
	3.2 Trend in Customers Numbers and Consumptions and category wise units sold (Actual & Projected).	10
	3.3 MEPCO's Revenue Requirement.	13-14
	3.4 Income Tax	15
.	**Annex:**	15-19

1. Investment.
2. Estimated Sales Revenue on the basis of proposed Tariff 3rd quarter (Jan-Mar) F.Y. 2009-10
3. Proposed Tariff Category-wise to meet Revenue Requirement.

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) 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. Ch. Guftar Ahmad	Chief Executive Officer
• Syed Mushtaq Hussain Bokhari.	Finance Director.
• Anjum Naveed Arain	Customer Services Director
• Mr. Malik Imtiaz Ahmad	Dy. Manager Commercial
• Mr. Jahangir Bhutta	Dy. Manager Finance (CP&C)
• Mr. Shahbaz Ahmad Khan	Company Secretary

1.1.2. **Basis of Petition**

Under the 1997 NEPRA Act, NEPRA 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, subject to the need to comply with guidelines not inconsistent with the provisions of the NEPRA Act, 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 to distribute/supply electricity to its service area, as set out in MEPCO's Distribution license No. 06/DL/2002, granted by the NEPRA under the NEPRA Act.

The quarterly petition (January-March 2010) is, therefore, being submitted on the advice of NEPRA vide their letter No.NEPRA/R/TRF-DISCOs-IIIQ/2480 of April 12, 2010 in accordance with the NEPRA Tariff Standards and Procedure Rules 1998 under Part II Section 3 (1) and recent amendment in section 31 of NEPRA act 1997.

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 for on regular basis to ensure continuous flow of power in its distribution system. Distribution Margin is equally important, MEPCO must earn sufficient distribution margin to have an adequate stream of cash flow to maintain its system, discharge its financial commitments, and invest on the augmentation and expansion of the network and a reasonable return on the investment.

Stable and predictable tariff rate is beneficial both for Distribution Company and its customers for a long term planning. The length of the review period is important for determining the size of the incentive for MEPCO to improve its efficiency. Longer the period of review, larger the incentive to make efficiency gains, reduce losses or achieve cost efficiencies in stable economic conditions. However, as the authority has been mandated by Regulation of Generation, Transmission and Distribution of electric power (Amendment) Ordinance 2009 to determine tariff on quarterly basis. This tariff petition is, therefore, being filed in compliance with directions of the Authority issued under the ordinance. The Authority has determined tariff for MEPCO for the year 2009-10 (1^{st} quarter and 2^{nd} quarter). This tariff petition for the third quarter (January-March 2010) also includes points which in the past were raised before the Authority. In addition to the legal requirement, following are the grounds of this petition.

- Unrealistic sales target.
- Unachievable T&D loss target.
- Inadequate O&M cost.
- Delay in determination/notification of tariff.
- Delay/non payment of subsidies
- Diversion in sales mix.

The resultant insufficient cash flow is making it difficult for the company to attract outside investment for up gradation of the system because of poor financial health and to meet its financial commitments:

- Pay for electricity purchased.
- Meet other obligations:

- Investment on the system for T&D loss reduction.
- Augmentation of the system to cater for growing demand.
- Expansion of the system.
- Debt servicing.

1.3 **Relief sought**

We, therefore, submit to seek the following relief:

- Resetting of sales target 9956Mkwh.
- Resetting of T& D losses 17%.
- Allowing of adequate O&M Rs. 5680(m) including Rs. 200 (m) Prov. For Bad Debts.
- Extension in TOU metering deadline June 2011.
- Determination of fixed minimum charges for commercial and tubewell consumers exceeding load 5kw.
- Determine consumer end tariff as submitted.
- Any Other relief which the Authority may deem proper.

1.4. Key Aims and Features of the Petition

1.4.1 Aims of the Petition

This tariff petition sets out the tariff methodology, required revenues and timetable for rebalancing tariffs in MEPCO's distribution area for the year 2009-10 including third quarter i.e. January-March 2010. The aim of this petition is to obtain approval for the immediate implementation of proposed tariffs to yield MEPCO's required revenues. The implementation of tariffs will benefit consumers and MEPCO as:

1. Regular payment to CPPA to ensure regular supply of electricity.
2. The cash flow will enable the Co. to improve service quality and reliability.
3. Enable the company to invest on the system for its network expansion.
4. Provide signals for efficient use of this precious national resource.
5. Promote financial sustainability of the company.

i. 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 its cash flow requirements.
- Incentives for MEPCO to make operating efficiencies and reduce losses.

ii. Structure of the Petition

This petition has three distinct components. The first part deals with the tariff methodology. This is the formula that will be used to determine MEPCO's distribution margin for the year 2009-10 including 3rd quarter (January-March) and the quarter to follow 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, investment costs 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 quarterly 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 year and 3rd quarter (January-March) of the year. The profits or losses that arise from changes in efficiency or demand would, however, are retained by MEPCO.

At the end of the period, the formula would be reapplied to determine the distribution margin for subsequent quarter. Operating expenditure will be subject to an efficiency requirement so that MEPCO will be required to ensure that its increase in costs is below the rate of inflation by an efficiency factor (X) to be determined by NEPRA.

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.

2.1.2 MEPCO Revenue Requirement

Our projected revenue requirement is Rs.94085 (million) for the year 2009-10 out of which an amount of Rs.40915 (million) including fuel adjustment allowed by NEPRA for the 1st two quarters has been realized The annual revenue requirement is briefly posted below:

	Rs. In Million
Power Purchase price	78120
Distribution Margin	8139
Prior Year Adjustment	7826
Total: -	**94085**

The Authority while determining tariff for the first quarter of 2009-10 set our revenue requirement of Rs. 95050 (m) with the following breakup:

	Rs. In Million
Power Purchase price	80617
Distribution Margin	6607
Prior Year Adjustment	7826
Total: -	**95050**

Although the revenue requirement estimated by MEPCO and set by NEPRA is the same but average rate is different because NEPRA has set high sales target i.e. 16% against 10% of MEPCO as discussed in 2nd quarter petition hearing.

Sales Growth

MEPCO projected a sales growth of 10% to 9956 mkwh over 9050 mkwh for the year ended on June 30, 2009 which the authority set at 10521 mkwh while making determination for the first quarter illustrating over 16% growth and mainatianed at the same level in the 2nd quarter determination, which is not only unprecedented but is unrealistic in view of hydel situation, progress on the rental power projects and capacity of the system to handle that much growth.

The first two quarters growth of 8.50% has precisely demonstrated our apprehensions, leaving a huge gap of 24 % to be made up in the remaining two quarters which is a very stiff, so does not look achievable. As explained in the following paragraphs, this virtually means further erosion in O&M which is already set low.
In view of the above submissions, the authority is requested to reset the sale target near about 10% i.e. 0056 Mkwh. As the authority determines tariff on quarterly basis, target may be set at 10% above last year and be adjusted on quarter to quarter basis as the actual numbers would suggest.

2.2.1 Power Purchase Price (PPP) and T&D losses

MEPCO pays a Power Purchase Price (in Rs/kWh) for the electricity it procures from CPPA or other sources, 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.

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

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 period, 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 decrease from the current level of 18.4% to 17.00% in the Financial Year 2009-10.

Based on the above formula, the compensation for T&D losses would be automatically adjusted for any change in the power purchase cost. The schedule of target losses, however, would be maintained for the whole year 2009-10, 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.
The authority has set T&D loss target of 15% including 3.5% transmission and 11.5% distribution against 17% requested in our tariff petition. The company has the largest network in the country which needs huge investment on continuous basis but remained neglected for a variety of reasons mainly week cash flows i.e. not a single grid station was built in the last 25 years . The investment made on ELR is too meager with respect to the size of the system and can at the best maintain the loss level but is more than offset by massive rural electrification and tube well connections i.e. MEPCO's share is over 40% on both accounts which are main cause of increase in distribution losses. A study conducted by the company shows technical losses of 15.59% alone which has also been submitted to the authority in response to its directions before the determination of first quarter tariff. MEPCO gave a detailed presentation on the study at the time of hearing for second quarter determination but the authority has completely ignored the study while making second quarter determination and uploading its earlier decision of 15% T&D losses for 2009-10. The Authority is again requested to reconsider its decision in the light of technical study and set the T&D loss at 17%.

2.2.2 **O&M COST**

MEPCO like any other distribution company is working for Distribution Margin including the most important and heavy component of O&M. O&M expenses are directly related with the network which MEPCO is leading amongst all the distribution companies in the country. The increase in O&M for 2009-10 is 14% by taking into account the increase allowed by GOP in Salaries & Wages, Fuel cost, electricity rate, material rates etc.

The company has a right to recover prudently incurred cost. The required revenue is recovered over the number of units sold, so actual O & M depends on actual sale which increases or decreases with actual sales more or less than target sales. As mentioned above the sales target set for the year is unrealistic which means that even built in O&M is unlikely to be realized thereby putting more stress on the company's profitability and liquidity.

➢ The Authority allowed O&M for the year 2009-10 Rs. 4950 million, as against our demand of Rs. 5680 (m), the actual expenses for financial year 2008-09 was Rs. 5012 (m),the O&M allowed is less by Rs. 222 (m) from the actual audited accounts of the last year. The comparison of last two years is give below.

Rs. in million

	Actual	**Actual**	**Proj.**	**Allowed**
	2007-08	2008-09	2009-10	2009-10
Salaries Wages & Benefits	2712	3443	3729	3490
Repair & Maintenance	388	466	612	562
Travelling	197	216	250	226
Vehicle Expenses	164	211	240	198
Power Light & Water	32	34	45	
Office Supply	75	57	75	576
Collection Charges	233	252	265	
Authority Overhead	66	50	57	
Provision for Bad Debts	331	154	200	
Others	112	129	207	
Total:-	**4310**	**5012**	**5680**	**4950**

- The Salaries wages and other benefits are inclusive of salaries & benefits and acturial valuation for retirement benefits. The sanctioned strength of the company is 21384 out which 5199 vacancies i.e. more than 20% are still vacant. The Government of Pakistan has increased in pay as adhoc relief by 15% and 20% to the employees in BPS 17 and above and BPS 16 and below respectively. MEPCO has recently inducted 1341 employees in different grade on the order of Federal Government which has an impact of about Rs. 60 (m) for next six months.

- MEPCO has large network in the country and very old which requires huge amount to maintain the system. The amount allowed in the determination may be enhanced.
- The company has created two operation divisions at end of previous year and one at the start of the current financial year. The company has to mobilize the staff for up keeping and maintenance of the system and to attend public complaints, which does require traveling and vehicle expense. With creation of new operational offices and increase in POL prices the vehicle expenses increase.
- As the MEPCO is doing massive village electrification, the number of consumers is increasing, so the collection charges are related to the number of consumers.
- Due to economic slow down, the debtors of the company is increasing and MEPCO has to make provision for doubtful debts whereas authority has not allowed for such provision.
- The Authority is requested to allow Rs.5680 (M) as O&M including Rs. 200 (m) for the F.Y. year 2009-10.

2.2.3 Prior year's adjustment

The authority allowed prior year's adjustment of Rs.7826 (million) in the annual determination for F.Y. 2008-09 on account of delayed determination and notification of tariff in the previous year which could not be realized for the same reason in that year too as the tariff was notified in September 09. This year again the second biggest item of revenue requirement after power purchased cost was allowed to be recovered over nine months sales of units but facing the same problem as even first quarter determination notified after lapse of six months. This essentially means more than double the rate per unit on account of prior year adjustment to make full recovery of the amount in next less than six months, which is neither possible nor practicable meaning thereby landing the company further deeper in the financial difficulties. Our submission to the Authority is address this issue of permanent back log because quarterly determination intended to address this issue has proved counter productive.

2.3 Distribution Margin Formula

The average distribution margin for the for financial year 2009-10 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:

O&M is the expected operating and maintenance cost per kWh (for period- t), which includes the estimated cost of technical service and repair, necessary materials for operation, employees cost , mandatory social insurance payments, administration, management and other operating costs related to MEPCO's distribution and supply business.

Depreciation. Depreciation is provided in accordance with the company's policy.

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.

Average Rate of Return is a pre-tax return on the Profit Rate Base. Because the investment is typically financed with a combination of debt and equity, the appropriate rate of return would be a market-based weighted average of the cost of capital.

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 12 months projected by NEPRA in ist quarter determination for the financial 2009-10. This will become the reference ppp for setting the tariff rate.

2.4 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) results in a corresponding change in retail tariffs after the authority put in place mechanism of monthly change in tariff on account of variation in ppp.

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

Extraordinary Adjustments: Any justified losses and/or additional expenses incurred by MEPCO due to changes in legislation, legal acts, technical regulation, or other special events that are beyond its control would be reimbursed by adjusting the distribution margin, subject to NEPRA's approval.

3. CALCULATING MEPCO'S REVENUE REQUIREMENT

3.1 Current Tariffs

Presently, the consumer-end tariff is based on a cross-subsidized structure (which the GOP wants to rationalize over a period of time). This essentially means that whilst some customers are paying substantially less than their cost of service, industrial and commercial customers pay higher prices. Thus, consumers that are paying in excess of their cost of service are effectively subsidizing other categories especially lifeline customers of domestic category.

3.2 Trends in Customers Numbers and Consumptions

Annex-1 provides information about demand, customer numbers and tariffs in the MEPCO's service area. As would be observed, consumptions by the subsidized categories generally outpaced others, which has been a major pressure on the tariffs.

The increase in domestic and agriculture consumption relative to industrial consumption has worrying implications for MEPCO's revenues and profitability, especially since domestic customers cost more to serve. As domestic and agriculture consumption increases, and in the absence of cost reflective tariffs, MEPCO's overall cost rises whilst its revenue keeps declining relatively. Meanwhile, the share of industrial consumers squeezes directly affecting revenue.

Table-1 is presented at next page showing the consumption for MEPCO's customers

MULTAN ELECTRIC POWER COMPANY MULTAN

DEMAND ANALYSIS
HISTORICAL CONSUMPTION AND FORECAST

Fig. In Million

CATEGORIES	ACTUAL			Provisional	projected
	2005-06	2006-07	2007-08	2008-09	2009-10
DOMESTIC	4149.46	4623.6	4526.66	4400.99	4821.7
COMMERCIAL	469.21	536.58	549.88	535.52	583.0
INDUSTRIAL	2496.34	2421.54	2231.68	1989.81	2320.9
BULK SUPPLY	123.09	132.22	136.25	135.51	146.7
AGRICULTURE (T/WELL)	1658.81	1809.83	1900.99	1954.98	2055.1
PUBLIC LIGHTING - G-1	26.85	30.74	28.51	25.06	23.6
RES. COLONIES - H-1	12.56	10.42	6.1	6.6	4.2
RLY. TRACTION - I	3.66	4.32	2.91	0.75	0.3
CO-GENERATION - J	1.24	1.39	3.395	1.27	0.530
TOTAL:-	**8941.22**	**9570.64**	**9386.375**	**9050.49**	**9956.01**

- **Village Electrification & Tube well Connections:** MEPCO has to electrify huge number of villages and tube well connections which can adversely affect our targets of reduction in Line Losses. Moreover, it has been assumed that village electrification will be financed by grants from sponsors otherwise consumer end tariff will increase because of interest on loans in case village electrification is to be financed from loans. Village Electrification schemes mostly increase life line consumers and revenue from this category neither justify any loan repayment nor interest thereon.

- **Power Purchase Price (PPP):** PPP of the current year is based on the calculations provided by NEPRA for the next 12 months up to June 30, 2010 i.e. Rs.6.513 /kWh. It has also been assumed that any increase in PPP will be passed on to the end consumers instantly as already determined in the tariff petition for the financial year 2008-09 (monthly adjustment) because any delay in passing on increase in PPP will expose the company to a big liquidity risk.

- Consumer end tariff of life line consumers i.e. Domestic (0-50 units) has also been increased by paisas 70.

- **Purchase Costs:** The cost of electricity purchased by MEPCO has been calculated as the PPP (unadjusted for distribution losses) times the units of electricity purchased. This is also the equivalent of the units of electricity sold times the PPP adjusted for T&D losses (PPP divided by 1 minus the percentage of allowed losses).

- **O&M expenses** are directly related with the network and MEPCO has the largest network among all the distribution companies in the country. The increase in O&M for 2009-10 has taken is 14% by taking into account the increase allowed by GOP in Salaries & Wages, Travelling Expenses, Fuel cost, electricity rate, material rates etc.

- **Asset Base:** This represents projected gross book value of the operating assets at the start of the year. Annex-2.

- **New Investments:** New investments will be made as per the investment plan of the Company Annex-3.

- **Profit Base:** The Profit Rate Base is calculated as sum of existing fixed assets (Less Accumulated Depreciation) new investments, work-in-progress and working capital minus deferred credit.

- **Average Rate of Return:** Average ROR has been estimated to meet cash flow requirements of the MEPCO, which works out to be 16.31 % .

- **Distribution Revenue:** The sum of the O&M, Depreciation, RORB less amortization and other income result in MEPCO's revenue. Dividing this by the total units sold yields the average distribution margin (per kWh).

The results of the calculations are summarized on the next page as Table-II.

MULTAN ELECTRIC POWER COMPANY LIMITED

STATEMENT SHOWING THE SUMMARY OF TARIFF CALCULATIONS

Sr. No.		PROPOSED 2009-10	EXISTING 2008-09
1	Year within control period	1	0
2	Total unit sales (mln KWH)	9955.55	9050.50
	Line Losses - Distribution	13.50	14.47
	- Transmission (132 KV System)	3.50	3.93
3	Total Losses (in % age)	17.00	18.40
4	Total units purchased (mln KWH)	11994.64	11091.30
5	PPP (Rs / KWH - unadjusted)	6.51	5.58
6	PPP (Rs / KWH - adjusted for losses)	7.85	6.84
7	Purchase costs (mln Rs.)	78119.89	61886.00
8	O&M (Rs / KWH sold)	0.57	0.55
9	O&M (mln Rs)	5679.71	5012.40
10	Assets at year start	50714.31	44339.84
11	Plus New Investment	6125.40	6374.48
12	Less Depreciation	16229.22	15370.30
13	Plus Work in Progress	3733.64	4346.77
14	Less Deferred Credit	24483.12	22600.01
16	Plus Working Capital		
17	Profit Rate Base	19861.01	17090.77
	DISTRIBUTION REVENUE		
16	RORB	3239.33	(3009.89)
	Interest on on short term Loans	290.27	0.00
17	Depreciation	1878.40	1621.28
18	O&M (mln Rs)	5679.71	5012.40
19		11087.71	3623.79
	Less Amortization	1116.88	1009.11
	Other Income	1831.62	1774.92
		2948.50	2784.03
20	**Distribution Revenue**	**8139.21**	**839.77**
21	PPP (Ps / KWH)	784.69	683.79
22	Distribution Margin (Ps / KWH)	81.76	9.28
23	Average Tariff (Ps / KWH)	866.44	693.06
24	Average Real Tariff (Ps / KWH)	866.44	693.06
25	Prior Year Adjustment	78.61	
26	Average Tariff (Ps / KWH)	945.05	
25	Distribution Margin / Average Tariff (%)	0.09	0.01

ANNUAL REVENUE REQUIREMENT F.Y. 2009-10

Units Sold Mkwh	9955.55
Power Purchase price	78119.89
Distribution margin	8139.21
Prior year Adjustment	7825.651
Total Revenue Required for 2009-10	**94084.75**
Revenue Earned During First Quarter (Jul-Sep 09)	21802.000
Revenue Earned During Second Qtr (Oct-Dec 09)	17832.183
Fuel Adjustment Allowed for first Quarter	221.817
Fuel Adjustment Allowed for 2nd Qtr	1059.052
Total Revenue Earned	**40915.052**
Adjustment Req. for 2nd Qtr for T&D Losses of PPP	602.509
Revenue for the last 2 Qtr	53169.699
Revenue to be recovered durind last 2 Qtr	**53772.208**
Unit Sold During Last Two Quarters	4658.890
Average sales Rate Rs.kws	**11.542**

3.4 **Income Tax**

Income tax being pass through is the part of RORB. Income tax has therefore been calculated on projected net profit and included in the average and consumer end tariff.

4. Estimated Sales Revenue on the basis of proposed tariff for the last two quarters (January 2010-June 2010) for FY 2009-10 is presented on Annex-4.

- The category-wise tariffs proposed for FY 2009-10 are presented in Annex-5.

Inputs from MEPCO's Financial Statements audited for the year 2008-2009 and projected for the year 2009-10.

Annex 3:

INVESTMENT

Rs. Million

	Actual (Audited)	**Actual (Audited)**	**Actual (Audited)**	**Projected**	**Actual Expenditure (Jul-Dec 09)**
YEAR	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2009-10**
DOP & Others	175.612	180.368	119.005	499.000	499.000
STG	242.000	1168.649	1016.853	1674.000	1674.000
ELR	316.096	538.438	679.799	277.000	277.000
DOP,ELR, Capacitors (ADB)				100.000	100.000
ENERGY EFFICENCY COMP.				20.000	20.000
SUB TOTAL	**733.708**	**1887.455**	**1815.657**	**2570.000**	**2570.000**
VILLAGE ELECTRIFICATION	2422.141	1939.886	2356.220	1500.000	1500.000
SUB TOTAL	**3155.849**	**3827.341**	**4171.877**	**4070.000**	**4070.000**
CAPITAL CONTRIBUTION	1933.758	2419.274	2125.645	1500.000	1500.000
GRAND TOTAL	**5089.607**	**6246.615**	**6297.522**	**5570.000**	**5570.000**

MEPCO has planned to invest Rs.321 million on Development of Power, Rs.1674 million on STG Programme to improve Grid System, Rs.277 million in Energy Loss Reduction Programme and Rs.1500 million on Village Electrification Programme and Rs.1500 million of Capital Contribution in the year 2009-10.

It is projected that Rs.1500 (m) for village electrification and Rs. 1500 (m) for new connections would be financed by the government and the customers respectively

5- **Installation of T.O.U Meters**

MEPCO is making sincere efforts to install T.O.U. meters for all the customers having sanctioned load of k KW and above as directed by the Authority in its tariff determination for the year 2008-09. We have so for replaced 17164 out of 89139 and are in the process of resetting over 28000 existing TOD to TOU. The balance is to be met from stock in hand and fresh procurement.

This exercise requires a huge investment in the range of about Rs. 900 (m), the company therefore, submits to the Authority for extension in the dead line upto June 2011 and increase in O&M to generate necessary cash flow.

6- **Proposed Amendment**

Special tariff for seasonal nature of business e.g. Cotton, Oil, Rice, Ice factories may be designed as seasonal nature of consumers are switching over on no-seasonal relevant industrial tariff to avail the benefit of billing demand and to avoid application of seasonal charges.

7- Addition in clause 5 of special conditions under seasonal tariff at the end of the para as "The facility of none charging of fixed charges due to none operating of the season will be only for one season for during whole life of the business

8- **Fixed Charges**

The Authority while determining tariff for the financial year 2006-07 made a change in the application of tariff for all categories of industrial consumers for fixed charges from Actual MDI or 50% of sanctioned load which ever is higher to Actual MDI recorded subject to fixed minimum charges of Rs. 2000/- for B-2, Rs. 50000/- for B-3 and Rs. 500000/- for B-4 consumers on the other hand, no such change has been made in CPPA/NTDC tariff application mechanism. CPPA/NTDC still apply fixed charges (which infact have increased in power shortage period). The Authority is, therefore, requested to look into this change in tariff application mechanism because this is causing considerable revenue loss to the company.

9- Commercial A-2 (b&c) and tube well D-1 (b) are two part tariffs similar to industrial category where fixed minimum charges are applied on the recorded maximum demand indicator (MDI), but no such charges are available for commercial and tube well categories . MEPCO,therefore, proposes as follows:

i- Minimum monthly charges for A2 (b&c) be replaced with fixed minimum charges of Rs. 2000/- P.M.

ii. D-1(B) may levied fixed minimum charges of Rs. 2000/ P.M.

iii. all sub-categories of tariff "C" except C1 (a) may be levied fixed minimum charges in line with similar categories of two part tariff under (B).

- Amendment in definition of low power factor penalty.

-.-.-.-.-.-

MULTAN ELECTRIC POWER COMPANY LIMITED

CATEGORIES	SALES M/KWH	% to Total Sales	Load Factor	PROPOSED RATES Fixed Charges	PROPOSED RATES Variable Charges	PROPOSED REVENUE Fixed Charges	PROPOSED REVENUE Variable Charges	PROPOSED REVENUE Total
DOMESTIC (0-50)	159.674	3.430			2.70		431.12	431.12
DOMESTIC (1-100)	1084.038	23.289			9.85		10680.86	10680.86
DOMESTIC(101-300)	722.787	15.528			12.49		9029.67	9029.67
DOMESTIC (301-700)	145.084	3.117			15.19		2204.25	2204.25
DOMESTIC (ABOVE 700)	125.858	2.704			17.19		2163.86	2163.86
Temporary	0.466	0.010			17.17		8.00	8.00
TOD (Peak)	0.233				16.17		3.77	3.77
TOD (Off-Peak)	1.000				9.67		9.67	9.67
DOMESTIC	**2239.140**	**48.105**					**24531.20**	**24531.20**
UPTO 100 UNITS	135.108	2.903			17.17		2320.19	2320.19
ABOVE 100 UNITS	60.566	1.301	10	400	13.67	331.87	828.10	1159.97
above 5 KW	65.690	1.411			13.67		898.17	898.17
TEMP COMMERCIAL	0.860	0.018			17.17		14.77	14.77
TOD (Peak)	0.095		10	400	16.17	0.52	1.54	2.06
TOD (Off-Peak)	0.375		10	400	9.67	2.05	3.63	5.68
COMMERCIAL	**262.694**	**5.644**				**334.44**	**4066.40**	**4400.84**
INDUSTRIAL (B-1)	149.767	3.218			12.23		1832.07	1832.07
INDUSTRIAL (B-2)	336.122	7.221	24	400	11.22	783.73	3772.25	4555.98
INDUSTRIAL (B-2) TOD Peak	5.125	5.125	24	400	16.15	11.95	82.78	94.73
INDUSTRIAL (B-2) TOD Off-Peak	25.624	25.624	24	400	9.74	59.75	249.65	309.40
INDUSTRIAL (B-3) TOD Peak	90.242	1.939	51	380	16.07	92.11	1450.45	1542.56
INDUSTRIAL (B-3) TOD Off-Peak	451.212	9.694	51	380	9.62	460.54	4341.95	4802.49
INDUSTRIAL (B-4) Peak	33.946		51	360	15.98	32.82	542.55	575.37
INDUSTRIAL (B-4) Off-Peak	169.728	3.646	51	360	9.52	164.12	1616.29	1780.41
INDUSTRIAL TOTAL	**1261.766**	**27.107**				**1605.02**	**13887.99**	**15493.02**
C-1 (A)	1.080	0.023			12.66		13.68	13.68
C-1 (B)	12.340	0.265	50	400	11.66	13.52	143.92	157.44
C-1(c) 400/230 above 5-500 TOD Peak	0.162		50	400	16.16	0.18	2.61	2.79
C-1(c) 400/230 above 5-500 TOD Off-Peak	0.808		50	400	9.66	0.89	7.81	8.70
C-2 11/33 KV	39.435	0.847	50	380	11.56	41.06	455.98	497.04
C-2 11/33 KV TOD Peak	1.180		50	380	16.06	1.23	18.95	20.18
C-2 11/33 KV TOD Off-Peak	5.900		50	380	9.56	6.14	56.42	62.56
C-3 (a)	1.567		50	360	11.46	1.55	17.96	19.51
C-3(b) 66 KV TOD Peak (5000 KW)	0.000		50	360	15.96	0.00	0.00	0.00
C-3 (b) 66 KV TOD Off-Peak (5000Kw)	0.000		50	360	9.46	0.00	0.00	0.00
BULK SUPPLY TOTAL	**62.472**	**1.342**				**64.56**	**717.34**	**781.90**
AGRICULTURE (SCARP) upto 5 KW	124.767	2.680			12.21	0.00	1523.76	1523.76
AGRICULTURE (PRIVATE)	42.612	0.915	40	250	8.71	36.94	371.27	408.22
AGRI. (SCARP & Agricultural) above 5 KW Peak	108.707		40	250	16.21	94.25	1762.46	1856.71
AGRI. (SCARP & Agricultural) above 5 KW Off-Peak	543.537		40	250	7.71	471.25	4192.22	4663.47
AGRICULTURE (T/WELL)	**819.624**	**17.608**				**602.44**	**7849.71**	**8452.15**
PUBLIC LIGHTING - G-1	8.000	0.172			12.21	0.00	97.70	97.70
RES. COLONIES - H-1	1.000	0.021			14.71	0.00	14.71	14.71
RLY. TRACTION - I	0.015	0.000			14.71	0.00	0.22	0.22
CO-GENERATION - J		0.000			0.00	0.00	0.00	0.00
MEPCO	**4654.710**	**4654.710**		**0.000**	**0.00**	**2606.47**	**51165.27**	**53771.73**
		100.000						

MULTAN ELECTRIC POWER COMPANY LIMITED

PROPOSED TARIFF PER UNIT CATEGORY-WISE TO MEET THE REVENUE REQUIREMENTS FOR 2nd QUARTER (OCT-DEC2009) F.Y. 2009-10

TARIFF CATEGORY	EXISTING RS. KWH	PROPOSED TARIFF (Rs. kwh) 2nd Quarter
	2009-10	2009-10
DOMESTIC		
DOMESTIC (0-50)	2.00	2.70
DOMESTIC (1-100)	8.10	9.85
DOMESTIC (101-300)	10.80	12.49
DOMESTIC (301-700)	13.50	15.19
DOMESTIC (ABOVE 700)	15.50	17.19
FOR SANCTIONED LOAD < 5KW		
TOD (PEAK)	14.50	16.17
TOD (OFF PEAK)	8.00	9.67
DOMESTIC TEMPORARY	15.50	17.17
COMMERCIAL		
UPTO 100 UNITS Upto 5 KW	15.50	17.17
ABOVE 100 UNITS Above 5 KW	12.00	13.67
Above 5kw	12.00	13.67
TOD (PEAK)	14.50	16.17
TOD (OFF PEAK)	8.00	9.67
TEMPORARY	15.50	17.17
INDUSTRIAL		
INDUSTRIAL B-1	10.50	12.23
INDUSTRIAL B-2 (a)	9.50	11.22
INDUSTRIAL B-2 TOD (PEAK)	14.50	16.15
INDUSTRIAL B-2 TOD (OFF PEAK)	8.00	9.74
INDUSTRIAL (B-3) TOD (PEAK)	14.40	16.07
INDUSTRIAL (B-3) TOD (OFF PEAK)	7.90	9.62
INDUSTRIAL (B-4) TOD (PEAK)	14.30	15.98
INDUSTRIAL (B-4) TOD (OFF PEAK)	7.80	9.52
BULK SUPPLY		
C-1 (A)	11.00	12.66
C-1 (B)	10.00	11.66
C-1 (C) < 20KW (PEAK)	14.50	16.16
C-1 (C) < 20KW (OFF PEAK)	8.00	9.66
C-2 (A)	9.90	11.56
C-2 (B) < 20KW & 5000 KW (PEAK)	14.40	16.06
C-2 (B) < 20KW & 5000 KW (OFF PEAK)	7.90	9.56
C-3 (A)	9.80	11.46
C-3 (B) < 5000KW (PEAK)	14.30	15.96
C-3 (B) < 5000KW (OFF PEAK)	7.80	9.46
AGRICULTURE		
AGRICULTURE (SCARP)>5KW	10.50	12.21
AGRICULTURE (PRIVATE)	7.00	8.71
SCARP AND AGRICULTURAL <5KW PEAK	14.50	16.21
SCARP AND AGRICULTURAL <5KW OFF PEAK)	6.00	7.71
PUBLIC LIGHTING - G-1	13.00	12.21
RES. COLONIES - H-1	13.00	14.71
RLY. TRACTION - I	10.00	11.71
MEPCO AV. TARIFF	**9.959**	**11.5418**