



*ARR Petition for the Control Period-  
FY 09 to FY 10*

---

**MADHYA PRADESH MADHYA KSHETRA VIDYUT  
VITARAN COMPANY LTD., BHOPAL**



**VOLUME 1 OF 2**

**Filing of ARR for Retail Supply and  
Distribution Business for the Control Period  
2008-09 to 2009-10**



---

**BEFORE THE MADHYA PRADESH ELECTRICITY  
REGULATORY COMMISSION, BHOPAL**

Filing No.

Case No. \_\_\_\_ of 2007

**Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd.,**  
Bijli Nagar Colony, Nishtha Parisar  
Govindpura, Bhopal

... Petitioner

**IN THE MATTER OF:**

**Filing of the ARR application for the retail supply business and the distribution business for the years 2008-09 and 2009-10 under tariff principles laid down in “The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Distribution and Retail Supply of Electricity and method and principles for fixation of charges) Regulations, 2006 (RG-27(I) of 2006)” by the Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal as the Distribution Licensee.**

The Petitioner above named, Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal, respectfully submits as under:-

1 Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd. (MPMKVVCL), (hereinafter referred as the ‘Petitioner’, Central Discom, ‘the Company’ or ‘the Licensee’), is a Company incorporated under the Companies Act, 1956 and having its registered office at Bijli Nagar Colony, Nishtha Parisar, Govindpura, Bhopal. The Petitioner is a deemed licensee under the Fifth Proviso to Section 14 of the Electricity Act, 2003. The area of supply of the Petitioner is Bhopal, Gwalior, Hoshangabad and Chambal Commissionaires within the State of Madhya Pradesh (‘MP’).

2 The Government of Madhya Pradesh (‘GoMP’ or ‘State Government’), vide an Order No. 3679-FRS-18-13-2002 dated 31st May, 2005, published in the gazette of Madhya Pradesh dated 31st May 2005, have restructured the functions and undertakings of Generation, Transmission, Distribution and Retail Supply of electricity earlier carried out by The Madhya Pradesh State Electricity Board (‘MPSEB’ or ‘Board’) and transferred the same to five Companies to function independently. The five Companies are as under: -

(1) M.P. Power Generating Company Ltd., Jabalpur (MPPGCL) (GENCO);



- (2) M.P. Power Transmission Company Ltd., Jabalpur (MPPTCL) (TRANSCO);
- (3) M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur (MPPKVVCL) (EAST DISCOM);
- (4) M.P. Madhya Kshetra Vidyut Vitaran Company Ltd. Bhopal (MPMKVVCL) (CENTRAL DISCOM);
- (5) M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore (MPPKVVCL) (WEST DISCOM);

3 With effect from 1st June 2005, the Operation and Management Agreement that existed between Madhya Pradesh State Electricity Board and the Five Companies came to end with the issue of the said Order dated 31-05-2005. The three Vidyut Vitaran Companies viz. East Discom, Central Discom and West Discom, started functioning independently as Distribution Licensees in their respective area of license and from the said date are no longer operating as an agent of or on behalf of the Board, subject to Cash Flow Mechanism (CFM) provided in the said Order.

4 On June 3rd 2006, GoMP in exercise of its powers under Section 23 (Sub-section (1), (2) and (3)) and Section 56 (Sub-section (2)) of Madhya Pradesh Vidyut Sudhar Adhiniyam, 2000 read with Section 131 (Sub-sections (1), (2), (5), (6) and (7) of Electricity Act, 2003, effected the transfer of and vesting of the functions, properties, interest rights and obligations of MPSEB relating to the Bulk Purchase and Bulk Supply of Electricity in the State Government and simultaneously re-transferred and re-vested the same to MP Power Trading Company ('Tradeco' or 'MP Tradeco'). Since then, MP Tradeco is discharging the responsibilities of procurement of power in bulk and supplying to the three Discoms, including the Petitioner herein. The transfer was effected through "M.P. Electricity Reforms Transfer Scheme Rules 2006" (Transfer Scheme Rules) vide Notification No.3474 /FRS/17/XIII/2002 dtd 3rd June 2006 (Transfer Scheme Rules).

5 In the backdrop of the above facts and circumstances, the Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd. submitted its first Annual Revenue Requirement



---

(‘ARR’) on 21<sup>st</sup> November 2005 & its first Multi Year Tariff petition for the control period of FY08 to FY10 on 7th November 2006.

6 The Licensee has developed this petition as per the new regulations viz Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Distribution and Retail Supply of Electricity and method and principles for fixation of charges) Regulations, 2006 (RG-27(I) of 2006) dated 26th October 2006. The petition covers the remaining of the first Control Period i.e. from FY 09 to FY 10.

7 The Petitioner has also proposed certain treatments of specific elements of costs and revenue and on specific requirements of the Regulation. The Petitioner seeks Hon’ble Commission’s approval of the said treatments proposed.

8 This petition has been prepared as per the provisions of the present Regulation. The Petitioner is submitting the following as part of the ARR filings for the remaining period of the first Control Period (2008-09 to 2009-10):

- Allocation statement to segregate expenses and incomes of retail supply business and distribution business
- ARR Proposal for the Retail Supply Business;
- ARR Proposal for the Distribution business of the Petitioner for the Control Period, including
  - (a) Loss reduction trajectory; and
  - (b) Investment Plan.

9 Subsequent paragraphs discusses in brief the initial financial position of the Petitioner Discom in terms of the provisional opening balance sheet as on May 31, 2005 and subsequent position based on the operations during FY07. It is pertinent to bring to the notice of the Hon’ble Commission that the provisional Transfer Scheme is yet to be finalized and the financial position of the Petitioner Discom is likely to undergo a change once the Balance Sheet as on May 31, 2005 is finalized. The Petitioner reserves its right to submit additional information and claim additional allowances, if any, consequent to finalization of the Transfer Scheme.



10 The provisional opening balance sheet of the Petitioner Discom as provided in State Government's order is reproduced below: -

**Provisional Opening Balance Sheet as on 31'st May'2005**  
**MP Madhya Kshetra Vidyut Vitaran Company Ltd.**

(Rs. Crore)

<b>Liabilities</b>	<b>Amt</b>	<b>Assets</b>	<b>Amt</b>
Equity from GoMP	<b>316</b>	Gross Fixed Assets	1,281
Consumer contributions , Grants & Subsidies	-	Less: Accumulated Depreciation	788
Project Specific Capital Liabilities (Including payments overdue)	<b>220</b>	<b>Net Fixed Assets</b>	<b>493</b>
Power Finance Corporation (PFC)	74	<b>Capital Works In Progress</b>	<b>461</b>
Loan from GoMP (ADB)	45	<b>Investment/Deposits</b>	<b>3</b>
REC	101	<b>Current Assets</b>	
<b>Loan from MPSEB</b>	<b>316</b>	Stock	58
<b>Current Liabilities</b>		Receivables against Supply of Power	724
Security Deposits from Consumers	278	Provision of doubtful debts	(278)
Power Purchase Liabilities (Payable to MPSEB)	236	Receivables against Supply of Power (Net of Provisions)	446
Staff related Liabilities	61	Cash and Bank Balances	33
Liabilities towards Suppliers	19	Loan & Advances	2
Deposits - Elect. Service Connect.	36	Sundry Receivables	105
Interest accrued but not due	5	<b>Total Current Assets</b>	<b>644</b>
Others	112	<b>Subsidy Receivable from GoMP</b>	-
<b>Total Current Liabilities</b>	<b>748</b>		
<b>Borrowing for Working Capital</b>	(0)		
Overdraft	-		
Working Capital Demand Loan + Cash Credit	(0)		
Accumulated Surplus / (Deficit)	-		
Reserves and Reserve Funds	-		
<b>Total Liabilities</b>	<b>1,600</b>	<b>Total Assets</b>	<b>1,600</b>

**Notes:**

1. The values of the Fixed Assets are as per the book values.
2. The contingent Liabilities to the extent they are associated with or related to Distribution activities or to the Undertakings or Assets of MP Madhya KVVCL shall vest in Madhya KVVCL (Estimated to be Rs. 146.96 Cr)
3. The above balance sheet is provisional till finalization of actual balance sheet as on date of transfer.

11 In the present filing, the Petitioner has presented actual financial performance (based on provisional accounts for the year 2006-07) and a revised estimate of the expenses likely to be incurred during the year 2007-08. The Petitioner has estimated the revenue for the year 2007-08 and estimated demand on the basis of current tariffs and estimate of sales for the year



2007-08. The Petitioner has also estimated the expenses and revenues for the years 2008-09 and 2009-10 to estimate the revenue gap for these two years at the current tariffs.

12 Allocation Statement – Clause 1.25 of the MYT Regulation prescribes that *“The Distribution Licensee’s annual revenue requirement shall be made in two parts, one for the wheeling activity and the other for its retail sale (distribution) activity. The Distribution Licensee shall identify the expenses pertaining to the wheeling activity so that the charges for wheeling can be determined. For this purpose the Distribution Licensee shall maintain separate heads of accounts as far as possible for its network (wires) and retail supply business and shall present the petition in a manner to facilitate the Commission in its task of determining tariff for wheeling and retail sale separately as required under section 62(1) of the Act”*. The Petitioner has prepared separate ARR statements based on allocation of the income and expenses to retail supply and distribution businesses.

13 The combined Annual Revenue Requirement of both the retail supply and distribution businesses under various heads for FY 08 to FY 10 is detailed below:-

Particulars	CY	MYT Period	
	FY 08	FY 09	FY 10
<b>Revenue</b>			
Revenue from sale of power	2,362.00	2,594.05	2,787.12
Other income	34.63	37.60	40.83
Income from other business allocated to Licensed business			
Revenue subsidies and grants			
<b>Total Revenue or Income</b>	<b>2,396.63</b>	<b>2,631.65</b>	<b>2,827.95</b>
<b>Expenditure</b>			
Purchase of Power from MP Genco	721.04	728.81	761.60
Purchase of Power from Other Sources	1068.89	1180.10	1266.64
Inter-State Transmission charges	42.10	42.19	42.29
Intra-State Transmission (MP Transco) Charges	229.97	199.26	199.26
Repairs and Maintenance			
Employee costs			
Administration and General expenses	461.80	550.78	641.93
Net prior period credit charges	-	-	-
Other Debits, Write-offs	59.62	65.48	70.36
Lease Rental	-	-	-
Extraordinary items	-	-	-
Less: Expenses Capitalized	10.22	10.71	11.29
<b>PBDIT</b>	<b>-176.58</b>	<b>-124.24</b>	<b>-142.84</b>
<b>Depreciation and Related debits</b>	<b>68.40</b>	<b>81.19</b>	<b>96.02</b>



*ARR Petition for the Control Period-  
FY 09 to FY 10*

<b>PBIT</b>	<b>-244.98</b>	<b>-205.44</b>	<b>-238.87</b>
Interest & Finance Charges	118.22	140.30	177.23
Less: Interest Capitalized	26.10	32.02	44.66
<b>Total Interest and Finance Charges</b>	<b>92.12</b>	<b>108.28</b>	<b>132.57</b>
<b>TOTAL EXPENDITURE</b>	<b>2733.73</b>	<b>2945.37</b>	<b>3199.38</b>
<b>Profit/Loss before Tax</b>	<b>-337.10</b>	<b>-313.71</b>	<b>-371.43</b>
Income Tax	0.35	0.37	0.40
<b>Profit/Loss after Tax</b>	<b>-337.45</b>	<b>-314.09</b>	<b>-371.83</b>
<b>Gap Amortization</b>	<b>619.73</b>	<b>567.62</b>	<b>579.79</b>
<b>PAT + Gap amortization</b>	<b>-957.18</b>	<b>-881.71</b>	<b>-951.62</b>
<b>Return on Equity</b>	<b>82.92</b>	<b>95.45</b>	<b>100.91</b>
<b>Gap/Surplus</b>	<b>-1040.10</b>	<b>-977.16</b>	<b>-1052.54</b>

19 While filing the present ARR under the prevailing Regulation, MPMKVVCL has endeavored to comply with the various applicable legal and regulatory directions and stipulations including the directions of the Hon'ble Commission in the Business Rules of the Commission, the Guidelines, previous ARR and Tariff Orders and the Regulation.

20 Based on the information available, the Petitioner has made sincere efforts to comply with the Regulation of the Hon'ble Commission and discharge its obligations to the best of its abilities. However, should any further material information become available in the near future, the Applicant reserves the right to file such additional information and consequently amend/ revise the application.

21 I, Mahendra Kumar Gupta, Chief Engineer (Commercial) working in O/o Chairman and Managing Director, MPMKVVCL has been authorized to execute and file the said document on behalf of MPMKVVCL. Accordingly, the current filing document is signed, verified and backed by an affidavit signed by me.



---

## **PRAYER**

In the aforesaid facts and circumstances, the Applicant requests that the Hon'ble Commission may be pleased to:

- (a) Take the accompanying ARR of MPMKVVCL on record and treat it as complete;
- (b) Consider and approve MPMKVVCL's ARR including all requested regulatory treatments in the filing;
- (c) Allow a fortnight time to file tariff proposals to fill up the gap between ARR and estimated revenue on current tariffs,
- (d) Condone any inadvertent omissions/ errors/ shortcomings and permit the petitioner to add/ change/ modify/ alter portions of this filing and make further submissions as may be required at a later stage; and
- (e) Pass such order as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

Date: 31<sup>st</sup> October, 07

(\_\_\_\_\_)

Bhopal

Chief Engineer (Commercial)  
MP Madhya Kshetra Vidyut Vitaran Co.Ltd.,  
Bhopal.



---

## **TABLE OF CONTENTS**

<b><u>1</u></b>	<b><u>CHAPTER 1: 2007-08 (YEAR TO DATE) PERFORMANCE .....</u></b>	<b><u>11</u></b>
<b><u>2</u></b>	<b><u>CHAPTER 2: BASIS OF PROJECTIONS.....</u></b>	<b><u>12</u></b>
2.1	RESTRICTED SALES PROJECTIONS .....	12
	<i>Low Tension (LT)</i> .....	12
	<i>High Tension (HT)</i> .....	18
2.2	UNRESTRICTED SALES PROJECTIONS .....	24
2.3	ENERGY REQUIREMENT .....	25
2.4	REVENUE FROM TARIFF .....	27
2.5	NON TARIFF INCOME.....	29
<b><u>3</u></b>	<b><u>CHAPTER 3: INVESTMENT PLAN.....</u></b>	<b><u>30</u></b>
	FINANCING PLAN .....	31
	CAPITALIZATION PLAN .....	31
<b><u>4</u></b>	<b><u>CHAPTER 4: EXPENDITURE.....</u></b>	<b><u>32</u></b>
4.1	POWER PURCHASE COST .....	32
	<i>Background</i> .....	32
	<i>Assessment of Availability</i> .....	34
	<i>Assessment of Generation Cost (Fixed and Variable Cost)</i> .....	37
	<i>Assessment of Other Costs of Generation</i> .....	41
	<i>Inter-State Transmission Charges</i> .....	41
	<i>Intra - State Transmission Charges</i> .....	43
	<i>Merit Order Dispatch</i> .....	45
	<i>Average Cost of Power</i> .....	46
4.2	O&M EXPENSES .....	47
	<i>Employee Expenses</i> .....	48
	<i>Administrative &amp; General Expenses</i> .....	48
	<i>Repair &amp; Maintenance Expenses</i> .....	49
4.3	DEPRECIATION .....	50
4.4	INTEREST AND FINANCE CHARGES.....	51
	<i>Interest on project loans</i> .....	51
	<i>Interest on working capital</i> .....	52
4.5	PROVISION FOR BAD AND DOUBTFUL DEBTS.....	53
4.6	RETURN ON EQUITY .....	53
4.7	AMORTIZATION OF FY06 AND FY07 GAP.....	54
<b><u>5</u></b>	<b><u>ARR SUMMARY.....</u></b>	<b><u>56</u></b>
5.1	SEGREGATION OF ARR .....	57
<b><u>6</u></b>	<b><u>CHAPTER 6: REGULATORY TREATMENT.....</u></b>	<b><u>60</u></b>
6.1	FUEL SURCHARGE ADJUSTMENT.....	60
6.2	DEPRECIATION .....	62
<b><u>7</u></b>	<b><u>CHAPTER 7: UTILITY INFORMATION .....</u></b>	<b><u>66</u></b>



---

OPERATIONAL AND TECHNICAL INFORMATION.....	66
CUSTOMER SERVICE .....	66
INFRASTRUCTURE .....	70
<b><u>8</u> CHAPTER 8: REGULATORY COMPLIANCE.....</b>	<b><u>72</u></b>



## 1 Chapter 1: 2007-08 (Year to Date) Performance

MPMKVVCL had filed for the annual revenue requirement for 2007-08 in November 2006 which has been approved after scrutiny by the Hon'ble commission vide order dt./- 30th March 2007.

The revised estimate for the revenue requirement for 2007-08 based on the actual data has been worked out as follows:

Particulars	Revised Estimate	Tariff Order	Deviation
Tariff Income	2362	2358.38	3.62
<b>Total</b>	<b>2,362.00</b>	<b>2,358.38</b>	<b>3.62</b>
<b>Expenditure (Rs. Crore)</b>			
Purchase of Power	1832.02	1714.97	117.05
Intra state transmission charges	229.97	240.21	-10.24
O&M Expenses	451.58	334.76	116.82
Depreciation	68.4	49.96	18.44
Interest and Finance Charges	92.12	34.17	57.95
Provision for Doubtful Debts - current dues	59.62	23.58	36.04
<b>Total</b>	<b>2733.71</b>	<b>2397.65</b>	<b>336.06</b>
Gap Amortization	619.8		619.8
Reasonable Return	82.92	44.93	37.99
Income tax	0.35		
Other Income	34.63	67.48	-32.85
<b>ARR (Rs. Crore)</b>	<b>3,402.15</b>	<b>2,375.10</b>	<b>406.90</b>
			0
<b>(Shortfall)/ Surplus - Rs. Crore</b>	<b>-1,040.15</b>	<b>-16.72</b>	<b>-403.28</b>

### Revenue from Tariff Income

Tariff Income based on the revised sales forecast has been estimated at Rs. 2362 Crore for FY 08 as against the tariff order estimate of Rs. 2358 Crore.



## 2 Chapter 2: Basis of Projections

### 2.1 Restricted Sales Projections

The primary source of revenue for MPMKVCL is from sale of electricity. Hence, sales projections are of critical importance to the company as well as to the power sector of the state. Moreover, sales also determine the energy requirement for the sector and are a key input in asserting the power required to be purchased.

An elaborate exercise was conducted for projecting sales growth for the various tariff categories before the last ARR filing. Historical data on circle-wise and tariff category-wise growth rates were analyzed from 2000-01 onwards to 2005-06 to find out trend in sales growth. Circle-wise projections for each tariff category were conducted taking into account the effect of local factors impacting sales in a particular circle(s). Moreover, the effects of discom-level factors (such as meterization drive, RGGVY Scheme) which have an effect on the sales of entire company were also taken into consideration. Finally, as a reference check, the projected sales estimates for 2006-07 were compared with the R-15 data available for the financial year. Since, the projections for the year 2006-07 were found out to be quite close to the actual figures of sales in each category, the sales projections for the years 2007-08 to 2009-10 have not been changed in most categories except HV-7. The explanation and supporting data is provided below category-wise.

#### Low Tension (LT)

The LT categories have grown by a CAGR of 9.82% over a period of five years from FY02 to FY06 and 6.73% over the two year period of FY05 to FY06. This is mainly on account of LV-1 Domestic and LV-2 Non-Domestic tariff categories.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	2,602	3,045	3,115	3,423	3,548	9.82%	5.22%	6.73%

It is forecasted that the overall Low Tension categories would grow by a CAGR of 7.49% till 2011-12. This increased growth is mainly on account of high growth rates expected in LV-1



and LV-2 categories. Agriculture category (LV-5), which accounted for nearly half of total LT sales in 2005-06, is estimated to grow at a moderate pace for the next few years. The sales projections for LT categories are shown below.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
LT Sales (MU)	3,793	4,082	4,392	4,725	7.49%

The actual sales for LT consumer categories in 2006-07 were 3770 MU.

#### LV-1 Domestic

LV-1 Domestic category has grown at an overall CAGR of 11.68% in the 5 year period of 2000-01 to 2005-06. The CAGR for the last three years has been slightly lower at around 9.65% while that for the last two years is around 10.79%.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	867	938	1,008	1,195	1,237	11.68%	9.65%	10.79%

This category is expected to grow at a slightly higher growth rate of 12.8% per annum compared to historic data. Reasons for this higher growth are:

- RGVY Scheme: Rural electrification schemes such as RGVY are likely to impact the sales projections for LV-1 category. Under the RGVY Scheme, the company plans to electrify around 12.5 lakh (1.25 million) rural households. Although progress in current year has been slow, it is reasonable to assume that the target shall be fully met by 2011-12. The proposed work schedule of RGVY Scheme is as follows.

RGVY Scheme	2007-08	2008-09	2009-10
Proposed yearly electrification of rural households	282,800	242,800	242,800



Cumulative number of households electrified	282,800	525,600	768,400
---	---------	---------	---------

- Expansion of city areas: Predominantly urban circles such as Bhopal and Gwalior City Circles have shown high growth rates of 10 – 15% per annum in the past. This trend is likely to continue with expansion of Bhopal and Gwalior cities. Hence, LT domestic consumption is projected to increase by 10% and 13% per year respectively in these circles. Even smaller towns such as Sehore, Betul, Hoshangabad, Vidisha have historically shown high growth rates in domestic consumption and this trend is likely to continue in future as well.

The forecasted LT domestic sales are as follows.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	1,365	1,573	1,794	2,030	12.8%

The actual sales for the domestic category for the year 2006-07 have been 1286 MU. The actual sales are lower than projected due to non-addition of the RGGVY consumers in 2006-07, which the Discom aims to achieve in the current year.

### LV-2 Non-Domestic

LV-2 Non-Domestic category has too shown a consistent high growth rate. The historic 5 year CAGR is 11.39% while 3 year CAGR is 14.8%. The last few years have witnessed high growth in these categories as reflected in the two and three year CAGR figures.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	184	206	234	292	312	12.40%	14.80%	15.57%

The major growth driver in this category is the extent of commercial activity. The main consumers are government offices, educational institutions and commercial establishments



(shops, private clinics, dispensaries, etc) using LT supply. Gwalior and Bhopal City circles contribute a major proportion (about three-fifths) of sales in this category. These two circles are likely to witness high growth of LV-2 customers.

A new establishment called the “Counter Magnet City” is coming up near Gwalior as per the NCR Plan 1989. Some of the Central government offices and establishments are planned to be shifted out of Delhi and relocated in Counter Magnet City. Work on this project is likely to pick up from 2008-09 onwards. Accordingly, LT commercial consumers are likely to grow in Gwalior O&M circle, thus impacting overall sales. Therefore, the licensee feels that it is reasonable to assume a growth rate of 9.09% per year for projecting sales of LV-2. The projected sales in the MYT period are shown below.

<b>Year</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>CAGR</b>
Sales (MU)	341	372	406	444	9.09%

The actual sales for Non-domestic category for the year 2006-07 have been 328 MU, which is quite close to the projected figure.

### **LV-3.1 Public Water Works**

Historically, sales from Public Water Works have grown at a moderate pace. The five year CAGR has been 4.33% while last two year CAGR has been 4.68%.

Future growth in Public Water Works is estimated at 6.44% per annum in accordance with historic five year and three year CAGRs. This slight increase is primarily due to higher growth rate projected in Bhopal City, Gwalior City and Vidisha circles.

<b>Year</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>CAGR</b>
Sales (MU)	71	76	80	86	6.44%

The actual sales for this category for the year 2006-07 have been 82 MU, which is quite close to the projected figure.



### LV-3.2 Street Light

Sales of Street Light have also shown similar growth trend with CAGR for the five years being 4.36%. Sales from street light are projected to grow by 5.70% each year. The projection for the MYT period is shown below.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	44	47	49	52	6.16%

The actual sales for this category for the year 2006-07 have been 45 MU, which is almost same as the projected figure.

### LV-4 Industrial and Non-Industrial

LV-4 Industrial and Non-Industrial category has grown at a low overall CAGR of 1.65% in the five years from 2001-02 to 2005-06. CAGR for the last two years has also been quite low at 0.43%.

The projected sales figures are not likely to witness significant growth in future. This is mainly owing to LV-4 customers converting to HT supply due to 100 HP restrictions on LV-4 category. This trend is quite common in circles of Gwalior City and Morena where quite a few oil manufacturers as well as fabricators are shifting to HT supply. Hence, a nominal growth rate of 2% on sales is estimated for future. Projected sales figures in this category are presented below.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	133	136	139	142	2.00%

### Agriculture related use in rural areas

This sub-category which became a part of LV-4 from LV-5 this year, comprises small-scale industries in rural areas (such as nurseries, flour mills, khandsari units, ice factories, etc.) that utilize LT supply. Going forward, sales in this sub-category are expected to show moderate growth rate on account of improved hours of supply in rural areas. The implementation of rural



electrification schemes such as RGGVY is also likely to increase the availability of system capacity in the area, thereby facilitating more usage. This moderate growth rate is also collaborated with historic growth rate of 3.69% observed in this category. Sales of this category are projected to grow at 3% each year. The detailed projections are shown below.

Year	2006-07	2007-08	2008-09	2009-10
Sales (MU)	35	36	37	39

Hence, the total projections for the LV-4 category are as follows:

Year	2006-07	2007-08	2008-09	2009-10
Sales (MU)	168	172	176	181

The actual sales for this category for the year 2006-07 have been 172 MU, which is quite close to the projected figure.

#### LV-5 Irrigation pumps for Agriculture

Sales from agricultural pumps have grown at a moderate pace in the last few years. Last three year CAGR for this tariff category is around 1.56% while the last two year CAGR is 3.69%.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	1,311	1,646	1,604	1,666	1,725	8.35%	1.56%	3.69%

Sales forecast for irrigation pumps has been done separately for permanent connections (comprising metered and unmetered agriculture connections) and temporary connections. Permanent agriculture connections have grown at a very slow pace. The last two year CAGR for permanent connections has been only around 1%. Historical sales of temporary pumps, on the other hand, have shown good growth.



The Company has initiated several measures to manage power supply in agricultural sector more effectively. These include, discussions with farmers, providing new connections after reassessment of grid/system capacity in the locality and strict surveillance to curb illegal abstractions. The consumers are encouraged to avail temporary connections through “Prostahan Yojana – Sona Chandhi”. Moreover, reduction in the energy charges for temporary connections is also likely to give a boost to sales from temporary consumers. There has also been improvement in the supply of power given to farmers as reflected in slight increase in the number of hours.

While it would be difficult to predict rainfall over the next few years, it is believed that agriculture connections are likely to follow similar trend in future as well. It is estimated that the total number of permanent agriculture connections (metered and unmetered connections) as a whole would exhibit low growth of 1.12% per annum. On the other hand, sales from temporary connections are likely to grow at a high rate of 11% per annum till 2011-12.

On an overall basis, sales are likely to grow at 2.91% per year. The projected sales estimate for LV-5 is shown below.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	1,803	1,842	1,886	1,934	2.91%

The actual sales for this category for the year 2006-07 have been 1847 MU.

### **High Tension (HT)**

HT categories have grown by a healthy growth rate in the past. The five year CAGR from 2001-02 to 2005-06 has been 5.28% while the last two year CAGR has been 6.12%. It is mainly due to high growth observed in HV-3 category (Industrial and Non-Industrial consumers). Increased industrialization, spurt in commercial activity and conversion of LT industries to HT supply have driven this growth.



Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	1,523	1,526	1,595	1,747	1,796	5.27%	5.59%	6.12%

HT sales are projected to grow at a CAGR of 7.01% in the Control period.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	1,931	2,058	2,197	2,353	7.01%

The actual sales for high tension consumer category for the year 2006-07 have been 1945 MU.

### **HV-1 Railway Traction**

Sales from Railway Traction have grown at an overall CAGR of 9.38% in the 5 year period from 2000-01 to 2005-06. The growth rate has decreased in the recent years, with the last three and two year CAGR figures being 1.63% and 1.54% respectively.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	519	594	604	636	623	9.38%	1.63%	1.54%

The growth for future years has been assumed at 4.87% based on historical trends.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	668	694	724	764	4.87%

The actual sales for this category for the year 2006-07 have been 656 MU, which is quite close the projected figure.



### HV-2 Coal Mines

Coal Mines are only located in Betul O&M circle. The historic growth rate has been moderate in this category with the past three year CAGR being 1.98%. Moreover, no new coal mines are likely to be operative in future. Therefore, sales are projected to grow at a very nominal rate of 1% per annum.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	37	38	38	38	1.00%

The actual sales for this category for the year 2006-07 have been 39 MU, which is very close to the projected figure.

### HV-3.1 Industrial

HT Industrial category is one of the main drivers of HT category growth. It has grown at an overall CAGR of 8.79% in the five year period from 2001-02 to 2005-06. The CAGR for the last three years has also been high at 7.49%.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	5 Year CAGR	3 Year CAGR	2 Year CAGR
Sales (MU)	579	624	668	751	776	8.79%	7.49%	7.77%

HV-3.1 category is estimated to grow at 7.23% per year. This continuing high growth is justified due to the following reasons:

- Growth of Industrial areas: A major proportion of HT industrial consumption is from the industrial areas of Malanpur, Banmore, Govindpura and Mandideep. Accordingly, Bhopal O&M, Gwalior City and Morena circles contribute almost 70% of total HT industrial sales of the company. These industrial areas are likely to account for even higher proportion of HT industrial sales.
- Conversion of LT Industrial consumers to HT supply: In many circles (particularly, Morena, Shivpuri, Gwalior City, and Hoshangabad) there is an increasing trend of LT



industries shifting to HT supply due to the 100 HP restrictions on LV-4 category consumers. These industries include linseed and soyabean oil refiners, fabricators, cold storages, etc.

The projected sales of HV-3.1 are given below.

<b>Year</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>CAGR</b>
Sales (MU)	829	888	952	1,022	7.23%

The actual sales for this category for the year 2006-07 have been 875 MU.

#### **HV-3.2 Non-Industrial**

HV-3.2 has too shown high growth rate in the past few years with the last two year CAGR being 14.21%. This high growth is likely to continue in future too on account of increased commercial and business activities in towns and cities. Historic five-year data of Gwalior and Bhopal City circles shows very high growth rate in the range of 15 - 20% per annum. The opening up of new shopping malls, multiplexes, hospitals, hotels and educational institutions in these cities is likely to give a fillip to HT Non-Industrial sales in future. Accordingly a growth rate of 12.73% per year is taken for sales projections.

<b>Year</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>CAGR</b>
Sales (MU)	174	196	221	249	12.73%

The actual sales for this category for the year 2006-07 have been 171 MU.

#### **HV-4 Seasonal**

The company has a few consumers drawing HT Seasonal Supply. These are primarily cold storage and fabrication units. This category recorded total sales of 1.62 million units (MU) in 2005-06. The sales projections are given in the table below.



Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	1	2	2	2	7.00%

The actual sales for this category for the year 2006-07 have been 1 MU.

#### **HV-5 HT Irrigation and Public Works**

HT irrigation sales were about 3 MU in 2005-06. HT irrigation schemes in Bhopal O&M and Vidisha circles are likely to receive further grants from the Government, thus increasing sales from these circles. Even though there is not major irrigation scheme proposed in other circles, the overall sales are projected to grow by 10.58% each year, as Bhopal O&M and Vidisha circle contribute almost two-thirds of HT irrigation sales of the company.

Sales from public works have shown moderate growth in past. CAGR for the three years period of 2003-04 to 2005-06 has been 7.41% while two-year CAGR has been 6.03%. Based on historic trend, the projected growth rate of Public works has been assumed at 5.68%.

As Public works constitute over 96% sales from HV-5 category, the overall HV-5 category growth is projected at 5.89% per year. Projected sales from HV-5 category are shown in the table below.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	87	91	97	102	5.89%

The actual sales for this category for the year 2006-07 have been 85 MU, which is very close to the projected figure.

#### **HV-6 Bulk Residential Users**

The customers of this category include industrial townships (like BHEL), border villages and military cantonments. It is unlikely that any additional customers would be added in this category till 2011-12. Therefore, sales are likely to grow mainly on account of increased usage of power.



Hence, it is assumed that this category would grow by a similar growth rate as LT Domestic (excluding the effect of RGGVY Scheme). Accordingly, a growth of 10% each year is assumed for this category.

Year	2006-07	2007-08	2008-09	2009-10	CAGR
Sales (MU)	135	148	162	179	10.00%

The actual sales for this category for the year 2006-07 have been 102 MU.

#### HV-7 Bulk Supply to Exemptees

There is no historical data available for sales or customers in this category. Hence, zero sales were projected in HV-7 in the last ARR filing. But, sales of 15 MU have been recorded in 2006-07. Therefore, the sales and number of consumers have been assumed to remain constant for HV-7 category in the control period till 2009-10.

#### Overall Restricted Sales Projections

The overall restricted sales projection for MPMKVVCL in the control period is presented below. It has been arrived at by summing up the category-wise sales projections discussed above.

	FY08	FY09	FY10
<b>LT Customer Categories</b>			
LV-1: Domestic Consumers	1,573	1,794	2,030
LV-2: Non Domestic	372	406	444
LV-3: Public Water Works and Street Light	122	130	138
LV-4: Industrial	172	176	180
LV-5: Irrigation Pumps for Agriculture	1,842	1,886	1,934
<b>LT Restricted Sales (MU)</b>	<b>4,082</b>	<b>4,392</b>	<b>4,725</b>
<b>HT Customer Categories</b>			
HV-1: Railway Traction	694	724	764
HV-2: Coal Mines	38	38	38



HV-3.1: Industrial	888	953	1,022
HV-3.2: Non-Industrial	196	221	249
HV-4: Seasonal	2	2	2
HV-5: Irrigation and Public Water Works	91	97	102
HV-6 Bulk Residential Users	148	163	179
HV-7: Bulk Supply to Exemptees	15	15	15
<b>HT Restricted Sales (MU)</b>	<b>2,072</b>	<b>2,212</b>	<b>2,372</b>
<b>Total Restricted Sales (MU)</b>	<b>6,155</b>	<b>6,604</b>	<b>7,098</b>

## 2.2 Unrestricted Sales Projections

The power availability in Madhya Pradesh is likely to grow during the projection years. Based on the expected power availability, a phased reduction in load shedding has been projected from FY 08 onwards. A part of the estimated curtailed energy has been assumed to be converted to sales for FY 08.

The curtailed energy for the company was estimated by

- Average hours of supply to urban (Divisional, District, Tehsil HQ) and rural areas (as available with by SLDC) [Y]
- Urban and rural connected load of the categories affected by load shedding in KW from R-15 [CD]
- Estimated load factor during the hours of supply restriction [LF]

The load shedding in energy terms (MU) for any category in a particular area (Urban/Rural) was calculated as follows

$$\text{Annual Load Shedding Energy (MU)} = (24 - Y) * CD * LF * 365 * 24 / 1000000$$

This energy for the category was added to the restricted sales to arrive at the partially unrestricted sales this year.



### Summary of final sales projections (MU)

Based on the projection of restricted sales forecast and the methodology explained above, the licensee has estimated expected sales after considering partial relaxation of restriction in the current year.

Unrestricted Sales (MU)		2007-08	2008-09	2009-10
		FY08	FY09	FY10
LV-1	Domestic	1779	2098	2346
LV-2	Commercial	436	501	542
LV-3	Public Water Works and Street Light	122	130	138
LV-4	Industrial	218	243	250
LV-5	Irrigation Pumps for Agriculture	1842	1886	1934
	<b>LT Total (MU)</b>	<b>4397</b>	<b>4857</b>	<b>5209</b>
HV-1	Railway Traction	694	724	764
HV-2	Coal mines	38	38	38
HV-3.1	Industrial	936	1023	1096
HV-3.2	Non-Industrial	196	221	249
HV-4	Seasonal	2	2	2
HV-5	Irrigation and Public Works	91	97	102
HV-6	Bulk Residential Users	148	163	179
HV-7	Bulk Exemptees	15	15	15
	<b>HT Total (MU)</b>	<b>2121</b>	<b>2283</b>	<b>2447</b>
	<b>LT + HT Total (MU)</b>	<b>6518</b>	<b>7140</b>	<b>7656</b>

## 2.3 Energy Requirement

Losses are a critical component of Discom performance since they directly impact input for power purchase. Since power purchase is a major component of the company's expenses, it necessitates a detailed analysis of input power requirement. The section on sales projections details the methodology and results of sales forecasts for Central Discom.

A detailed analysis of distribution loss was also carried out to arrive at the total input requirement as a change of even one percentage point of loss can have significant impact on total energy input for the Discom.



The distribution loss figures are added to sales to arrive at the total input at distribution interface. Distribution loss is projected to reduce from the current level of 40 % (2007-08) to 34 % (2009-10). Transmission loss of MPPTCL is assumed at 4.9% (2007-08) on the basis of the Hon'ble Commission's Tariff Order for 2007-08 and is expected to be at that level in the MYT period.

PGCIL External loss has been assumed as 169 MU for 2007-08, as against 226 MU allowed in the Hon'ble Commission's Tariff Order on 31<sup>st</sup> March 2007. The Licensee has calculated the external loss on the basis of average of the historical data of 52 weeks of 2006-07 western region and eastern region losses, published by Western Region Load Despatch Centre (WRLDC) and Eastern region Load Despatch Centre (ERLDC) respectively. Total Energy Requirement for MPMKVCL for FY 08 has been computed as 11,593 MU as against the 11,624 MU allowed in the Hon'ble Commission's Tariff Order on 31st March 2007. Thus the deviation in energy requirement for the licensee has been 31 MU lesser than that allowed in the Tariff Order.

The energy input is expected to grow at a CAGR of about 4% in the MYT period. It is projected to grow to 12,375 MU in 2009-10. The calculations are shown below.

	2007-08	2008-09	2009-10
Total LT Sales (MU)	4,397	4,857	5,209
Total HT Sales (MU)	2,121	2,283	2,447
Total Sales (MU)	6,518	7,140	7,656
Distribution loss (%)	40%	37.0%	34.0%
Distribution loss (MU)	4,346	4,193	3,944
Input at T-D interface (MU)	10,864	11,333	11,600
Transmission loss (%)	4.9%	4.9%	4.9%
Transmission loss (MU)	560	584	598
Input at G-T interface (MU)	11,424	11,917	12,198
External Loss (MU)	183	188	189
<b>Total Energy Input (MU)</b>	<b>11,607</b>	<b>12,105</b>	<b>12,387</b>



## 2.4 Revenue from tariff

To estimate the revenue from tariff, the Discom has used the slab-wise profile within a consumer category and the applicable rates (energy charges, fixed/ demand charges and other charges) for those slabs. This is also required as per the formats provided by the Hon'ble Commission. In order to project the slab/ sub-category-wise estimate of consumption, number of consumers and connected load, the licensee has used past data in conjunction with specific information wherever available (for example, consumption for Below Poverty Line households category under RGGVY is projected in the 0-30 units per month group of domestic consumers).

While undertaking the exercise, the licensee faced significant difficulties in terms of availability of adequate data in the existing system. The licensee has used the R-15 data in the new formats available from August 2006. Since this detailed slab-wise data for the various categories was available only from August 2006 onwards, the profiling of consumers has been done on the pro-rata basis with the base as data from August 2006 to July 2007. Therefore, the profiling takes care of the seasonality factor.

Hence, the Discom has used data available from R-15 while developing the slab/ sub-category-wise estimates of consumption, number of consumers and connected load for FY08, FY09 and FY10. As a result, the licensee has been able to assess the voltage-level profiling for HV and LV consumer directly from the R-15 data for these consumers.

The detailed estimate of category-wise expected revenue from current tariffs has been submitted in format R4a. A summary sheet is shown below.

Revenue from Current Tariffs (Rs. Crore)	FY08	FY09	FY10
<b>LOW TENSION</b>	<b>1412.7</b>	<b>1575.5</b>	<b>1697.5</b>
LV 1: DOMESTIC	584.7	689.7	771.7
LV 2: NON-DOMESTIC/COMMERCIAL	239.6	275.0	297.8
LV 3: PUBLIC WATER WORKS & STREET LIGHTS	40.1	42.5	45.1
LV 4: LT INDUSTRY	97.7	107.1	109.7
LV 5: IRRIGATION PUMP FOR AGRICULTURE	450.5	461.3	473.2
<b>HIGH TENSION</b>	<b>949.3</b>	<b>1018.5</b>	<b>1089.6</b>
HV 1: RAILWAY TRACTION	319.0	332.6	351.1
HV 2: COAL MINES	21.2	21.4	21.6
HV-3: INDUSTRIAL & NON-INDUSTRIAL	519.7	568.2	613.2



HV-4: SEASONAL	1.3	1.3	1.4
HV-5: WATER WORKS & HT IRRIGATION	30.1	31.7	33.5
HV 6: BULK RESIDENTIAL USERS	51.9	57.1	62.8
HV 7: BULK SUPPLY TO EXEMPTTEES	6.11	6.11	6.06
<b>GRAND TOTAL LT + HT</b>	<b>2362.0</b>	<b>2594.0</b>	<b>2787.1</b>



## 2.5 Non Tariff Income

Non Tariff Income is the income generated by the company from all sources except sale of power. The major constituents of Non Tariff income for the company are meter rent, miscellaneous charges from consumers and miscellaneous receipts. As per the Tariff Order of the Hon'ble Commission for FY2006-07, income from Delayed Payment Surcharge (DPS) has not been considered as income for the purpose of determination of gap between aggregate revenue requirement and tariff and other income. As a result, DPS figures, have not been considered in computing Non Tariff income in this ARR petition.

Meter Rent is projected to grow on the basis of growth in number of consumers as well as the meter cost. Since the no. of customers are expected to grow at about 7% per annum, an 8% per annum growth is assumed for meter rent. Miscellaneous charges include items such meter hire/ rental charges, testing charges, charges for arranging supply and other such miscellaneous items collected from the customers. In view of the high growth rate expected in number of consumers, these charges are projected to grow by 10% each year in the MYT period. The company has taken steps to recover dues from electricity thefts. As a result, recovery from electricity theft is expected to grow by 9% per annum in the MYT period. Non Tariff Income is projected to grow from Rs. 34.63 crore in FY 08 to Rs. 40.83 crore in FY 10.

Non Tariff Income (Rs. Crore)	FY08	FY09	FY10
Meter Rent	13.04	14.08	15.21
Recovery from theft of electricity	4.46	4.86	5.30
Misc. charges from consumers	5.59	6.15	6.77
Others	11.54	12.51	13.56
<b>Total (Rs. Crore)</b>	<b>34.63</b>	<b>37.60</b>	<b>40.84</b>



### 3 Chapter 3: Investment Plan

For the ARR petition, the licensee has adopted the five year investment plan submitted to the Hon'ble Commission with modifications. The various schemes proposed in the investment plan are aimed at achieving the following objectives:

- Capacity Building
- System strengthening
- Voltage improvement
- Loss Reduction
- Consumer Service
- Reliability of service
- Rural Electrification

The summary of the revised estimated investment plan is presented below.

Capital Investment Schemes Proposed (Rs. Crore)	2007-08	2008-09	2009-10
ND	12.00	10.00	11.00
JBIC	3.00	0.00	0.00
ST (N)	69.30	25.00	22.00
PSI	0.00	0.00	0.00
APDRP	17.28	0.00	0.00
ADB	5.00	0.00	0.00
RGVY*	60.00	216.60	186.60
PMGY	0.00	0.00	0.00
ADB-II	15.00	270.50	320.06
Agriculture Pilot – New	2.35		
TSP/ SCP – New	3.00		
<b>Total excluding RGVY (Rs. Crore)</b>	<b>126.93</b>	<b>305.50</b>	<b>353.06</b>

\* Both assets and liabilities created under RGVY Scheme would not form part of the company's balance sheet

Modifications made to the earlier investment plan submitted to the Hon'ble commission are:

- The drawal amounts mentioned for FY08 are as per realistic achievable targets drawn by the Licensee.
- Revision of the phasing of the proposed new ADB scheme is based on the detailed project reports submitted to ADB
- Revision of the phasing of the investments of the RGVY scheme based on the updated status of approvals for the various circle-level schemes



## Financing Plan

Detailed scheme-wise financing plan is submitted in Format F2b. The following is the summary of the scheme-wise financing sources for the above proposed investment plan.

	ND	ST (N)	PSI	APDRP	ADB	RGVY	PMGY	JBIC	ADB-II (Proposed)
PFC Loans	0%	0%	0%	25%	19%	0%	0%	0%	0%
REC Loans	0%	0%	0%	50%	0%	0%	0%	17%	0%
ADB Loans	0%	0%	0%	0%	47.60%	0%	0%	0%	70%
JBIC	0%	0%	0%	0%	0%	0%	0%	83%	0%
Gov Loans	0%	0%	0%	0%	0%	10%	0%	0%	
Consumer Contribution	0%	0%	0%	0%	0%	0%	0%	0%	0%
Capital Grants	0%	0%	0%	25%	0%	90%	100%	0%	0%
Equity	100%*	100%	100%	0%	20.40%	0%	0%	0%	0%
Untied Funds/ Internal Accruals	100%	0%	0%	0%	13%	0%	0%	0%	30%

\* Financing of ND Scheme for 2006-07 is entirely through equity. For other years i.e. FY 08 to FY 10, financing of ND Scheme is entirely through internal accruals.

## Capitalization Plan

MPMKVVCL has inherited a CWIP of Rs.461 Crore CWIP as per the provisional opening balance sheet notified by GoMP dated 31st May 2005. The addition to CWIP in FY 06 as per the audited accounts has been Rs. 78.44 Crore.

For the projection period, the capitalization has been assumed as follows:

- Opening CWIP as per provisional balance sheet of 31.03.2006 is estimated to get capitalized equally in five years.
- New investments every year have been assumed to be get capitalized in five years.
- While the proposed investments under the RGGVY scheme have been stated in the investment plan, the assets and the corresponding liabilities have not been considered for the MYT projections. As per the terms and conditions of this scheme, the assets and liabilities belong to the State Government.
- Expenses capitalization has been assumed at 4% of the annual employee and A&G expenses.



## 4 Chapter 4: Expenditure

### 4.1 Power Purchase Cost

#### Background

##### Power Purchase and Procurement - Requirement of MPERC

Section 2.53 of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for distribution and retail supply of electricity and methods and principles for fixation of charges) Regulations, 2006 (G-27 (I) of 2006) provide that "*The Commission shall scrutinize and approve the power purchase requirement and availability for the ensuing year as provided in MPERC (Power Purchase and Procurement) Regulations 2004 as amended from time to time.*" In addition, as part of the formats issued along with the above mentioned Tariff Regulations, the Distribution Licensees are to provide information related to power availability, procurement and costs from various concerned generating stations and other sources.

MPERC (Power Purchase and Procurement) Regulations 2004 Revision 1, 2006 (RG-19(I) of 2006) provide for a framework to be pursued by the Distribution Licensee while planning for its long term as well as short term power procurement requirement.

##### Prevailing Arrangement for Power Procurement in state of Madhya Pradesh

Government of Madhya Pradesh, in exercise of its powers under Madhya Pradesh Vidyut Sudhar Adhinyam, 2000 and Electricity Act, 2003, effected the transfer<sup>1</sup> of and vesting of the functions, properties, interest rights and obligations of MPSEB relating to the Bulk Purchase and Bulk Supply of Electricity in the State Government and simultaneously re-transferred and re-vested to MP Power Trading Company ('Tradeco' or 'MP Tradeco'). The Transfer Scheme Rules vested the following key functions, rights and responsibilities of the Board to MP Tradeco:

- The bulk purchase and bulk supply functions, namely, purchase of electricity in bulk from the Generating Companies and supply of electricity in bulk to the Discoms in MP.

---

<sup>1</sup> The transfer was effected through "M.P. Electricity Reforms Transfer Scheme Rules 2006" (Transfer Scheme Rules) vide Notification No.3474 /FRS/17/XIII/2002 dated 3rd June 2006 (Transfer Scheme Rules).



- The Power Purchase Agreement or arrangement existing between the Board and the generating companies including inter-State Joint Venture Projects and the Bulk Supply Agreements with the electricity distribution companies in the State of Madhya Pradesh and all arrangements in relation to trading of electricity, inter-State and intra-State.
- All short, medium and long term Bulk Power Purchase Agreements or Arrangements between the Board and the power traders existing as on the effective date.
- The Bulk Power Transmission Agreement existing between the Board and Power Grid Corporation of India as well as other Transmission licensees for transmission and wheeling of power inter-State or intra-State.
- Any future agreements that were being contemplated/ processed by the Board in respect of any of the above and any activities in regard to electricity trading in the State.

Thus MP Tradeco has been entrusted with the responsibilities of procurement of power in bulk and supplying to the three Discoms.

In accordance with this arrangements related to power procurement, the Distribution Licensee has entered into bulk supply arrangement/agreement with MP Tradeco to meets its supply obligations.

In addition to above Government of Madhya Pradesh through its Gazette Notification Order No. 6578-F.RS-4-XIII-2001 dated 17<sup>th</sup> October 2006 had allocated the installed capacity available as on September 2006 to all the three Discoms. The Allocation percentage from each of the generating station to the three Discoms was further revised by GoMP through its Gazette Notification Order No. 1929/F.RS/4/XIII/2001 dated 14<sup>th</sup> March 2007 since the revenue requirement of each Discom was different and also to keep the retail tariff uniform in the State without sacrificing the incentive for loss reduction & efficiency gains by the Discoms during the transient phase of power sector reforms.

The Gazette Notification assigns all the new and additional generating capacities to MP Tradeco subject to the condition that the three Discoms shall have the first charge on such generating capacities.

#### **Submission of Distribution Licensee to Hon'ble Commission**

The Licensee has strived to provide as much requisite information as it could obtain from interactions with MP Genco, MP SLDC, MP Transco and MP Tradeco. In this regard, the



Licensee has taken guidance from Section 18 of the MPERC (Power Purchase and Procurement) Regulations 2004 Revision 1, 2006 (RG-19(I) of 2006) which state that

*"The Distribution Licensee shall make long-term demand and supply availability assessments in consultation with any or all concerned including state sector generating companies, discoms, private distribution licensees, central sector generating companies and transmission companies /Regional Electricity Board, National / Regional Load Dispatch Centers, Central Electricity Authority."*

The Distribution Licensee has adopted projections received from key sector participants for computation of power purchase cost for the purpose of arriving at revenue requirement. The Distribution Licensee would like to request the Hon'ble Commission to take due cognizance of the above mentioned aspects while computing allowable power purchase cost of the Licensee. It also requests the Hon'ble Commission to give opportunity to the Licensee to submit update information, if such information is made available to the Distribution Licensee by MP Genco, MP SLDC, MP Transco, and MP Tradeco.

The licensee has considered station wise capacity allocation (weighted average of 28.83 %) provided by the Government Notification dated 14<sup>th</sup> March 2007 for the year 2007-08 as the basis of capacity allocation. The following parameters available for the State have been allocated to MPMKVCL as per the (Station wise) allocation percentage:

- Monthly Energy Available from all sources
- Annual Fixed Charge payable to Generators
- Estimated payment to Generators on account of Incentives, Income Tax, Duties, etc.; and
- Estimated Inter-State Transmission Charges to be paid

### **Assessment of Availability**

Availability of energy from various sources has been assessed based on discussions with Tradeco. Availability of energy from MP Genco is based on monthly forecast of generation by MP Genco for 2007-08. Projection of generation during 2008-09 and 2009-10 is based on the 2007-08 projection adjusted for increased availability (full year operation) from the new stations to be commissioned in 2007-08.

Information on availability from Central Generating Stations (NTPC and Kakrapar APS) was not available at the time of preparation of this filing and hence information on "actual scheduled



generation" for the previous two years and first four months of the current year has been used as basis for the estimating availability. For Tarapur APS availability is based on actuals from Aug'06 to July'07.

Availability from new stations expected to be commissioned in late 2007-08, 2008-09 and 2009-10 has also been considered. As per GoMP's notification dated 14<sup>th</sup> March 2007 and as per Retail Supply Tariff Order dated 30<sup>th</sup> March 2007, availability from such newer stations has been allocated to MP Tradeco from which the licensee would procure power at a bulk supply rate only if there is any unmet demand after the energy available from the existing stations gets exhausted. For such stations availability has been projected based on normative PLF of 80% for Coal and Gas (if any) based Stations and an Auxiliary Consumption of 7% and 3% for Coal and Gas (if any) based Stations respectively.

Availability from Mahrikheda Unit III and Omkareshwar HPS is as approved by the Hon'ble Commission in its Retail Supply Tariff Order dated 30<sup>th</sup> March 2007 for FY 2007-08 and the same has been assumed for the projection period i.e. FY 2008-09 to FY 2009-10.

The following table provides the annual availability from each of the sources while the monthly availability has been provided in Format F1-a (an additional format).

Sr. No.	Source / Station	2008-09		2009-10	
		Sector	MP Madhya KVVCL	Sector	MP Madhya KVVCL
<b>I</b>	<b>NTPC</b>				
1	NTPC-Korba	3,232	1,535	3,232	1,535
2	NTPC-Vindiyachal I	2,833	805	2,872	841
3	NTPC-Vindiyachal II	2,314	325	2,314	325
4	NTPC-Vindiyachal III (Unit I)	728	102	728	102
5	NTPC-Kawas	564	66	564	66
6	NTPC-Gandhar	824	100	841	100
7	KAPP	483	68	483	68
8	TAPS	823	116	823	116
9	Farakka + Talcher + Kahalgaon	507	94	521	94
	<b>NTPC-Total</b>	<b>12,308</b>	<b>3,211</b>	<b>12,378</b>	<b>3,247</b>
<b>II</b>	<b>Other Sources</b>				
1	NHDC - Indira Sagar	2,700	877	2,700	877
2	Sardar Sarovar	2,500	1,187	2,500	1,187
3	Others 1 (Wind & CPP)	-	-	-	-



Sr. No.	Source / Station	2008-09		2009-10	
		Sector	MP Madhya KVVCL	Sector	MP Madhya KVVCL
4	Others 2 (Short-Term purchase)	-	-	-	-
5	Others 3 (UI)	-	-	-	-
	<b>Others-Total</b>	<b>5,199</b>	<b>2,064</b>	<b>5,199</b>	<b>2,064</b>
<b>A</b>	<b>Grand Total</b>	<b>17,508</b>	<b>5,276</b>	<b>17,577</b>	<b>5,312</b>
<b>I</b>	<b>MP Genco - Thermal</b>				
1	ATPS-Chachai-PH1 and 2	1,122	364	1,122	364
2	STPS-Sarani-PH1, 2 and 3	7,018	2,197	7,051	2,230
3	SGTPS-Bir'pur-PH1 and 2	5,081	1,651	5,081	1,651
	<b>Thermal-Total</b>	<b>13,221</b>	<b>4,213</b>	<b>13,254</b>	<b>4,245</b>
<b>II</b>	<b>MPGenco - Hydel</b>				
1	CHPS-Gandhi Sagar	171	81	171	81
2	CHPS-RP Sagar	-	-	-	-
3	CHPS-Jawahar Sagar	-	-	-	-
4	Pench THPS	208	99	208	99
5	Banasgar Tons HPS (I, II and III)	1,094	520	1,094	520
6	Banasgar Tons HPS-Bansagar IV	79	38	79	38
7	Birsingpur HPS	45	21	45	21
8	Bargi HPS	503	239	503	239
9	Rajghat HPS	45	21	45	21
10	Matitala HPS	-	-	-	-
11	Marhi Khera HPS	49	7	49	7
12	Mini-Micro HPS	-	-	-	-
	<b>Hydel Total</b>	<b>2,193</b>	<b>1,025</b>	<b>2,193</b>	<b>1,025</b>
<b>B</b>	<b>MP Genco GENERATION TOTAL</b>	<b>15,414</b>	<b>5,238</b>	<b>15,447</b>	<b>5,271</b>
<b>C</b>	<b>Power Requirement based on Existing Stations Availability (A+B)</b>	<b>32,922</b>	<b>10,514</b>	<b>33,024</b>	<b>10,582</b>
<b>D</b>	<b>Power Purchase from MP Tradeco @ BST</b>	<b>5,345</b>	<b>1,591</b>	<b>6,305</b>	<b>1,805</b>
<b>E</b>	<b>Total Power Requirement (C+D)</b>	<b>38,267</b>	<b>12,105</b>	<b>39,329</b>	<b>12,387</b>



### **Assessment of Generation Cost (Fixed and Variable Cost)**

The Fixed Costs and Variable Costs of MP Genco till 2008-09 have been adopted as per the Multi Year Tariff Order for the period FY07 to FY09. For existing Central Sector stations, Fixed Costs have been adopted as per CERC Orders for respective stations and variable costs (including FPA and other charges applicable at present) have been adopted as per the July 2007 bill.

For the new stations of the Central Sector, the following methodology has been adopted:

- For Vindhyachal-III, variable cost as approved by Hon'ble Central Electricity Regulatory Commission (CERC) till 2008-09 in its Tariff Order dated 24<sup>th</sup> July 2007 has been adopted.
- For Sipat-I and Barh STPS, variable cost has been as per provisional tariff as indicated by NTPC for the base year and escalated by 5.5%<sup>2</sup> every year till 2009-10.
- For Sipat II, Omkareshwar HPS, Kahalgaon Stage II, fixed and variable cost is as per the petition filed to Hon'ble Central Electricity Regulatory Commission (CERC) for provisional tariff till 2008-09
- For MP Genco Birisingpur Extension, fixed and variable cost is as per the petition filed before Hon'ble MPERC for provisional tariff till 2008-09. For Amarkantak (New) and Satpura Extension, fixed and variable cost per unit is assumed to be same as that of Birsinghpur Extension petition for provisional tariff<sup>3</sup>.
- For DVC, Mahrikheda Unit III, Lanco Amarkantak, PTC-Dhirugen and PTC-Torrent (Gas), fixed and variable cost per unit is as provided by MP Tradeco.

For all the above newer stations variable cost has been annually escalated by 5.5%<sup>4</sup> from the base year which is 2008-09 except for Sipat-I and Barh TPS.

The following table provides a summary of fixed and variable costs of each of the stations that have been considered for determining the power purchase cost.

- MPMKVCL share of fixed cost has been considered for its ARR purpose.
- Fuel Price Adjustment (FPA) has been projected in the same manner as that of variable cost per unit and is included in the variable component of the generation cost.

---

<sup>2</sup> As per CERC Notification dated 24<sup>th</sup> September 2007 – Escalation Rate for Energy Charge component for Domestic Coal based bids has been notified at 7.66% by CERC, which seems to be much higher and hence the energy charge component has been escalated at a reasonable 5.5% every year and is the Mean Escalation Rate for Barlow Jonker Index for Imported Coal.

<sup>3</sup> As per MP Tradeco

<sup>4</sup> As per CERC Notification dated 24<sup>th</sup> September 2007 – Escalation Rate for Energy Charge component for Domestic Coal based bids has been notified at 7.66% by CERC, which seems to be much higher and hence the energy charge component has been escalated at a reasonable 5.5% every year and is also the Mean Escalation Rate for Barlow Jonker Index for Imported Coal.



- The fixed and the variable costs of the newer stations have been pooled together to get an average bulk supply rate<sup>5</sup> at which MP Tradeco will supply power to each individual Discom.

Sr. No.	Source / Station	FY 08-09	FY 08-09	FY 08-09
		Fixed Cost (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Variable Cost (Rs. / kWh)
		Sector	MP Madhya KVVCL	
<b>I</b>	<b>NTPC</b>			
1	NTPC-Korba	88.03	41.81	0.63
2	NTPC-Vindyachal I	93.58	26.02	1.36
3	NTPC-Vindyachal II	120.61	16.93	1.24
4	NTPC-Vindyachal III (Unit I)	59.31	8.33	0.95
5	NTPC-Kawas	54.51	6.20	4.29
6	NTPC-Gandhar	70.12	7.98	1.64
7	KAPP	-	-	2.05
8	TAPS	-	-	2.66
9	Farakka + Talcher + Kahalgaon	16.31	3.78	1.09
	<b>NTPC-Total</b>	<b>502.46</b>	<b>111.04</b>	<b>1.11</b>
<b>II</b>	<b>Other Sources</b>			
1	NHDC - Indira Sagar	580.42	188.60	0.18
2	Sardar Sarovar	-	-	1.03
3	Others 1 (Wind & CPP)	-	-	-
4	Others 2 (Short-Term purchase)	-	-	-
5	Others 3 (UI)	-	-	-
	<b>Others-Total</b>	<b>580.42</b>	<b>188.60</b>	<b>0.67</b>
<b>A</b>	<b>Grand Total</b>	<b>1,082.88</b>	<b>299.64</b>	<b>0.94</b>
<b>I</b>	<b>MP Genco - Thermal</b>			
1	ATPS-Chachai-PH1 and 2	51.20	16.64	1.17
2	STPS-Sarani-PH1, 2 and 3	186.86	58.08	1.31
3	SGTPS-Bir'pur-PH1 and 2	300.49	97.64	1.00
	<b>Thermal-Total</b>	<b>538.55</b>	<b>172.36</b>	<b>1.18</b>
<b>II</b>	<b>MPGenco - Hydel</b>			
1	CHPS-Gandhi Sagar	11.37	5.40	-
2	CHPS-RP Sagar	-	-	-
3	CHPS-Jawahar Sagar	-	-	-

<sup>5</sup> Bulk Supply Rate includes fixed & variable Generation Cost, PGCIL Cost (if any) and also MP Transco Charges



Sr. No.	Source / Station	FY 08-09	FY 08-09	FY 08-09
		Fixed Cost (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Variable Cost (Rs. / kWh)
		Sector	MP Madhya KVVCL	
4	Pench THPS	12.05	5.72	-
5	Banasgar Tons HPS (I, II and III)	69.16	32.85	-
6	Banasgar Tons HPS-Bansagar IV	15.16	7.20	-
7	Birsingpur HPS	2.57	1.22	-
8	Bargi HPS	9.93	4.72	-
9	Rajghat HPS	5.03	2.39	-
10	Matitala HPS	-	-	-
11	Marhi Khera HPS	9.94	1.40	-
12	Mini-Micro HPS	-	-	-
	<b>Hydel Total</b>	<b>135.21</b>	<b>60.89</b>	<b>-</b>
<b>B</b>	<b>MP Genco GENERATION TOTAL</b>	<b>673.76</b>	<b>233.25</b>	<b>0.95</b>
<b>C</b>	<b>Power Requirement based on Existing Stations Availability (A+B)</b>	<b>1,756.64</b>	<b>532.89</b>	<b>0.94</b>
<b>D</b>	<b>Power Purchase from MP Tradeco @ BST</b>		<b>386.11</b>	
<b>E</b>	<b>Total Power Requirement (C+D)</b>		<b>919.00</b>	

Sr. No.	Source / Station	FY 09-10		
		Fixed Cost (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Variable Cost (Rs. / kWh)
		Sector	MP Madhya KVVCL	
<b>I</b>	<b>NTPC</b>			
1	NTPC-Korba	88.03	41.81	0.67
2	NTPC-Vindiyachal I	94.95	27.28	1.44
3	NTPC-Vindiyachal II	120.61	16.93	1.31
4	NTPC-Vindiyachal III (Unit I)	59.31	8.33	1.01
5	NTPC-Kawas	54.51	6.20	4.53
6	NTPC-Gandhar	73.10	7.98	1.73
7	KAPP	-	-	2.05



Sr. No.	Source / Station	FY 09-10		
		Fixed Cost (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Variable Cost (Rs. / kWh)
		Sector	MP Madhya KVVCL	
8	TAPS	-	-	2.66
9	Farakka + Talcher + Kahalgaon	16.69	3.78	1.15
	<b>NTPC-Total</b>	<b>507.19</b>	<b>112.30</b>	<b>1.17</b>
<b>II</b>	<b>Other Sources</b>			
1	NHDC - Indira Sagar	580.42	188.60	0.19
2	Sardar Sarovar	-	-	1.03
3	Others 1 (Wind & CPP)	-	-	-
4	Others 2 (Short-Term purchase)	-	-	-
5	Others 3 (UI)	-	-	-
	<b>Others-Total</b>	<b>580.42</b>	<b>188.60</b>	<b>0.67</b>
<b>A</b>	<b>Grand Total</b>	<b>1,087.61</b>	<b>300.90</b>	<b>0.97</b>
<b>I</b>	<b>MP Genco - Thermal</b>			
1	ATPS-Chachai-PH1 and 2	51.20	16.64	1.23
2	STPS-Sarani-PH1, 2 and 3	187.87	59.09	1.38
3	SGTPS-Bir'pur-PH1 and 2	300.49	97.64	1.06
	<b>Thermal-Total</b>	<b>539.57</b>	<b>173.37</b>	<b>1.24</b>
<b>II</b>	<b>MPGenco - Hydel</b>			
1	CHPS-Gandhi Sagar	11.37	5.40	-
2	CHPS-RP Sagar	-	-	-
3	CHPS-Jawahar Sagar	-	-	-
4	Pench THPS	12.05	5.72	-
5	Banasgar Tons HPS (I, II and III)	69.16	32.85	-
6	Banasgar Tons HPS-Bansagar IV	15.16	7.20	-
7	Birsingpur HPS	2.57	1.22	-
8	Bargi HPS	9.93	4.72	-
9	Rajghat HPS	5.03	2.39	-
10	Matitala HPS	-	-	-
11	Marhi Khera HPS	9.94	1.40	-
12	Mini-Micro HPS	-	-	-
	<b>Hydel Total</b>	<b>135.21</b>	<b>60.89</b>	<b>-</b>
<b>B</b>	<b>MP Genco GENERATION TOTAL</b>	<b>674.77</b>	<b>234.26</b>	<b>1.00</b>



Sr. No.	Source / Station	FY 09-10		
		Fixed Cost (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Variable Cost (Rs. / kWh)
		Sector	MP Madhya KVVCL	
C	Power Requirement based on Existing Stations Availability (A+B)	1,762.38	535.16	0.99
D	Power Purchase from MP Tradeco @ BST		448.25	
E	Total Power Requirement (C+D)		983.41	

### Assessment of Other Costs of Generation

Other costs of generation including Incentive / Disincentive, Income Tax (IT), Electricity Duty (ED) & Cess etc, and other Miscellaneous Charges per unit have been assumed at the level of actual expenditure in FY 2007-08 (till July'07). These cost components have been projected in the same manner as variable cost per unit has been and are included in the variable cost of generation as shown for each individual Discom in the station wise cost details in Section 1.1.3.

### Inter-State Transmission Charges

The Licensee has split the Inter State Transmission Charges into two components for the projection period (FY 2008-09 and FY 2009-10).

- Inter State Transmission Cost associated with existing capacities – as allocated to each Discom
- Inter State Transmission Cost associated with newer and upcoming capacities – allocated to MP Tradeco

The reason for such split was to allocate the cost of newer capacities to MP Tradeco, since the MP Tradeco will supply power to the Discoms on a bulk supply rate to the extent of the unmet demand of the Discom after their existing capacities are exhausted. Thus to avoid paying up for the entire transmission capacity which may or may not be used by the Licensee during the projection period, such bifurcation was required. As per MPERC regulation the transmission



charge is to be allocated on the basis of the ownership of the generating capacities. The same principle has been used.

**Inter State Transmission Charges associated with existing capacities:**

Following is the summary of the Inter State Transmission Charges for the whole State during the financial years 2005-06 to 2007-08 as per actuals<sup>6</sup> (billed)

Sr. No.	Lines / Links / Region	FY 06			FY 07			FY 08		
		Annual Tariff (Rs. Crs.)	Share (%)	Charges payable as per the Share (Rs. Crs.)	Annual Tariff (Rs. Crs.)	Share (%)	Charges payable as per the Share (Rs. Crs.)	Annual Tariff (Rs. Crs.)	Share (%)	Charges payable as per the Share (Rs. Crs.)
A	ER	194	1.35%	3	393	1.10%	4	408	0.94%	4
B	WR	425	25.13%	107	388	24.52%	95	436	24.32%	102
C	Others (Inter-Regional)	-	0.00%	6	132	13.03%	17	112	21.33%	24
<b>D</b>	<b>Total</b>	<b>619</b>		<b>116</b>	<b>912</b>		<b>117</b>	<b>956</b>		<b>130</b>

The Licensee has considered PGCIL charges same for the projection period, since there has been no information on additional capitalisation (if any) for existing transmission and new transmission for transmitting power from existing to stations to the MP State periphery.

The Licensee has also allocated the total PGCIL cost based on the allocation percentage which has been derived based on the weighted average capacity and allocation percentage of each Discom from Eastern Region and Western Region Stations and Sardar Sarovar Project which is also connected to PGCIL network.

Following is the projected PGCIL Cost for the Licensee for the projection period:

<sup>6</sup> For the FY 2005-06 and 2006-07 annual charges are based on the bills of Mar '06 and Mar '07 respectively. For the FY 2007-08 annual charges for the ER and WR are based on bills till Sept '07, whereas other charges (which includes wheeling charges, linkage charges and LDC Charges) were available for 6 months (till Sept '07) and hence annual charge was calculated by multiplying the six months charge by two.



(All figures in Rs. Crs.)

Allocation %	Discom	FY06	FY07	FY08	FY09	FY10
32.41%	MP Madhya KVVCL	37	38	42	42	42
37.98%	MP Paschim KVVCL	44	44	49	49	50
29.60%	MP Poorv KVVCL	34	35	38	39	39
<b>Total</b>		<b>116</b>	<b>117</b>	<b>130</b>	<b>130</b>	<b>130</b>

### Inter State Transmission Charges associated with newer and upcoming capacities:

Transmission Charges for the newer and upcoming capacities is projected on a best effort basis. Benchmark of Rs. Crs. / MW has been derived based on the FY 2006-07 actuals data. The benchmark is net off LDC Charges. Following are the capacity additions in the central sector:

(All figures are in MW)

Stations	FY08	FY09	FY10
VSTP-III (Unit - II)	112	112	112
Sipat – I	-	86	172
Sipat – II	143	143	143
Kahalgaoon Stage – II	107	107	107
Barh STPS	-	-	75
DVC	400	400	400
<b>Total CGS</b>	<b>762</b>	<b>848</b>	<b>1,008</b>

Based on the capacity additions in the central sector and the derived benchmark PGCIL Charges payable by MP Tradeco is as follows, which has been included in the bulk supply rate at which MP Tradeco may sell power to Discoms if required by the Discoms.

PGCIL Charges payable by MP Tradeco	FY 08	FY 09	FY 10
PGCIL Charges for newer & upcoming central sector stations (Rs. Crs.)	40	45	54

### Intra - State Transmission Charges

Hon'ble Commission has notified in its Madhya Pradesh Power Transmission Company's Multi Year Tariff Order dated 13<sup>th</sup> March 2006, annual transmission charges payable by each Discom to MPPTCL.



Annual MPPTCL Charges (Rs. Crs.)	FY 07	FY 08	FY 09
MP Poorv KVVCL	177.62	191.58	199.24
MP Madhya KVVCL	195.05	210.39	218.75
MP Paschim KVVCL	225.03	242.74	252.41
SEZ	1.00	2.24	2.06
<b>Total</b>	<b>598.69</b>	<b>646.95</b>	<b>672.45</b>

Pursuant to the True up petition filed by MPPTCL to Hon'ble Commission, MPERC in its Order dated 1<sup>st</sup> March 2007 had also notified additional charges that each Discom needs to pay in FY08, over and above annual transmission charges to MPPTCL as notified in the MPPTCL MYT Order dated 13<sup>th</sup> March 2006. Thus the revised Annual Transmission Charges for each Discom during the projection period is as follows:

Annual MPPTCL Charges (Rs. Crs.)	FY 07	FY 08	FY 09
MP Poorv KVVCL	177.62	218.83	199.24
MP Madhya KVVCL	195.05	240.21	218.75
MP Paschim KVVCL	225.03	279.79	252.41
SEZ	1.00	2.41	2.06
<b>Total</b>	<b>598.69</b>	<b>741.24</b>	<b>672.45</b>

While calculating the annual transmission charges, it seems that Hon'ble Commission had also taken into account the capacity additions which make happen due to increased generation capacity, which are allocated to MP Tradeco as per the 14<sup>th</sup> March 2007 GoMP Notification, hence there was a need to bifurcate such transmission cost into two components viz

- MPPTCL Charges associated with existing generation capacities and
- MPPTCL Charges associated with newer and upcoming generation capacities

For estimating MPPTCL Charges during the projection period, the licensee has adopted the same methodology used for projecting PGCIL Charges. In addition to the charges the licensee has also adjusted the Incentive<sup>7</sup> and Income Tax (IT) & Fringe Benefit Tax (FBT)<sup>8</sup> component in the annual transmission charges for the projection period.

<sup>7</sup> As per MPPTCL Bill dated 30<sup>th</sup> July 2007 for FY 2006-07

<sup>8</sup> As per MPPTCL Bill dated 1<sup>st</sup> October 2007 for the period Apr '07 to Sept '07



MPPTCL Charges associated with existing generation capacities and payable by each Discom are as follows:

Annual MPPTCL Charges as payable by the Discoms (Rs. Crs.)	FY 08	FY 09	FY 10
MP Poorv KVVCL	209.42	181.45	181.45
MP Madhya KVVCL	229.97	199.26	199.26
MP Paschim KVVCL	265.33	229.89	229.89
<b>Total</b>	<b>704.72</b>	<b>610.60</b>	<b>610.60</b>

MPPTCL Charges associated with newer and upcoming generation capacities and as payable by MP Tradeco are as follows, which has been included in the bulk supply rate at which MP Tradeco may sell power to Discoms if required by the Discoms.

MPPTCL Charges payable by MP Tradeco	FY 08	FY 09	FY 10
Annual MPPTCL Charges payable by MP Tradeco (Rs. Crs.)	133	212	261

### Merit Order Dispatch

A merit order simulation has been adopted on a monthly basis by matching monthly energy requirement with monthly availability based on the variable costs of various sources. The licensee submits that while a monthly determination of cost provides an improved estimate over an annual determination of cost, the actual cost will still defer based on the daily peaking requirements and variations of actual from projections. The licensee prays that such deviations be passed on a regular basis through the FCA formula proposed. This request of the licensee is also in line with the provision of the National Tariff Policy which specifies (Clause 5.3 (h) (4) and Clause 8.2.1 (1)):

*"Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of hydro-thermal mix in case of adverse natural events. "*

And



*"All power purchase costs need to be considered legitimate unless it is established that the merit order principle has been violated or power has been purchased at unreasonable rates. "*

As stated earlier, the monthly requirement of energy is based on licensee's own projection and tentative estimate of requirements of other Discoms. The licensee prays that only the Hon'ble Commission has a visibility to the final energy requirement planned by each Discom and the filing of the licensee does not represent commitment from any other company regarding their energy requirement.

### **Average Cost of Power**

The total power purchase cost for the licensee has been estimated based on the principles stated above and is as follows for the FY 08-09 and FY 09-10.

(all figures are in Rs. / kWh)

<b>Discom</b>	<b>FY 08-09</b>	<b>FY 09-10</b>
MP Poorv KVVCL	1.83	1.90
MP Madhya KVVCL	1.58	1.64
MP Paschim KVVCL	1.79	1.86



## 4.2 O&M Expenses

Clause 2.19 of the Regulation states that “The net O&M expenses for each year of the tariff period shall be computed on the basis of projected number of metered consumers, metered sales, HT network length and transformation capacity of 33/11kV transformers for such year....”

Accordingly the normative O&M expenses have been worked out for the control period as follows:

Particulars	FY08	FY09	FY10
Metered consumers (nos.)	1743592.81	2043825.84	2305050.45
O&M expenses Rs. Lakhs per '000 metered consumers	6.50	6.90	7.31
<b>Sub-total O&amp;M expenses (I*II/1000) (Rs. Lakhs)</b>	<b>11333.35</b>	<b>14102.40</b>	<b>16849.92</b>
Metered sales (MU)	4851.44	5418.72	5881.18
O&M expenses Rs. Lakhs per MU metered sales	2.35	2.49	2.64
<b>Sub-total O&amp;M expenses (I*II) (Rs. Lakhs)</b>	<b>11400.88</b>	<b>13492.62</b>	<b>15526.31</b>
Ckt-kms of 33kV lines	10146.02	10401.02	10671.02
Ckt-kms of 11kV lines	59232.29	72250.18	85309.07
Total Ckt-kms of HT lines (I+II)	69378.31	82651.20	95980.09
O&M expenses Rs. Lakhs per 100 ckt-km of HT lines	16.00	17.00	18.00
<b>Sub-total O&amp;M expenses (III*IV/100) (Rs. Lakhs)</b>	<b>11100.53</b>	<b>14050.70</b>	<b>17276.42</b>
Cumulative transformation capacity of 33/11kV transformers in MVA	3818.85	4015.50	4196.40
O&M expenses Rs. Lakhs per MVA	1.53	1.62	1.72
<b>Sub-total O&amp;M expenses (I*II) (Rs. Lakhs)</b>	<b>5842.84</b>	<b>6505.11</b>	<b>7217.81</b>
<b>Other Expenses - MPERC Fees (Rs. Lakhs)</b>	<b>59.32</b>	<b>61.67</b>	<b>63.00</b>
<b>Other Expenses - Employee Terminal Benefits (Rs. Lakhs)</b>	<b>6443.20</b>	<b>6865.44</b>	<b>7259.42</b>
<b>Total O&amp;M expenses in Rs. Lakhs (A+B+C+D)</b>	<b>46180.12</b>	<b>55077.94</b>	<b>64192.87</b>
<b>Total O&amp;M expenses in Rs. Crs.</b>	<b>461.80</b>	<b>550.78</b>	<b>641.93</b>

The projections for average metered consumers and metered sales (MU) are based on the sales forecasts discussed earlier. Projections for the physical parameters (average HT network length, average power transformation capacity) have been estimated scheme-wise from the proposed investment plan.



The employee terminal benefits have been projected based on the current level of provisioning requirement.

### **Employee Expenses**

Employee Expenses have been projected on the basis of number of employees, inflation rate and historical figures captured from the audited books of accounts of the licensee.

The licensee does not currently have any firm plans for recruitment. Hence, the impact of the same has not been considered during the forecast period. Also the impact of the same is not expected to be significant.

The Madhya Pradesh State Electricity Board ('MPSEB') vide its Regulation No. 01-07/WAC/2486 & No. 01-07/WAC/2487, dated 27.4.2006 has revised the pay scales of all officers/employees who were in service of the Board as on 1.1.2001. The revised pay scales are used in computing basic salary of employees of the licensee. Other employee expenses are projected using the following assumptions:

- The payment of arrears (net of interim relief already paid to employees) is to be made in 24 monthly installments commencing from August 2006.
- Basic Pay has been revised by adding 50% of Dearness pay to it
- D.A. rate for future years is projected on assuming an inflation rate of 5% per year to continue. D.A. rate for 2007 has been assumed at 20%
- Provisions for pension and gratuity have been taken at 24.05% and 3.25% respectively of total expenses under Basic Pay, Additional Pay and D.A as maintained in company's accounts.

### **Administrative & General Expenses**

Major Administrative and General (A&G) expenses of the licensee are likely to be insurance, vehicle-related expenses, ERP license fees and common MPSEB expenses.

Insurance is projected using on the basis of the following assumptions:

- Fidelity insurance is projected as 0.5% of LT revenue



- Storage-cum-erection insurance is projected as 0.5% of CWIP
- Property insurance is projected as 0.1% of Net Block of Assets

Vehicle-related and conveyance expenses are projected on the basis of assumed hike in the price of gasoline and diesel. The license fee of ERP software is to be partially borne by the licensee and is incorporated in A&G projections. A growth rate of 8.69% per annum is assumed for projecting common MPSEB expenses, which mainly comprise salary costs for employees providing common service to all companies.

### **Repair & Maintenance Expenses**

As per the company's accounts, the licensee has spent Rs.11.04 Crore in FY 07 on R&M expenditure. The R&M expenditure translates into about 0.9% of the closing GFA base of the Licensee. The Licensee has forecasted its R&M expenses by assuming similar range of % of GFA for each asset class.



### 4.3 Depreciation

MPMKVVCL had inherited Gross Fixed Assets (GFA) of Rs.1281 Crore as per the provisional opening balance sheet on 31st May 2005 as notified by GoMP. The addition to GFA in FY 06 as per the audited accounts has been Rs. 22.07 Crore and the Accumulated Depreciation as on 31st March 2006 as per the audited accounts is 881.75 Crore. The addition to GFA in FY07 and the Accumulated Depreciation as on 31<sup>st</sup> March 2007 as per the Provisional Financial Statement (Dated 20<sup>th</sup> September, 2007) are Rs. 39.28 Crore and Rs. 995.51 Crore respectively.

Depreciation has been computed assuming year-wise addition to each asset class as per the company's provisional accounts.

The depreciation rates that have been adopted for the depreciation calculation are as per the MoP notification (notified under S.O.265 (E) dated 27th March, 1994 by the Central Government) which are also being used in the preparation of the annual accounts of the licensee

Depreciation for financial years FY 08 to FY 10 is shown below. The detailed calculations are shown in Form F2a.

	2007-08	2008-09	2009-10
<b>Depreciation (Rs. Crore)</b>	68.40	81.19	96.02

Depreciation for FY08 – FY10 has been calculated after removing fully depreciated assets from the Gross Block. The licensee has calculated depreciation according to the methodology adopted for its financial statements.



## 4.4 Interest and Finance Charges

### Interest on project loans

The interest on the project loans have been calculated in three parts:

- The interest on the source-wise loans (Rs.220 Cr) and generic loans (Rs.316 Cr) inherited through the provisional opening balance sheet as on 31.05.2005 have been calculated based on the respective outstanding amounts for FY09 and FY10 and interest payment schedules.
- The interest on the new loans drawn in FY 09 and FY10 have been projected based on the respective terms and conditions for the loan repayment and interest payment.
- The new loans proposed to be drawn based on the investment plan have been projected assuming the following terms and conditions:

Source of loan	Interest Rate	Moratorium Period (Yrs)	Repayment Term (Yrs)
PFC Loans	9.25%	2	8
REC Loans	8.25%	3	10
ADB Loans	10.50%	5	15
JBIC	8.20%	5	15
Others	10.50%	1	7

Particulars	CY	MYT Period	
	FY08	FY09	FY10
<b>In Rs Crores</b>			
<b>Interest on Long Term Loans / Credits</b>			
<b>Existing Loans</b>	<b>56.67</b>	<b>50.32</b>	<b>44.51</b>
PFC Loan	4.45	3.02	2.19
REC Loan	7.63	7.23	6.80
ADB Loan	5.36	5.25	5.09
APDRP-NABARD loan	4.45	3.83	3.23
Generic Loans from MPSEB	34.79	31.00	27.20
<b>New Loans</b>	<b>8.40</b>	<b>29.15</b>	<b>65.83</b>
GoI Loans	0.23	0.45	0.43
PFC Loans	4.13	5.07	4.90
REC Loans	0.00	0.00	0.00
ADB Loans	2.02	12.59	32.11
JBIC Loans	0.12	0.19	0.05
Other Market Borrowings for Capital Expenditure	1.91	10.84	28.34
<b>Total</b>	<b>65.08</b>	<b>79.48</b>	<b>110.34</b>
<b>Cost of raising finance &amp; Bank Charges on project loans</b>	<b>0.17</b>	<b>0.58</b>	<b>1.32</b>



<b>Grand Total Of Interest &amp; Finance Charges</b>	<b>65.25</b>	<b>80.06</b>	<b>111.66</b>
<b>Less: Interest &amp; Finance Charges Chargeable to Capital Account</b>	<b>26.10</b>	<b>32.02</b>	<b>44.66</b>
<b>Net Total Of Interest &amp; Finance Charges on Project Loans</b>	<b>39.15</b>	<b>48.04</b>	<b>66.99</b>

### Interest on working capital

The working capital requirement has been estimated based on the norms as per the Regulation as under. Interest rate of 12.50% has been assumed for the calculation of the Interest on the working capital.

Accordingly, the total interest on working capital for FY09 and FY10 works out to Rs. 79.98 Crore and Rs. 90.69 Crore respectively.

<b>Wheeling</b>			<b>(Rs. Crore)</b>
<b>Particulars</b>	<b>CY</b>	<b>MYT Period</b>	
	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
1/6 <sup>th</sup> of annual requirement of inventory for previous year	2.18	2.50	2.91
1/12 <sup>th</sup> of total O&M expenses	38.48	45.90	53.49
Total Working capital	40.66	48.39	56.41
Rate of Interest	12.75%	12.75%	12.75%
<b>Interest on Working capital</b>	<b>5.18</b>	<b>6.17</b>	<b>7.19</b>
<b>Retail Sale</b>			<b>(Rs. Crore)</b>
<b>Particulars</b>	<b>CY</b>	<b>MYT Period</b>	
	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
1/6 <sup>th</sup> of annual requirement of inventory for previous year	0	0	0
Receivables equivalent to 2 months average billing	393.67	432.34	464.52
Less: 1/12 <sup>th</sup> of power purchase expenses	173.14	179.65	190.28
Less: Consumer Security Deposit	0.00	0.00	0.00
Total Working capital	220.52	252.69	274.24
Rate of Interest	12.50%	12.50%	12.50%
<b>Interest on Working capital</b>	<b>27.57</b>	<b>31.59</b>	<b>34.28</b>



#### 4.5 Provision for Bad and Doubtful debts

As per the Regulation, provision for bad and doubtful debts is to be projected as 1% of the total revenue from sales. As per the draft financial statements for the year 2006-07 submitted to Hon'ble Commission provision for bad debts Rs. 134.3 Crores against revenue from sale of power Rs. 1871 Crores i.e. 7.2 % has been made. In view of past and prevailing socio economic conditions of the consumers in the licensee's area of jurisdiction and sincere efforts made for recovery of dues, the licensee submits to the Hon'ble Commission to permit a higher percentage of provision for bad and doubtful debts at 2.5% of total revenue from sale of power for the MYT period.

Normative Provision for Bad Debts/ Write Offs (Rs. Crore)	FY08	FY09	FY10
Provision for Bad Debts	59.62	65.48	70.36

#### 4.6 Return on Equity

As per the Regulation, the allowable Return on Equity (RoE) is 14% on the paid-up capital up to a maximum of 30% of the GFA. The RoE (post income-tax) for the Control period has thus been calculated as shown in the table below.

Return on Equity Computation All figures in Rs. Crore	FY08	FY09	FY10
GFA at beginning of year (net of consumer contributions) - A	1553.25	1779.20	2079.07
Opening Balance of equity - A1	368.48	445.63	473.03
Proposed capitalization of assets as per investment plan (net of consumer contribution) - B	210.91	225.94	299.87
Addition of equity during the year for capitalised assets - B1	77.15	27.40	24.40
Normative additional equity (30% of B) - C1	63.27	67.78	89.96
<b>Excess/ (Shortfall) of additional equity over normative</b>	13.88	(40.38)	(65.56)
Equity Eligible for Return - Minimum of (A1+(C1/2)) or (A1+(B1/2))	400.11	459.33	485.23
<b>Return on Equity (14% *E)</b>	56.02	64.31	67.93



#### 4.7 Amortization of FY06 and FY07 Gap

The revenue gap for FY-06 has been worked out to be Rs.559.09 Crore. This is arrived at by adding to the amount of Rs. 524 Crore (already filed with the Commission) an additional power purchase cost of Rs. 35 Crore from Indira Sagar (ISP). The additional power purchase cost from ISP in FY-06 is because of revised rates applicable as per the CERC order. This cost has been attributed to the Central Discom in the ratio of capacity allocated to the three discoms.

The amount is proposed to be amortized over three years from FY-08 to FY-10 and it is requested that an interest of 10.5% be allowed since FY-07 as the cost of funding this gap.

Revenue Gap in FY-06	FY 07	FY 08	FY 09	FY 10
Opening balance	524.09	614.12	409.41	204.71
Additions	0.00	0.00	0.00	0.00
repayments		204.71	204.71	204.71
Closing balance	524.09	409.41	204.71	0.00
average balance	524.09	511.77	307.06	102.35
Interest rate	10.5%	10.5%	10.5%	10.5%
Interest Amt	55.03	53.74	32.24	10.75
Addnl Cost from ISP (FY-06)	<b>35.00</b>			
<b>Amount Amortized</b>		<b>258.44</b>	<b>236.95</b>	<b>215.45</b>

The gap amount of Rs. 796.65 crores, calculated for FY-07 is proposed to be amortized from FY-08 to FY-10 and it is requested that interest cost be allowed for funding this gap at 10.75% (current PLR rate).

Revenue Gap in FY-07	FY 08	FY 09	FY 10
Opening balance	854.27	569.51	284.76
additions	0.00	0.00	0.00
repayments	284.76	284.76	284.76
Closing balance	569.51	284.76	0.00
average balance	711.89	427.14	142.38
Interest rate	10.75%	10.75%	10.75%
Interest Amt	76.53	45.92	15.31
Addnl Cost from ISP (FY-07)	<b>57.62</b>		
<b>Amount Amortized</b>	<b>361.29</b>	<b>330.67</b>	<b>300.06</b>



It may be kindly noted by the Commission that the Discom is requesting for allowance of interest charges for funding the gap only after the completion of the financial year and not within the year as it would further increase the revenue gap for that year.



## 5 ARR Summary

Particulars	CY	MYT Period	
	FY 08	FY 09	FY 10
<b>Revenue</b>			
Revenue from sale of power	2,362.00	2,594.05	2,787.12
Other income	34.63	37.60	40.83
Income from other business allocated to Licensed business			
Revenue subsidies and grants			
<b>Total Revenue or Income</b>	<b>2,396.63</b>	<b>2,631.65</b>	<b>2,827.95</b>
<b>Expenditure</b>			
Purchase of Power from MP Genco	721.04	728.81	761.60
Purchase of Power from Other Sources	1068.89	1180.10	1266.64
Inter-State Transmission charges	42.10	42.19	42.29
Intra-State Transmission (MP Transco) Charges	229.97	199.26	199.26
Repairs and Maintenance			
Employee costs			
Administration and General expenses	461.80	550.78	641.93
Net prior period credit charges	-	-	-
Other Debits, Write-offs	59.62	65.48	70.36
Lease Rental	-	-	-
Extraordinary items	-	-	-
Less: Expenses Capitalized	10.22	10.71	11.29
<b>PBDIT</b>	<b>-176.58</b>	<b>-124.24</b>	<b>-142.84</b>
<b>Depreciation and Related debits</b>	<b>68.40</b>	<b>81.19</b>	<b>96.02</b>
<b>PBIT</b>	<b>-244.98</b>	<b>-205.44</b>	<b>-238.87</b>
Interest & Finance Charges	118.22	140.30	177.23
Less: Interest Capitalized	26.10	32.02	44.66
<b>Total Interest and Finance Charges</b>	<b>92.12</b>	<b>108.28</b>	<b>132.57</b>
<b>TOTAL EXPENDITURE</b>	<b>2733.73</b>	<b>2945.37</b>	<b>3199.38</b>
<b>Profit/Loss before Tax</b>	<b>-337.10</b>	<b>-313.71</b>	<b>-371.43</b>
Income Tax	0.35	0.37	0.40
<b>Profit/Loss after Tax</b>	<b>-337.45</b>	<b>-314.09</b>	<b>-371.83</b>
<b>Gap Amortization</b>	<b>619.73</b>	<b>567.62</b>	<b>579.79</b>
<b>PAT + Gap amortization</b>	<b>-957.18</b>	<b>-881.71</b>	<b>-951.62</b>
<b>Return on Equity</b>	<b>82.92</b>	<b>95.45</b>	<b>100.91</b>
<b>Gap/Surplus</b>	<b>-1040.10</b>	<b>-977.16</b>	<b>-1052.54</b>



## 5.1 Segregation of ARR

Clause 1.18 of the Regulation states that the “*The Commission shall, for the entire tariff period, approve the Aggregate Revenue Requirement for the Wheeling and Retail Supply activities of the Distribution Licensee based on the principles contained in these Regulations.....*”

Further, Hon’ble Commission vide clause 1.24 and 1.25 provides methodology for determination of tariff for wheeling activity and retail sale activity wherein it has detailed expenses allocable to Wheeling activity and Retail sale.

The licensee has attempted to segregate the costs as required by Hon’ble Commission into Wheeling charges and Retail supply. Expenses have been allocated to Distribution wires and Retail Supply businesses by allocating them to the businesses to which they essentially belong. The details of expenses and revenue allocated to each of the businesses are tabulated below:

Particulars	Wheeling Charge	Retail Supply
O & M Expenses <ul style="list-style-type: none"><li>▪ Employee costs</li><li>▪ Admin and General Exp</li><li>▪ Repairs and Maintenance Exp</li></ul>	√	--
Interest and Finance charges	√	√
Interest and Other Expenses capitalised	√	--
Other Debits / Credits	√	--
Tariff Income	--	√
Non Tariff Income	√	√

Based on the information available, the Petitioner has made sincere efforts to comply with the Regulation of the Hon’ble Commission and discharge its obligations to the best of its abilities.

The Petitioner humbly submits separate ARR prepared for wheeling and retail supply businesses, the Hon’ble Commission may approve and accept the same. The following tables summarize ARR for Power Purchase, Wheeling activity and Retail sale activity.



<b>Combined ARR for Distribution and Retail Sale (Rs. Crore)</b>		<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
<b>A</b>	<b>Expenditure</b>			
<b>I</b>	Power Purchase expenses, including Inter-State and Intra-State Transmission charges and wheeling charges payable to any other Distribution Licensee	2062.00	2150.35	2269.80
<b>II</b>	Aggregate Revenue Requirement of Wheeling Activity	603.36	726.16	855.21
<b>III</b>	Aggregate Revenue Requirement of Retail Sale Activity	116.66	126.71	134.45
<b>IV</b>	Gap Amortization	619.73	567.62	579.79
	<b>Total Aggregate Revenue Requirement for Distribution and Retail Sale (I+II+III+IV)</b>	<b>3401.75</b>	<b>3570.84</b>	<b>3839.25</b>

<b>ARR for Expenses Related to Purchase of Power (Rs. Crore)</b>		<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
	<b>Power Purchase or Energy Available (MU)</b>	11,607	12,105	12,387
	<b>Sale of Power (MU)</b>	6518	7140	7656
	<b>Expenditure</b>			
	Cost of power purchase, including T&D losses	1789.93	1908.90	2028.24
	Intra-state Transmission (MP Transco) charges	42.10	42.19	42.29
	Inter-State Transmission charges	229.97	199.26	199.26
	<b>Total expenditure on power purchase</b>	<b>2062.00</b>	<b>2150.35</b>	<b>2269.80</b>

<b>ARR for Wheeling Activity (Rs. Crore)</b>		<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
<b>A</b>	<b>Expenditure</b>			
	O&M Expense	387.15	471.41	558.04
	Depreciation	68.40	81.19	96.02
	Interest & Finance Charges on project loans	39.15	48.04	66.99
	Interest and Finance Charges on working capital loans	32.91	37.81	41.61
	Return on Equity	82.92	95.45	100.91
	<b>Total Expenditure</b>	<b>610.54</b>	<b>733.91</b>	<b>863.58</b>
<b>B</b>	<b>Less:</b>			
	Other Income (inclusive of income from wheeling charges)	<b>7.18</b>	<b>7.75</b>	<b>8.37</b>
	<b>Annual Revenue Requirement (A-B)</b>	<b>603.36</b>	<b>726.16</b>	<b>855.21</b>



ARR for Retail Sale Activity (Rs. Crore)		FY08	FY09	FY10
<b>A</b>	<b>Expenditure</b>			
	Interest and Finance Charges on Consumer Security Deposit	20.06	22.43	23.96
	Bad and Doubtful debts	59.62	65.48	70.36
	Any other expenses- Terminal Benefits	64.43	68.65	72.59
	<b>Total Expenditure</b>	<b>144.12</b>	<b>156.56</b>	<b>166.91</b>
<b>B</b>	<b>Less</b>			
	Other Income	27.45	29.85	32.46
	<b>Annual Revenue Requirement (A-B)</b>	<b>116.66</b>	<b>126.71</b>	<b>134.45</b>



## 6 Chapter 6: Regulatory Treatment

The licensee wishes to highlight certain issues which are critical to its business operations and financial viability. The licensee requests the Hon'ble Commission to treat these issues and pass suitable orders so as to enable the licensee to maintain its financial health and continue to serve the consumers in a progressively improved manner.

### 6.1 Fuel Surcharge Adjustment

At present there is no mechanism for automatic pass-through of costs for the Discom. Thus even though generating and transmission utilities pass their uncontrollable cost, the Discom is not able to pass the same to its consumers. This is especially a power purchase cost as it represents the most significant part of Distribution Licensee's revenue requirement. Any material changes in hydro-thermal mix, generation source mix; fuel cost etc has a significant impact on the power purchase cost for the Distribution Licensee. Given the extent of the costs involved, it is crucial that a mechanism is formulated whereby the distribution Licensee is able to regularly recover allowable changes in the power purchase cost, on account of variation in fuel costs, from consumers. Such a mechanism would enable the Distribution Licensee to manage its working capital in a more effective manner. This is also in line with the provisions of Clause 5.3 (h) (4) of the National Tariff Policy which reads out as under "Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of hydro-thermal mix in case of adverse natural events ".

In line with the above provision, the Distribution Licensee would like to propose the following formula for computation of Fuel Surcharge Adjustment:

FSA (Rs crores) = P + I + A, where

FSA = Fuel Surcharge Adjustment

P = Change in cost of own generation and power purchase due to variation in the landed fuel cost and due to approved short term power purchase

I = Interest on working capital on account of change in fuel cost on account of factor 'P' above

A = Adjustment factor for over-recovery / under-recovery which shall be computed in accordance with the formula given below:



AJ-2 (Rs. Crores) = XJ-4 + YJ-2, where

XJ-4 : Incremental cost in month "J-4"

YJ-2 : Incremental cost in month "J-4" actually recovered in month "J-2"

The calculation for FSA to be charged for the month "J" shall be as follows:

$$\text{FSAJ (Rs crores)} = \text{PJ-2} + \text{I J-2} + \text{AJ-2}$$

The FSA would be applicable from the month following the month in which the additional costs are calculated. (This means that the FSA for month of June would be recovered in August.)

The Licensee proposes that the FSA shall be recoverable from both metered as well as unmetered consumer categories as indicated in the formula below:

$$\text{FSARs./kWh} = (\text{FSA} / (\text{Metered sales} + \text{Unmetered consumption estimates})) * 10$$

The consumption for unmetered category consumers would be estimated based on methodology and norms adopted for the same for developing sales forecast for such categories.

The need for adjustment factor 'A' as mentioned in the above formula would be clear with help of an example:

Consider that a Distribution Licensee has incurred a higher power purchase cost, of say Rs 10 Crores for month of April on account of higher fuel prices. The licensee would have been served with corresponding power purchase bill by supplier/generator in month of May and it is assumed that the entire cost is allowed by the Commission to be recovered through FSA. If the anticipated sale during the month of June is 500MU, then the FSA per unit to be recovered would be 20 paise/kWh. Now if the actual sale for June is 450MU, then there would be an under-recovery to the extent of Rs 1 Crores. Conversely if the actual sale for June is 550MU, then there would be an over-recovery of Rs 1 Crores. Therefore, there is a need for the FSA formula to provide for regular adjustments on account of such over recovery/under recovery.



## 6.2 Depreciation

Clause 2.14 of the Regulation provides that *“For the purpose of tariff, depreciation shall be computed in the following manner:*

(a) *The asset base for the purpose of depreciation shall be the historical cost of the assets, i.e. actual expenses limited to approved /accepted capital cost:*

*Provided that the consumer contribution or capital subsidy/ grant etc shall be treated as per the accounting rules notified and in force from time to time.....*

(c) *Depreciation rates for determination of allowable depreciation shall be as notified by the CERC from time to time*

*To enable the Commission to validate the Licensee’s depreciation claims, year wise and category wise (as defined by CERC) additions to assets must be provided by the licensee.”*

Further, Clause 2.15 provides that *“Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.”*

Therefore, three key issues need to be addressed:

- **Issue 1** - The asset base on which depreciation need to be allowed and whether assets created by consumer contribution or capital subsidy/ grant etc. are eligible for depreciation;
- **Issue 2** - The rate of depreciation to be charged; and
- **Issue 3** - When to start charging depreciation and whether any change in accounting policy is required to be undertaken.

On **Issue 1**, in the present filing the licensee has endeavored to assess the “depreciable” assets (assets which have not been depreciated to the extent of 90% of the Gross value). The licensee has used the past accounting information (as per the annual accounts of erstwhile MPSEB) on year-wise asset addition to estimate the portion of assets that may have been fully depreciated.

On the issue of the depreciation on assets created by consumer contributions, grants or capital subsidies, the licensee believes that these assets are eligible for depreciation. The licensee relies on the provisions of AS-12 issued by ICAI and the opinion of the Expert Advisory Committee of



ICAI (in a similar case) regarding treatment of Consumer Contribution as part of Networth. The paragraphs below explain the position in detail.

AS-12 specifies that “A *Government Grant given for the acquisition of Specific Fixed Asset should be accounted for in either of the following ways:*

- a) *The Grant should be shown in the balance sheet as a deduction from the Gross value of relevant Fixed Asset*
- b) *Alternatively, the gross value of fixed asset should be left undisturbed. Instead where the grant relates to non-depreciable asset e.g. freehold land it should be credited to Capital Reserve. However, if a grant related to a non depreciable asset requires fulfillment of certain obligations, the grant should be credited to income over the same period over which the cost of meeting such obligations is charged to income; the deferred income balance should be shown separately in the financial statements. On the other hand if the grant relates to depreciable asset, it should be treated as deferred income which should be recognized in the profit and loss account by allocating it over the periods and the proportions in which depreciation over the asset concerned is charged”.*

In case of government grant in the nature of overall funding of a scheme or mandatory consumer contribution, the funding obtained is general in nature and cannot be directly related to any specific fixed asset. In such a case, the following opinion of the Expert Advisory Committee of ICAI may be relied upon: “*The Committee notes from the facts of the case that the contribution received from a consumer is not refundable to the consumer even after he ceases to be the consumer and the underlying assets continue to be the property of the company even after supply of electricity to the consumer concerned is withdrawn by the company. The Committee is, accordingly, of the view that the amount of contribution received from consumers should be considered as a part of net worth.*” and hence such amounts may be credited to the Capital Reserve thereby forming part of net worth.

Therefore, the licensee believes that the depreciation on the assets so created needs to be charged to the P&L account in the normal course and the consumer contribution or any other capital grant/ subsidy should form part of the net worth and continue to be shown in the balance sheet as Capital Reserve.



On **Issue 2** about depreciation rates to be adopted, the licensee submits that the National Tariff Policy under Section 5.3(c) states that *“The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The depreciation rates so notified would also be applicable for distribution with appropriate modification as may be evolved by the Forum of Regulators. The rates of depreciation so notified would be applicable for the purpose of tariffs as well as accounting. There should be no need for any advance against depreciation.”*

From the above section, it is seen that the CERC and Forum of Regulators (FOR) is required to evolve a set of depreciation rates in a manner that there should be no need for any advance against depreciation and the cash requirement (for debt servicing) of licensees in a regulated regime is addressed through depreciation. The present CERC notified rates are nearly half of the rates being adopted for accounting purpose and is inadequate to meet the loan repayment obligations of the licensee. Further, if the licensee adopts the present CERC notified rates for the purpose of tariffs, it will have to change the rates to be used for accounting also as it is currently following the rates notified under S.O.265 (E) dated 27th March, 1994 by the Central Government.

In near future, when CERC and FOR comes up with the revised rates, the licensee will again have to undertake a change in its accounts as well as ARR/ Tariff filings. Therefore, in order to meet the cash requirements and also to avoid multiple changes in accounting policies, it is submitted that till the time CERC/ FOR comes up with revised depreciation rates for distribution business, the licensee may be allowed to continue the use of the MoP notified rates for both accounting and tariff purpose.

On **Issue 3**, the licensee submits that adopting the Regulation would require a change in accounting policy.

As per the AS – 6 “Depreciation Accounting” issued by the ICAI, para 15 of the explanation *“.....A change from one method of providing depreciation to another is made only if the adoption of the new method is required by statute or for compliance with an accounting standard or if it is considered that the change would result in a more appropriate preparation or presentation of the financial statements of the enterprise. When such a change in the method of depreciation is made, depreciation is recalculated in accordance with the new method from the*



*date of the asset coming into use. The deficiency or surplus arising from retrospective recomputation of depreciation in accordance with the new method is adjusted in the accounts in the year in which the method of depreciation is changed .....*”

Therefore, in line with the reasoning provided on Issue 2, and the complexities involved in compliance with the mandatory Accounting standard – 6 on Depreciation Accounting it may be desirable to wait for the CERC and FOR determined rates and process for charging depreciation to emerge before changing the policy for both accounting and tariff purpose.

The other issue of when to charge depreciation:

As mentioned above the company is following the methodology of depreciation as prescribed under ESAAR, 1985 as per which the depreciation is charged on the opening balance of the Gross fixed Asset and not on the assets capitalised during the financial year as required under the Companies Act, 1956 or as stated in the Regulations. However, the Company is in the process of complying with the methodology prescribed under the Regulation to charge proportionate depreciation for the Assets capitalised during the financial year.

**Keeping these issues in view, the licensee has continued with the methodology prescribed in ESAAR, 1985 while assessing the depreciation requirement and seeks the indulgence of the Hon’ble Commission in this regard till CERC and FOR comes up with the revised depreciation rates and methodology.**

The Licensee requests the Hon’ble Commission to take a favourable view of the regulatory treatment as discussed in this section.



## 7 Chapter 7: Utility Information

### Operational and Technical Information

#### DTR failure Rate

The Region wise and Madhya Kshetra failure rate of distribution transformers is shown in the table given below.

S. No.	Region/ Madhya Kshetra	03-04 (%)	04-05 (%)	05-06 (%)	06-07 (%)	Target for FY08 (%)
1	Bhopal	27.37%	25.30%	20.85%	22.68%	18.55%
2	Gwalior	28.17%	25.32%	21.70%	17.97%	17.38%
3	MK	27.74%	25.31%	21.25%	20.39%	18.00%

It may be seen from the table that the DTR failure rate has continuously reduced over the last four years from 27.14 % in 2003-04 to 20.39% in 2006-07.

#### Customer Service

The company is making continuous efforts by constantly evolving standards of customer service. Following are the initiatives taken to improve consumer services.

#### Payment facilities

Payment: Various payment modes have been made available to customers for their convenience. The easy payment facilities to the consumer includes options like Electronic Bill Payment, On line payments through internet, 24 hours services available at Call Centers through cheques at call centers established in Bhopal, Gwalior and Vidisha in addition to the facilities of depositing through cash/cheques at all the existing collection counters.



Call Centers: Call centres have been established and are functioning in Bhopal and Gwalior city on 24x7 basis. The call centre at Bhopal is also serving the consumers of Vidisha town. The Call Centers are functioning to handle all customer complaints, payment of bills through cheque and providing computerized receipt, meter reading reported by consumers, queries and other information needs. Thus establishment of Call Center has resulted in:

- Improving consumer services.
- Providing 24x7 consumer grievances redressal.
- Overcoming shortage of manpower.
- Providing Computerized real-time monitoring & tracking system for higher officials.
- Providing transparency in working system.
- Analyzing data.
- Winning confidence of consumers.

Additional Initiatives: The Company is making continuous efforts for increasing the billing demand, payment facilities and improvement in collection efficiency. Following schemes are under considerations which are going to be implemented shortly.

Spot Billing: Spot Billing is the process in which the consumer is issued a bill on the spot i.e. at his/her premises by the Hand Held computers. The Hand Held computers are popularly called Spot Billing Machines (SBM). The billing parameters of the consumers of the location to be read are transferred to the SBM and at the consumer premises the meter reader enters only the consumer number and the meter reading status. The present meter reading and a complete bill with consumption, revenue and other details is generated and handed over by the meter reader to the consumer for making payment as per the facility available.

Spot billing is being implemented on trial basis in Bhopal city circle and expanding the same to other circle areas in future would also be considered.

Advantages of Spot Billing:

- Reduction in billing cycle time thus increasing the collection efficiency.
- The bill is issued on the bill date at the customer's premises in his/her presence.



- Regular recording of month reading taken and issuance of bill on the same date prevents overlapping of slabs.
- No billing errors as compared to manual reading method.
- Guaranteed delivery of bill to the consumer.
- No scope for manipulation as the consumer data is locked.

Revenue Management for Temporary Connections: An appreciable contribution of revenue is received through temporary Domestic, Commercial and Industrial connections. As the tariff for the mentioned categories of connection for temporary use is high, there are possible chances of malpractices. To rule out this possibility, metering of temporary connections is done through meters mounted on poles.

To further eliminate the possibility of human intervention and any malpractice for such connections an in-house project for automation of meter reading, up- loading and down loading of meter readings and generation of bill is under process. The project has three parts:

RF Transceiver Module: It is a small footprint micro controller and RF transceiver chip based electronic circuit having a dimension of 24mm X 24mm. This can be embedded in any electromechanical energy meter making the meter readable from a distance of about 50 meters with obstacle and about 500 meters without obstacle. Apart from the meter readings, the module also scans the tamper flag available in the meter. A magnetic field sensor has also been provided to sense the presence of strong magnetic field, which can magnetize the mechanical counter of the meter causing it to stop.

Meter Reading Instrument (MRI): This is a hand held instrument which reads the energy meter from a range of 50 meter with obstacle. The MRI can store 10,000 meter readings at a time and other data transmitted by the meter with up loading and down loading facility.

PC Software: The software process the reading data, generate the energy bills and various report on the basis of data fed. All the information related with temporary connections can be easily accessed to all higher officials on line.

All the three parts are being designed and developed in-house.



### **Integrated Meter Reading and Billing System**

Introduction: There are many organizations like Railways, SBI, BSNL, Idea, Reliance, Airtel, Municipal Corporations and Police Department having electricity connections at number of locations. It will become worthwhile both for the utility and for the consumers, if energy consumption of all the supply points of such consumers is gathered at one central location in city/town by using latest metering technology. In this technology the meter is connected to a communication media at the consumer's end using suitable modem. At the system end also a computer is connected to a communication media via a modem using data enabled SIM or telephone connection available with the consumer's premises.

Processing of Bills: Once the installation of the data acquisition modem and communication link in energy meter is complete, monthly meter readings and billing would be generated in the following steps:

- The Central unit will receive meter reading of all the connections of different consumers by sending command to each meter through telephones or wireless GSM.
- The collected meter readings will be sorted out and sent to the connected RMS server through telephone land line for processing the data for billing and printing of bills.
- The processed data and energy bills will be received back to the central server with consumer's ID and up loaded to company's web site which will be accessible to the consumer.
- All the energy bills of the specific consumers with a consolidated statement of payments can be clubbed together and distributed to their central office for payment.
- Consumers have the option of downloading their energy bills from the internet.

### Advantages:

#### *For the Distribution Utility:*

- The time to access the site for manual meter reading will be curtailed.
- Meter reading will be accurate and human errors while reading, recording and data entry will be eliminated.



- Meter reading cost i.e. Meter readers engaged for meter reading, data punching expenses and bill distribution cost will be eliminated.
- Consumer complaints regarding non reading or non delivery of bills timely are likely to reduce.
- Easy monitoring of the energy meter.
- Utility's efficiency and goodwill amongst customers will increase.

*For the Consumers:*

- Consumers can watch their consumption on internet as a web page. Thus they can budget their expenditure on electricity.
- Timely receipt of bills (physically as well as electronically) will enable processing and payment of bills timely and delayed payment surcharge will be avoided.
- Payment will be made at one place.

## Infrastructure

The details of infrastructure for the past three years are given below:-

	2004-05	2005-06	2006-07
LT Line (ckt-km)	97428.03	97825.45	98633.40
<b>HT Line Length</b>			
33 KV line (ckt-km)	9476.25	9563.05	9777.52
11 KV line (ckt-km)	53351.15	53589.43	54545.29
Total HT Line (ckt-km)	62827.4	63152.48	64322.81
<b>Sub-Station Details</b>			
400 KV S/s	1	1	1
220 KV S/s	9	9	9
132 KV S/s	43	43	47
33/11 KV S/s	602	613	613



Transformation Capacity	2004-05		2005-06		2006-07	
	No.	MVA	No.	MVA	No.	MVA
Power Transformer	883	3263.7	915	3413.3	945.00	3549.75
Distn. Transformer	55576	4952.4	58589	5268.2	61745.00	5491.19



## 8 Chapter 8: Regulatory Compliance

The Compliance of the directives as given in Chapter 7 of Tariff Order dated 30th March 2007 is given below:

### Directives of the Tariff Order Dtd. 30/03/07

- a) **Ensuring compliance on Power Purchase Regulations:** - The Distribution Companies must strictly follow power purchase regulations for purchase of power through long term PPAs & short term PPAs

Reply: - The power purchase for the Discoms is being carried out by MP Power Trading Company which is procuring power as per the Regulations of MPERC.

- b) **Implementation of energy audit:** - It is noted from various submissions made by the Distribution Licenses during the course of hearing against suo moto petitions that the progress is tardy and the results of the energy audit are not credible. The Distribution Companies must ensure that all the energy audit meters at appropriate locations are installed by 31.12.07 and compliance reported by 15<sup>th</sup> January 2008.

Reply: - 100% meters & metering equipments have been installed on 33/11 KV feeder for energy audit purpose under Central Discom. All the new feeders shall be commissioned only after installation of proper metering for energy audit.

- c) **Energy audit for 33/11 KV sub-stations and individual 11 KV feeders:** - The Distribution Licensees are directed to initiate energy audit on 33/11 KV substations and individual 11 KV feeders in the divisions where RMS has been rolled out. The Distribution Licensees should report compliance in this regard along with details and first such report of compliance be submitted by Sept '07. The Distribution Licensees should also initiate the work of consumer indexing, codification and appropriate billing software, so as to complete the work and be in position to work out 33/11 KV feeder-wise energy audit for all the division within the jurisdiction of the Company. An annual review of the activities done in this regard shall be made during next tariff determination.

Reply:- 33/11 KV S/s and 11KV feeder wise energy audit is being carried out in Bhopal and Gwalior City where RMS has been rolled out. However, the report including Division-wise



road map regarding consumer indexing, codification and implementation of billing software has already been submitted vide letter no. CMD/MK/T&EA/13572 dtd. 12.10.07.

- d) **Segregation of losses into technical and non-technical:-** The Commission had taken a suo moto notice in the matter in accordance with the directives contained in the National Electricity Policy and had directed to carry out the study for segregation of technical and non-technical losses with the help of experts. The study is required to be completed and report is required to be submitted by the Distribution Companies to the Commission by end of March '07, which is awaited. The Distribution Companies are directed to ensure submission of report without further delay.

Reply:- As per the directives of MPERC during course of hearing of SMP No. 86/06, study for segregation of technical and commercial losses for at least one feeder has been carried by and report in this reference has already been submitted vide this office L.no. CMD/MK/T&EA/11958 dtd. 13.9.07.

- e) **Reduction of distribution losses: -** The GoMP has notified milestones for reduction of losses year on year basis up to 2010-11. The Distribution Companies are directed to make all possible efforts to achieve the normative level of losses indicated in the notification by way of ensuring proper energy audits, intensify checking to curb pilferage of energy and take such other actions as may be necessary.

Reply: - Central Discom has achieved the mile stone / target notified by Govt. of M.P. vide order dtd. 28.12.06 for reduction of losses year on year basis upto 2010-11, achieved figure of distribution losses are as below:

Year	Target fixed by GoMP	Achieved by Discom
2006-07	43.00%	42.64%
2007-08 (upto Aug'07)	40.00%	40.18%

- f) **Remote metering: -** The Commission had directed earlier to the Distribution Companies to implement remote metering for high value consumers particularly of HT consumers. Although some work in this regard has been done, but still a large number of HT consumers have so far not been provided with remote metering. The Commission directs Distribution Companies to ensure implementation of remote metering of all HT consumers and report compliance in next tariff filing. The Commission also directs Distribution Companies to



explore the possibility of remote metering in conjunction with pre-paid meters in the pilot schemes and report on the results.

Reply: - A project for remote metering system has been proposed for 839 HT Consumers, 2995 LT High Value Consumers (25 HP & above) and 4560 LT Essential Services Consumers (water works, Police stations, Hospitals, Banks etc.) under ADB II Scheme.

The tender for the above project amounting to Rs 14.4 Crs. has already been published in newspapers and schedule to be opened on dt. 22.11.07.

- g) **Implementation of HVDS:** - One of the directives of the National Electricity Policy provides that the Distributions Companies should go in for High Voltage Distribution System (HVDS) to curb pilferage, improve the voltage and supply reliability. Some work has been included in some of the schemes as indicated by the Distribution Companies in their petition. The Commission directs to spread implementation of HVDS to reduce technical losses, curb pilferage of energy and also improve the voltage levels at the consumer end. The Companies should report compliance giving details of the results achieved in the matter in next tariff filing.

Reply: - MPMKVCL has already initiated the implementation of HVDS project for Bhopal city, Gwalior City, Ambah and Morena Town under Loan assistance form Asian Development Bank under Tranche IV of ADB (II) Scheme. A tender has been floated for the above project (amounting to Rs 52.14 Cr) under which the following works have been covered.

1. Installation of Distribution Transformer (16 KVA, 25 KVA, 63 KVA and 100 KVA)	:	3206 Nos
2. Conversion of LT line into 11 KV line	:	184.63 Nos
3. Laying of new 11 KV line	:	48.55 km

The tender is scheduled to be opened on dtd. 19.11.07

- h) **Spot billing:** - The Commission had earlier directed the Distribution Companies to commence spot billing in big towns in the first phase and spread its use to other places in the State gradually. The Commission has been given to understand that this work has recently commenced at Bhopal city in a limited manner and the results are encouraging. The Commission directs the Distribution Company to implement spot billing in all district HQ towns within a year and report compliance, Care should be taken to ensure that spot billing



through use of computer aided equipments is implemented in such a manner that it integrates with billing systems. The use of spot billing subsequently should be spread to other areas of the Company.

Reply: - The spot billing in Bhopal city has already been commenced. For spot billing in Gwalior city the work of tendering is in process. Spot billing in Guna, Rajgarh, Vidisha & Hoshangabad is proposed to be taken up in the year 2008-09 and in rest of the cities this work will be done in 2009-10.

- i) **Maintenance of complete asset registers:** - The Commission directs the Distribution Companies to maintain its asset registers in a comprehensive manner.

Reply: - The Region wise, & year wise assets register under Central Discom is being maintained as per directives of Hon'ble Commission. The assets register for the year 2005-06 and 2006-07 have been updated.

- j) **Franchisee:** - The Distribution Companies are directed to take appropriate initiatives for appointment of franchisees in rural areas as envisaged in the RGGVY Scheme and report on the progress in this regard in next tariff filing.

Reply: - The area where the RGGVY scheme is sanctioned, the work is in progress. The tenders for appointment of Franchisee have been called and the progress of tender cases is in progress. At present, the RGGVY scheme is sanctioned for Ashoknagar and Guna district. Four O&M divisions namely Ashoknagar, Guna, Raghogarh and Mungawali divisions are working in these districts.