MADHYA PRADESH PASCHIM KSHETRA VIDYUT VITARAN COMPANY LTD., INDORE

VOLUME 1 OF 2
(ARR)

Filing of ARR for Retail Supply and Distribution Business for 2011-12 TO 2012-2013.

BEFORE THE MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION, BHOPAL

Filing No. **Case No. 97 of 2010**

Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd.,

GPH Compound, Polo Ground

Indore **… Petitioner**

IN THE MATTER OF:

Filing of the ARR application for the retail supply business and the distribution business for the period 2011-2012 to 2012-2013 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 Paschim Kshetra Vidyut Vitaran Company Ltd., Indore as the Distribution Licensee.

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

1. **Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd. (MPPKVVCL),** (hereinafter referred as the 'Petitioner', **West Discom**, 'the Company' or 'the Licensee'), is a Company incorporated under the Companies Act, 1956 and having its registered office at GPH Compound, Polo Ground, Indore. 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 **Indore** and **Ujjain** 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, has 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 dated 3rd June 2006 (Transfer Scheme Rules).

5. 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.
- The Power Purchase agreements or arrangements 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.
- Any future agreements those 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.

6. A revised Cash Flow Mechanism 2006 was also notified as Schedule 3 of the Transfer Scheme Rules, 2006. The Cash Flow Mechanism established, inter alia, the following basic principles:

- Tradeco is vested with first charge over the entire generation of the Genco and is mandated to purchase entire power from Genco at the tariff as determined by MPERC.
- Discoms are required to buy power to meet their requirements from the single source (Tradeco) as per the inter-se Bulk Supply Agreement and at the tariff determined/ approved by MPERC plus "Trading margin".
- All the six companies (including Tradeco) are to issue a Power of Attorney or authorization in favour of MPSEB inter alia authorizing it to "own, collect and distribute" cash on behalf of the companies.
- MPSEB to continue maintaining all Letters of Credit, Escrow comforts, etc. and allocate cash among Companies based on predetermined priority for payments.
- Payments made by MPSEB to be adjusted against the bills raised by the Companies among themselves as per the inter se commercial agreements
  - Genco, other power suppliers and PGCIL and other transmission licensees to raise invoice on Tradeco
  - Transco to raise invoice on Discoms routed through Tradeco
  - Tradeco to raise invoice on Discoms for power/ energy supplied
  - MPSEB to raise debit note on all companies for servicing of liabilities including those related to generic loans
  - Subsidy from GoMP to be received by MPSEB and credits passed on to eligible Discoms.
- The Cash Flow Mechanism specifies the billing procedures to be followed by all Companies including periodicity of billing, metering responsibilities, payment mechanisms, submission of claims, etc.
- The Cash Flow Mechanism also specifies the priority of payments to various agencies.
- The Notification also specifies the cash management procedure to be followed by each of all the six Companies and MPSEB.

7. In the backdrop of the above facts and circumstances, the Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd. submitted its first Annual Revenue Requirement ('ARR') & Tariff petition for the year 2006-07 in November 2005. The Hon'ble

Commission in its Tariff Order dated March 31, 2006 urged (Section 4.4) the Companies to prepare Multi Year Tariff proposals to be filed in October ‘06 for the remaining years of the control period i.e. up to the end of FY ’09. The aggregate revenue requirement and retail tariff for year 2010-11 was filed by West Discom through petition No. 05/10

8. In Oct’2009 MPERC notified the draft regulations to specify the terms and conditions of Distributions tariff for next control period of FY2010 – 11 to FY 2012 – 13. After receipt of due comments and personal hearing the regulation has been finalized in Dec’2009

9. 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 & wheeling of Electricity and method and principles for fixation of charges) Regulations, Dec’2009. The petition covers control period MYT 2010 -11 to 2012 – 13.

10. The essential characteristic of Multi-Year Tariff Regulation is to provide incentivisation on certain performance parameters and provide a degree of regulatory certainty for the Control Period. The move to an incentive based system of Regulation is a challenging one especially in the initial period. The challenges arise due to the difficulty in establishing appropriate targets three years ahead and setting the performance norms for the Distribution licensees. In this regard, the Petitioner prays that the Hon’ble Commission may be pleased to take cognizance of the facts of the initial stage of performance of the Discom which has come as legacy to the Petitioner. Benchmark norms should ideally be applied only on incremental quantities and the licensees need to be allowed a reasonable timeframe to move to the ideal parameters.

11. This petition has been prepared as per the provisions of the Regulation December’ 2009 The Petitioner is submitting the following as part of the ARR filings for the period 2011 – 12 to 2012-13.

- ARR Proposal for the Retail Supply Business
- ARR Proposal for the Distribution business of the Petitioner for MYT Control Period

12. Subsequent paragraphs discuss 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 the 10 month period, June 2005 to March 2006. It is pertinent to bring to the notice of the Hon'ble Commission that the provisional opining balance sheet is now finalised by Govt of M P. The provisional and final opening balance sheet of the Petitioner Discom as provided in State Government's orders are reproduced: -

Provisional Opening Balance Sheet as on 31/5/2005			
MP Pashchim Kshetra Vidyut Vitaran Company Ltd.			
(Rs. in Crore)			
Liabilities	**Amt**	**Assets**	**Amt**
Equity from GoMP	**533**	Gross Fixed Assets	1,499
Consumer Contributions, Grants & Subsidies		Less: Accumulated Depreciation	868
Project Specific Capital Liabilities (Including payments overdue)	258	**Net Fixed Assets**	**631**
Power Finance Corporation (PFC)	133	**Capital Works in Progress**	**705**
Loan from GoMP (ADB)	45	**Investment**	**2**
REC	80	**Current Assets**	
Loan from MPSEB	**494**	Stock	74
Current Liabilities		Receivables against Supply of Power	1,010
Security Deposits from Consumers	405	Less provision for doubtful debts	(351)
Power Purchase Liabilities (Payable to MPSEB)	268	Receivables against Supply of Power (Net of provisions)	659
Staff related Liabilities	63	Cash and Bank Balances	28
Liabilities towards Suppliers	15	Loan Advances	4
Deposits - Elect. Service Connect.	40	Sundry Receivable	107
Interest accrued but not due	7	**Total Current Assets**	**872**
Others	128	**Subsidy Receivable from GoMP**	
Total Current Liabilities	**926**		
Borrowings for Working Capital	**(0)**		
Overdraft			
Working Capital Demand Loan +	(0)		

Provisional Opening Balance Sheet as on 31/5/2005			
MP Pashchim Kshetra Vidyut Vitaran Company Ltd.			
(Rs. in Crore)			
Liabilities	**Amt**	**Assets**	**Amt**
Cash Credit			
Accumulated Surplus / (Deficit)			
Reserves and Reserve Funds	0		
Total Liabilities	**2,210**	**Total Assets**	**2,210**

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 Paschim KVVCL shall vest in Paschim KVVCL.

3. The above balance sheet is provisional till finalization of actual balance sheet as on date of transfer.

Final Opening Balance Sheet : As On 1st June 2005 : MPPKVVCL, Indore : West Disc

	Assets		Cr.Rs
1	**Fixed Assets**	Gross Block	1,619.24
2		Less : Accumulated Depreciation	957.85
3		**Net Fixed Assets**	**661.39**
4	Capital Works in Progress		635.56
5	Investments		1.37
6	**Current Assets**	Stocks	124.92
7		Receivables against Supply of Power	791.54
8		Cash and Bank Balances	15.52
9		Loans & Advances	(53.62)
10		Sundry Receivables	20.66
11		**Total Current Assets (6 to 10)**	**899.01**
12	Intangible Assets		-
13	Deferred Costs		-
14	Subsidy Receivable from GoMP		2.10
15	**Total Assets**		**2,199.43**

	Liabilities		Cr.Rs
1	Security Deposits from Consumers		435.31
2	Other Current Liabilities		499.38
3	**Total Current Liabilities (1+2)**		**934.69**
4	Borrowings for Working Capital		-
5	Payments Due on Capital Liabilities		134.70
6	**Capital Liabilities**		**431.83**
7	Funds From State Govt.	(a) Equity	246.55
		(b) Loan	262.37
		Total(a+b)	**508.92**
8	Consumers' Contributions,Grants & Subsidies towards cost of Capital Assets		189.29
9	Reserves and Reserve Funds		-
10	Accumulated Surplus / (Deficit)		0.00
11	**Total Liabilities**		**2,199.43**

Notes :-

1 The values of the fixed assets are as per the book values

2 The contingent liabilities to the extent associated with the activities of the company or related to assets of the company are approximately Rs. 90.01 Cr .

3 Other Current Liability included Rs. 230.91 Cr payable to Transco & MPSEB for working Capital.

4 Additional liability on account of GoI's final order dated 04.11.2004 is estimated to be approximately Rs 1272 crore. Prsently this libility is contingent on account of matter related to suit pending for decision with Supreme Court and is therefore shown in the books of the residual MPSEB by way of a foot note.In the event of this libility emerging as clear liability the same will be apportioned between companies and residual MPSEB seperately.

13. In the present filing, the Petitioner has presented actual financial performance (based on Audited Annual Accounts for the year 2006-07, 2007-08, 2008-09 & 2009-10) and a revised estimate of the expenses likely to be incurred during the year 2010-11. The Petitioner has estimated the revenue for the year 2010-11 considering actual sales during the year up to Sept' 10 and estimated demand on the basis of current tariffs and revised estimate of sales for the year 2010-11. The Petitioner has also estimated the expenses and revenues for the complete MYT period 2010 – 11 to 2012 – 2013 on the basis of prevailing tariff and future requirements to run the business.

14. The accounts/data maintenance system of licensee is not bifurcated between wheeling and retail supply, so the licensee has provided all details on consolidated basis.

15. The combined Annual Revenue Requirement of both the retail supply and distribution businesses under various heads for FY 11 to FY 13 is detailed in the table: -

Particulars	FY11		FY12		FY13	
	Projected	As per regulation	Projected	As per regulation	Projected	As per regulation
Revenue						
Revenue from sale of power	4,142.64	4,142.64	4,823.41	4,823.41	5,331.81	5,331.81
Expenditure						
Purchase of Power	4,057.96	3,983.13	3,909.09	3,840.15	4,286.41	4,210.06
Inter-State Transmission charges	112.16	113.46	121.98	123.47	147.43	147.92
Intra-State Transmission (MP Transco) Charges	272.80	272.80	418.02	298.45	418.02	298.45
R&M Expense	41.77	41.77	49.42	49.42	72.70	72.70
Employee Expenses	597.13	533.63	673.30	575.54	734.23	616.33
Terminal Benefits	-		651.45	651.45	-	
A&G Expense	89.61	89.21	106.35	97.92	126.22	107.69
Depreciation and Related debits	99.82	72.52	125.99	106.78	205.57	170.85
Interest & Finance Charges	440.45	62.30	557.00	99.23	671.30	151.86
Other Debits, Write-offs (Prior period and bad debts)	235.07	44.69	251.95	51.56	265.94	56.71
Less: Interest and other expenses Capitalized	23.69	0.60	32.47	0.71	42.47	1.04
Total Expenses	**5,923.84**	**5,212.91**	**6,831.36**	**5,893.26**	**6,879.85**	**5,831.53**
RoE	101.37	101.37	133.98	133.98	193.64	193.64
Total Expenses Including RoE	**6,025.21**	**5,314.28**	**6,965.34**	**6,027.24**	**7,073.49**	**6,025.17**
Other income	110.10	100.00	116.85	106.14	124.01	112.66
Total ARR	**5,915.11**	**5,214.28**	**6,848.49**	**5,921.10**	**6,949.47**	**5,912.51**
Revenue Gap	**- 1,772.47**	**-1,071.64**	**-2,025.08**	**- 1,097.69**	**- 1,617.66**	**- 580.70**

*Rs.651.45 crores is for past unfunded liabilities to service terminal benefits of pension, gratuity and leave encashment.

16. While filing the present ARR under the prevailing Regulation, MPPKVVCL 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.

17. 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 capabilities. However, 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.

18. Shri Gajra Mehta, Chief Engineer (Commercial) of MPPKVVCL has been authorized to execute and file the said documents on behalf of MPPKVVCL. Accordingly, the current filing documents is signed and verified by, and backed by the affidavit of Shri Gajra Mehta, Chief Engineer.

PRAYER

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

(a) Accept the accompanying ARR in three volume (includes one volume for additional submission along with two other) on actual basis as referred in table shown in page No. 97-99 of MPPKVVCL on record and treat it as complete;

(b) Consider and approve MPPKVVCL's ARR including all requested regulatory treatments in the filing;

(c) 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

(d) Pass such order, as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

Date: 31st January 2011.
Indore

(Gajra Mehta)
Chief Engineer(Commercial)
M.P.P.K.V.V.Co.Ltd., Indore.

REVISED PRAYER

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

(a) Accept the accompanying ARR in three volume (includes one volume for additional submission along with two other) on actual basis as referred in table shown in page No. 97-99 of MPPKVVCL on record and treat it as complete.

(b) Consider and approve MPPKVVCL's ARR amounting to `Cr. for the year 2011-12 including all requested regulatory treatments in the filing.

(c) Consider and approve MPPKVVCL's Tariff proposal for FY-12.

(d) The un-recovered amount of ` Cr may please be treated as "Regulatory Asset" and be amortized over a period of 3-years starting from FY-13. The Licensee will not sought funding cost for the un-recovered gap at the time of truing up.

(e) 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

(f) Pass such order, as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

Date: 28 February 2011. (Gajra Mehta)

Indore Chief Engineer(Commercial)

M.P.P.K.V.V.Co.Ltd., Indore.

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2009 - 10 Performance

MPPKVVCL had filed for the annual revenue requirement for 2010-11 on 8th January 2010 which has been approved after scrutiny by the Hon'ble commission.

The revised estimate for the revenue requirement for 2010-11 is as follows:

Particulars	Revised Estimate	Tariff Order	Deviation
	(A)	(B)	(A)-(B)
Receipts			
Revenue from tariffs	4,129.41	3987.39	**142.02**
Total (X)	**4,129.41**	**3987.39**	**142.02**
Expenditure			
Purchase of Power from MP Genco Purchase of Power from Other Sources Intra-State Transmission (MP Transco) Charges	4,420.28	3354.12	**1,066.16**
R&M Expense Employee Expenses A&G Expense	696.81	525.77	**171.04**
Depreciation	99.82	54.98	**44.84**
Net Interest and Finance Charges (less capitalization)&interest on working capital	420.1	41.74	**378.36**
MPERC Fees	0	0.68	**-0.68**
Other Debits (incl. Prov for Bad debts)	271.65	0	**271.65**
Total	**5,908.67**	**3977.29**	**1,931.38**
Reasonable Return	101.37	92.01	**9.36**
Less: Other Income	110.1	100	**10.10**
Annual Revenue Requirement (Y)	**5,899.94**	**3969.3**	**1,930.64**
Revenue Gap: (X) – (Y)	**-1,770.53**	**18.09**	**-1,788.62**

The reasons for deviation in key elements are:

- Higher power purchase and transmission cost on account of excess power requirement and higher per unit cost.
- Higher revenue from sale of power on account of increase in sales and also changes in consumer mix sales.

- The revised sales projection is based on actual sales upto October 2010 as per R-15 and projection for the balance period of the year
- Higher provision for bad and doubtful debts on the basis of past trend than actually allowed by the Commission.
- Interest & Finance charges include interest on working capital loans which were not allowed by the commission.
- Increase in employee costs on account of introduction of sixth pay commission norms.

Sales Forecast

Sales Forecast for FY11

The projected sales for FY11 has been revised keeping in mind the actual sales recorded till the month of October,2010 and comparing it to the corresponding period in FY10. The table below shows the sale of power under the various categories in the period April-October in FY11 as against the same period in FY11.

Sale of Power (April – October) (in MU)	FY10	FY11	% change
LV-1: Domestic Consumers	1116.23	1277.25	14.42%
LV-2: Non Domestic	283.44	336.02	18.55%
LV-3: Public Water Works and Street Light	83.20	94.68	13.79%
LV-4: Industrial	211.43	225.26	6.54%
LV-5 .1 Irrigation Pumps for Agriculture	1228.18	1076.95	-12.31%
LV-5.2 Agriculture related use in rural areas	8.06	5.19	-35.60%
LT Total	2930.54	3015.34	2.89%
HV-1: Railway Traction	224.81	231.63	3.03%
HV-3.1: Industrial	1282.58	1453.62	13.34%
HV-3.2: Non-industrial	179.74	197.93	10.12%
HV-4: Seasonal	3.23	2.82	-12.65%
HV-5: Irrigation	3.33	2.12	-36.43%
HV-5: Public Water Works	114.35	139.56	22.04%
HV-6: Bulk Residential	5.15	3.97	-22.89%
HV-7: Bulk Supply to Exemptees	108.45	54.15	-50.06%
HT Total	1921.64	2085.80	8.54%
Total	4852.18	5101.14	5.13%

The category-wise sales revised estimate for FY 2011 and deviation from the sales projections approved in the tariff order are summarized below.

Sale of Power (in MU)	Revised Estimate	Approved	Difference
LT Consumer Categories (in MU)			
LV-1: Domestic Consumers	2101.00	2102.57	-1.57
LV-2: Non Domestic	547.00	521.42	25.58
LV-3: Public Water Works and Street Light	155.00	174.79	-19.79
LV-4: Industrial*	383.00	379.30	3.70
LV-5 .1 Irrigation Pumps for Agriculture	3154.00	3094.23	59.77
LV-5.2 Agriculture related use in rural areas	15.00	17.05	-2.05
Total LT Sale (in MU)	**6355.00**	**6289.35**	**65.65**
Sale of Power (in MU)	Revised	Approved	**Difference**
HT Consumer Categories (in MU)			
HV-1: Railway Traction	410.00	388.47	21.53
HV-2: Coal Mines	0.00	0	0.00
HV-3: Industrial and Non-industrial	2796.00	2382.89	413.11
HV-4: Seasonal	8.00	15.27	-7.27
HV-5: Irrigation and Public Water Works	213.00	207.62	5.38
HV-6: Bulk Residential	8.00	45.32	-37.32
HV-7: Bulk Supply to Exemptees	192.00	198.1	-6.10
Total HT Sale (in MU)	**3627.00**	**3237.66**	**389.33**
Total LT + HT Sale (in MU)	**9982.00**	**9527.01**	**454.98**

Projections for Control Period from FY11 to FY13

Category-wise Sales Projections

The primary source of revenue for MPPKVVCL is from sale of electricity. Accurate sales projections are essential to ensure precise revenue forecasts. Moreover, the sales also determine the energy requirement and are a key input to determining the quantum of power required to be purchased. Keeping in mind the criticality of the sales projections, the same has been done separately category-wise for each circle. In order to project the circle-wise sales growth, the following have been taken into account:

- Historical circle-wise and category-wise growth rates from 2006-07 to 2009-10

- The sales projections for the discom have been arrived at after analysis of Number of Consumers, Connected Load and consumption data of the past 4 years. The data used for this forecast is from MPSEB's R-15 database.

- The approach followed is to analysis the CAGRs of each category in each circle looking at urban and rural data separately in the case of the LT categories and looking at the data of the sub categories and slabs in each sub category. After analysis of the data in the above fashion, appropriate / reasonable growth rates have been chosen for future sales forecasts from amongst the past CAGRs of the Category / Sub – category, the same approach was applied while forecasting connected load and number of consumers in each category / sub category.

- The forecast also considers the impact of schemes / plans of discom such as the RGGVY scheme (Rajiv Gandhi Grameen Vidyutikiran Yojana) and the complete meterization of domestic consumers in the near future.

- The following sales forecast is according to the current supply hours and is extrapolated to a revised sales forecast using the new proposed supply hours in a following section.

Basis for Determination of Sales Projection.

1. Historical data of category wise actual sales based on R-15. for the period 2006-07 to 2010.
2. Expected new connections under RGGVY scheme under DL&F category
3. Actual Nos. of temporary pump connection served during the year 2006 to 2010.
4. Availability rains in past and present year.
5. Period of supply hours being extended to the consumers within the Discom.
6. Future plans which will affect the sales in future.

1.1.1 Low Tension (LT)

The LT categories have grown at a CAGR of 1.74% over the last four years and 2.93% over the last three years. Growth in the last year i.e. 2009-10 was high i.e., 9.97%. The high growth in the LT categories can be attributed to the high growth observed in the LV-1 (domestic) and the LV-5.1 categories both of which have seen 10% + growth in FY10 as against FY09.

Overall Past Growth

The overall growth observed in consumption (MUs) in the LT Categories over the past years is as follows:

Category Type	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 year Growth
LT	**5,601.46**	**5,568.13**	**5,364.64**	**5,899.76**	1.74%	2.93%	9.97%

The projection in LT category has been arrived on the basis of slab wise / each sub category wise realistic projections based on past CAGR and future demand of Discom. The overall LT projection is given in table below:

Sale of Power (in MU)	2010-11	2011-12	2012-13
LT Consumer Categories (in MU)			
LV-1: Domestic Consumers	2,101.41	2,568.77	2,882.70
LV-2: Non Domestic	546.55	665.28	760.77
LV-3: Public Water Works and Street Light	155.30	165.18	175.91
LV-4: Industrial	382.55	399.06	416.38
LV-5 .1 Irrigation Pumps for Agriculture	3,154.25	3,488.49	3,581.13
LV-5.2 Other Agriculture	15.04	16.13	17.29
Total LT Sale (in MU)	**6,355.08**	**7,302.90**	**7,834.18**

1.1.1.1 ***LV-1 (Domestic)***

The historical growth rates for LV-1 category in respect of Nos. of consumers, connected load and sold units are as indicated in the table below. CAGR for 3 years is 9.61% while the CAGR for 2 years is 7.78%. This category has shown a sustained high growth rate.

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 year Growth

Consumers	1,718,256	1,947,773	2,018,699	2,262,704	9.61%	7.78%	12.09%
Connected Load (MW)	866	965	1016	1124	9.10%	7.95%	10.61%
Consumption (MU)	1424.22	1600.88	1666.22	1844.89	9.01%	7.35%	10.72%

A year-on-year growth of 13.90% in consumption has been forecast for 2010-11, 22.24% in 2011-12 and 12.22% in 2012-13. This has been arrived at after addition of the impact of the RGGVY scheme and the expected addition of potential consumers due to the other schemes to a base growth rate of 12% in consumption. Reasons for the higher growth forecasts are as under:

- As a measure of reducing theft of energy, the company has initiated actions to detect ghost consumers and special drive have been launched to serve permanent connections to detected ghost consumers.
- The consumption in the domestic category for the first 7 months of FY11 (April 2010 – October 2010) have grown by 14.42% over the corresponding period last year which justifies the higher growth rate used.
- **RGGVY** scheme: The scheme is contributing to around 1.82% of the growth in the CAGR during the year 2010-2011. It has been estimated that 70,000 new consumers, with a monthly consumption of 40 units/month/consumer, will be added during the year 2010-2011 in addition to the normal growth. This translates into an additional consumption of 33.60 million units per year. Similarly as per provision in scheme in operation, the numbers of consumers to be added year wise and their impact on overall units consumed are tabulated below:

Consumers	FY11	FY12	FY13
RGGVY	70000	100000	75000
Increase in Units consumed (MU)	33.60	48	36

- MPERC has approved guidelines for development of infra structure and serving new connection in under developed / developing colonies which will also increase considerable number of new connections in city and town areas.

- For FY 2012 the discom estimates consumption by unmetered consumers to be higher than the current normative billing norms approved by MPERC and proposes that these billing norms be revised so as to reflect actual usage by unmetered consumers. These proposed billing norms at current supply hours are shown below :

Consumer Type	Current	Proposed
Urban unmetered	77 units/month	89 units/month
Rural unmetered	30 units/month	40 units/month

- It is estimated that a total of 36,37,384 households are present in the area of operation of West discom. As on September 2010, the discom currently serves 23,22,539 domestic consumers which indicates that there is a potential of over 13 lakh new domestic consumers which is yet to be tapped in the area. The following table shows the untapped potential across the circles of west discom.

S.No.	Circle	Population	Estimated No. of Households	No. of domestic Connections	Untapped Potential
1	Indore (City)	1800000	360000	318447	41553
2	Indore (s/s)	1265827	293165	193736	99429
3	Khandwa	857573	171515	114565	56950
4	Burhanpur	855561	172523	86292	86231
5	Khargone	1529567	305913	177571	128342
6	Badwani	1081441	216288	108654	107634
7	Dhar	1740329	348066	202179	145887
8	Jhabua	1394561	278912	123541	155371
9	Ujjain	1710119	342024	235024	107000
10	Dewas	1360731	272146	176708	95438
11	Shajapur	1290230	258046	130977	127069
12	Ratlam	1215105	243021	174368	68653
13	Mandsaur	1153372	230674	181097	49577
14	Neemuch	725457	145091	99380	45711

S.No.	Circle	Population	Estimated No. of Households	No. of domestic Connections	Untapped Potential
	Total	**17979873**	**3637384**	**2322539**	**1314845**

- Schemes such as R-APDRP and feeder segregation which the discom is in the process of executing across its areas of operation are expected to help the discom tap this potential and will contribute further to the growth of this category which is not adequately covered by the past growth trend. Hence, over and above the past trend, the discom estimates that 2,10,000 domestic consumers will be added in the year FY2011-12 as a result of the schemes in progress.

	Potential Consumers added in FY12
New domestic Consumers added due to effect of various schemes	2,10,000
Consumption due to consumers added above trend	171 MU

- Expansion of city areas: A master plan for Indore city has been finalized and published. The master plan envisages conversion of agricultural land, in and around Indore, to residential. There is fast development of new colonies. Similarly, in other areas like Ujjain,Ratlam, Khandwa and Dewas rapid development of new residential colonies is expected. This will result in an increase in the demand for LV-1 connections.
    - Many new residential township are coming will result in an increase in the demand for domestic connections.

Hence, the average growth rate during year 2010-11 and 2011-12 will be higher. Hence, the following **forecast for the LV-1 Category** has been proposed for MYT period 2010 to 2013.

	FY11	FY12	FY13
Consumers.	2,606,265	3,222,899	3,641,606
Connected Load (MW)	1246.98	1462.86	1612.54
Consumption (MU)	2,101.41	2,568.77	2,882.70

1.1.1.2 ***LV-2 (Non domestic)***

The historical growth rates for the LV-2 category are as under. The CAGR for current 3 years is 9.75 % while the CAGR for the past two years has been significantly higher at 12.49 %. The high two-year CAGR has been due to increase in commercial activities in the main cities/towns and intensive checking of consumers using a domestic connection for their commercial activities.

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 year Growth.
Consumers	235,517	243,630	250,756	263,741	3.84%	4.05%	5.18%
Connected Load (MW)	326	359	393	438	10.26%	10.41%	11.37%
Consumption (MU)	325.62	377.45	412.06	474.56	13.38%	12.13%	15.17%

It is expected that this category will grow at a higher rate equivalent to two year CAGR due to the following main reasons:-

- Expansion of city areas: As mentioned earlier the city areas are rapidly expanding. This will result in increased commercial activity in these areas. Development of smaller towns like Sendhwa, Dhar, Kukshi, Manavar, Gandhvani ,Pithampur Mhow,Thikari etc. will also drive growth.
- Malls and shopping complexes: Shopping complexes and malls are mushrooming particularly in Indore city and in Ujjain city. Many of these complexes have outlets, which have to be given independent ***Non-domestic*** connections, on demand, as per the directions of MPERC.

Schemes such as R-APDRP and feeder segregation which the discom is in the process of executing across its areas of operation are expected to help the discom tap the untapped potential present in the LV-2 category and will contribute further to the growth of this category which is not adequately covered by the past growth trend. Hence, over and above the past trend, the discom estimates that 29.200 commercial consumers will be added in the year FY2011-12 as a result of the schemes in progress.

	Extra consumers
New commercial Consumers added due to effect of various schemes	18,300
Consumption due to consumers added above trend	32 MU

- Unrestricted sales: The load factor in urban areas during peak load hours is high. Hence, the growth forecast in 2011 to 2013 will be high . The proposed growth rate **has been proposed as 15.17% which is the year – on – year growth observed in the category over the last one year.**

The projected sales in this category are as under:-

	FY11	FY12	FY13
Consumers	278,382	311,102	326,269
Connected Load (MW)	487.27	574.79	636.49
Consumption (MU)	546.55	665.28	760.77

1.1.1.3 ***LV-3 (Public Water Works & Street Light)***

The historical consumer base data for the category is as follows:

Area Type	Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Urban	Public Waterworks	3,812	4,147	4,370	4,832	8.22%	7.94%	10.57%
Urban	Street Lights	1,267	1,344	1,313	1,376	2.79%	1.18%	4.80%
Rural	Public Waterworks	3,730	3,828	3,951	4,156	3.67%	4.20%	5.19%
Rural	Street Lights	5,686	5,663	5,593	5,805	0.69%	1.25%	3.79%

The historical data for the connected load(KW) is as follows:

Area Type	Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Urban	Public Waterworks	25,561	27,457	28,477	30,053	5.54%	4.62%	5.53%
Urban	Street Lights	18,994	21,730	21,032	22,124	5.22%	0.90%	5.19%
Rural	Public Waterworks	17,734	18,142	18,800	19,363	2.97%	3.31%	2.99%
Rural	Street Lights	8,510	8,263	8,332	8,718	0.81%	2.72%	4.63%

The historical data for consumption (MU) in the category is as follows:

Area Type	Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Urban	Public Waterworks	38.74	45.83	53.34	53.21	11.16%	7.75%	-0.25%
Urban	Street Lights	50.69	53.21	55.44	54.45	2.41%	1.15%	-1.80%
Rural	Public Waterworks	27.66	30.37	30.90	32.11	5.09%	2.83%	3.92%
Rural	Street Lights	5.87	6.13	6.07	6.45	3.19%	2.54%	6.27%

The growth rates used for the future projections are as follows :

Area Type	Sub-category	Consumer Growth	Connected Load Growth	Consumption Growth	Comments
Urban	Public Waterworks	8.22%	5.54%	11.16%	3 year CAGR used
Urban	Street Lights	2.79%	5.22%	2.41%	
Rural	Public Waterworks	3.67%	2.97%	5.09%	
Rural	Street Lights	0.69%	0.81%	3.19%	

The consumer base projections for the category are as follows :

Area Type	Sub-category	FY11	FY12	FY13
Urban	Public Waterworks	5,229	5,659	6,125
Urban	Street Lights	1,414	1,454	1,494
Rural	Public Waterworks	4,309	4,467	4,631
Rural	Street Lights	5,845	5,886	5,926

The connected load (KW) projections for the category are as follows :

Area Type	Sub-category	FY11	FY12	FY13
Urban	Public Waterworks	31,719	33,478	35,334
Urban	Street Lights	23,278	24,492	25,770
Rural	Public Waterworks	19,939	20,531	21,142

Rural	Street Lights	8,788	8,859	8,931

The consumption (MU) projections for the category are as follows :

Area Type	Sub-category	FY11	FY12	FY13
Urban	Public Waterworks	59.14	65.74	73.08
Urban	Street Lights	55.76	57.10	58.48
Rural	Public Waterworks	33.75	35.47	37.27
Rural	Street Lights	6.65	6.86	7.08

1.1.1.1 ***LV-4 (Industrial)***

The historical growth rates for LT **Industrial** category are as under. The category has shown steady growth over the last two years recording approximately 4% growth over the last 3 years but we do observe a growth of 13.7% year on year if we consider the last 4 years.

The historical data for no. of consumers in the category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Non Seasonal	21,386	29,098	30,270	31,618	13.92%	4.24%	4.45%
Seasonal	580	668	634	632	2.90%	-2.73%	-0.32%
Temporary	64	72	93	131	26.97%	34.89%	40.86%
Total	22,030	29,838	30,997	32,381	13.70%	4.17%	4.46%

The historical data for load growth (KW) in the category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Non Seasonal	259,598	309,559	313,920	325,944	7.88%	2.61%	3.83%
Seasonal	8,990	12,524	11,844	11,735	9.29%	-3.20%	-0.92%
Temporary	483	461	501	651	10.46%	18.83%	29.94%
Total	269,071	322,544	326,265	338,330	7.93%	2.42%	3.70%

The historical data for consumption (MU) in the category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Non Seasonal	319.45	334.22	341.78	353.69	3.45%	2.87%	3.48%
Seasonal	14.14	14.61	12.57	13.11	-2.50%	-5.27%	4.31%
Temporary	0.86	0.91	0.77	1.19	11.43%	14.29%	53.73%
Total	334.45	349.73	355.12	367.98	3.24%	2.58%	3.62%

The growth rates assumed for future growth projections are shown below :

Area	Sub-category	Consumers	Load	Units Consumed	Comments
Urban	Non Seasonal	4.46%	3.70%	3.62%	1 year category wide growth used
Urban	Seasonal	4.46%	3.70%	3.62%	1 year category wide growth used
Urban	Temporary	4.46%	3.70%	3.62%	1 year category wide growth used
Rural	Non Seasonal	7.49%	6.80%	7.99%	1 year growth rate used
Rural	Seasonal	4.46%	3.70%	3.62%	1 year category wide growth used due to fluctuating growth
Rural	Temporary	4.46%	3.70%	3.62%	1 year category wide growth used as very high growth rates observed due to low values

Based on the Above growth rates , the projections for the category are as follows :

	FY11	FY12	FY13
Consumers	**34,160**	**36,045**	**38,041**
Connected Load (MW)	**353.10**	**368.58**	**384.79**
Consumption(MU)	**382.55**	**399.06**	**416.38**

1.1.1.2 *LV-5.1 (Irrigation Pump for Agriculture)*

The historical data for no. of consumers in the category is as follows :

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Metered General	12,104	10,314	10,023	18,131	14.42%	32.59%	80.89%
Metered Temporary	270	158	115	1,284	68.16%	185.07%	1016.52%
Unmetered General	448,330	449,177	448,909	463,199	1.09%	1.55%	3.18%
Unmetered Temporary	25,742	26,293	20,464	35,225	11.02%	15.75%	72.13%

The historical data for connected load (MW) in the category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Metered General	41,465	36,763	39,150	64,791	16.04%	32.76%	65.49%
Metered Temporary	815	205	426	6,021	94.76%	441.95%	1313.38%
Unmetered General	1,314,418	1,323,055	1,320,373	1,428,183	2.81%	3.90%	8.17%
Unmetered Temporary	87,913	89,653	54,496	110,953	8.07%	11.25%	103.60%

The **historical data for consumption (MU**) in the category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr growth
Metered General	170	43	42	69	-26.00%	26.40%	62.45%
Metered Temporary	40	1	1	10	-37.15%	238.26%	715.35%
Unmetered General	2,617	2,469	2,366	2,296	-4.27%	-3.58%	-2.99%
Unmetered Temporary	535	563	360	678	8.22%	9.67%	88.14%

The following growth rates have been used to project future growth in the category :

	Consumers	Load	Units Consumed	Comments
Metered General	1%	1%	**1%**	Nominal growth used as fluctuating growth rates observed
Metered Temporary	1%	1%	**1%**	
Unmetered General	1%	1%	**1% for FY11, 110 units/HP/month FY12 onwards**	Nominal growth used as negative growth observed in the past
Unmetered Temporary	8.07%	-	-	Consumer growth month-on-month is assumed to be equal to 3 year CAGR of load growth of sub-category.

The consumption of unmetered rural consumers has been calculated using a norm of 1320 units/Hp/month for rural consumers and 1560 units/HP/month for urban consumers from FY12. The discom estimates the consumption of unmetered rural consumers

The consumption in the unmetered temporary category cannot be adequately explained using year-end figures. Hence, a month-wise forecast approach has been adopted for the sub-category. Consumer growth month-on-month is assumed to be equal to 3 year CAGR of load growth of sub-category. Load is estimated from no. of consumers using the average load of unmetered general consumer (4.5 HP in FY10) and the consumption is estimated using the billing norm of 155 units/HP/month.

The following table shows the no. of unmetered consumers expected in each month.

Consumers	FY10	FY11	FY12	FY13
April	5,034	5,440	5,879	6,354
May	6,499	7,023	7,590	8,203
June	6,307	6,816	7,366	7,960
July	2,114	2,285	2,469	2,668
August	537	580	627	678
September	5,719	6,181	6,679	7,218
October	108,672	117,442	126,919	137,162
November	241,523	261,014	282,078	304,841
December	283,624	306,512	331,248	357,980
January	204,004	220,467	238,259	257,486
February	103,696	112,064	121,108	130,881
March	35,090	37,922	40,982	44,289
Average	83,568	90,312	97,600	105,477

The following table shows the expected connected load in the unmetered temporary subcategory in each month.

Connected Load (KW)	FY10	FY11	FY12	FY13
April	16,899	18,263	19,737	21,329
May	21,817	23,578	25,481	27,537
June	21,173	22,881	24,728	26,723
July	7,097	7,669	8,288	8,957
August	1,803	1,948	2,105	2,275
September	19,199	20,748	22,422	24,232
October	364,812	394,252	426,068	460,452
November	810,793	876,224	946,935	1,023,353
December	952,126	1,028,962	1,112,000	1,201,738
January	684,841	740,108	799,835	864,382
February	348,107	376,200	406,559	439,368
March	117,797	127,303	137,577	148,679
Average	**280,539**	**303,178**	**327,645**	**354,085**

The following table shows the expected consumption in the unmetered temporary subcategory in each month.

Consumption (MU)	FY10	FY11	FY12	FY13
April	3.51	3.79	4.10	4.43
May	4.53	4.90	5.29	5.72
June	4.40	4.75	5.14	5.55
July	1.47	1.59	1.72	1.86
August	0.37	0.40	0.44	0.47
September	3.99	4.31	4.66	5.03
October	75.80	81.92	88.53	95.67
November	168.46	182.06	196.75	212.63
December	197.83	213.79	231.05	249.69
January	142.29	153.78	166.19	179.60
February	72.33	78.16	84.47	91.29
March	24.48	26.45	28.58	30.89
Average	**699.47**	**755.91**	**816.92**	**882.84**

Using the above growth rates and the calculations for the unmetered temporary category, the **future projections** for this category are :

CONSUMERS	FY11	FY12	FY13
Metered Gen	18,495	18,680	18,31
Metered Temp	1,310	1,323	1,297
Unmetered Gen	472,509	477,234	467,831
Unmetered Temp	97,600	105,477	90,312

Load (MW)	FY11	FY12	FY13
Metered Gen	65.44	66.09	66.75
Metered Temp	6.08	6.14	6.20
Unmetered Gen	1442.465	1456.89	1471.46
Unmetered Temp	303.18	327.64	354.09

Consumption (MU)	FY11	FY12	FY13
Metered Gen	69.51	70.21	70.91
Metered Temp	10.12	10.23	10.33
Unmetered Gen	2318.70	2591.14	2617.05
Unmetered Temp	755.91	816.92	882.84
Total	3154.25	3488.49	3581.13

1.1.1.3 *LV 5.2 : Other Agri*

The historical data for this category is as follows :

Permanent	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth	Growth rate Used
Consumers	11,452	4,770	4,155	3,945	-29.90%	-9.06%	-5.05%	7.31 %
Connected Load (MW)	67,730	24,767	21,466	20,317	-33.06%	-9.43%	-5.35%	7.24%
Consumption (MU)	31.03	27.06	15.13	13.99	-23.31%	-28.08%	-7.53%	7.25%

Temporary	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth	Growth rate Used
Consumers	494	20	4	6	-77.01%	-45.23%	50.00%	7.31 %
Connected Load (MW)	1609	21	19	21	-76.46%	0.00%	10.53%	7.24%
Consumption (MU)	1.77	1.01	0.22	0.03	-75.74%	-84.14%	-88.49%	7.25%

Due to fluctuating past growth rates , the 2-year CAGR of the LT Categories (excluding LV-5) has been used for projecting future figures.

1.1.2 *High Tension (HT)*

The HT categories have grown at a 3 year CAGR of 7.02% while the 2 year CAGR is 7.47%. The HT categories have grown at a brisk 11.88% over the past one year driven by development of new industrial pockets.

1.1.2.1 *HV-1 : Railway Traction*

The Historical data in this category is as follows:

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Consumers	10	10	10	10	0.00%	0.00%	0.00%
Connected Load (MW)	132	133	130	133	0.25%	0.19%	2.07%
Consumption (MU)	315.50	330.74	350.08	378.74	6.28%	7.01%	8.18%

The growth observed over the past year has been used for future projections.

Category	Consumer Growth	Connected Load Growth	Consumption Growth	Comments
Railway Traction	0%	2.07%	8.18%	1 year growth used

Based on the above stated growth rates, the projections for this category are as follows:

	FY11	FY12	FY13
Consumers	10	10	10
Connected Load (MW)	136	139	142
Consumption (MU)	409.73	443.27	479.55

1.1.2.2 *HV 2 : Coal Mines*

This category has not been included in the sales forecast as the west discom does not currently provide services to any coal mines.

1.1.2.3 ***HV-3 (Industrial , Non-Industrial & Shopping Malls.)***

This category covers mainly Industrial and Non Industrials consumers and has shown a high rate of growth over the past few years. The high growth rate over the past two years has been driven by

- 100 HP and above connection given on H T .
- Development of industrial pockets
- Opening of new schools collages and educational institutions
- CPP consumers drawing power from the company due to higher costs of generation.

It is expected that the high growth rates will sustain till 2013. The drivers of the growth are as under

- **New industrial clusters:** New industrial clusters, like the Auto Cluster in Pithampur is expected to come up within the next two years. Industries in Dewas are expected to develop due to better availability of water through the Narmada project.
- **Malls/multiplexes** : Many new malls, multiplexes, educational institutions and hotels are expected to come up in the near future in Indore city.
- **Specialty parks:** A Diamond Park and an IT Park are expected to come up in Indore in the near future.
- **Dedicated industrial feeders:** Dedicated industrial feeders have been commissioned in many areas. This will lead to more reliable supply and higher consumption.
- Industrial activity in West Discom to get a boost based on the recent **Global Investor Summit.**

The historical data for the number of consumers in this category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Industrial	787	895	1013	1124	12.62%	12.07%	10.96%
Non-Industrial	311	369	404	461	14.02%	11.77%	14.11%
Shopping Malls	0	0	0	0	0.00%	0.00%	0.00%

The historical data for the connected load (MW) in this category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Industrial	465	533	530	568	6.88%	3.16%	7.17%
Non-Industrial	80	86	90	103	8.78%	9.68%	15.48%
Shopping Malls	0	0	0	0	0.00%	0.00%	0.00%

The historical data for the consumption (MU) in this category is as follows:

Sub-category	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Industrial	1834.37	1889.40	1946.91	2252.90	7.09%	9.20%	15.72%
Non-Industrial	188.03	206.95	243.96	290.43	15.59%	18.46%	19.05%
Shopping Malls	0	0	0	0	0.00%	0.00%	0.00%

Sub-category	Consumer Growth	Connected Load Growth	Consumption Growth	Comments
Industrial	12.07%	3.16%	9.20%	**2 year CAGR used**
Non-Industrial	14.02%	8.78%	15.59%	**3 year CAGR used**
Shopping Malls	0 %	0 %	**0 %**	2 year CAGR used

The **projections made using the above given growth rates result in the following**:

CONSUMERS	FY11	FY12	FY13
Industrial	1260	1412	1582

Non-Industrial	526	599	683
Shopping Malls	0	0	0

Connected Load (MW)	FY11	FY12	FY13
Industrial	585.60	604.09	623.15
Non-Industrial	112.54	122.42	133.16
Shopping Malls	0	0	0

Consumption (MU)	FY11	FY12	FY13
Industrial	2460.09	2686.34	2933.39
Non-Industrial	335.72	388.07	448.58
Shopping Malls	0	0	0

1.1.2.4 ***HV 4 : Seasonal***

The historical data for this category and growth rates used for future forecast is as follows:

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Consumers	52	38	32	37	-10.72%	-1.32%	15.63%
Connected Load (MW)	12695	10148	7030	7825	-14.90%	-12.19%	11.31%
Consumption (MU)	18.61	14.97	15.39	**8.30**	-23.59%	-25.52%	-46.04%

A nominal growth rate has been used for future projections due to the negative growth rates observed in past years**.** Hence the future projections for this category are :

	FY11	FY12	FY13
Consumers	37	38	38
Connected Load (MW)	7.90	7.98	8.06
Consumption (MU)	8.39	8.47	8.55

1.1.2.5 ***HV 5.1 : Public Waterworks and Lift Irrigation***

The historical data for the Public Waterworks sub-category and rates used for future forecasts are as follows:

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth	Growth Rate used

Consumers	46	51	57	63	11.05%	11.14%	10.53%	4.88%
Connected Load (KW)	38994	39702	37873	72558	23.00%	35.19%	91.58%	4.88%
Consumption (MU)	188.46	196.88	188.97	198.19	1.69%	0.33%	4.88%	4.88%

Consumer & load growth in the category is expected to grow at a rate equal to 1 year consumption growth. The projections for this category are as follows :

	FY11	FY12	FY13
Consumers	66	69	73
Connected Load (KW)	76099	79812	83707
Consumption (MU)	208	218	229

1.1.2.6 ***HV 5.2 : HT Other than Agri***

The historical data for this category and rates used for future forecasts are as follows:

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth	Growth rate used
Consumers	8	10	13	7	-4.35%	-16.33%	-46.15%	11.14%
Connected Load (MW)	1818	2528	3729	1317	-10.19%	-27.82%	-64.68%	3.35%
Consumption (MU)	3.68	7.85	12.75	4.73	8.70%	-22.43%	-62.92%	7.47%

The growth rate used for future projections in the category is **the 2-year CAGR of the HT** Categories.. The projections for this category are as follows:

	FY11	FY12	FY13
Consumers	8	9	10
Connected Load (MW)	1.361	1.407	1.454
Consumption (MU)	5.08	5.46	5.87

1.1.2.7 ***HV-6 : Bulk Residential Users***

The historical data for this category and rates used for future forecasts are as follows:

Others	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth	Growth Rate used
Consumers	20	15	14	14	-11%	-3%	0%	11%
Connected Load (MW)	7999	7575	2495	2495	-32%	-43%	0%	3%
Consumption (MU)	12.12	22.86	6.06	7.89	-13%	-41%	30%	7%

Due to fluctuating growth rates seen in both sub-categories, the growth rate used for future projections in the category is **the 2-year CAGR of the HT** Categories

1.1.2.8 ***HV 7 : Bulk Supply to Exemptees***

	FY07	FY08	FY09	FY10	3 year CAGR	2 year CAGR	1 yr Growth
Consumers	1	1	2	1	0.00%	0.00%	-50.00%
Connected Load (MW)	8750	8750	24345	7875	-3.45%	-5.13%	-67.65%
Consumption (MU)	78.38	107.58	170.09	178.26	31.51%	28.73%	4.80%

Due to fluctuating growth rates observed , the growth rate used for future projections in the category is **the 2-year CAGR of the HT** Categories.

	FY11	FY12	FY13
Consumers	1	1	1
Connected Load (MW)	8.41	8.69	8.98
Consumption (MU)	191.58	205.89	221.27

1.1.3 *Summary of Sales Projections*

The summary of the actual sales for FY10 and the forecasts as per the current supply hours is as under :

Sale of Power (in MU)	2010-11	2011-12	2012-13
LT Consumer Categories (in MU)			
LV-1: Domestic Consumers	2,101	2,569	2,883
LV-2: Non Domestic	547	665	761
LV-3: Public Water Works and Street Light	155	165	176
LV-4: Industrial	383	399	416
LV-5 Agriculture and other related use	3,169	3,505	3,598
Total LT Sale (in MU)	6,355	7,303	7,834
HT Consumer Categories (in MU)			
HV-1: Railway Traction	410	443	480
HV-2: Coal Mines	-	-	-
HV-3: Industrial and Non-industrial	2,796	3,074	3,382
HV-4: Seasonal	8	8	9
HV 5: PWW , Lift Irrigation& Other Agri.	213	223	235
HV-6: Bulk Residential.	8	9	10
HV-7: Bulk Supply to Exemptees	192	206	221
Total HT Sale (in MU)	3,627	3,965	4,336
Total LT + HT Sale (in MU)	9,982	11,267	12,170

1.1 Study on assessment of consumption for unmetered Domestic and Agriculture Consumers

In MPPKVVCL, quite a large number of consumers have been given supply without provision of a meter. These consumers mostly exist under Agriculture pump sets and domestic category in rural and urban areas of operation. However, the unmetered consumers' percentage is more in rural supply area. These consumers are charged at a flat tariff based on the capacity of the load.

As per the data, there are about 57500 agricultural predominant DTRs in MPPKVVCL of which the meters have been provided on 8073 DTRs and analysis of these consumers are being conducted on regular basis to assess the actual consumption of these consumer category. These analysis is conducted to cross check the allowed benchmark consumption vis-à-vis the actual consumption consumed by these consumers.

The Commission in its last tariff Order has recognized that there are issues with 100% meterisation especially in the area of individual consumers are quite large. The Commission has repeatedly instructed all Discoms to step up meterisation of Agricultural predominant distribution transformers.

The progress with regard to meterisation of un-metered Domestic connections in rural areas has been dismal. Large number of such connections remains unmetered (35%). However, the feasibility of effective metering in the agricultural sector is a serious constraint which is difficult to overcome. Most of the Agricultural consumers do not have permanent arrangements for installation and security of meters. Many of the consumers remove the pumps along with all other equipments after the season. Therefore, the consumption recorded by individual meters cannot be a reliable and sufficiently fool-proof guide of consumption, at all. The reading of such meters also presents considerable difficulties due to paucity of staff in rural areas.

To assess the actual consumption of these consumers, MPPKVVCL has made a comprehensive analysis based on actual DTR consumption collected from field units/offices.

As per the assessment by MPPKVVCL, out of 21,78,268 LT Domestic consumers as on Oct 09, unmetered domestic connection exists to the extent of 1,90,199, where flat rate tariff is being applied.

As per Tariff Order for FY10-11, at present the unmetered Domestic consumers of rural area are billed on basis of 30 units per month and unmetered Agriculture consumers are billed 100 units per HP per month. While looking at the level of civilization and development, these normative consumptions for Domestic and Agriculture consumers seems to be on lower side. The recent survey conducted under the jurisdiction of MPPKVVCL revels that the consumption of unmetered Domestic and Agriculture consumers have increased than the current normative consumption allowed by the Commission. The survey was conducted for sample consumers of 2000 Domestic consumers and around 12000 Agriculture consumers of MPPKVVCL. The final assessment of this exercise concludes that the unmetered consumption in rural and urban area has actually increased to a extend as mentioned in table below;

Sl No	Category	Approved per unit consumption as per last tariff order	Assessment of per unit consumption consumed by unmetered consumers of MPPKVVCL
1	Unmetered Dom (Urban)	77 per connection	89 / 91
2	Unmetered Dom (Rural)	30 per connection	40 / 45
3	Unmetered Agricultural (Urban)	1560 per HP per year	1560 per HP per year
4	Unmetered Agricultural (Rural)	1200 per HP per year	1320 per HP per year

It is projected that the above assessment of per unit consumption of unmetered domestic consumers will further increase due to the increase in supply hours to rural domestic consumers due to the implementation of Feeder Separation scheme in FY12.

eder Segregation scheme

In order to provide 24 hours supply of electricity to rural areas from 2012 onwards as per the policy of the Madhya Pradesh government, the discom has taken up the task of executing the feeder bifurcation scheme which is being financed by REC and ADB.

Currently, all consumers including agricultural consumers are being served through common 11 KV feeders in the rural areas. Due to inadequate availability of power and in order to control supply to agriculture pump-sets, supply to these areas is regulated. But as a result of common feeders feeding all the consumers in rural areas, regulated power supply is imposed in the entire rural area, thereby affecting the quality of life in rural domestic and other users.

To improve power supply to these users, which is an essential commodity to ensure better healthcare, income generation and education facilities, it has been decided to separate Agricultural pump-set load from other category of load and regulate the supply in an effective plan. For this, installation of parallel feeders is planned to provide reliable supply to the domestic and other consumers in rural areas. Hence, MPPKVVCL has made an ambitious investment plan to improve the rural supply hours along with better load management in line with power availability of power. As per the plan of GoMP and MPPKVVCL, 24 HRS supply will be provided to all villages from 2012 onwards.

As a part of the feeder bifurcation scheme, the village load and irrigation load on the 11 kV rural feeders will be separated for which new 11kV parallel lines and other infrastructure will be put into place. As per the plan of the company, 40% of the 11kV rural feeder will be bifurcated in FY 12. The bifurcated village load will be provided 16 Hrs supply for the purpose of non-agricultural use and the irrigation/agricultural load will be given 9 Hrs. supply, the balance 11kV feeders having mixed load of irrigation and village load will be given 12 Hrs supply. The following table shows the revised supply hours which shall be in force FY12 onwards.

TARIFF CATEGORY	FY 11	FY 12		FY13				
	Urban	Rural	Urban	Rural		Urban	Rural	
				85% consumers	15% consumers		25% consumers	75% Consumers
LV 1	18:56	10:59	19:20	12:00	16:00	19:20	12:00	16:00
LV 2	18:56	10:59	19:20	12:00	16:00	19:20	12:00	16:00
LV 3	18:56	10:59	19:20	12:00	16:00	19:20	12:00	16:00
LV 4	18:56	10:59	19:20	12:00	16:00	19:20	12:00	16:00
LV 5.1	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00
LV 5.2	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00

The sales forecast for unmetered consumer category for FY12 has been done based on the following two major ground

1. Consideration of actual per unit consumption assessed by MPPKVVCL based on the survey/ analysis conducted on un-metered domestic consumers and predominating Agriculture DTRs consumption.
2. Implication of increase in supply hours after implementation of Feeder Separation scheme.

The final assessment per unit sales to unmetered consumer category after considering the above two grounds is as given in the table below;

Sl No	Category	Approved per unit consumption as per last tariff order	Assessment of per unit consumption considering revised normative consumption and supply hours
1	Unmetered Dom (Urban)	77 per connection	91
2	Unmetered Dom (Rural)	30 per connection	45
3	Unmetered Agricultural	1560 per HP per year	1560 per HP per year

	(Urban)		
4	Unmetered Agricultural (Rural)	1200 per HP per year	1320 per HP per year

Effect of New Proposed Supply hours & Category-wise revenue from Tariff

Due to the increase in supply hours across the LT categories due to the Feeder segregation scheme and the R-ARPDRP scheme, the consumption in the LT categories is expected to increase in proportion to the increase in supply hours. In order to estimate the revenue from tariff, the licensee 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. The profiling has been based on the new R15 data for FY10 & the latest tariff slab approved by MPERC for the year 2010-11has been adopted.

The revised sales forecast and revised revenue for FY12 according to the new supply hours is shown below:

	Sales acc. to current supply hours (MU)	Revenue acc. to current supply hours (Rs. Crs.)	Average Tariff (Rs./unit)	Sales acc. to revised supply hours (MU)	Revenue acc. to revised supply hours (Rs. Crs.)
LV-1	2568.77	1014.43	3.95	2735	1080.11
LV-2	665.28	397.58	5.98	688	411.44
LV-3	165.18	66.39	4.02	173	69.64
LV-4	399.06	203.02	5.09	415	211.12
LV-5	3504.61	1102.06	3.14	3505	1102.06
HV-1	443.27	229.45	5.18	443	229.45
HV-2					
HV-3	3074.40	1545.09	5.03	3074	1545.09
HV-4	8.47	4.89	5.78	8	4.89
HV-5	223.46	97.48	4.36	223	97.48
HV-6	9.11	4.23	4.64	9	4.23
HV-7	205.89	67.90	3.30	206	67.90
Total	11267.50	4732.51		11481	4823.41

The revised sales forecast and revised revenue for FY13 according to the new supply hours is shown below:

	Sales acc. to current supply hours (MU)	Revenue acc. to current supply hours (Rs. Crs.)	Average Tariff (Rs./unit)	Sales acc. to revised supply hours (MU)	Revenue acc. to revised supply hours (Rs. Crs.)
LV-1	2882.70	1134.38	3.94	3292	1295.41
LV-2	760.77	453.66	5.96	806	480.39
LV-3	175.91	70.50	4.01	192	77.11
LV-4	416.38	211.60	5.08	447	227.00
LV-5	3598.42	1135.40	3.16	3598	1135.40
HV-1	479.55	246.39	5.14	480	246.39
HV-2					
HV-3	3381.97	1685.48	4.98	3382	1685.48
HV-4	8.55	4.94	5.78	9	4.94
HV-5	234.51	102.28	4.36	235	102.28
HV-6	9.79	4.52	4.62	10	4.52
HV-7	221.27	72.89	3.29	221	72.89
Total	12169.83	5122.04		12671	5331.81

Under the proposed supply hours, the hours of supply to urban and rural domestic connections increases. The consumption of unmetered consumers is expected to increase in the same proportion as the increase in supply hours relevant to those consumers.

- The norm for Urban Domestic Unmetered Consumption was proposed to be 89 units/connection/month. As the supply hours to LV-1 in urban areas is proposed to increase from 18:56 hours to 19:20 hours, the billing norm for Urban Domestic Unmetered Consumption should be revised to 91 units/connection/month.

- The norm for Rural Domestic Unmetered Consumption was proposed to be 40 units/connection/month. As the supply hours to LV-1 in urban areas is proposed to increase from 10:59 hours to 12:00 hours for 85% consumers and 16:00 hours for 15% consumers, the billing norm for Rural Domestic Unmetered Consumption should be revised to 45 units/connection/month.

- **<u>Revenue according to Old Tariffs</u>**

		Sales acc. to current supply hours (MU)	Revenue acc. to current supply hours (Rs. Crs.)	Average Tariff (Rs./unit)	Sales acc. to revised supply hours (MU)	Revenue acc. to revised supply hours (Rs. Crs.)
LV 1	Domestic	2568.77	1014.43	3.95	2735	1080.11
LV 2	Non-Domestic	665.28	397.58	5.98	688	411.44
LV 3.1	WW & Street Light	165.18	66.39	4.02	173	69.64
LV 4	LT Industrial	399.06	203.02	5.09	415	211.12
LV 5.1	Agriculture Irrigation Pumps	3488.49	1096.21	3.14	3488	1096.21
LV 5.2	Agriculture related Use	16.13	5.85	3.63	16	5.85
	Total (LT)	**7303**	**2783**	**3.81**	**7516**	**2874**
HV 1	Railway Traction	443.27	229.45	5.18	443	229.45
HV 2	Coal Mines	-	-			
HV 3.1	Industrial	2686.34	1339.89	4.99	2686	1339.89
HV 3.2	Non-Industrial	388.07	205.20	5.29	388	205.20
HV 4	Seasonal	8.47	4.89	5.78	8	4.89
HV 5.1	Public Water Works	218.00	95.17	4.37	218	95.17
HV 5.2	Other Agricultural	5.46	2.30	4.22	5	2.30
HV 6	Bulk Residential Users	9.11	4.23	4.64	9	4.23
HV 7	Bulk Supply to Exemptees	205.89	67.90	3.30	206	67.90
	Total (HT)	**3965**	**1949**	**4.92**	**3965**	**1949**
	TOTAL LT+HT	11,267	4,73 3	4.20	11,48 1	4,82 3

Revenue according to New Tariffs:

		Sales acc. to current supply hours (MU)	Revenue acc. to current supply hours (Rs. Crs.)	Average Tariff (Rs./unit)	Sales acc. to revised supply hours (MU)	Revenue acc. to revised supply hours (Rs. Crs.)
LV 1	Domestic	2568.77	1390.40	5.41	2735	1480.42
LV 2	Non-Domestic	665.28	451.79	6.79	688	467.54
LV 3.1	WW & Street Light	165.18	102.97	6.23	173	108.01
LV 4	LT Industrial	399.06	242.62	6.08	415	252.31
LV 5.1	Agriculture Irrigation Pumps	3488.49	1619.49	4.64	3488	1619.49
LV 5.2	Agriculture related Use	16.13	8.91	5.52	16	8.91
	Total (LT)	**7303**	**3816**	**5.23**	**7516**	**3937**
HV 1	Railway Traction	443.27	282.43	6.37	443	282.43
HV 2	Coal Mines	-	-			
HV 3.1	Industrial	2686.34	1620.32	6.03	2686	1620.32
HV 3.2	Non-Industrial	388.07	242.01	6.24	388	242.01
HV 4	Seasonal	8.47	5.92	6.99	8	5.92
HV 5.1	Public Water Works	218.00	133.15	6.11	218	133.15
HV 5.2	Other Agricultural	5.46	3.21	5.88	5	3.21
HV 6	Bulk Residential Users	9.11	5.47	6.00	9	5.47
HV 7	Bulk Supply to Exemptees	205.89	67.90	3.30	206	67.90
	Total (HT)	**3965**	**2360**	**5.95**	**3965**	**2360**
	TOTAL LT+HT	11,267	6,177	5.48	11,481	6,297

Estimated Increase in Average Tariff

Particulars	Sale	Revenue	Ave. Tariff	Acos	Increase
2010-11 (As per Tariff Order)	9,527	3987.39	4.19	4.18	
2011-12	11,481	6297.08	5.48	5.95	31.05%

Table-6: Total Revenue at Existing & Proposed tariff and impact of proposed tariff

Code	Category	Sales (MU)	Revenue at Current Tariff (Rs. Crs.)	Revenue at Proposed Tariff (Rs. Crs.)	Impact (Rs. Crs.)
LT					
LV -1	DOMESTIC	2735	1080.11	1480.42	400.31
LV-2	NON-DOMESTIC	688	411.44	467.54	56.1
LV -3	PUBLIC WW/ST.LIGHT	173	69.64	108.01	38.37
LV-4	INDUSTRY	415	211.12	252.31	41.19
LV-5	IRR. & AGR USE	3505	1102.06	1628.40	526.34
LT Total		**7516**	**2874.37**	**3936.67**	**1062.31**
HT					
HV-1	RAILWAY TRACT.	443	229.45	282.43	52.98
HV-2	COAL MINES	-	-	-	-
HV-3	INDUSTRIAL	3074	1545.09	1862.33	317.24
HV-4	SEASONAL	8	4.89	5.92	1.03
HV-5	HT IRRIGATION.	223	97.48	136.36	38.88
HV-6	BULK RESIDENTIAL USER	9	4.23	5.47	1.24
HV-7	BULK SUPPLY TO EXEMPTEES	206	67.9	67.9	-
HT Total		**3965**	**1949.04**	**2360.41**	**411.37**
HT+LT		**11481**	**4823.41**	**6297.08**	**1473.68**

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 Adhiniyam, 2000 and Electricity Act, 2003, effected the transfer[1] 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:

[1] 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 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.
- 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 17th 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 14th 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 MPGenco, MP SLDC, MP Transco, and MP Tradeco.

The forecast takes into account the following aspects

a. Current long term allocated generation capacity of MP

b. New generating Capacities coming in future years both for MP Genco, Central Sector, Joint venture, UMPP and under competitive bidding

c. Impact of generation capacity allocation in WR and ER

d. Performance of plants in past three years

The forecasts for cost of power purchase for future years takes into account the following aspects

a. Fixed and Variable costs have been taken as per the approved order of the stations by the appropriate Regulatory Commission

b. The fuel cost escalation price has been taken as per the MPERC tariff order for FY11

c. The other costs i.e. taxes, incentive, MOPA charges, ED and Cess have been taken as per the bills raised by NTPC for past financial years.

Based on all the above factors a detailed forecast for power purchase scenario has been worked out which is described in the subsequent sections of the note.

1.1.4 Energy Requirement

1.1.4.1 *Energy Balance*

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 Distribution losses for the MYT period FY 11 to 13 have been taken as per regulations i.e. 26.00% (FY 11), 24.00% (FY 12) and 22.00% (FY 13).

The Inter-State transmission losses have been computed separately for Eastern Region and Western Region stations as explained in earlier section. The intra-State transmission losses are taken at 4.09% for FY 11-13 which is the current level of transmission losses. The energy balance for West Discom for FY 11-13 is presented in the following table: The calculations are shown below:-

Energy Balance	FY 11	FY 12	FY 13
Total Units sold to LT category (MU)	6,355	7,517	8,335
Total Units sold to HT category (MU)	3,627	3,965	4,336
Total Units Sold by Discom (MU)	**9,982**	**11,481**	**12,671**
Distribution loss (%)	26.00%	24.00%	22.00%
Distribution loss (MU)	3,507	3,626	3,574
Units Input at Distribution Interface (MU)	**13,489**	**15,107**	**16,244**
Transmission loss (%)	4.09%	4.09%	4.09%
Transmission loss (MU)	575	644	693
Input at G-T interface (MU)	**14,064**	**15,751**	**16,937**
External Loss (MU)	297	291	299
Total Units Purchased (MU)	**14,361**	**16,042**	**17,236**

1.1.4.2 *Calculation of Month-wise loss levels*

For the purpose of calculation of requirement for the Discom, monthwise loss levels have been calculated on the past data, keeping in view the annual targets. This has been done to capture the seasonality in demand and therefore implication on the power purchase due to higher losses. The calculations below detail out the calculation for month-wise loss levels.

Month-wise loss levels since FY 07

	April	May	June	July	August	September	October	November	December	January	February	March	Annual
FY 2006-07	29.39%	29.48%	20.02%	15.74%	16.27%	20.58%	40.17%	41.86%	33.31%	30.87%	28.24%	36.63%	**31.32%**
FY 2007-08	32.33%	31.51%	24.18%	15.46%	19.30%	18.77%	39.35%	42.19%	43.14%	41.30%	31.61%	39.87%	**33.66%**
FY 2008-09	30.59%	31.75%	22.77%	15.74%	19.77%	21.40%	44.66%	47.83%	38.93%	38.19%	29.56%	38.43%	**33.60%**
Average	30.77%	30.91%	22.32%	15.65%	18.45%	20.25%	41.39%	43.96%	38.46%	36.79%	29.80%	38.31%	**32.86%**
Deviation	2.09%	1.95%	8.00%	10.00%	8.00%	8.00%	-8.53%	-11.10%	-5.60%	-3.93%	3.06%	-5.45%	

Based on the past month-wise actual losses an average monthly loss levels have been obtained, the deviation of these losses from annual losses has been calculated to apply this on the annual targets to calculate the future month-wise losses.

Month-wise loss levels for future years

	April	May	June	July	August	September	October	November	December	January	February	March	Yearly Average
2010-11	23.91%	24.05%	18.00%	16.00%	18.00%	18.00%	34.53%	37.10%	31.60%	29.93%	22.94%	31.45%	26.00%
2011-12	21.91%	22.05%	16.00%	14.00%	16.00%	16.00%	32.53%	35.10%	29.60%	27.93%	20.94%	29.45%	24.00%
2012-13	19.91%	20.05%	14.00%	12.00%	14.00%	14.00%	30.53%	33.10%	27.60%	25.93%	18.94%	27.45%	22.00%

1.1.4.3 ***Month wise requirement***

Month wise sales has been forecasted based on the actual data of past four years, the details of the month wise sales is presented in table below:

Month	MU FY 11	MU FY 12	MU FY 13
April	816.90	938.68	1,035.01
May	828.68	952.27	1,050.03
June	805.52	923.90	1,016.91
July	705.27	808.46	889.37
August	678.34	778.02	856.35
September	745.26	854.78	940.84
October	817.83	943.66	1,044.58
November	923.81	1,067.22	1,182.71
December	1,005.78	1,159.05	1,281.47
January	904.45	1,041.56	1,150.84
February	916.01	1,052.23	1,159.85
March	834.15	961.20	1,062.67
Total	9,982.01	11,481.03	12,670.66

Based on the month-wise sales and month-wise distribution losses as explained in sections and transmission losses of 4.09%, the requirement at state boundary is calculated below:

Month	MU FY 11	MU FY 12	MU FY 13
April	1,109.68	1,242.74	1,336.33
May	1,127.73	1,262.96	1,358.08
June	1,015.33	1,137.08	1,222.71
July	867.81	971.87	1,045.06
August	855.02	957.55	1,029.66
September	939.37	1,052.02	1,131.25
October	1,291.19	1,446.03	1,554.93
November	1,518.00	1,700.03	1,828.06
December	1,519.79	1,702.03	1,830.21
January	1,334.06	1,494.03	1,606.54
February	1,228.68	1,376.02	1,479.65

March	1,257.78	1,408.61	1,514.69
Total (at State Boundary)	**14,064.43**	**15,750.97**	**16,937.17**

1.1.5 *Assessment of Availability*

This section details the power purchase availability and cost thereof for the future years for the state of Madhya Pradesh. The forecast takes into account the following aspects

a. Current long term allocated generation capacity of MP

b. New generating Capacities coming in future years both for MP Genco, Central Sector, Joint venture, UMPP and under competitive bidding

c. Impact of generation capacity allocation in WR and ER

d. Performance of plants in past three years

Availability of Energy from various sources have been assessed based on discussions and data made available by MP Tradeco. Based on all the above factors a detailed forecast for power purchase scenario has been worked out which is described in the subsequent sections of the note.

1.1.5.1 ***Central Sector Stations Allocated to MP***

The Western Region Central sector stations which are allocated to M.P are listed in the table below with details of the capacity allocation to the state. [2]

S.No.		Region		Total Capacity (MW)	Firm Allocation (MW)	Infirm Allocation (MW)	Special Allocation (MW) [3]	Total Allocation to M.P. (MW)
1	NTPC-Korba	WR	NTPC	2100	400	37.76	52.63	490.39
2	NTPC-Vindyachal I	WR	NTPC	1260	385	28.27	32.26	445.53
3	NTPC-Vindyachal II	WR	NTPC	1000	273	22.82	25.47	321.29
4	NTPC-Vindyachal III	WR	NTPC	500	200	24.33	25.47	249.8
5	NTPC-Kawas	WR	NTPC	656.2	140	0.00		140
6	NTPC-Gandhar	WR	NTPC	657.39	117	0.00		117
7	KAPP	WR	NPC	440	93	7.19	11.21	111.4
8	TAPS	WR	NPC	1080	180	26.28	27.50	233.78
9	NTPC -Sipat – II	WR	NTPC	1000	143	24.33	25.47	192.8
	Total	WR		8639.59	1931	170.98	200	2301.99

The Eastern Region Central sector which are allocated to M.P. are listed in the table below with details of the capacity allocation to the state. [4]

S.No.		Region		Total Capacity (MW)	Firm Allocation (MW)	Infirm Allocation (MW)	Total Allocation to M.P. (MW)
1	NTPC - Farakka	ER	NTPC	1600	0	0	0
2	NTPC - Talcher	ER	NTPC	1000	0	0	0
3	NTPC - Kahalgaon	ER	NTPC	840	0	0	0
4	NTPC - Kahalgaon-II	ER	NTPC	1500	74	0	74

[2] The infirm allocation is as per the WRPC letter dated 8th Oct 2010, applicable from 16th Oct 2010.
[3] Special allocation for Bundelkhand region in East Discom

It should be noted that the infirm allocation is subject to change as per WRPC/ERPC directives from time to time, therefore for forecasting the availability from the stations the latest allocation has been assumed to be constant over the years.

[4] Allocation is as per the ERPC website

Projection of Availability for future years

The projection of availability for the future years has been done based on energy projections given by WRLDC. The table below provides details of the projection for future years.

Projected ex-bus availability for FY11-FY13[5] in MUs

S.No.	Stations	Region	FY 11	FY 12	FY 13
1	NTPC-Korba	WR	3,672	3,572	3,572
2	NTPC-Vindyachal I	WR	3,217	3,037	3,037
3	NTPC-Vindyachal II	WR	2,415	2,259	2,259
4	NTPC-Vindyachal III	WR	1,923	1,729	1,729
5	NTPC-Kawas	WR	744	940	940
6	NTPC-Gandhar	WR	667	778	778
7	KAPP	WR	170	477	477
8	TAPS	WR	1,029	1,058	1,058
9	NTPC – Farakka	ER	-	-	-
10	NTPC – Talcher	ER	-	-	-
11	NTPC – Kahalgaon	ER	-	-	-

Projections for Sipat-II and Kahalgaon-II

The new plants Sipat-II and Kahalgaon-II were commissioned during FY09. First unit of Sipat-II was commissioned in June 08 while the second unit was commissioned in January 09, similarly Kahalgaon-II was commissioned in January 09. Future projections for these two plants have been done based on past six months actual data.

Projected ex-bus availability for FY10-FY13[6] in MUs

S.No.	Stations	Region	FY 11	FY 12	FY 13
1	NTPC-Sipat – II	WR	1,473	1,469	1,469
2	NTPC-Kahalgaon – II	ER	336	586	586

[5] FY 10 Projections based on actual data till 31st October 2010
[6] FY 10 Projections based on actual data till 31st October 2010

1.3.2.2 Bilateral and Joint Venture Stations

The Bilateral and Joint-Venture stations in which Madhya Pradesh is having its allocation are listed in the table below:

Bilateral and Joint Venture Stations

S.No.		Region		Total Capacity (MW)	Firm Allocation (MW)	Infirm Allocation (MW)	Total Allocation to M.P. (MW)
1	Sardar Sarovar	WR	JV	1450	827	0	827
2	Omkareshwar HPS	State	JV	540	540	0	540
3	DVC (MTPS)	ER	DVC	500	200	0	200
4	Indirasagar	State	JV	1000	1000	0	1000

Review of past Ex-bus availability

The table provides details of the station-wise ex-bus energy sent out[7] during last three years i.e. FY 07, FY 08 and FY 09.

Past ex-bus availability for the joint venture projects

S.No.	Stations	Region	FY 08	FY 09	FY 10
1	Sardar Sarovar	WR	2,484	1,263	1,395
2	Omkareshwar HPS	State	687	782	938
3	DVC (MTPS)	ER	-	529	399
4	Indirasagar	State	2,715	1,515	2,113

Projection of availability for future years

Considering the availability from these stations on a month wise basis for past years, future projections are based on the average of past three years. The table below provides details of the availability considered for FY11-FY13.

[7] As per the monthly reports of WRPC and ERPC

Projected ex-bus availability for FY11-FY13 in MUs

S.No.	Stations	Region	FY 11	FY 12	FY 13
1	Sardar Sarovar	WR	1,842	1,518	1,518
2	Omkareshwar HPS	State	1,025	1,018	1,018
3	DVC (MTPS)	ER	627	475	475
4	Indirasagar	State	2,266	2,302	2,302

1.3.2.3 ***MP Genco stations***

The availability of MPGenco stations have been taken as per current availability for FY 11 (till August) and future plan as per the scheduled maintenance. Projections for future years i.e. for FY13 have been considered as per the capacity addition plan of MPGenco and considering the operational trend. Furthermore, the total despatch has been considered at 90% of the availability based on projections of MPGenco for FY12. The table below provides projection of the availability for MPGenco stations for future years.

Projected ex-bus availability for FY11-FY13 in MUs

S.No.	Stations	Region	FY 11	FY 12	FY 13
1	ATPS - Chachai-PH 1&2	State	323	1,034	1,034
2	STPS - Sarani-PH 1, 2 & 3	State	4,318	5,557	5,557
3	SGTPS - Bir'pur - PH 1 & 2	State	2,537	4,307	4,307
4	SGTPS – Extn	State	3,052	3,052	3,052
5	ATPS – Extn	State	1,279	1,279	1,399
6	CHPS-Gandhi Sagar	State	20	171	171
7	CHPS-RP Sagar & Jawahar Sagar		41	160	160
8	Pench THPS	State	240	240	237
9	Banasgar Tons HPS-Tons	State	1,017	1,017	887
10	Banasgar Tons HPS-Silpara	State	-	100	100
11	Banasgar Tons HPS-Devloned	State	-	82	82
12	Banasgar Tons HPS-Bansagar IV	State	14	63	63
13	Birsingpur HPS	State	70	45	45
14	Bargi HPS	State	400	533	533
15	Rajghat HPS	State	1	48	48

S.No.	Stations	Region	FY 11	FY 12	FY 13
16	Marhi Khera HPS	State	9	75	75

1.3.2.4 *Capacity addition plan*

The capacity addition plan for the state which includes MPGenco capacity addition, ISGS stations and other JV and case-1 addition capacity is presented in the table below with details of the capacity allocated to M.P. and their unit wise tentative commissioning schedule.

Capacity addition plan till FY 13

Sr. No.	Station	Region / State	Fuel	Unit	Total Capacity (MW)	Allocated Capacity to MP State (MW)	Months of Operation	
							FY 12	FY 13
1	NTPC Sipat - Stage I	WR	CGS / P – Coal	Unit 1	660.00	94.33	12	12
				Unit 2	660.00	94.33	6	12
				Unit 3	660.00	94.33		12
	Sub Total				1,980.00	283.00		
2	DVC (Chandrapur TPS Extn.)	ER	CGS / P – Coal	Unit 7	250.00	100.00	12	12
				Unit 8	250.00	100.00	6	12
	Sub Total				500.00	200.00		
3	Case - I (Essar power)	WR	CGS / P – Coal	Unit 1	75.00	75.00	3	12
				Unit 2	75.00	75.00		
	Sub Total				150.00	150.00		
4	PTC - Torrent Surat (Gas)	IPP	Gas	Unit 1	1100.00	100.00	12	12
	Sub Total				1,110.00	100.00		
5	Maheswar Hydel	IPP	Hydel	Unit 1 & 2	80.00	80.00	12	12
				Unit 3 & 4	80.00	80.00	9	12
				Unit 5 & 6	80.00	80.00	6	12
				Unit 7 & 8	80.00	80.00	3	12
				Unit 9 & 10	80.00	80.00	12	12
	Sub Total				400.00	400.00		
6	Korba Stage –III	WR	Thermal		500	60	12	12

Assumption for projecting availability from the future capacities

The assumptions used for forecasting the availability from the future capacities is explained as below:

a. PLF considered for Coal based stations is 85%

b. PLF considered for Gas based stations is 68% (as current gas availability is very poor)

c. Auxiliary consumption considered for Coal based stations is 6%

d. Auxiliary consumption considered for Gas based stations is 3%

e. The availability has been forecasted based on the month of operation in a particular year and the past trend of energy availability from the plants;

f. 15% slippage has been considered for new capacity addition

g. For Hydel stations design energy has been considered;

Based on the above assumptions the forecast has been done for the future years till FY13 for the additional capacities.

1.3.2.5 *Overall availability*

The overall availability at the state boundary based on the discussions above is presented below:

Overall MUs forecast till FY 13

	FY 11	FY 12	FY 13
NTPC-Korba	3,672	3,572	3,572
NTPC-Vindyachal I	3,217	3,037	3,037
NTPC-Vindyachal II	2,415	2,259	2,259
NTPC-Vindyachal III	1,923	1,729	1,729
NTPC-Kawas	744	940	940
NTPC-Gandhar	667	778	778
KAPP	170	477	477
TAPS	1,029	1,058	1,058
NTPC – Farakka	-	-	-
NTPC – Talcher	-	-	-
NTPC – Kahalgaon	-	-	-
NHDC - Indira Sagar	2,266	2,302	2,302
Sardar Sarovar	1,842	1,518	1,518
Omkareshwar HPS	1,025	1,018	1,018
Lanco Amarkantak	-	-	-
ATPS - Chachai-PH 1&2	323	1,034	1,034
STPS - Sarani-PH 1, 2 & 3	4,318	5,557	5,557
SGTPS - Bir'pur - PH 1 & 2	2,537	4,307	4,307

	FY 11	FY 12	FY 13
CHPS-Gandhi Sagar	20	171	171
CHPS-RP Sagar & Jawahar Sagar	41	160	160
Pench THPS	211	240	240
Banasgar Tons HPS-Tons	904	1,017	1,017
Banasgar Tons HPS-Silpara	-	100	100
Banasgar Tons HPS-Devloned	-	82	82
Banasgar Tons HPS-Bansagar IV	14	63	63
Birsingpur HPS	70	45	45
Bargi HPS	400	533	533
Rajghat HPS	1	48	48
Marhi Khera HPS	9	75	75
RSEB (Chambal,Satpura)	-	-	-
UPPCL (Rihand,Matatila,Rajghat)	483	-	-
MSEB(Pench)	46	60	60
GridCo (Hirakud)	-	-	-
Others 1 (Wind & CPP)	-	-	-
NTPC - Sipat Stage II	121	121	121
NTPC - Kahalgaon 2	1,473	1,469	1,469
DVC (MTPS)	336	586	586
SGTPS - Bir'pur – Extn	627	475	475
ATPS - Chachai-Extn	3,131	3,052	3,052
NTPC Sipat - Stage I	-	844	1,928
NTPC Mauda – Nagpur	-	-	168
DVC (Chandrapur TPS Extn.)	-	895	1,363
DVC (Durgapur Steel)	-	-	511

	FY 11	FY 12	FY 13
Case-I (Essar Power)	-	289	511
PTC - Torrent Surat (Gas)	-	579	578
Bina Power	-	-	1072
Maheswar Hydel	-	396	1,090
Total	35,043	42,164	46,381

The Discom wise projection of availability has been considered as per the data made available by the MT Tradeco considering all the availability and requirement of all the three Discoms.

1.1.5.2 ***Capacity Allocation***

Capacity allocation to Discoms as per GoMP notification

	Generating Stations	Discom wise Allocation in %			
		Central	West	East	Total
1	NTPC-Korba	24.65%	33.60%	41.75%	100.00%
2	NTPC-Vindyachal I	49.00%	18.00%	33.00%	100.00%
3	NTPC-Vindyachal II	30.00%	40.00%	30.00%	100.00%
4	NTPC-Vindyachal III	40.00%	40.00%	20.00%	100.00%
5	NTPC-Kawas	30.00%	40.00%	30.00%	100.00%
6	NTPC-Gandhar	30.00%	40.00%	30.00%	100.00%
7	KAPP	33.35%	44.45%	22.20%	100.00%
8	TAPS	34.00%	45.35%	20.65%	100.00%
9	NTPC – Farakka	30.00%	40.00%	30.00%	100.00%
10	NTPC – Talcher	30.00%	40.00%	30.00%	100.00%
11	NTPC – Kahalgaon	30.00%	40.00%	30.00%	100.00%
12	NHDC - Indira Sagar	30.00%	40.00%	30.00%	100.00%
13	Sardar Sarovar	30.00%	40.00%	30.00%	100.00%
14	Omkareshwar HPS	30.00%	40.00%	30.00%	100.00%
15	Lanco Amarkantak	30.00%	40.00%	30.00%	100.00%
16	ATPS - Chachai-PH 1&2	30.00%	40.00%	30.00%	100.00%
17	STPS - Sarani-PH 1, 2 & 3	30.00%	40.00%	30.00%	100.00%

Generating Stations		Discom wise Allocation in %			
		Central	West	East	Total
18	SGTPS - Bir'pur - PH 1 & 2	30.00%	40.00%	30.00%	100.00%
19	CHPS-Gandhi Sagar	30.00%	40.00%	30.00%	100.00%
20	CHPS-RP Sagar & Jawahar Sagar	30.00%	40.00%	30.00%	100.00%
21	Pench THPS	30.00%	40.00%	30.00%	100.00%
22	Banasgar Tons HPS-Tons	30.00%	40.00%	30.00%	100.00%
23	Banasgar Tons HPS-Silpara	30.00%	40.00%	30.00%	100.00%
24	Banasgar Tons HPS-Devloned	30.00%	40.00%	30.00%	100.00%
25	Banasgar Tons HPS-Bansagar IV	30.00%	40.00%	30.00%	100.00%
26	Birsingpur HPS	30.00%	40.00%	30.00%	100.00%
27	Bargi HPS	30.00%	40.00%	30.00%	100.00%
28	Rajghat HPS	30.00%	40.00%	30.00%	100.00%
29	Marhi Khera HPS	30.00%	40.00%	30.00%	100.00%
30	Mini-Micro HPS	30.00%	40.00%	30.00%	100.00%
31	RSEB (Chambal,Satpura)	30.00%	40.00%	30.00%	100.00%
32	UPPCL (Rihand,Matatila,Rajghat)	30.00%	40.00%	30.00%	100.00%
33	MSEB(Pench)	30.00%	40.00%	30.00%	100.00%
34	GridCo (Hirakud)	30.00%	40.00%	30.00%	100.00%
35	Others 1 (Wind & CPP)	30.00%	40.00%	30.00%	100.00%
36	NTPC - Sipat Stage II	30.00%	40.00%	30.00%	100.00%
37	NTPC - Kahalgaon 2	30.00%	40.00%	30.00%	100.00%
38	DVC (MTPS)	30.00%	40.00%	30.00%	100.00%
39	SGTPS - Bir'pur – Extn	30.00%	40.00%	30.00%	100.00%

	Generating Stations	Discom wise Allocation in %			
		Central	West	East	Total
40	ATPS - Chachai-Extn	30.00%	40.00%	30.00%	100.00%
	Grand Total				
	Gross Weighted Average	**31.08%**	**37.04%**	**31.88%**	**100.00%**

Any future capacity which is proposed to come has been allocated to Tradeco and the Discom wise availability has been calculated for the current existing capacities.

1.1.5.3 *PGCIL Losses*

The Inter-State transmission losses have been computed separately for Eastern Region and Western Region stations. For Western Region past data as available on the PGCIL website has been taken and an average loss level of **5.42%** has been used. Similarly, for Eastern Region transmission line losses an average loss level of **2.44%** has been considered.

1.3.2.6 ***West Discom ex-bus availability at state boundary***

The availability at state boundary has been calculated after considering the ER and WR PGCIL losses and is presented in table below.

Availability for West Discom at State Boundary (MUs)

	FY 11	FY 12	FY 13
NTPC-Korba	623	786	786
NTPC-Vindyachal I	505	507	507
NTPC-Vindyachal II	889	832	832
NTPC-Vindyachal III	653	621	621
NTPC-Kawas	324	315	329
NTPC-Gandhar	321	273	311
KAPP	85	191	191
TAPS	515	423	423
NTPC – Farakka	-	-	-
NTPC – Talcher	-	-	-
NTPC – Kahalgaon	-	-	-
NHDC - Indira Sagar	1,133	921	921
Sardar Sarovar	737	607	607
Omkareshwar HPS	615	407	407
Lanco Amarkantak	-	-	-
ATPS - Chachai-PH 1&2	97	413	413

	FY 11	FY 12	FY 13
STPS - Sarani-PH 1, 2 & 3	864	2,223	2,223
SGTPS - Bir'pur - PH 1 & 2	761	1,723	1,723
CHPS-Gandhi Sagar	5	58	68
CHPS-RP Sagar & Jawahar Sagar	21	64	64
Pench THPS	63	96	96
Banasgar Tons HPS-Tons	542	407	407
Banasgar Tons HPS-Silpara	-	40	40
Banasgar Tons HPS-Devloned	-	33	33
Banasgar Tons HPS-Bansagar IV	8	25	25
Birsingpur HPS	10	18	18
Bargi HPS	160	213	213
Rajghat HPS	0	19	19
Marhi Khera HPS	2	21	30
Mini-Micro HPS	-	-	-
RSEB (Chambal,Satpura)	151	-	-
UPPCL (Rihand,Matatila,Rajghat)	17	22	22
MSEB(Pench)	-	-	-
GridCo (Hirakud)	-	-	-
Others 1 (Wind & CPP)	44	45	45
NTPC - Sipat Stage II	256	255	255
NTPC - Kahalgaon 2	108	235	235
DVC (MTPS)	293	158	190
SGTPS - Bir'pur – Extn	939	1,221	1,221
ATPS - Chachai-Extn	303	512	512
Total	**11,045**	**13,683**	**13,787**

The availability from the stations which have been kept with MP Tradeco are allocated to the West Discom based on the weighted average capacity allocation and these stations will be considered to be despatched as per the merit order principle.

1.1.6 *Estimation of station-wise costs*

1.1.6.1 *Details of Costs for existing stations*

The Fixed Costs of MP Genco's stations for FY 2010-11 to FY 2012-13 have been kept in accordance with the tariff order issued by the MPERC from time-to-time. The following table provides a summary of order numbers through which tariff where issued by the MPERC.

MPERC order for applicable tariff for MPPGCL plants under Multi Year Tariff Principles

	Petition/ Order number	Date/ Year
NHDC - Indira Sagar	CERC 33/2009	20th October 2009
Sardar Sarovar	MPERC 03 of 2007	18th January 2008

Omkareshwar HPS	CERC 56/2007	30th October 2007
ATPS - Chachai-PH 1&2	MPERC MYT 54/2009	3rd March 2010
STPS - Sarani-PH 1, 2 & 3	MPERC MYT 54/2009	3rd March 2010
SGTPS - Bir'pur - PH 1 & 2	MPERC MYT 54/2009	3rd March 2010
CHPS-Gandhi Sagar	MPERC MYT 54/2009	3rd March 2010
CHPS-RP Sagar & Jawahar Sagar	MPERC MYT 54/2009	3rd March 2010
Pench THPS	MPERC MYT 54/2009	3rd March 2010
Banasgar Tons HPS-Tons	MPERC MYT 54/2009	3rd March 2010
Banasgar Tons HPS-Silpara	MPERC MYT 54/2009	3rd March 2010
Banasgar Tons HPS-Devloned	MPERC MYT 54/2009	3rd March 2010
Banasgar Tons HPS-Bansagar IV	MPERC MYT 54/2009	3rd March 2010
Birsingpur HPS	MPERC MYT 54/2009	3rd March 2010
Bargi HPS	MPERC MYT 54/2009	3rd March 2010
Rajghat HPS	MPERC MYT 54/2009	3rd March 2010
Marhi Khera HPS	MPERC MYT 54/2009	3rd March 2010
Others 1 (Wind & CPP)	-	-
SGTPS - Bir'pur – Extn	MPERC MYT 54/2009	3rd March 2010
ATPS - Chachai-Extn	MPERC 25/2010	July 2010

- Fixed and variable costs of each of the stations that have been considered for determining the power purchase cost with the following assumptions: Central Sector Stations for which capacity allocation percentage to each individual Discom has been defined by GoMP in its 11th May 2010 notification, Fixed Costs as approved by Central Electricity Regulatory Commission Orders for each individual station for FY 09 have been adopted for FY 10 to FY 13 also.

- Variable costs (including FPA) for MPGenco & Central Generating Stations have been adopted as per the October 2010 bills and have been annually escalated at the rate specified by the CERC in its notification dated 27th March 2009.

- For the new stations which have become available to state during the current year which are of the Central & State Sector Stations, the following methodology has been adopted:

- For Sipat-I, Fixed and Variable Cost as indicated in the Retail Supply Tariff Order dated 29th July 2009 has been adopted. Also, the variable cost has been escalated at the rate of 6.35% as per the MPERC tariff order for FY11.

- For DVC Chandrapur, single part tariff of DVC Mejia has been adopted since there were no means to assume this cost for this particular station.

- For Essar Power, single part tariff @ Rs. 2.45 has been adopted as per the PPA signed by MP Power trading company Ltd.

- For MP Genco rate for Birisinghpur Extension and Amarkantak Phase III, fixed and variable cost is taken as indicated in the Retail Supply Tariff Order dated 29th July 2009. Also, the variable cost has been escalated at the rate of 6.35% as per MPERC tariff order for FY11.

- For Torrent (Gas), fixed tariff @ Rs. 1.08 and variable charge @ Rs. 2.23 as per CERC order dated 11.01.2010 has been considered.

- 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 with the following assumptions:

  - East, West and Central Discoms' 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.

- The fixed and the variable costs of the new stations have been pooled together to get an average bulk supply rate[8] at which MP Tradeco will supply power to each individual Discom.

- The table below provides the details of the costs viz. fixed costs and variable costs for all the existing plants.

	Fixed charges In Rs. Crs. for the State	Variable charges (including FPA, incentives, Other costs) in Rs./kWh
NTPC-Korba	97	0.92
NTPC-Vindyachal I	108	1.80
NTPC-Vindyachal II	129	1.76

[8] Bulk Supply Rate includes fixed & variable Generation Cost and also cost of the associated Transmission Capacities of both PGCIL & MP Transco.

	Fixed charges In Rs. Crs. for the State	Variable charges (including FPA, incentives, Other costs) in Rs./kWh
NTPC-Vindyachal III	152	1.76
NTPC-Kawas	54	2.31
NTPC-Gandhar	65	2.27
KAPP		2.17
TAPS		3.22
NHDC - Indira Sagar	495	0.04
Sardar Sarovar	194	0.07
Omkareshwar HPS	263	0.50
ATPS - Chachai-PH 1&2	61	1.18
STPS - Sarani-PH 1, 2 & 3	322	1.36
SGTPS - Bir'pur - PH 1 & 2	379	1.14
CHPS-Gandhi Sagar	4	3.83
CHPS-RP Sagar & Jawahar Sagar	-	1.51
Pench THPS	11	0.28
Banasgar Tons HPS-Tons	142	1.01
Banasgar Tons HPS-Silpara	-	-
Banasgar Tons HPS-Devloned	-	-
Banasgar Tons HPS-Bansagar IV	14	0.89
Birsingpur HPS	6	0.59
Bargi HPS	10	0.35
Rajghat HPS	5	1.39
Marhi Khera HPS	27	3.75
RSEB (Chambal,Satpura)		4.24
UPPCL (Rihand,Matatila,Rajghat)		-

	Fixed charges In Rs. Crs. for the State	Variable charges (including FPA, incentives, Other costs) in Rs./kWh	
Others 1 (Wind & CPP)			3.55
NTPC - Sipat Stage II	119		1.15
NTPC - Kahalgaon 2	53		2.11
DVC (MTPS)	-		2.90
SGTPS - Bir'pur – Extn	369		1.01
ATPS - Chachai-Extn	167		0.92

1.1.6.2 *Details of Costs for future capacities*

For all the future capacities which are proposed to be commissioned in future the rates as per the PPAs have been considered. The table below provides details of the costs considered for future capacities which are based on the existing PPAs signed with them.

Cost details of future stations and basis

	Fixed Costs (Rs. Cr.)	Energy ChargesRs./kWh Escalated forFuture years	Basis
NTPC Sipat - Stage I	107	0.63	As per Costs of Sipat-II

DVC (Chandrapur TPS Extn.)	296	2.36	Considered same as Mejia
Case-I (Essar Power)	-	2.45	As per PPA
PTC - Torrent Surat (Gas)	-	3.31	CERC order Jan'10
Maheswar Hydel	239		As per Guidelines

Based on the above details power purchase shall be worked out based on the requirement and energy balance.

1.1.7 ***Interstate & Interstate Transmission Charges***

- The inter-state transmission charges (PGCIL cost) have been projected as per the actual bills of FY11. For calculation of FY 12 and FY 13 the cost of additional inter state transmission cost on account of new capacities coming up during the year has also been considered.

- The intra-state transmission cost i.e. MP Transco has been taken as per the details provided by MP Transco. It is pertinent to mention here the Transco costs also include the terminal liabilities of FY11 over and above the transmission cost as approved by MPERC in the Transco tariff order. The FY 13 cost for MP Transco has been taken same as FY 12 in absence of any tariff order

1.1.8 Total Power Purchase Costs as per regulation:

Details of power purchase cost		FY 11	FY 12	FY 13
A	Ex-bus Units Purchased (MU)	14,316	16,042	17,2
B	Fixed Cost (Rs. Crs.)	1,194	1,219	1,2
C	Variable Cost (Rs. Crs.)	2,789	2,621	2,9
D	MP Tradeco Trading Margin (@ 3 p/unit)	-	-	
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crs.)	3,983	3,840	4,2
E/A	Rate of Power Purchase (Rs. / kWh)	2.78	2.39	2.
H	External Losses (MU)	297	291	2
I	Inter State Transmission Cost (Rs. Crs.)	113	123	1
J = (A - H)	Units Purchased at State Periphery (MU)	14,019	15,751	16,9
K = (I - E)	Total Power Purchase Cost at State Boundary (Rs. Crs.)	4,096	3,963	4,3
J/K	Rate of Power Purchase at State Boundary (Rs. / kWh)	2.92	2.52	2
L	Intra State Transmission Cost - MPTransco (Rs. Crs.)	273	298	2
M = (K+L)	Total Power Purchase Cost at Discom Interface (Rs. Crs.)	4,368	4,262	4,6
N	Transmission Loss (MU)	573	644	6
O = (K - N)	Units Purchased at Discom Boundary (MU)	13,446	15,107	16,2
O/M	Rate of Power Purchase at Discom Boundary (Rs. / kWh)	3.25	2.82	2.

Total Power Purchase Costs as per actual expected costs of discom

Details of power purchase cost		FY 11	FY 12	FY 13
A	Ex-bus Units Purchased (MU)	**14,361**	**16,042**	**17,2**
B	Fixed Cost (Rs. Crs.)	1,194	1,219	1,2
C	Variable Cost (Rs. Crs.)	2,806	2,626	2,9
D	MP Tradeco Trading Margin (@ 4 p/unit)	57	64	
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crs.)	**4,057**	**3,909**	**4,2**
E/A	Rate of Power Purchase (Rs. / kWh)	**2.82**	**2.44**	**2**
H	External Losses (MU)	297	291	2
I	Inter State Transmission Cost (Rs. Crs.)	112	122	1

J = (A - H)	Units Purchased at State Periphery (MU)	14,064	15,751	16,9
K = (I - E)	Total Power Purchase Cost at State Boundary (Rs. Crs.)	**4,169**	**4,031**	**4,4**
J/K	Rate of Power Purchase at State Boundary (Rs. / kWh)	**2.96**	**2.56**	**2**
L	Intra State Transmission Cost - MPTransco (Rs. Crs.)	273	418	4
M = (K+L)	Total Power Purchase Cost at Discom Interface (Rs. Crs.)	4,442	4,449	4,8
N	Transmission Loss (MU)	575	644	6
O = (K - N)	Units Purchased at Discom Boundary (MU)	13,489	15,107	16,2
O/M	Rate of Power Purchase at Discom Boundary (Rs. / kWh)	**3.29**	**2.94**	**2**

ARR Petition for Control Period-

FY11 – FY13

Operations and Maintenance Cost

*1.1.9 **Ground-up O&M cost computation***

MPERC regulation notified on January 22, 2010 mandates calculation of O & M expenditure on a normative basis. As mentioned in the regulation, these norms were finalized on the basis of Audited Accounts of FY 2008-09 which did not include the full impact of recommendations of the 6th pay Commission. At the time of submission of this ARR, audited accounts of 2009-10 are available which include the full impact of wage revision and provision for arrears on account of 6th pay Commission. The licensee has calculated O&M cost in the tariff petition as per the commission's regulation dated January 22,2010. However , the licensee has also computed the components of the O&M cost viz. Employee Costs, Administrative & General Expenditure and Repairs & Maintenance Expenditure separately using estimates for each sub-component on the basis of actual expenditure incurred in previous years as per audited books of account of 2009-10. It is observed by the licensee that a sizable difference is present between the actual O & M costs expected to be incurred by the licensee as against the O & M costs calculated as per the norms laid down by the Hon'ble Commission. Hence it is requested that the Hon'ble Commission allow the O & M cost as per Licensee's submission based on the audited accounts of 2009-10 and not based on regulation because it is the licensee's view that the norms specified by the respective regulation do not reflect the true picture of O&M expenses expected to be incurred by the licensee during the current MYT period. ***In this regard, attention of the Hon'ble commission is drawn towards approach adopted by the Commission in relation to O&M expenses for FY 2006-07 wherein, since the actual expenses were lower than the O&M expenses as allowable by regulations, such lower actual expenses were allowed in the True-up order of Discoms for FY 2006-07 (reference clause 2.17 of true up order). On the same principles, if the actual expenses are more than the regulations, the same must also be allowed.***

1.1.10 ***Employee Cost***

The figures for employee expenses have been projected based on Sixth Pay Commission Norms, inflation rate, historical figures, and assumptions for the number of employees captured from the audited books of accounts of Madhya Pradesh Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore for previous years.

Basic Salary: As per the financial accounts for FY09, the Licensee has incurred an expense towards basic salary of Rs. 186.75 crores and for FY10 it is of Rs. 282.39 crores. With the implementation of sixth pay Commission the basic salary for the MYT Period is projected with the annual increase of 3%.

Dearness Allowance: The dearness allowance ('DA') for FY09 is computed as 42.2% of the Basic Pay based on the financial accounts for FY09. And that for FY10 is computed as 18% of the Basic Pay. However the same has risen till 35% over the period till October FY 11.For the purpose of computation of DA in the MYT period, an annual increase of 10% has been assumed.

Terminal Benefits:

1. As per the financial accounts for FY 10 expense of Rs. 295.83 crores is booked against terminal benefits (Earned leave encashment, Pension and Gratuity and Provident Fund Contribution) as against the expenses

for FY09 for which the expense of Rs. 86.55 crores. The heavy increase in the current year expense is based on the revised provision of the Terminal Benefits as per the Actuarial Report which includes the short provision for the past liability of the Employees of the company for the period from FY 2005 to FY 2009 amounting to Rs. 165.26 Crores and balance is the provision for the current year service of the employees. For the purpose of forecast in the MYT period the projections are made on the Future Contribution Rate (as a % of Basic Pay+DA+Grade Pay) provided in the Actuarial Report.

2. The Government of Madhya Pradesh (‘GoMP or ‘State Government’), vide an Order No. 6259-FRS-17-13- 2002 dated 30th September, 2003, in exercise of powers conferred by subsections (1), (2), (5), (6) and (7) of section 131 and section 133 of the electricity Act 2003 read with sub section (1), (2) and (3) of Section 23, 24 and Sub section (2) of section 56 of the Madhya Pradesh Vidyut Sudhar Adhiniyam, 2000, makes the rule (herein after referred as Madhya Pradesh Electricity Reform First Transfer Scheme Rules, 2003)

for regulating the transfer and vesting of functions, properties and interests rights and liabilities of the Madhya Pradesh State Electricity Board in the State Government and re transfer and revesting thereof by the State Government in any other company or body corporate or authority and also for the transfer of Personnel of the Madhya Pradesh Sate Electricity Board to any other company or body corporate or authority and for determining the terms and condition on which such transfer and vesting shall be made. According to rule 10 and 11 of these rule stated as follows:

"10 The State Government shall notify appropriate arrangement in regard to the funding of the pension funds and other personnel related funds by the transferees to the extent they are not funded on the date of the transfer of the personnel from the Board including for the date of the transfer, by the respective transferees to which these personnel are transferred and till such time such payments shall be duly made by the Board".

"11. The State Government shall notify appropriate arrangements in regard to the funding and due payment of the terminal benefits to the existing pensioners of the

Board as on the date of the Transfer and till such time such payments shall be duly made by the Board."

2. GoMP vide order No. 4003-FRS-17-13-2002 dated 13th June 2005 makes amendments in the Madhya Pradesh Electricity Reform First Transfer Scheme Rules, 2003 the amended rule 10 and 11 read as follows:

"10 In regard to the funding of the pension funds and other personnel related funds by the transferees to the extent they are not funded on the date of the transfer of the personnel from the Board including the due payment of the amounts to personnel who retire after the date of the transfer, by the respective transferees to which these personnel are transferred following arrangements, but not limited to them, shall be made till such time such payments shall be duly made by the Board":

a) All the personnel of the Board who retire after the date of the transfer shall be the pensioners of the respective transferees to which these personnel are transferred and they shall be paid pension and other terminal benefit regularly by the respective transferees. The priority of payment of the terminal benefits to such pensioners shall be at par with the payment of salary and wages to the personnel of the respective transferees. However the contribution towards the pension and other terminal benefits for the past service rendered by the personnel up to the date of transfer in MPSEB/MPEB, shall be made by Transco and contributions for the part of service rendered under the transferee shall be provided by the respective transferee.

b) A separate fund shall be created by the transferees for payment of pension and other terminal benefits of the personnel who retire after the date of the transfer through regular subscription of appropriate amount into a terminal Benefits Trust being created by the State Government.

"11. In regard to the funding and due payment of the terminal benefits to the existing pensioners of the Board as on the date of the transfer following arrangements but not limited to them shall be made and till such time such payment shall be duly made by the Board:

a) All the existing pensioners of the Board, as on the date of transfer of the personnel shall be treated as deemed transferred to the Transco and they shall be paid terminal benefits regularly by the Transco. The priority of payment of the pension and other terminal benefits to the existing pensioners shall be at par with the payment of salary and wages to the personnel of the Transco.

b) A separate fund shall be created by the Tranco for payment of pension and other terminal benefits of the personnel who retire after the date of the transfer through regular subscription of appropriate amount into a terminal Benefits Trust being created by the State Government.

3. The Government of Madhya Pradesh (‘GoMP or ‘State Government’), vide an Order No. 3679-FRS-18-13-2002 dated 31st May, 2005 (i.e date of transfer) , 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 the ‘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);

4. Subsequently the Government of Madhya Pradesh ('GoMP or 'State Government'), vide an Order No. 4068-FRS-18-2002-XIII dated 12th June, 2008, published in the gazette of Madhya Pradesh he final opening balance sheets of the companies. Para k of the said order stipulated as follows:

"k The past unfunded liabilities of the pensioners and employees of the MPSEB existing as on 31st May 2005 are to be assessed by Actuarial valuation and is therefore retained with residual MPSEB for the time being. The actual pension/Gratuity payments shall be claimed by MP Power Transmission Co. Ltd in its ARR till requisite fund equivalent to the past unfunded liabilities is built up in the manner provided in Rule 10 and 11 notified earlier vide No. 4003-FRS-17-13-2002 dated 13th June 2005.

5. In the light of above legal provision related to terminal benefits it can be said:

a. that the liability to pay terminal benefits to the personnel who retired from the service of the board on or before 31st May 2005 is vested with MP Transco.

b. that the liability to pay terminal benefit to the personnel who retire after 31st May 2005 is vested with respective transferee company. However the contribution towards the pension and other terminal benefits for the past service rendered by the personnel up to 31st May 2005 in MPSEB/MPEB, shall be made by Transco and contributions for the part of service rendered under the transferee shall be provided by the respective transferee.

As stated above the actuarial valuation carried out and liability as on 31st March 2009 for West Discom determined as follows:

Rs. In Crore					
Particular	Gratuity	Leave Encashment	Pension		Total Liability
			Employees	Pensioners/Family pensioners	
Total Past Service Liability	351.74	128.36	2344.38		2824.48
Liability Pertaining to MPSEB(Up to 01.06.2005)	299.33	108.41	1307.7	687.92	2403.36
Liability Pertaining to West Discom (From 01.06.2005 to 31st March 2009)	52.41	19.95	348.76		421.12

In addition to this liability, Actuary prescribed the following percentage of the Future contribution rate (as a % of Basic Pay + Grade pay + DA) required to be made by West Discom towards meeting the liabilities arising due to future Service:

Gratuity	Leave Encashment	Pension	Total
4.67%	.59%	20.28%	25.54%

According to above prescribed percentage liability for the 2009-10, 2010-11 and 2011-12 is as follows:

Particular	Gratuity	Leave Encashment	Pension	Total Liability
2009-10	23.40	2.96	101.60	127.96
2010-11	18.81	2.38	81.18	102.37
2011-12	21.44	2.71	92.62	1[illegible]6.77
Total	63.65	8.05	275.40	347.10

In the light of above, it prayed that, Hon'able Commission kindly allow the cost of Rs.768.22 Cr. in the ARR of 2011-12 as regulatory assets, for meeting the past service liability in respect of West Discom as per the actuarial valuation report:

Particular	Gratuity	Leave Encashment	Pension	Total Liability
Past Service Liability Pertaining to West Discom as determined by actuary(From 01.06.2005 to 31st March 2009)	52.41	19.95	348.76	421.12
2009-10	23.40	2.96	101.60	127.96
2010-11	18.81	2.38	81.18	102.37
Total up 2010-11	94.62	25.29	**531.54**	**651.45**
2011-12 (already been included in the employee cost of 2011-12)	21.44	2.71	92.62	116.77
Total up 2011-12	116.06	28.00	**624.16**	**768.22**

Arrears: Using the sixth pay-commission norms, the total arrears booked in the annual audited accounts of FY 10 on accrual basis are to the tune of Rs. 167.21 Crore. In line with orders from the Govt. of Madhya Pradesh, the licensee plans to pay the same over 60 installments starting from Sept'2010. Hence the licensee expects to incur a expense of Rs. 33.44 Cr every year for the next five years on account of the arrears. On the other hand, the commission had considered Rs. 31.31 Cr. in the regulation dated January 22,2010 as a yearly liability of the Licensee which would be incurred for three years. This leads the licensee to believe that the Hon'ble Commission considered the liability of arrears to be Rs. 93.93 Cr. as against the actual liability of Rs 167.21 Cr. as may be found in the audited accounts of FY10. As per the fore mentioned regulation, the total liability of arrear is to be apportioned over a 3 year period and hence 1/3rd of the amount would be allowed by the commission in each year of the MYT period. Using this methodology, the licensee has arrived at a figure of Rs.55.74 Cr per year as the expense to be incurred by the licensee on account of arrear payment over three years. Therefore we request the Hon'ble Commission to approve the yearly expenditure of Rs 55.74 Cr. under the head of arrear repayments.

The employee expenses over the control period are as under put forward in Form F-6 in :

1) As per Regulation:

	Particulars	MYT 2010-11 to 2012-13		
		FY11	FY12	FY13
A	**Employee Cost as per regulation**	**389.37**	**413.28**	**438.65**
B	**Payment/Contribution To PF Staff Pension And Gratuity**			
	Terminal Benefits			
	a) Provident Fund Contribution	0.34	0.38	0.42
	b) Provision for PF Fund	-	-	-
	c) Pension Payments	81.18	92.62	102.03
	d) Gratuity Payment	18.81	21.44	23.61
	Any Other Items(Annuity payment, Free electricity to retired employees etc.)	2.66	3.03	3.34
	Earned leave encashment (Actual Payment)	9.97	13.47	16.97
	Total B	**112.95**	**130.95**	**146.37**
C	**Arrear**	**31.31**	**31.31**	**31.31**
	Total Employee expenses	**533.63**	**575.54**	**616.33**

2) As per Licensee's projection based on audited accounts of 2009-10

	Particulars	MYT 2010-11 to 2012-13		
		FY11	FY12	FY13
A	Employee Strength			
	Working Strength At The Beginning Of The Year			
	Figures in Rs. Crores			
B	Employee's Cost (Other Than Covered In 'C'&'D')			
	Salaries	307.46	316.68	326.18
	Additional Pay	0.00	0.00	0.00
	D.A.	95.31	142.51	179.40
	Other Allowances & Relief	17.21	18.74	19.64
	Addl. Pay & C.Off Encashment	0.00	0.00	0.00
	Sub-Total: (1 to 5)	419.98	477.92	525.22
	Medical Expenses Reimbursement	0.71	0.77	0.81
	Travelling Allowance(Conveyance Allowance)	0.00	0.00	0.00
	Leave Travel Assistance	0.00	0.00	0.00
	Honorarium/Overtime	0.00	0.00	0.00
	Incentives/Awards Including That In Partnership Project (Specify Items)	0.00	0.00	0.00
	Earned Leave Encashment	2.38	2.71	2.98
	Tuition Fee Re-Imbursement	0.00	0.00	0.00
	D.L.I. Board's Contribution	0.00	0.00	0.00
	E.D.L.I. Administration Charges	0.00	0.00	0.00

	Particulars	MYT 2010-11 to 2012-13		
	E.S.I. Board's Contribution	0.00	0.00	0.00
	E.S.I. Administration Charges	0.00	0.00	0.00
	Payment Under Workman's Compensation And Gratuity	0.82	0.87	0.92
	Subsidized Electricity To Employees	3.67	4.16	4.42
	Any Other Item (Arrear for 2009-10 and onwards)	55.74	55.74	55.74
	Employee on Contract	8.58	11.43	12.58
	Sub-Total (7 to 21)	**71.88**	**75.68**	**77.45**
	Staff Welfare Expenses	0.62	0.67	0.70
C	Apprentice And Other Training Expenses	0.00	0.00	0.00
D	Payment/Contribution To PF Staff Pension And Gratuity	0.00	0.00	0.00
	Terminal Benefits	0.00	0.00	0.00
	a) Provident Fund Contribution	0.34	0.38	0.42
	b) Provision for PF Fund	0.00	0.00	0.00
	c) Pension Payments	81.18	92.62	102.03
	d) Gratuity Payment	18.81	21.44	23.61
E	Any Other Items	2.66	3.03	3.34
	Total D	102.99	117.48	129.40
	Grand Total [B.6 + B.22 + B.23 + C + D]	**595.47**	**671.76**	**732.77**
E	Bonus/Ex-gratia To Employees	2.46	2.46	2.46
F	Grand Total	**597**	**674**	**735**

	Particulars	MYT 2010-11 to 2012-13		
		.93	**.22**	**.23**
G	Employee expenses capitalized	9.94	11.23	12.29
	Net Employee expenses (F)-(G)	**587 .99**	**662 .98**	**722 .95**

1.1.10.1 **Administrative and General Expenditure**

Administrative and General Expenses are required for day to day functioning of the Company so that it can carry out its functions in effective manner and provide adequate level of services to its customers. These expenses include travel expenses of the employees and officers for discharging various official duties, rent and expenses of various offices etc.

The expenses considered for Discom West for current year and MYT period are as detailed in form F-7.

1) As per Regulation:

Particulars	**MYT 2010-11 to 2012-13**		
In Rs Crores	**FY11**	**FY12**	**FY13**

A&G Expenses as per regulation	**64.39**	**68.34**	**72.54**
Rates & Taxes	2.28	2.91	3.59
Revenue Stamp Expenses Account	0.02	0.02	0.02
Vehicle registration and license fee	0.16	0.19	0.22
court fees / stamp duty for court cases / penalty imposed by st. authorities.	0.17	0.21	0.25
Incentive & Award To Employees/outsider	1.13	1.34	1.59
MPERC fee	0 .68	0.72	0 .77
Common expenses by MPSEB	20.38	24.19	28.71
Total A&G expenses	**89 .21**	**9 7.92**	**107. 69**

2) As per Licensee's projection based on audited accounts of 2009-10

(In Rs Crores)	FY11	FY12	FY13
Administration Expenses			
Rent	0.31	0.37	0.44
Rates & Taxes	1.69	2.01	2.39
Entry Tax	0.59	0.90	1.20
Sub - total of Rent rates and taxes	**2.59**	**3.28**	**4.02**
Insurance	18.16	21.56	25.58
Revenue Stamp Expenses Account	0.02	0.02	0.02
Telephone, Postage, Telegram & Telex Charges	2.51	2.98	3.53

(In Rs Crores)	FY11	FY12	FY13
Incentive & Award To Employees/Outsiders	1.13	1.34	1.59
Consultancy Charges	0.04	0.04	0.05
Technical Fees	4.64	5.51	6.54
Other Professional Charges	0.54	0.89	1.55
Conveyance And Travel	9.82	11.22	12.70
Vehicle Expenses (Other Than Trucks And Delivery Vans)			
Vehicles Running Expenses Petrol And Oil	0.00	0.00	0.00
Hiring Of Vehicles	0.00	0.00	0.00
Security / Service Charges Paid To Outside Agencies	0.00	0.00	0.00
Sub-Total of Administrative Expenses	**48.02**	**58.27**	**68.17**
Other Charges			
Fee And Subscriptions Books And Periodicals	1.24	1.47	1.75
Printing And Stationery	3.39	4.02	4.77
Advertisement Expenses (Other Than Purchase Related) Exhibition & Demo.	0.67	0.79	0.94
Electricity Charges To Offices	7.16	8.50	10.08
Water Charges	0.19	0.23	0.27
Entertainment Charges	0.08	0.09	0.11
Miscellaneous Expenses	0.92	1.09	1.29
Merchandising, Servicing and Contract Work	6.50	7.71	9.16
LT Meter testing/reading on contract	1.64	1.95	2.32
Common expenses by MPSEB	20.38	24.19	28.71
Sub-Total of other charges	**42.16**	**50.04**	**59.38**
Legal Charges	1.63	1.93	2.29
Auditor's Fee	0.04	0.05	0.06

(In Rs Crores)	FY11	FY12	FY13
Material related expenses	6.32	7.50	8.90
Total Charges	**89.61**	**106.35**	**126.22**
A&G expenses capitalized	**3.81**	**3.93**	**3.96**
Net A&G expenses	**85.81**	**102.42**	**122.26**

The projection has been done on the basis of past trend increase in various items under A&G costs. These have been proportionally increased line item wise based on the Past trend.

In relation to expense of MPSEB kind attention of the Hon,ble commission invited to para 32.1 of the regulation which is read as follows :

"Operation *and Maintenance expenses shall be determined for the Tariff Period* based *on normative O&M expenses specified by the Commission in these Regulations. The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The norms for O&M expenses have been fixed on the basis of metered sale and Gross Fixed Assets (GFA) of the Distribution Licensees.* ***These norms exclude pension, terminal benefits and incentive to be paid to***

> ***employees, taxes payable to the Government, MPSEB expenses and fee payable to MPERC. The Distribution Licensee shall claim the taxes payable to the Government and fees to be paid to MPERC separately as per actual."***

However despite of the regulation commission did not allow the common expense of MPSEB in any previous tariff/true up orders. With regard to this issue clause 1.64 of the True Up order of FY 2007-08 which is stated as follows:

"*Audited annual accounts of East, West and Central Distribution Companies have shown*

"Allocation of Common Expenses from MPSEB" under the "Administrative and General

Expenses" schedule of Rs. 8.80 Crore, Rs. 11.01 Crore and Rs. 8.09 Crore respectively. The

Commission had already made it clear to the successor Companies of the erstwhile Board ***that***

it will not allow any expenses incurred by them for meeting the expenses of the Board as the

later has already been disintegrated into five Companies and the Board had been entrusted with the responsibility of a Trading

Licensee. In fact, this responsibility has been given to a trading company MPPTCL. Therefore, in the present case the expense claimed by the Distribution Licensees for meeting MPSEB expenses has not been admitted".

In this regard it is again stated that:

1. 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 the 'Board') and transferred the same to five Companies to function independently. The five Companies are as under: -

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

   M.P. Power Transmission Company Ltd., Jabalpur (MPPTCL) (TRANSCO);

   M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur (MPPKVVCL) (EAST DISCOM);

   M.P. Madhya Kshetra Vidyut Vitaran Company Ltd. Bhopal (MPMKVVCL) (CENTRAL DISCOM);

M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore (MPPKVVCL) (WEST DISCOM);

2. With effect from 1st June 2005, the Operation and Management Agreement that existed between MPSEB and the Five Companies came to end with the issue of the said Order dated 31st May 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.***
3. On 3rd June 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, interests 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 dt 3rd June 2006 (Transfer Scheme Rules).

4. A revised Cash Flow Mechanism 2006 was also notified as Schedule 3 of the Transfer Scheme Rules, 2006. ***The Cash Flow Mechanism established, inter alia, the following basic principles:***

- Tradeco is vested with first charge over the entire generation of the Genco and is mandated to purchase entire power from Genco at the tariff as determined by MPERC.
- Discoms are required to buy power to meet their requirements from the single source (Tradeco) as per the inter-se Bulk Supply Agreement and at the tariff determined/ approved by MPERC plus "Trading margin".
- ***All the six companies (including Tradeco) are to issue a Power of Attorney or authorization in favour of MPSEB***

inter alia authorizing it to "own, collect and distribute" cash on behalf of the companies.

- ***MPSEB to continue maintaining all Letters of Credit, Escrow comforts, etc. and allocate cash among Companies based on predetermined priority for payments.***
- Payments made by MPSEB to be adjusted against the bills raised by the Companies among themselves as per the inter se commercial agreements
  - Genco, other power suppliers and PGCIL and other transmission licensees to raise invoice on Tradeco
  - Transco to raise invoice on Discoms routed through Tradeco
  - Tradeco to raise invoice on Discoms for power/ energy supplied
  - ***MPSEB to raise debit note on all companies for servicing of liabilities including those related to generic loans***
  - ***Subsidy from GoMP to be received by MPSEB and credits passed on to eligible Discoms.***
- The Cash Flow Mechanism specifies the billing procedures to be followed by all Companies including

periodicity of billing, metering responsibilities, payment mechanisms, submission of claims, etc.

- The Cash Flow Mechanism also specifies the priority of payments to various agencies.
- ***The Notification also specifies the cash management procedure to be followed by each of all the six Companies and MPSEB.***

5. The Government of Madhya Pradesh ('GoMP or 'State Government'), vide an Order No. 4068-FRS-18-2002-XIII dated 12th June, 2008, published in the gazette of Madhya Pradesh the final opening balance sheets of the companies. **Para *e* and *i*** of the said order is read as follows:

   "***e The cash flow mechanism among the Residuals MPSEB and the successor companies of MPSEB as prevailing on the date of this notification shall continue to operate till further orders."***

   "i Liabilities towards SLR and PP bonds have been allocated to the Companies. However the servicing of these liabilities shall continue to be done by done by MPSEB on behalf of the Companies.

On the basis of above discussion it can be said that residual MPSEB does not perform any work/commercial activity/business separately but carryout various activity like operate CFM (Cash Flow Mechanism), Debt servicing, Human Resources Management (Transfer, Promotion, pension and other personnel related matters) and other policy related decision making on behalf of its successor Companies and for power sector reform in the State of Madhya Pradesh. Therefore it is requested to Hon,ble Commission to not allow the expenses of MPSEB in this ARR.

1.1.10.2**Repairs and Maintenance Expenditure**

Regular and adequate maintenance of the distribution network and associated equipments is important for ensuring quality supply to the consumers and for effective performance of the Licensee. In the past, the Licensee has not been able to spend adequate amounts on repairs and maintenance that is required for up-keep of network and associated equipments. This is on account of liquidity crisis and other limitations like lack of maintenance facility (material & manpower) to ensure quality power supply.

For FY 10 the Licensee has spent around Rs.36.92 Crores as against FY 09 of Rs.35.24 Crores. For the current year estimate and the forecast period, R&M has been taken as per regulation i.e. 2% of opening GFA..

The break-up of this R&M expenses has been provided in the table below:

Sl.No.	Particulars	CY	MYT 2010-11 to 2012-13		
	Figure in Rs Crore	FY10	FY11	FY12	FY13
1	Plant and Machinery	26.14	30.24	35.78	52.63
2	Building	3.37	3.24	3.83	5.64
3	Civil Works	1.67	1.23	1.46	2.14
4	Hydraulic Works	0.00	0.00	0.00	0.00
5	Lines, Cables Net Works etc.	4.64	5.17	6.11	8.99
6	Vehicles	1.07	1.29	1.53	2.25
7	Furniture and Fixtures	0.11	0.08	0.09	0.14
8	Office Equipments	0.46	0.52	0.61	0.90
A	Gross R&M expenses	36.92	41.77	49.42	72.70
B	R&M expenses capitalized	0.93	0.60	0.71	1.04
A-B	Net R&M expenses	35.99	41.17	48.72	71.66

Investment Plan, Financing and Capitalization

1.1.11 ***Capital Expenditure plan:***

The Licensee has developed an extensive investment plan, which will include implementing a number of schemes during the current year and over the first control period. These schemes have been developed keeping in consideration the following objectives:

- Capacity Building
- System strengthening
- Voltage improvement
- Loss Reduction
- Consumer Service
- Reliability of service
- Rural Electrification
- Meterisation of unmetered connection
- Feeder bifurcation

The capital expenditure plan for the licensee from 2010-11 to 2012-13 is as under:

(Rs. Crores)

Sl. No.	Name of scheme	Plan 2010-11	Plan 2011-12	Plan 2012-13
1	ADB-Tr-IV	196.00	47.00	232.69
2	ADB-Tr-V			
3	PFC	0.00	0.00	0.00
4	RGGVY	0.00	0.00	0.00
5	R-APDRP 1	19.00	18.00	0.00

6	R-APDRP 2	40.48	138.40	71.74
7	JBIC	76.22	19.06	0.00
8	New Ag. Pumps	5.00	5.00	5.00
9	Feeder Bifurcation	2.50	0.00	0.00
10	SYSTEM STRENGTHENING (STN)	31.92	35.16	37.70
11	SYSTEM STRENGTHENING (SCSP)	56.50	46.23	54.96
12	Feeder Bifurcation with HVDS upto village level	56.40	884.10	322.50
13	REC (Meterisation)	0.00	0.00	0.00
	TOTAL	484.02	1,192.95	724.59

*1.1.12 **Transfer of CWIP to GFA (Asset Class)***

The Licensee had a CWIP of Rs.1,178.86 Crs. CWIP as on 31st March 2010 as per the Accounts for the period FY 2009-10. For the projection period, the capitalization has been assumed as follows:

It is assumed that total investment plan would be realized investments for the year. The entire realized investments for a year is added to the opening CWIP to obtain the CWIP for the year.

The capitalization plan is considered to be 20%, 60%, 20% respectively for the new investment during the year. And that for the capitalization of the opening CWIP the Capitalization rate is takes as 20%, 40%, 40%

Expenses are capitalized at different rates based on their past trend. The asset capitalization details in FY 10 and during MYT period are as follows:

Particulars	MYT 2010-11 to 2012-13		
	FY11	FY12	FY13
Opening Balance of CWIP	1178.86	1,349.27	1,554.73
Fresh Investment during the year	507.72	1,227.05	773.58
Total Capitalisation during the year (C+D)	337.32	1,021.59	1,464.04
Investment capitalised out of opening CWIP	235.77	471.54	471.54
Investment capitalised out of fresh investment	101.54	550.04	992.49
Closing Balance of CWIP (A + B - C - D)	1,349.27	1,554.73	864.27

1.1.13 ***Terms and conditions of the loans***

The table below provides information regarding the terms and conditions of the loans that are proposed to be drawn by the Licensee over the period FY10-FY13.

In cases where there is some untied-up financing portion for the proposed capital expenditure plan, the same are proposed to be funded through "Other market borrowings".

Funding agency	Interest rate (%)	Moratorium	No. of annual installments
PFC	12.5%	5	7
ADB	10.5%	5	15
REC JBIC	10.9%	5	10
R APDRP	11.5%	3	7
STN	12.5%	1	10
Generic (Including Bonds & Debentures)	10.5%	1	10
Feeder Bifurcation with HVDS upto village level	10.5%	1	10
REC (Meterisation)	12.5%	1	10

Interest and Finance Charges

1.1.14 ***Interest on Capital expenditure loans***

The details of calculations for calculation of interest and finance charges are explained below. The scheme wise detail has been presented in the tariff formats as annexure.

The MPSEB Generic Loan transferred through the provisional balance sheet as on 31.05.2005 have been now bifurcated into their respective heads and re-casted into separate accounts.

The additions of the new loans are considered in tandem with the investment plan to reflect the actual cash inflows funding the projects.

1) As per regulation:

Particulars	2010-11	2011-12	2012-13
In Rs Crores	**As per regulation**	**As per regulation**	**As per regulatio**
Debt identified With GFA as on 31st March 2010 as per Tariff order 2010-11	145.46	205.95	471.7

70% of addition to net GFA considered as funded through loan net of Consumer contribution	101.19		306.48	439.2
Debt repayment	40.71		40.71	40.7
Total Debt Associated with GFA as on 31st March.	205.95		471.72	870.2
Weighted average Rate of Interest on Loans % (As per Interest on project loans)	11%		11%	11
Interest on Project loans	22.65		51.89	95.7
Other Charges	5.25		9.52	14.5
Interest and Finance Charges on Working Capital Loans	7.43		8.11	9.0
Interest on Consumer Security Deposit	26.97		29.72	32.4
Interest at weighted average rate of loan portfolio on excess additional equity, if any**				
Total interest and finance charges chargeable to revenue account (A+B+C+D)	**62.30**		**99.23**	**151.8**

2) As per Loan details available with licensee as 31st March 2010

Particulars (In Rs Crores)	CY FY10	FY11	MYT 201 -11 to 2012-13 FY12	FY13
Interest charges on State Govt. Loans, Bonds And Advances				
Interest charges on loans from the State Government	47.12	29.56	29.56	29.56
Interest charges on Bonds	0.00	4.68	2.81	0.94
Interest charges on Foreign Currency Loans / Credits	0.00	0.00	0.00	0.00
Interest charges on debentures	0.00	4.44	2.66	0.89

Particulars (In Rs Crores)	CY FY10	FY11	MYT 2010-11 to 2012-13 FY12	FY13
Total of I	47.17	38.68	35.03	31.38
Interest on Long Term Loans / Credits from the FIs / banks / organisations approved by the State Government				
REC	5.55	5.18	4.82	4.45
PFC	8.49	6.46	5.47	4.47
ADB	12.53	23.23	35.98	50.67
RGGVY	0.00	0.00	0.00	0.00
RAPDRP	0.00	2.22	11.80	22.92
JBIC	3.60	9.66	14.85	15.89
Feeder Separation	0.00	2.96	52.34	115.68
Total of II	30.18	49.71	125.26	214.09
Total of A : I + II	77.35	88.39	160.28	245.47
Cost of raising finance & Bank Charges on project loans	4.59	5.25	9.52	14.57
Grand Total Of Interest & Finance Charges: A + B	81.94	93.63	169.80	260.04
Less: Interest & Finance Charges Chargeable to Capital Account	30.39	9.36	16.98	26.00
Net Total Of Interest & Finance Charges on Project Loans C-D	51.55	84.27	152.82	234.04
Interest and Finance Charges on Working Capital Loans	121.36	319.84	357.48	378.79
Interest on Consumer Security Deposit	23.60	26.97	29.72	32.47
Total interest and finance charges chargeable to revenue account	196.51	431.09	540.02	645.30

Interest on Working Capital loans

The working capital requirement has been estimated as under based on the norms as per the Regulation. Interest rate of 12.50% has been taken as per regulation for the calculation of the Interest on the working capital. The interest calculated on working capital is shown below : (for the Wheeling Activity)

1) **As per regulation:**

Sl. No.	Particulars	CY	MYT 2010-11 to 2012-13		
A)	1/6th of annual requirement of inventory for previous year	**3.31**	**3.44**	**4.00**	**5.70**
B)	O&M expenses				
	R&M expenses	36.92	41.77	49.42	72.70
	A&G expenses	75.51	89.21	97.92	107.69
	Employee expenses	822.43	533.63	575.54	616.33
B) i)	Total of O&M expenses	934.85	**664.61**	**722.88**	**796.72**
B) ii)	1/12th of total	**77.90**	**60.71**	**69.09**	**77.76**
C)	Receivables				
C) i)	Annual Revenue from wheeling charges	3.29	3.49	3.70	3.93
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	0.55	0.58	0.62	0.66

D)	Total Working capital				
	(A), B) ii), C) ii))	**81.76**	**59.40**	**64.85**	**72.75**
E)	Rate of Interest	12.50%	12.50%	12.50%	12.50%
F)	Interest on Working capital	**10.22**	**7.43**	**8.11**	**9.09**

2) As per Projection:

Particular	2010-11	2011-12	2012-13
Interest on working capital	319.84	357.48	378.79

Provision for bad and doubtful debts

As per the Regulation, the Hon'ble Commission has allowed the Licensees to include provision for bad and doubtful debts as 1% of the total sales revenue. However, the Licensee humbly submits to the Hon'ble Commission that this amount of provision is not adequate for the Licensee to meet its requirements in this regard. The Licensee has claimed for provision of bad and doubtful debts on the basis of past trends.

1) As per Regulation:

Particulars	MYT 2010-11 to 2012-13		
	FY11	FY12	FY13
Bad Debts to be written off	42.43	49.30	54.44

2) As per licensee's projection

Particulars	MYT 2010-11 to 2012-13		
	FY11	FY12	FY13
Bad Debts to be written off	42.53	49.40	54.56
Bad Debts to be provided for	190.28	200.29	209.13

Depreciation

The Licensee has Opening GFA of Rs. 2061.31 Crs. as per the Audited Balance Sheet for FY 10. The capitalization of CWIP is transferred to the fixed assets as new asset additions for the year. It is expected that the addition to GFA during FY 11 to FY 13 would be Rs. 337.37 Crs., Rs. 1023.88 Crs., Rs. 1470.92 Crs. respectively. Accumulated depreciation during FY 10 to FY 13 would be Rs. 1,379.30 Crs, Rs. 1479.07 Crs., Rs. 1,605.05 Crs and Rs. 1810.62 Crs. respectively. The salient premises adopted for the projection of depreciation are:

The depreciation rate that have been adopted for the depreciation calculation is as per the MoP notification (notified under S.O.265 (E) dated 27th March, 1994 by the Central Government) which is also being used in the preparation of the annual accounts of the licensee. The Company requests the Commission to consider MoP rates as depreciation rates. However licensee also submits the depreciation as per regulation. The depreciation during the year so worked out for FY 11 to FY 13 is shown below:

1) **As per MOP Rates**

Additions to Depreciation during the Year (Rs. Crs.)	FY10	FY11	FY12	FY13
Land & Land Rights	0.02	0.02	0.02	0.02
Buildings	0.98	1.10	1.40	2.31
Hydraulic Works	0.11	0.14	0.22	0.44
Other Civil Works	0.08	0.09	0.13	0.24
Plant & Machinery	30.64	32.12	39.81	63.22
Lines and Cable Network	61.80	65.57	83.44	137.75
Vehicles	0.06	0.04	0.14	0.46
Furniture's & Fixtures	0.07	0.08	0.12	0.22
Office Equipment	0.79	0.66	0.72	0.90
Total	94.54	99.82	125.99	205.57

2) **As per regulation:**

Additions to Depreciation during the Year (Rs. Crs.)	FY11	FY12	FY13
Land & Land Rights	-	0.06	0.11
Buildings	1.29	1.65	2.32
Hydraulic Works	0.25	0.25	0.25
Other Civil Works	0.08	0.09	0.07
Plant & Machinery	26.07	40.80	68.05
Lines and Cable Network	44.22	62.82	98.02
Vehicles	0.03	0.06	0.12
Furniture's & Fixtures	0.05	0.07	0.10
Office Equipment	0.52	0.98	1.81
Total	**72.52**	**106.78**	**170.85**

Additions to Depreciation during the Year (Rs. Crs.)	FY11	FY12	FY13

Return on Equity

The computation of Return on Equity as per the provisions of the regulations has been presented in the table below:

(Rs Crores)

Sl.No.	Particulars	MYT 2010-11 to 2012-13		
		FY11	FY12	FY13
A	Gross Fixed Assets at the beginning of year (net of consumer contributions)	1,943.20	2,280.51	3,302.10
A1	Opening balance of GFA identified as funded through equity (30%)	582.96	684.15	990.63
A2	Opening balance of GFA identified as funded through debt (70%)	1,360.24	1,596.36	2,311.47
B	Proposed capitalisation of assets as per the investment plan (net of consumer contribution)	337.32	1,021.59	1,464.04
B1	Proportion of caplitalised assets funded out of equity, internal reserves	101.19	306.48	439.21
B2	Balance Proportion of capitalised assets funded out of project loans (B - B1)	236.12	715.11	1,024.83
C1	Normative additional equity (30% of B)	101.19	306.48	439.21
C2	Normative additional debt (70% of B)	236.12	715.11	1,024.83
D1	Excess / shortfall of additional equity over normative (B1-C1)	0.00	0.00	0.00
D2	Excess / shortfall of additional debt over normative (B2-C2)	0.00	0.00	0.00
E	Equity eligible for Return (A1+(C1/2)) OR (A1+(B1/2)), whichever is lower	633.56	837.39	1,210.24

Sl.No.	Particulars	MYT 2010-11 to 2012-13		
		FY11	FY12	FY13
	Return on Equity (16% on E)	101.37	133.98	193.64

Other Income

The licensee projects the other income as follows:

1) As per regulaion

Other Income (in Rs. Crores)	FY11	FY12	FY13
Total	100.00	106.14	112.66

2) As per projection:

Other Income (in Rs. Crores)	FY11	FY12	FY13
Total	110.10	116.85	124.01

Annual Revenue Requirement

Summary for West Discom

P&L Statement for West Discom

	Particulars		MYT 2010-11 to 2012-13			
		FY11		FY12		FY13
A	Revenue					
1	Revenue from sale of power (Inclusive of tariff subsidy)	4,142.64	4,142.64	4,823.41	4,823.41	5,331.81
2	Other income	110.10	100.00	116.85	106.14	124.01
	Total Revenue or Income	**4,239.51**	**4,242.64**	**4,941.98**	**4,929.55**	**5,296.25**
B	Expenditure					
1	Purchase of Power from all sources	4057.96	3983.13	3909.08	3840.15	4286.41
2	Inter-State Transmission charges	112.16	113.46	121.98	123.47	147.43
3	Intra-State Transmission (MP Transco) Charges	272.80	272.80	418.02	298.45	418.02
4	Repairs and Maintenance	41.77	41.77	49.42	49.42	72.70
5	Employee costs	597.93	533.63	674.22	575.54	735.23
6	Administration and General expenses	89.61	89.21	106.35	97.92	126.22

	Particulars		MYT 2010-11 to 2012-13			
		FY11		FY12		FY13
7	Net prior period credit charges	0.00		0.00		0.00
8	Other Debits, Write-offs (including provision for bad debts)	235.07	44.69	251.95	51.56	265.94
9	Lease Rentals	0.00		0.00		0.00
10	Extra ordinary items	0.00		0.00		0.00
10	Less: Expenses Capitalized	14.34	0.60	15.87	0.71	17.28
	Power Purchase Expenditure Reserved by MPERC in its True up Order for FY 06	0.00		0.00		0.00
		0.00		0.00		0.00
C	PBDIT	**(1,140.19)**	**(834.86)**	**(574.89)**	**(106.25)**	**(578.85)**
D	Depreciation and Related debits	99.82	72.52	125.99	106.78	205.57
E	**PBIT**	**(1,240.01)**	**(907.37)**	**(700.87)**	**(213.02)**	**(784.42)**
1	Interest & Finance Charges	431.10	62.30	538.77	99.23	639.61
2	Less: Interest Capitalized	9.35		18.23		31.69
F	**Total Interest and Finance Charges**	**431.10**	**62.30**	**538.77**	**99.23**	**639.61**
H	**Profit/Loss before**	**(1,671.10)**	**(969.67)**	**(1,239.64)**	**(312.26)**	**(1,424.02)**

	Particulars		MYT 2010-11 to 2012-13			
		FY11		FY12		FY13
	Tax					
I	Income Tax	0.00		0.00		0.00
J	**Profit/Loss after Tax**	**(1,671.10)**	**(969.67)**	**(1,239.64)**	**(312.26)**	**(1,424.02)**

Segregation of ARR

The licensee has endeavoured to segregate the ARR for various functions, namely, Power Purchase, Distribution function and Retail Supply function. The tables below provide summary of ARR for the three functions identified above.

Segregation of ARR

All figures in Rs Crores

Particulars	FY11		FY12		FY13	
	As per Actual	As per regulation	As per Actual	As per regulation	As per Actual	As per reg
Expenditure						

Power Purchase expenses, including Inter-State and Intra-State Transmission charges and wheeling charges payable to any other Distribution Licensee	4,442.9	4,369.4	4,449.1	4,262.1	4,851.9	
Aggregate Revenue Requirement of Wheeling and retail sale Activity	1,472.2	844.9	2,399.4	1,659.0	2,097.6	
Total Aggregate Revenue Requirement for Distribution and Retail Sale	**5,915.1**	**5,214.3**	**6,848.5**	**5,921.1**	**6,949.5**	

	MYT 2010-11 to 2012-13		
	FY11	FY12	FY13

	As per Actual	As per regulation	As per Actual	As per regulation	s per Actual	reg
Power Purchase or Energy Available (MU)	14316	14316	16042	16042	17236	
Sale of Power (MU)	9982	9982	11481	11481	12671	
Loss %	26%	26%	24%	24%	22%	
Expenditure						
Cost of power purchase, including T&D losses	4057.96	3,983.13	3909.08	3,840 .15	4286.41	
Inter-State Transmission charges	112.16	113.46	122	123 .47	147	
Intra-state Transmission (MP Transco) charges	272.80	272.80	418.02	298 .45	418.02	
Total expenditure on power purchase	**4,442.89**	**4,369.39**	**4 ,449.08**	**4,262. 07**	**4,851.86**	

All figures in Rs Crores

Particulars	MYT 2010-11 to 2012-13					
	FY11		FY12		FY13	
	As per Actual	As per regulation	As per Actual	As per regulation	As per Actual	As pe regulat
Expenditure						
R&M Expense	41.17	41.17	48.72	48.72	71.66	
Employee Expenses	587.99	533.63	662.98	575.54	722.95	
Terminal Benefits			651.45	651.45		
A&G Expense	85.81	89.21	102.42	97.92	122.26	
Depreciation	99.82	72.52	125.99	106.78	205.57	
Interest & Finance Charges on project loans (Including interest on consumer security deposit)	111.25	54.87	181.29	91.13	260.82	

Interest and Finance Charges on working capital loans	319.84	7.43	357.48	8.11	378.79	
Any other expenses*	235.07	44.69	251.95	51.56	265.94	
Return on Equity	101.37	101.37	133.98	133.98	193.64	
Less:						
Other Income (inclusive of income from wheeling charges)	110.10	100.00	116.85	106.14	124.01	
Annual Revenue Requirement (A-B)	**1,472.22**	**844.88**	**2,399.41**	**1,659.03**	**2,097.61**	**1,**

Other Points

True-up Cost of Previous Years

Distribution Company had started functioning independently wef 1st June'2005. Although the Tariff petition for the year 2005-06 earlier was filed by MPSEB and the tariff was issued by the Commission on 29th June-2005. The same tariff order was made applicable for the Discom and accordingly the True-up petition for the Discom was finalized for FY-06. This was the first true-up exercise of the MPERC for the Distribution companies of the state. Thereafter, MPERC has regularly determined the true-ups for respective year. The year wise true-up cost and its Gap is summarised as below:-

TRUE-UP for FY06:

As discussed earlier, on the directives of Hon'ble Commission MPPKVVCL had submitted the petition no. 60/07 before the Commission for True-up of financial profit or loss for the period June'05 to March'06. Any truing up exercise is directly related with the estimation provided in the tariff order. Discom wise estimation had not been provided in the tariff order for FY06, but while deciding the true-up order dated 16-1-08, MPERC has shown a loss of Rs. 118.27 Cr to MPPKVVCL, Indore against the loss of 261.42 Cr. This loss of 261.42 Cr. had been passed on to the consumers during the determination of Tariff for FY09 and this resulted in increase in the ARR for FY09.

Apart from other expenses, the Hon'ble Commission had disallowed the power purchased cost to the tune of Rs. 164.42 Cr. as per the claimed made by the company. However, the honourable commission has allowed the full power purchase cost of Rs. 1628.46 Cr.as per the audited account of the company.

Aggrieved by the Hon’ble Commission order, the three distribution companies of the state along with MP Tradeco had filed an appeal no. 36/2010 before the Hon’ble Appellate Tribunal for electricity, New Delhi. The Hon’ble Tribunal had decided the appeal in the favour of Discoms vide its order dated 2-8-10. The Hon’ble commission has registered a suo-moto petition no. 66 of 2010 for deciding the power purchase cost for the year 2005-06 in compliance to Hon’ble Tribunal’s Judgement. The matter is under consideration with MPERC.

In this context it is submitted that the expenses allowed by the Tribunal shall be claimed only after the decision of the suo-moto petition no. 66 of 2010 of the Commission.

TRUE-UP for FY07:

On the directives of Hon’ble Commission, MPPKVVCL Indore had submitted the petition no. 13/08 before the Commission for True-up of ARR for the period April’06 to March’07. The Hon’ble Commission while deciding the true-up order dated 16-6-09 had shown a profit of Rs. 341.00 Cr. to MPPKVVCL Indore against the loss of Rs. 517.63 Cr. This profit had been passed on to the consumer during the determination of Tariff for FY10 and reduces the ARR for FY10.

Apart from other expenses, the Hon’ble Commission had allowed the power purchase cost of Rs 1607.13 Cr from the cumulative audited power purchase cost of Rs. 2116.31 Cr. This audited power purchase cost of Rs. 2116.31Cr, which includes the short term power purchase cost of Rs. 164.42 Cr. for the year FY06, which had been disallowed while truing up the FY06 ARR.

The power purchase cost disallowed by the Hon’ble Commission is to the tune of Rs. 344.76 Cr.

Aggrieved by the Hon'ble Commision's order, all the three distribution companies of the state had filed appeal no. 145/2009 before the Hon'ble Appellate Tribunal for electricity, New Delhi. The Hon'ble Tribunal has decided the appeal in favour of the Discoms vide its order dated 19-5-10. The Hon'ble Tribunal has allowed the power purchase cost only. The Hon'ble Commission had filed an appeal for review of Tribunal's order dtd. 19/05/2010 before the Hon'ble Appellate Tribunal, New Delhi.

In this context it is submitted that the expenses allowed by the Tribunal shall be claimed only after the decision of the review appeal of the Commission.

TRUE-UP for FY08:

On the directives of Hon'ble Commission, MPPKVVCL, Indore had submitted the petition no. 67/09 before the Commission for True-up of ARR for the period April'07 to March'08. The Hon'ble Commission while deciding the true-up order dated 13/04/10 had shown loss of only Rs. 16.12 Cr to MPPKVVCL, Indore against the loss of Rs 1088.61 Cr. This loss had been passed on to the consumer during the determination of Tariff for FY-11.

Aggrieved by the Hon'ble Commision's order, the three distribution companies of the state had filed appeal no. 150/2010 before the Hon'ble Appellate Tribunal for electricity New Delhi and this appeal is not yet decided. In this context, it is submitted that the expenses allowed, if any, by the Tribunal shall be claimed only after the decision of the appeal.

TRUE-UP for FY09:

On the directives of Hon'ble Commission, MPPKVVCL, Indore had submitted the petition before the Commission for True-up of ARR for the period April'08 to March'09. This petition is yet to be decided by MPERC. In this context it is submitted that the expenses allowed, if any, by the Commission shall be claimed only after the decision of the true –up petition.

TRUE-UP for FY10:

MPPKVVCL Indore is in the process of submitting the petition for True-up of ARR for the period April'09 to March'10 shortly. Therefore, company has not claimed any true-up cost for the year 2009-10 in this petition.

Fuel Surcharge Adjustment

At present there is no mechanism for automatic pass-through of the enhanced costs for the Discom due to unforeseen circumstances beyond the control of Discom. Thus even though generating and transmission utilities pass their uncontrollable cost, the Discom is not able to pass on the same to its consumers. This is especially the power purchase cost which represents the most substantial 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 functions 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 that "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 submits 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 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:

FSAJ (Rs crores) = PJ-2 + I J-2 + 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:

FSARs./kWh = (FSA / (Metered sales + 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.

Expensive Power Charges

All Power purchases are undertaken by the licensee through the MP Tradeco. The MP Tradeco arranges the power for three Distribution co’s of the state viz, East, Central and West Discom. Also, apart from entering into contract for purchase of power from various sources, MP Tradeco has also entered into arrangement of banking of power under which the power is sold in kind and is returned in kind at a later date or vice-versa. The licensee generally avoids the load shedding of HT consumers and LT consumers of Commissionary and Distt. HQ. Therefore, in case of shortage of power, the licensees manage the power supply to these categories of consumers by arranging expensive power. Therefore, licensee proposes that the additional cost of expensive power is allowed to be recovered from HT consumer and LT consumer of Commissionary/Distt. HQ. Since the LT loss level of different area is different, therefore it will be appropriate to recover the cost of expensive power from LT consumers of Distt. H.Q. in proportion to their requirement in the following manner.

Formula:-

Net energy requirement – R1 MU with cost C1

Availability from identified sources – R2 MU with cost C2

Difference– (R2-R1) MU

Partially/fully power arrange from short term sources (For supplying power to HT consumer and LT consumer of CHQ and DHQ) – R3 MU with cost C3 i.e. (R3/(H1+L1) percentage of total requirement)

Power requirement to HT Consumer – H1 (Incorporating 1.5% distribution loss, 4.9% Transmission losses, and 2% external losses)

Power requirement to LT Consumer of CHQ/DHQ – L1 (Incorporating actual distribution loss of the area, 4.9% Transmission losses, and 2% external losses)

Expensive power arrange to HT consumer – H1 X (R3/(H1+L1)%)

Expensive power arrange to LT consumer of CHQ/DHQ – L1 X (R3/(H1+L1)%)

Difference of Expensive Power Cost per unit (D1) = (C3/R3) – (C1/R1)

HT Consumer H1X(R3/(H1+L1)%) H1X(R3/(H1+L1)%)X D1 H1X(R3/(H1+L1)%)XD1}/HT Sale

LT Consumer L1X(R3/(H1+L1)%) L1X(R3/(H1+L1)%)X D1 {L1X(R3/(H1+L1)%)XD1}/HT Sale

Example

Consider that the commission has allowed the requirement of 275 MU with an average power purchase cost @ 2.00 Rs. Per unit for the month of April. In case of shortage in availability, Distribution Licensee has arranged expensive power purchase of 20 MU from short term sources at average rate Rs. 6.24 Per unit to meet out the requirement of HT consumer and LT consumer of CHQ and DHQ. 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 EPC. If the sale during the month of April for HT consumer was 100 MU and LT consumer of CHQ and DHQ was 45 MU, then the EPC per unit to be recovered would be calculated as under:-

Power requirement for HT consumer – [{100/(1-1.5%)}/(1-4.9%)]/(1-2%) = 108.55 MU

Power requirement for LT consumer for DHQ/CHQ say 35.5% Distribution loss

– [{45/(1-35.5%)}/(1-4.9%)]/(1-2%) = 75 MU

Total power requirement for HT and LT consumer of DHQ/CHQ = 108.55+75=183.55 MU

Percentage of Expensive power purchase in the month – (20/183.55) % =11%

Expensive power arrange to HT consumer = 108.55 X 11% = 11.94 MU

Expensive power arrange to LT consumer of DHQ/CHQ= 75 X 11% = 8.06 MU

Additional cost towards expensive power to HT consumers = 11.94 X (6.24-2.00)

= 5.06 crores

Per unit Expensive charges to be recovered from HT consumer in the monthly bill of June = 5.06/100 = Rs. 0.51 per unit

Additional cost towards expensive power to LT consumers of CHQ/DHQ=8.06X(6.24-2.00) = 3.42 crores

Per unit Expensive charges to be recovered from LT consumer of CHQ/DHQ in the monthly bill of June = 3.42/45 = Rs. 0.76 per unit

Depreciation

Clause 30 of the Regulation provides that "For the purpose of tariff, depreciation shall be computed in the following manner:

a. The value base for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission

b. The approved/accepted cost shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed.

c. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

d. Land other than land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

e. Depreciation shall be calculated annually based on ‘straight line method’ and at rate specified in Annexure III to these Regulations for the assets of the Distribution System declared in commercial operation after 31/03/2010.

Provided further that the Consumer contribution or capital subsidy/grant etc. for asset creation shall be treated as may be notified by the Commission from time to time.

f. In case of the existing Projects, the balance depreciable value as on 1.4.2010 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission up to 31.3.2010 from the gross depreciable value of the assets. The rate of Depreciation shall be continued to be charged at the rate specified in Appendix-III till cumulative depreciation reaches 70 %. Thereafter, the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90.

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 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 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.

Segregation of Expenses

Costs have been segregated into two major categories

- Costs '**which predominantly**' belong to a particular business to be booked under such business
- Common costs which need to be allocated or apportioned based on the apportionment rule or a Cost Driver

The apportionment of expenses has been considered for each item of expenses or expense groups. The segregation of expenses to arrive at costs under Distribution business and Retail supply business is attempted on a best estimate basis. There are seven major expense groups into which the expenses are booked in the trial balance of the company. The account group-wise approach of segregation of expenses, with allocation rule made for each expense account group, is as mentioned hereunder:

Account Group 70.000 : Power Purchase Expenses

Account Group code	Description of the Asset	Activity to be booked under
70.000 (Except 70.400)	Power Purchase Expenses (incl SLDC, ULDC charges) (except Open Access charges and Wheeling charges)	Retail Supply Business
70.145	Transmission Wheeling and Associated Charges	Retail Supply Business

Account Group 74.000 : Repairs and Maintenance Expenses

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
74.100	Repairs and Maintenance (Plant and Equipment)	Distribution Wires business	Allocate entire cost to wires
74.250 and 74.260	Repairs and Maintenance (Substations)	Distribution Wires business	Allocate entire cost to wires since the expenditure incurred is towards R&M of sub-stations
74.270 and 74.271	Repairs and Maintenance (Others)	Distribution Wires business & Retail Supply business	As per the Ratio of the GFA (P & M and Lines and Cables requirement)
74.300 and 400	Repairs and Maintenance (Other Civil works, Residual balances of 74.300)	Distribution Wires business & Retail Supply business	Ratio of Gross fixed asset value of buildings / Civil works allocated under Retail supply & Distribution wires.
74.500	Repairs and Maintenance (Lines and Cables Network)	Distribution Wires business	Allocate entire cost to wires since the expenditure incurred is towards R&M of sub-stations
74.600 to 800	Repairs and Maintenance (Vehicles, office Equipments and Furniture)	Distribution Wires business & Retail Supply business	Based on employees ratio in each of the businesses

Account Group 75.000 : Employee Expenses

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
75.000	Employee Expenses	Distribution Wires business & Retail Supply business	On the basis of the ratio of employee's effort pertaining to Distribution wires and Retail supply business in Distribution centers. For this purpose two DC s have been identified and details of time spent by the employees have been recorded. Based on the proportion of the time spent the employee costs has been segregated as pertaining to Distribution Wires and Retail supply businesses.

Account Group 76.000 : Administration Expenses

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
76.158, 160, 181 and 195	Meter testing charges, Electricity charges of offices, Energy theft and Energy banking charges	Retail Supply business	Allocate entire expense to Retail supply business
76.200	Other Material Related expenses	Distribution Wires business	Allocate entire expense to Distribution wires business
76.000 (other than listed above)	All other Administration and General expenses which have not been identified for any specific business	Distribution Wires business & Retail Supply business	Equally or apportioned in appropriate ratio.

Account Group 77.000 : Depreciation Expenses

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
77.000	Depreciation Expenses	Distribution Wires business & Retail Supply business	Based upon the Asset Allocation approach

Account Group 78.000 : Interest and Financial charges

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
78.100 to 78.500	Interest on Term loans	Distribution Wires business	Interest on term loans has been allocated to Distribution wires
78.600 and 78.700 and 78.820	Interest on Consumers deposits, Interest on Working Capital Loans and Prompt payment rebates to consumers	Retail supply business	Allocate entire expense to Retail supply business
78.800	Other Interest and Finance	Distribution Wires	Specifically identified and

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
	charges	business and Retail supply	allocated to Retail Supply and Distribution wires businesses

Account Group 79.000 : Other Debits

Account Group code	Description of the Asset	Activity to be booked under	Cost Drivers / Apportionment logic
79.400	Bad and Doubtful debts	Retail supply business	Allocate entire amount to Retail supply business

Regulatory Compliance

Distribution losses:

1.1.15 ***Commission's Directives:***

The distribution companies were directed to make all out efforts to show definite improvement in reduction of losses. While the Commission has been allowing normative level of losses, the burden on account of losses in excess of normative level has to borne by the Licensee, which is not a healthy situation and resulting adversely on their financial condition. The Licensees should concentrate their focus on this very important issue during the ensuing period so as not only to reach the level of normative losses but improve further.

1.1.16 ***West Discom' response :***

In order to reduce losses in LT category, an intensive campaign has been launched during the year 2009-10 to serve maximum number of new domestic light and fan connections in the Discom.As a result, more than 3.81 Lacs DLF connections have been served during the year.

- More than 60 vigilance teams and field units equipped with vehicles, man power and home guard jawans have been deployed for checking of unauthorized connections and detection of theft especially during Rabi Season. As a result, 127695 nos of illegal connections/malpractice cases have been detected up to Nov'10 in all category by vigilance and field units. The amount of Rs.140.00 Cr was billed and there is realization of Rs.60.00 Cr.

- A special program has been launched in the Discom to physically check the connected load of agriculture pump; because many consumers are utilizing pump of higher capacity than the sanctioned load. Around 126104 No. of pump locations were checked and 20930 nos. of connection were found with higher capacity load. Necessary action has been taken to discourage the excess load than the sanctioned.

- It is submitted that under PFC scheme, installation of 11 KV capacitors in 33/11 KV Substations on 11 KV feeders have been provided. Total of 496 MVAr capacity of capacitor bank have been commissioned and further work order for 286 No.11 KV capacitor bank (total of 248 MVAr) has also been awarded under ADB-II; Tr.-V. As a result, improvement in power factor and voltage is observed, which has impact in reduction of technical loss to a great extend. Over loading of power transformers and 33 KV feeders and loading in 11kV lines have reduced causing reduction in losses. Addition of proposed capacitor bank will further reduce the technical loss in distribution network.

- Automatic meter readings have also been implemented in case of LT high value consumers having high consumption in city area. HVDS system has been implemented in banana and sugar cane producing belt of Burhanpur district and some areas of Narmada belt under ADB scheme with provision of 291 KM new 11 KV line , 805 KM LT to HT conversation, and 3900 No. DTRs installation, for reduction of losses. These initiatives have good impact of reducing the commercial loss.

Metering of unmetered connections

1.1.17 ***Commission's Directives:***

The Commission had directed as follows –

I. All un-metered domestic connections in urban areas provided with the meters by end of March '10

II. All un-metered domestic connections in rural areas shall be provided with meters in a phased manner and metering be completed by Mar-13.

Not less than 25% of the distribution transformers having pre-dominantly agriculture load spread over the entire area of the Company be provided with the meter by end of Dec-10.

III. Data of all metered DTRs but not less than 10% of the total DTRs having pre-dominant agriculture load and capturing diverse consumption pattern, should be collected and compiled on a regular basis. The consumer indexing and verification of actual connected load be also got done and compared with the recorded consumption. The Commission directs to submit the above data and its analysis on a quarterly basis and also along with the petition for ARR and tariff proposals for the next year.

1.1.18 ***West Discom' response :***

I. As of Sep-10 the Company has made work plan to install meters at 100 % unmetered DTRs. It is submitted by the Company that out of 2331928 domestic consumers as on Sep-10, unmetered domestic connections exists to extent of 185867 (As per R-15 of domestic connections by Mar-13.

II. Status of DTR metering: It is submitted that out of 60194 nos. of predominantly agriculture DTRs, only 8073 DTR have been provided with meters. It is submitted that provision for installation of 24,677 meters on DTRs have already been made under ADB scheme and work is under progress and the progress being submitted to The Hon'ble Commission.

III. Regarding compilation of data of at least 10% of total DTR having pre-dominant agricultural load; it is to submited that data of DTRs are being regularly collected and is as given below:

1.1.18.1 **Complete Metering Programme :**

Complete meterisation programme of all 33 and 11 KV feeders, distribution transformers, DLF consumers both urban and rural, non domestic and other consumers has been prepared. It may be seen that Company has drawn a very aggressive plan for meterisation of unmetered DLF consumers as mentioned in table above and it is planned that after up to March 2011 quarterly 30,000 to 40,000 meters will be installed. Thus, meterisation programme will be completed by Sept. 2012. Programme for complete meterisation of 33 KV, 11 KV, agriculture predominated DTRs, mixed load DTRs and all category of consumers along with expected expenditure is given below :-

Nos of unmetered points / consumers as on Oct'10	March' 2011	June' 2011	Sept' 2011	Dec' 2011	March' 2012	June' 2012	Sept' 2012	Total	Assessed Expenditure (Rs. Lacs)
Domestic Unmetered+ Defective	10000	35000	45000	35000	40000	40000	33242	238242	2858.90
Commercial	2500	2684	0	0	0	0	0	5184	186.62
33 KV Exchange Location	Year 2011-12							705	676.80
11 KV feeder	Year 2011-13							2140	1412.40
11 KV Exchange Location	Year 2011-13							140	92.40
Agriculture Predominated DTRs	Year 2010-13							52121	4939.92
Mixed Load X'mers	Year 2010-13							21374	3847.32
Total									**140.14**

Thus, from the above table it is evident that Rs. 140/- Crores is needed for complete metering. After adjustment of provision of installation of DTR meters under ADB scheme approximately amounting to Rs. 62/- Crores, the balance Rs. 78./- Crores .additional fund is needed.

Hence Hon'ble Commission is requested to allow additional expenditure for complete meterisation in Capex Plan through tariff during the MYT period 2011-12 to 2012-13.

1.1.18.2 **Status of DTR metering :**

The status of DTR meters are as follow:-

Category	Total Installed DTRs	Installed meters on	Meters in working	Meters not in working condition	Nos of DTRs, where meters is to be installed.

		DTRs	condition		
Agriculture DTRs	60194	8073	8073	55	52121
Mixed Load X'mers	31343	9969	9969	127	21374
TOTAL	91537	18042	18042	182	73495

Provision for installation of 24677 meters on DTRs have already been made under ADB scheme and the award has already been placed and the works are under progress. As per directions of Hon'ble Commission, the agriculture pump consumers are billed on the basis of installed meters on 25 % distribution transformers having predominated agriculture load,. the provision of further DTR meterisation in other scheme has yet not been made. Further as the Company has prepared scheme for feeder bifurcation, connections in MYT period. Hence, it will be practically as well as technically feasible / appropriate to bill the agriculture consumers on the basis of consumption of 11 KV feeders, Hon'ble Commission is requested to consider this vital aspect in respect of agriculture

1.1.18.3 **Agriculture DTR Data :**

Regarding compilation of data of at least 10% of total DTR having pre-dominant agricultural load, it is to submit that data for 5675 Nos of DTRs is being regularly collected & had also been submitted to Hon'ble Commission under SMP No. 07/08 vide this office letter No. CMD/WZ/08/8355 Dated 07.05.2010. The statement is enclosed as **Annexure 1**. As per the abstract of data of agriculture predominated DTRs, the consumption pattern on the basis of which Hon'ble Commission may consider monthly consumption per HP are listed below :-.

Sr. No.	Category	No. of DTR	No. of Consumer	Consumption
1	Unmetered agriculture in Rural area.	5675	20032	78 Unit/H.P./Month for non -season period. 180 Unit/H.P./Month for Season period. 250 Units/HP/Month for Banana & Narmada River Belt.

Hon'ble Commission is requested to consider the above data for determination of units for agriculture consumers of West Discom, which is having more than 50 % input and sold units of agriculture base in ARR for MYT period 2010-11 to 2012-13 and also in true up for year 2008-09 and 2009-10, which will be the real justice in the interest of organization, nation as well as public at a large.

Capex plan for reduction of technical losses:

1.1.19 ***Commission's directives****:*

The Licensees are directed to file the progress of Capex during the year FY10-11 up to Jun-10 by end of Jul-10 and quarterly thereafter. In addition the capex plan for the year FY 11-12 should be also filed by Jul-10.

1.1.20 ***West Discom' response :***

The eleventh five year plan in respect of West Discom was approved by the GoMP and conveyed by Energy Departmet, vide letter no. S5-39/2007/13 dated 18-08-2008, the same has been forwarded to MPERC vide letter no CMD/WZ/08-03/ 18993 dated. 12-09-2008. In accordance to the annual plan of FY10-11; the plan has been approved by State Planning commission. 69 numbers of New 33/11 KV S/s, 67 numbers of augmentation of power transformers, 53 nos, additional power transformers, 698 Km. of 33 KV line, 5950 Km of 11 KV line, 12183 nos Distribution transformers shall be installed and commissioned in different on going schemes such as JBIC, ADB (Tr. IV), SSTD(GoMP, TSP & SCSP), RGGVY. Intensive electrification of villages and households is being carried out in Indore & Ujjain district (10^{th} plan) & in Ratlam, Dhar, Jhabua & Alirajpur districts (11^{th} plan). Works are also being executed for system strengthening under ADB scheme.

The quarterly progress up to Sep-10 in respect of the annual plan for the year FY10-11 has already been forwarded to MPERC vide letter no. CMD/WZ/Works/22712 dated 15-12-2010

The Capex plan for the year FY 11-12 will be submitted shortly, considering the annual plan approved by the state planning commission. The Capex plan FY 11-12 includes the work under RAPDRP Scheme and feeder separation scheme in addition to the SSTD (GoMP, TSP & SCSP) schemes. The RAPDRP scheme is launched for 24 towns in the area of West Discom to reduce AT&C loss up to 15%. Feeder separation up to village level is launched for providing continuous power supply to all domestic consumers.

Installation of meters having facility to record average monthly demand on domestic category of consumers:-

1.1.21 ***Commission Directives:***

The Commission directed to provide meters having facility to record average monthly demand on all the domestic connections having a connected load of 10 KW and above during this year.

1.1.22 ***West Discom' response :***

Adequate capacity of meters have been provided for domestic connections having connected load of 10 KW and above. Automatic meter reading system in LT category has also been implemented.

Segregation of rural feeders into agricultural and others:

1.1.23 ***Commission's Directives:***

The Commission directed that comprehensive details indicating total No. of 11Kv feeders that require separation, No. of feeders for which the schemes have been prepared and No. of feeders for which the scheme is under preparation be submitted before the commission. Proposed source for funding and timelines for completion indicating as to when all such feeders would be separated be informed. The information be filed by end of Jul-10.

1.1.24 ***West Discom' response** :*

The petition for approval of feeder separation scheme under Clause 10.3 of MPERC 2004 has already been submitted to MPERC vide Petition Dated 24.11.2010. Further clarifications in the matter has also been sought vide this office letter No. 22495 Dated 10.12.2010. The Hon'ble Commission has to fix up the date of hearing, which is still awaited.

As regards, present status of awards for first phase 07 districts viz., Indore, Dhar, Khandwa, Khargone, Burhanpur, Barwani and Ratlam awards have already been placed and agreements have also been executed in most of the cases. The work will be taken up by the contractors in the month of January'11. The period for completion given to the contractors is 1 ½ years. However, the total period of completion of the award has been considered as 2 years by the State Government, which means that the works for first phase districts shall be completed by January-2013.

In regards of second phase (other 07 districts of the Company): financial assistance have been tied up with the ADB. The ADB will extend financial loan to the tune of 80 % of the total project cost, whereas State Government shall release 20 % amount of the project cost without interest. The project time line of completion of second phase districts are also same as first phase i.e. 02 years. Award is targeted to be placed in the month of April'11 in respect of second phase districts and works shall be completed by April'13.

Minimum supply hours:

1.1.25 Commission's directives:

The Commission directed the Distribution Licensees to ensure that following minimum supply hours during the year be ensured:

I. Commissionary head quarters: 22 hours
II. District head quarters : 19 hours
III. Tehsil head quarters : 14 hours
IV. Rural areas : Total 12 hours out of which three phase supply for at least 6 hours

1.1.26 ***West Discom' response :***

Supply hours of West Discom from April 10 to Nov 10 are as given below:-

SUPPLY HOURS (3 Ph+ 1Ph.)

S.No.	Year	Comm. HQ	Distt. HQ	Tehsil HQ	Rural
1	April-10	22.07	18.55	13.14	9.52
2	May-10	21.48	18.47	12.56	9.17
3	June-10	21.21	18.25	13.00	8.35
4	July-10	23.09	19.26	13.43	9.59
5	Aug-10	23.36	20.58	14.18	11.10
6	Sep-10	23.55	23.22	19.14	17.41
7	Oct-10	22.10	18.04	12.16	10.01
8	Nov-10	23.09	21.27	14.04	11.04
1	April-10	22.07	18.55	13.14	9.52

New connections or enhancement of load under tariff category LT Industrial 4.1 C (para6.11 of the Retail Supply tariff Order FY2009-10)

1.1.27 ***Commission's directives:***

Earlier Directive: No new connections be released or enhancement of load be permitted under tariff category LT Industrial 4.1 C

New Directive: The Commission in last this tariff order has made changes to the relevant provisions in this regard which may be complied and compliance reported in next three months.

1.1.28 ***West Discom' response :***

No new connection released and load enhancement made under this category of consumers.

Appointment of Franchisees:

1.1.29 ***Commission's Directives****:*

The Commission directs the licensee to submit details whenever a franchisee is appointed in the area of the licensee.

1.1.30 ***West Discom' response :***

Initially as a pilot project initiative, the Company has appointed gram panchayat level franchisee at village Rupakheda in Ratlam District. This is an input based franchisee model i.e., metering at 11 KV feeders installed at input point of supply. This Gram Panchayat Franchisee is working satisfactorily since last two years.

Presently 9 nos input based Gram Panchayat level rural franchisee are working within the area of West Discom. They are:-

1. Rupakheda District: Ratlam
2. Dhaturiya District: Ratlam
3. Dharad District: Ratlam
4. Sanghvi District: Khargone
5. Rahimpura District: Khargone
6. Kampel District: Indore
7. Pipalda District: Indore

8. Pivday District: Indore
9. Sundrel District: Dhar

Gram Panchyats are being motivated to take franchisee and all efforts are being made to increase gram panchayat level input based franchisee.

In addition to above, the State Government is preparing a standard bidding document (SBD) for awarding the contract for district level franchisee. It is proposed to invite offers for 5 districts of Ujjain Region.

Issue of tariff card with first bill based on new tariff for the year 2010-2011:

1.1.31 ***Commission's Directives:***

The distribution companies were directed to issue a tariff card to all consumers containing details of tariff for various categories applicable as per the tariff order for the year 2010-11 with the first bill based on this tariff order.

1.1.32 ***West Discom' response :***

The tariff card as per the tariff order for the year 2010-11 had been issued to all consumers of West Discom.

Filing of ARR and tariff proposals in Hindi language:

1.1.33 ***Commission's Directives****:*

All the distribution companies were directed that ARR and tariff proposals and true up petitions in future years should be filed both in English and Hindi.

1.1.34 ***West Discom' response :***

Hindi version of ARR will be submitted shortly.

Accounting of rebates/incentives/ surcharge:

1.1.35 ***Commission's Directives***

All the distribution companies were directed that the details of consumer category wise month wise rebates/incentives/ surcharge given in bills as per provision of the tariff order be maintained and submitted with next year's petitions for ARR/ Tariff proposals.

1.1.36 West Discom' response:

Software is being developed for recording details of consumer category wise, month wise rebate/incentives/surcharge and the requisite information will be submitted shortly.

Maintaining uniform accounts:

The Commission has observed that the method of capturing the accounts in the three Distribution Companies is not uniform. Moreover, the method of presentation of expenses and revenues is also different in three Companies. The chart of accounts also needs to be developed for uniform implementation across the three Distribution Companies. The Commission directs that all the three Companies should evolve a common acceptable methodology of capturing cost and ensuring that in future accounts, this methodology is consistently applied with a common Accounting Policy taking into consideration of followings -

I. Basis of framing account should be same for all the three Distribution Companies.
II. All the three Distribution Companies should evolve a common chart of accounts.
III. Methodology of presentation of expenditure and revenues in Financial Accounts should be common.

It is suggested that the three Discoms should form a committee of their officers who should come up with suitable recommendations, keeping in above view, by August, 2010.

1.1.37 ***West Discom' response :***

The Company was incorporated on 31st May, 2002. However, the commercial operations commenced from 1[st] June 2005 pursuant to Government of Madhya Pradesh Notification no 226 dated 31st May, 2005. The accounts of the erstwhile

MPSEB have been based on the principles and policies enunciated under the Electricity Supply Annual Accounts Rules, 1985 (ESAAR, 1985). These policies and principles have also been continued for the current year operations of the Company. To that extent some of the accounting policies and principal of the Company may not be in consonance with the Accounting Standards referred to in Section 211 (3 C) of the Companies Act, 1956. The Company during this period of transition is the process of gradually evolving and modifying its existing Accounting policies to be in line with Accounting Standards referred to in section 211(3C). In addition to above it is to inform that ERP project of MPPKVVCL, Indore is proposed for procurement, customization, implementation and subsequent support of Enterprise Resource Planning (ERP) application systems for Finance, HR, Material Management and Project Management modules are in scope of implementation. This ERP implementation will ensure best accounting practices and regulatory compliance.

EPILOGUE

Licensee would like to refer here Clause 5.3 (h) 2) of the National Electricity Policy dated 6th January 2006 which states that "*In cases where operations have been much below the norms for many previous years the initial starting point in determining the revenue requirement and the improvement trajectories should be recognized at "relaxed" levels and not the "desired" levels.*" In light of the this para , the licensee pleads the Hon'ble Commission to consider relax norms for the determination of ARR for the period FY 2011-12 and consider the ***ARR for the period FY 2011-12 on actual basis as provided in the table shown in the page No. 97-99 of Rs. 6848.49 Crs. and net Revenue Gap of Rs.(2025.08) Crs.***

Date: 31st January 2011.

Indore

(Gajra Mehta)

Chief Engineer(Commercial)

M.P.P.K.V.V.Co.Ltd., Indore.