MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

5th Floor, "Metro Plaza", E-5, Arera Colony, Bittan Market, Bhopal - 462016

Petition No.06/2013

PRESENT:

Rakesh Sahni, Chairman

A. B. Bajpai, Member

Alok Gupta, Member

IN THE MATTER OF:

Determination of Transmission Tariff for the control period FY 2013-14 to FY 2015-16 based on the tariff application filed by Madhya Pradesh Power Transmission Company Limited (MPPTCL), Jabalpur under Section 62 and 86(1)(a) of the Electricity Act, 2003.

M. P. Power Transmission Co. Ltd., Jabalpur - Petitioner

Versus

1. **M. P. Poorv Kshetra Vidyut Vitaran Co. Ltd., Jabalpur**
2. **M. P. Madhya Kshetra Vidyut Vitaran Co. Ltd., Bhopal**
3. **M. P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore**
4. **M. P. Audyogik Kendra Vikas Nigam (SEZ), Indore**

- Respondents

ORDER

(Passed on this day of 2nd April, 2013)

1. Madhya Pradesh Electricity Regulatory Commission (hereinafter called “the Commission”) issued MPERC (Terms and Conditions for determination of Transmission Tariff)(Revision–II) Regulations, 2012 (G-28 (II) of 2012) (hereinafter referred to as “the Regulations”) for the new control period i.e. FY 2013-14 to FY 2015-16. These were notified in the official gazette on 14th December, 2012.

2. M.P. Power Transmission Co. Ltd. filed the proposal of transmission tariff for the new control period of FY 2013-14 to FY 2015-16 on 19th January, 2013. The Commission has scrutinized the petition filed by Madhya Pradesh Power Transmission Company Limited (hereinafter called “MPPTCL” or “Transmission Company” or “the petitioner”) based on the principles, methodology and the norms specified in the MPERC (Terms & Conditions for determination of Transmission Tariff) Regulations, 2012.

3. Motion hearing in the matter was held on 5th February, 2013. Vide Commission’s daily order dated 7th February, 2013, the petition was admitted and the petitioner was directed to serve copy of the petition on all respondents. The petitioner was also asked to submit certain additional information/clarifications in respect of the Fixed Assets, O&M expenses, Terminal Benefits expenses, Depreciation, Interest and Finance charges, CWIP, Return on Equity etc. for further scrutiny of the petition. Vide letter no. 1326 dated 20/02/2013, MPPTCL filed its additional submission/clarifications.

4. Vide Commission’s letter no. 382 dated 11.02.2013, the petitioner was directed to publish the public notice, as approved by the Commission in English and Hindi version, inviting comments/suggestions from various stake holders. The public hearing in the matter was fixed on 12th March, 2013.

5. Vide letter no. 1809 dated 7th March, 2013, the petitioner informed that it has received no comments/suggestions till 7th March, 2013. The public hearing in the matter was conducted on 12th March, 2013. The petitioner’s representatives were present in the public hearing. No public representative/respondent appeared in the public hearing.

6. In its petition, MPPTCL worked out the expected Transmission system capacity and allocated the same among its long term customers on the basis of allocation of available generation capacity notified by the state government vide its notification dated 29.03.2012.Meanwhile, the GoMP vide Notification no.2260-F-3-24-2009-XIII dated 19.03.2013 reallocated the generation capacity available as on date to all three Distribution Companies in the state. Based on the aforesaid reallocation of the generation capacity, MPPTCL re-worked and submitted the MW capacity on its Transmission system and allocated the same to its long term customers in each year of the control period. The same is considered in this Order.

7. The Orders for true-up of the transmission tariff up to FY 2010-11 have been issued by the Commission and the Audited accounts of MPPTCL for FY 2011-12 are also now available with the Commission. Therefore, most of the financial figures in the Annual fixed cost approved in this Order are based on the closing figures admitted in the last true-up Order for FY 2010-11. Some figures of Audited accounts for FY 2011-12 are also considered in this Order to arrive at the correct assessment of various cost components during FY 2012-13 since the aforesaid audited accounts were not made available while passing transmission tariff order for FY 2012-13.

8. The summary of the Annual Revenue Requirement filed by the petitioner for the control period of FY 2013-14 to FY 2015-16 is as given below: -

Table-1 Annual Revenue Requirement filed by the Petitioner

(₹ in Crores)

S. No.	Particulars	ARR for the Financial Year		
		FY 2013-14	**FY 2014-15**	**FY 2015-16**
1	**2**	**3**	**4**	**5**
1	O&M Expenses	321.52	366.48	414.46
2	**Terminal Benefits -**			
2(i)	Against Current Liabilities	760.86	886.87	1000.87
2(ii)	Provisions	70.08	76.68	82.96
2(iii)	For Building Funds	909.62	909.62	909.62
2	**Total Terminal Benefits -**	**1740.56**	**1873.17**	**1993.45**
3	Depreciation	270.71	311.79	346.78
4	Interest & Finance Charges	118.20	134.81	144.09
5	Interest on Working Capital	75.23	86.10	97.50
6	Return on Equity	357.64	408.80	462.56
7	Provision for Wage Revision Arrears	15.24	1.00	1.00
8	MPERC's Fee	1.04	1.15	1.27
9	**TOTAL -**	**2900.13**	**3183.3**	**3461.11**
10	Less Non-Tariff Income (-)	(-) 6.97	(-) 6.47	(-) 6.98
	NET ARR -	**2893.17**	**3176.83**	**3454.13**

9. The Commission has considered the documents available on record and reallocation of generating capacity available as on date among the three Distribution Companies by the state Government vide its Notification no. 2260-F-3-24-2009-XIII dated 19th March, 2013.

10. The summary of the Annual Revenue Requirement (ARR) as approved by the Commission in this Order for control period of FY 2013-14 to FY 2015-16 is as given below: -

Table-2 Annual Revenue Requirement approved by the Commission

(₹ in Crores)

S. No.	Particulars	ARR for the Financial Year		
		FY 2013-14	**FY 2014-15**	**FY 2015-16**
1	**2**	**3**	**4**	**5**
1	O&M Expenses	318.00	353.49	390.09
2	Terminal Benefits -			
	Against Current Liabilities	677.00	677.00	677.00
3	Depreciation	261.35	282.87	297.16
4	Interest & Finance Charges	102.91	100.62	92.92
5	Interest on Working Capital	46.97	49.95	52.69
6	Return on Equity	265.19	285.38	305.57
7	MPERC's Fee	1.04	1.15	1.27
8	**TOTAL -**	**1672.46**	**1750.46**	**1816.70**
9	Less Non-Tariff Income (-)	-29.97	-25.47	-20.98
10	**NET ARR -**	**1642.49**	**1724.99**	**1795.72**

11. In exercise of the powers vested in it under Section 64 of the Electricity Act, 2003, the Commission directs that the transmission tariff determined in this order shall be applicable from 1st April, 2013 and will continue to be operative till 31st March, 2016 under Multi Year Tariff Principles. The petitioner must take steps to implement this order after giving public notice in accordance to Regulation 1.30 of MPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 and its amendments and must also provide information to the Commission in support of having complied with this order.

12. Ordered as above read with attached detailed reasons and grounds.

(Alok Gupta)	(A. B. Bajpai)	(Rakesh Sahni)
Member	**Member**	**Chairman**

Date: 02.04.2013
Place: Bhopal

CONTENTS

Chapter – 1

Background of the Order

1.1 This order relates to petition No. 06 of 2013 filed by Madhya Pradesh Power Transmission Company Limited, Jabalpur for determination of transmission multi-year tariff for the control period of FY 2013-14 to FY 2015-16. MPPTCL is the owner of the transmission network previously owned by Madhya Pradesh State Electricity Board. MPPTCL started functioning independently from 1st June, 2005.

Procedural History

1.2 The public notice was published in the following newspapers on 14.12.2013:

(i)	Dainik Patrika, Indore	:	Hindi
(ii)	Dainik Raj Express, Bhopal	:	Hindi
(iii)	Dainik Nai Dunia, Gwalior	:	Hindi
(iv)	Dainik Hari Bhoomi, Jabalpur	:	Hindi
(v)	Dainik Jagran, Rewa	:	Hindi
(vi)	Central Chronical, Bhopal	:	English

The last date for inviting comments/suggestions/objections was 02/03/2013. Vide letter No. 1809 dated 07/03/2013, MPPTCL informed that it has received no comments/ suggestions till 7th March 2013.

1.3 The public hearing in the subject petition was held on 12th March, 2013 in the office of the Commission. The petitioner's representatives attended the public hearing. No representative from any stakeholder/public/respondent appeared in the public hearing.

Chapter – 2

Status and Performance of MPPTCL

2.1 The petitioner broadly submitted the following status of M.P. Power Transmission Co. Ltd., Jabalpur:

2.1.1 "*The applicant is a Company registered under Companies Act 1956 on 22.11.2001 with its head quarter at Jabalpur, for the purpose of undertaking the Intra-State Transmission activities in the State of Madhya Pradesh. The state Government vide order dated 31st May 2005, notified the provisional "Opening Balance Sheets" of the Companies as on 31.5.05. The Operation Management agreement between MPSEB and Companies stood terminated, and Companies started independent functioning w.e.f. 1.6.2005 under a Cash Flow Mechanism. The final Opening Balance Sheet as on 31.5.05 has been subsequently notified on 12th June 2008. The Petitioner has already reviewed its Accounts and True-ups on the basis of Final Opening Balance Sheet. The provisional Opening Balance sheet has no relevance now.*

2.1.2 In compliance to Para 5 of the State Government order dated 31.5.05, the five companies and MPSEB entered into a Transmission Service Agreement on 17th June 2005, as per the draft approved and forwarded by MPSEB to the State Government. The Transmission Service Agreement dated 17th June'05 provides "The tariff and terms & conditions for the transmission services to be rendered by the Transco, shall be as per the tariff determined by the State Commission from time to time. The MPPTCL has therefore raised the bills of Transmission charges since 1.6.2005 as per the tariff determined by the Hon'ble Commission from time to time. Hon'ble Commission directed to enter into a long term Transmission Service Agreement. Accordingly, the Petitioner MPPTCL has entered into Transmission Service Agreement with the three Distribution Licensees on dates indicated hereunder;

(i)	*East Discom -*	*20.11.2006.*
(ii)	*Central Discom -*	*17.11.2006.*
(iii)	*West Discom -*	*17.11.2006.*

An agreement dated 29.01.2005 also exists between MPSEB and MPAKVN for SEZ, Pithampur which as now stands between MPPTCL and MPAKVN, as per Transfer Scheme. MPAKVN is a Long Term Open Access customer for MPPTCL, for its Special Economic Zone campus at Pithampur, Distt. Dhar near Indore.

2.1.3 *Hon'ble Commission on 14th December 2012 notified the "MPERC (Terms & Conditions for determination of Transmission Tariff)(Revision-II) Regulations, 2012 {RG-28(II) of 2012}, stipulating Terms, Conditions & Norms for formulation of MYT Transmission Tariff Petition for control period from FY 2013-14 to FY 2015-16. The instant Petition is based on these Regulations.*"

The petitioner broadly submitted the performance of MPPTCL as given below:

Intra-State Transmission System

2.2 *Intra-State Transmission System of MPPTCL comprises of EHV Lines and Sub-stations of various voltages. Position as on 31.3.11 and 31.3.12 is tabulated hereunder:*

Table-3

S. No.	Voltage Level	As on 31.3.11			As on 31.3.12		
		EHV Lines	EHV Sub-Stations		EHV Lines	EHV Sub-Stations	
		Ckt. KMs	Number	MVA Capacity	Ckt. KMs	Number	MVA Capacity
1	400 KV	2343	5	4515	2343	5	4515
2	220 KV	10857	53	14350	11086	55	15110
3	132 KV	13208	183	15347	13629	187	15919
4	66 KV	61	1	20	61	1	20
	TOTAL -	**26469**	**242**	**34232**	**27119**	**248**	**35564**

Transmission System Capacity

2.3 *The transmission system capacity of Intra-State transmission system of MPPTCL is allocated to the Long Term Open Access customers including the Distribution Licensees. The transmission system capacity is therefore determined as per the MPERC (Terms and conditions for Intra-State Open Access in MP) Regulations, 2005. The Average Capacity of Intra-State transmission system is defined as;*

> *"Average capacity means the average capacity in MW served by the Intra-State transmission system of the transmission licensee in the previous financial year, and shall be the sum of the generating capacities, connected to the transmission system and contracted capacities of other Long Term transactions handled by the system of Transmission Licensee".*

2.4 *The power corresponding to Intra-State generating capacity is available to transmission system after deducting the auxiliary consumption. Similarly, power from the Central Sector generating stations is available at M.P. periphery after deduction of auxiliary consumption and losses in Inter-State transmission system. While determining transmission system capacity for the earlier control period from 2009-10 to 2011-12, the above mentioned fact has been taken into consideration. The Regulations provide that the Average Capacity during a year shall be taken as that served in the previous year. Therefore, the transmission capacity during a year is taken as that existing as on 1st April of that year.*

2.5 *The state government allocate, from time to time the available Generating capacity among Discoms. The latest order in this regard is on 29th March 2012. This has been taken as base for working out Transmission capacity for the three years of control period.*

State Government Order for Capacity Allocation

2.6 Government of Madhya Pradesh vide notification No. 4353-F-3-24-2009-XIII dated 18.05.2011 had allocated the total available generating capacity. Later on to allocate new capacities superseded the earlier notification by a new notification dated 29.03.2012.

2.7 Based on the State Government order dated 29.03.2012, the total Generating Capacity is summarized hereunder;

Table-4

S. No.	*MP's Power Share from*	*Installed Capacity (MW)*	*MP Share (MW)*
1.	*Central Sector WR*	*9,139.59*	*2,075.85*
2.	*Central Sector ER*	*1,500.00*	*74.98*
3.	*DVC*	*500.00*	*200.00*
4.	*Indira Sagar Project*	*1,000.00*	*1,000.00*
5.	*Sardar Sarovar Project*	*1,450.00*	*826.50*
6.	*Omkareshwar HEP*	*520.00*	*520.00*
7.	*InterState Hydel*	*591.00*	*322.17*
8.	*GENCO Thermal*	*2,932.00*	*2,807.51*
9.	*GENCO Hydro*	*605.00*	*605.00*
	Total	***18,292.09***	***8,432.01***

2.9 *In addition to above, a specific allocation of 200 MW has also been made available for Bundelkhand Region of East Discom, making total capacity as 8632.01 MW.*

2.10 *The above mentioned capacity can be taken as Generation capacity allocation as on 01.04.2012 i.e. for FY 2012-13. The State Government order dated 29.03.2012 in Para-6 also allocated the capacity of 2145.00 MW new Generating Stations to MP Tradeco. This capacity was also considered while determining the Transmission Tariff for FY 2012-13. However, it is noted that many of the Generating Units could not be commissioned. Therefore, the additions for this MYT Petition are projected based on units commissioned and those planned for commissioning in ensuing years in the 12th Plan, by the State Planning Cell."*

Transmission Capacity for FY 2013-14 to FY 2015-16 as filed in the petition

2.11 Based on the above allocation of the available generation capacity and other anticipated generation capacity to be added during three years of the control period the petitioner projected the following additional capacity to be available in FY 2013-14 to FY 2015-16 by deducting the Auxiliary consumption and Inter-State Transmission losses:

FY 2013-14 - 10634 MW
FY 2014-15- 13146 MW
FY 2015-16- 14477 MW

Transmission Capacity Allocation among Discoms & SEZ

2.12 The petitioner proposed the capacity allocation to Discoms on the following basis:

"(i). Total transmission capacity (inclusive of 200 MW specific allocation for Bundelkhand Region in MPPKVVCL) available for a particular year is apportioned in the percentage ratio as indicated in State Government order dated 29.03.2012. SEZ allocation is treated as additional.

(ii). The capacity during the year is taken as that on 1st April i.e. beginning of year.

(iii). Since SEZ has availed additional power under Open Access from NTPC, and has been allocated capacity at MP periphery as 12 MW, same has been considered.

(iv). The fractional allocation worked out has been rounded off.

Based on above, the allocated transmission capacity is proposed as tabulated hereunder:

Table-11

S. No.	***Distribution Licensee***	***Percentage Allocation***	***Capacity Allocation for (in MW)***		
			2013-14	***2014-15***	***2015-16***
1	*MP Poorva Kshetra Vidyut Vitaran Co. Ltd. Jabalpur.*	*29.89%*	*3315*	*4066*	*4464*
2	*MP Madhya Kshetra Vidyut Vitaran Co. Ltd. Bhopal.*	*31.84%*	*3318*	*4118*	*4542*
3	*MP Paschim Kshetra Vidyut Vitaran Co. Ltd. Indore.*	*38.27%*	*3988*	*4950*	*5459*
4	***Total Discoms -***	***100.00%***	***10622***	***13134***	***14465***
5	*SEZ Pithampur (Dhar)*	*-*	*12*	*12*	*12*
6	***Grand Total -***	***-***	***10634***	***13146***	***14477***

As per Transmission Tariff Regulations, the Distribution Companies and the SEZ will share the transmission charges in the ratio of capacity allocated to them."

<u>Commission's Analysis</u>

2.13 On perusal of the above Transmission Capacity projected in the petition, the petitioner was asked to reconcile the generation capacity addition anticipated in FY 2013-14 particularly in respect of Satpura Thermal Power Station and Singhaji TPS.

2.14 Vide letter no. 1326 dated 20/02/2013, MPPTCL submitted that;

"*The Transmission capacity has been worked out based on State Government order dated 29.03.2012, and addition each year is based on figures of Planning Section available that time. However, as desired reconciliation with the MYT Petition of Genco, is as under;*

(a). <u>Satpura Power Station</u> –

As per Para 5.4.1(i) of Genco's Petition, Unit 10 of 250 MW is expected to be commissioned in February 2013, which will add to capacity at the beginning of FY 2013-14. An old unit of 62.5 MW is proposed to be removed, the Net Capacity Addition will be;
= 250.0 – 62.5 = 187.5 MW

(b). <u>Singaji Thermal Power Project Phase-I (2x600 MW)</u> –

As per Para 5.4.1(ii) of the Genco's Petition, first unit of 600 MW is expected to be commissioned in March 2013. This capacity is therefore taken into consideration.

It may however be mentioned that these are assessments at this stage. Any deviation or slippage of project is considered at the time of 'True-up' exercise at a later stage".

2.15 MPPTCL worked out the expected Transmission system capacity and allocated the same among its long term customers on the basis of allocation of available generation capacity notified by the state Government vide its notification dated 29.03.2012. Meanwhile, the GoMP vide Notification no.2260-F-3-24-2009-XIII dated 19.03.2013 reallocated the generation capacity available as on date to all three Distribution Companies in the state. Based on the aforesaid reallocation of the generation capacity, In view of the aforesaid the petitioner was asked to rework the transmission capacity for FY 2013-14 to FY 2015-16 with reference to the aforesaid notification. In response, vide letter No. 2397 dated 26.03.2013, MPPTCL re-worked and submitted the revised MW capacity on its Transmission system and allocated the same to its long term customers in each year of the control period. MPPTCL also revised the energy expected to be handled by it. MPPTCL submitted the following capacity allocations along-with the revised Annexure - (iii) (a) (b) (c).

Table – 12 Revised Capacity Allocation filed by MPPTCL

S. No.	Distribution Licensee	Percentage Allocation	Capacity Allocation (in MW)		
			2013-14	2014-15	2015-16
1	MP Poorva Kshetra Vidyut Vitaran Company Ltd. Jabalpur.	29.87%	3141	3884	4339
2	MP Madhya Kshetra Vidyut Vitaran Company Ltd. Bhopal.	31.81%	3346	4137	4622
3	MP Paschim Kshetra Vidyut Vitaran Company Ltd. Indore.	38.32%	4030	4983	5567
4	**Total Discoms -**	**100.00%**	**10518**	**13003**	**14528**
5	SEZ Pithampur (Dhar)	-	12	12	12
6	**GRAND TOTAL -**	-	**10530**	**13015**	**14540**

2.16 Based on the total energy requirement recognized in the Retail Tariff Order issued by the Commission on 23.03.2013 for FY 2013-14, MPPTCL revised the year-wise energy expected to be handled in FY 2013-14 to FY 2015-16 by its transmission system. MPPTCL excluded the energy through direct injection at 33KV level and the inter-state transmission losses while arriving at the total energy in the intra-state transmission system. MPPTCL filed the following: -

Table – 13 Energy to be handled by Transmission System in FY 13-14 TO FY 15-16 (MU)

Reference	Subject	EZ	WZ	CZ	FY 13-14	FY 14-15	FY 15-16
Pg 36 of Retail Tariff Order for FY 20113-14	Input at Distribution Interface (MU)	15906	22024	17069	**55000**	-	-
After deducting 0.63%# of Above	Input at Distribution Interface (MU)	15806	21886	16962	**54653**	-	-
Pg 36 of Retail Tariff Order for FY 20113-14	Transmission loss (%)	3.16%	3.16%	3.16%	**3.16%**	-	-
IP Discom / (1-%L)	**Transmission Input**	**16322**	**22600**	**17515**	**56437**	**62543**	**69310**
Pg 37 of Retail Tariff/ MPPTCL Growth rate	Total Energy Input at G-T interface Total Energy requirement	-	-	-	**56795** **58084**	10.82%	10.82%

MIS 11-12: Direct injection to Discoms @ 0.63% has been deducted

2.17 The petitioner further submitted the following status of transmission losses, Transmission System Availability, Transformer failure & metering on interface points: -

"Transmission Losses: -

Transmission losses in Intra-State system have reduced gradually during past years on account of the execution of Capital Plan. These are tabulated hereunder;

Table-14 Intra-state transmission losses

Details	***FY-03***	***FY-04***	***FY-05***	***FY-06***	***FY-07***	***FY-08***	***FY-09***	***FY-10***	***FY-11***	***FY-12***
Energy Received into System (MUs)	*27083*	*27555*	*29531*	*31306*	*32594*	*35148*	*34280*	*34346*	*37680*	*42175*
Energy sent Out of System (MUs)	*24935*	*25870*	*27871*	*29669*	*30963*	*33710*	*32878*	*32908*	*36271*	*40692*
Energy Lost (MUs)	*2148*	*1685*	*1660*	*1637*	*1631*	*1438*	*1402*	*1438*	*1409*	*1482*
Transmission Loss (%)	***7.93***	***6.12***	***5.62***	***5.23***	***5.00***	***4.09***	***4.09***	***4.19***	***3.74***	***3.51***
Reduction in Loss (%)	-	*1.81*	*0.50*	*0.39*	*0.23*	*0.91*	*0.00*	*-0.10*	*0.45*	*0.23*
Target fixed by The MPERC	-	-	-	*5.22%*	*5.00%*	*4.90%*	*4.90%*	*	*	*

(*) Remarks – No target for losses is fixed for control period FY 2010 to FY 2012.

2.18 *As per the directives of the Commission, the MPPTCL is computing the voltage-wise transmission losses. The year-wise details are given hereunder;*

Table-15: Voltage –wise transmission losses

S. No.	System Voltage	Transmission Losses in Percentage						
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	400 KV	1.40%	1.26%	1.21%	1.20%	1.19%	1.18%	1.18%
2	220 KV	3.26%	3.41%	2.55%	2.51%	2.86%	2.56%	2.39%
3	132 KV	1.60%	1.29%	1.15%	1.17%	1.03%	0.86%	0.89%
4	**Total System**	**5.23%**	**5.00%**	**4.09%**	**4.09%**	**4.19%**	**3.74%**	**3.51%**

It may be perused from above that losses have reduced in all the three voltage categories, indicating system strengthening at all voltage levels.

Transmission System Availability:-

2.19 *The Commission has fixed a target of Transmission System Availability as 98% in the MYT Regulations. The Transmission System Availability achieved during the last control period i.e. FY 2009-10 to FY 2011-12 was higher than the target fixed. This indicates proper maintenance of lines and sub-stations as well as prompt outage management. The achievements are shown hereunder:*

Table-16

Transmission System Availability Achieved in %		
2009-10	2010-11	2011-12
98.82%	**99.13%**	**99.23%**

Transformer Failure:

2.20 *The MPPTCL is carrying out the maintenance of transformers periodically as per schedules laid down. This has resulted in controlling the transformer failures. The year-wise details are given below:*

Table-17

S. No.	Particulars	FY 2009-10		FY 2010-11		FY 2011-12	
		Nos.	%	Nos.	%	Nos.	%
1	Auto-Transformers	0	0	0	0	0	0
2	Power Transformers	1	0.23%	6	1.02%	4	0.86%

Interface Points

2.21 *The MPPTCL's network is connected to Inter-State, Generating and Distribution Systems through 672 Interface points. Details are given hereunder:*

Table-18

Metering Status	***2009-10***	***2010-11***	***2011-12***
GENCO –TRANSCO	*43*	*48*	*51*
CGS/NHPC/NTPC/PGCIL	*35*	*36*	*61*
OTHER STATE-TRANSCO	*12*	*12*	*14*
OPEN ACCESS (SEZ)	*1*	*1*	*1*
TRANSCO-DISCOM (E/Z)	*148*	*151*	*161*
TRANSCO-DISCOM (C/Z)	*155*	*164*	*170*
TRANSCO-DISCOM (W/Z)	*198*	*211*	*214*
TOTAL	***592***	***623***	***672***

ABT compliant meters have been installed on Interface points for implementation of Intra-State ABT. "

Chapter – 3

Capital Cost, Capital Structure and Debt Equity Ratio

The petitioner broadly submitted the following:

"Achievements Against Earlier Plan (11th Plan) –

3.1 *Transmission Plan of ₹ 5200.00 Crores was formulated for period 2007-08 to 2011-12, which was downsized year to year, on account of slippage of Generating Capacity Addition. Finally the achievement upto 31.03.2012 are as under:*

[A] Physical

Table-19

S. No.	Particulars	Achievement during the Year					TOTAL
		Actual 2007-08	Actual 2008-09	Actual 2009-10	Actual 2010-11	Actual 2011-12	
A.	**TRANSMISSION LINES (CKT. KMS) -**						
1	400 KV	0	29	0	0	0	29
2	220 KV	465	871	762	1049	342	3489
3	132 KV	253	396	897	797	410	2753
	Total -	**718**	**1296**	**1659**	**1846**	**752**	**6271**
B.	**EHV SUB-STATIONS (MVA) -**						
4	400 KV	0	0	0	630	0	**630**
5	220 KV	580	1740	1640	740	320	**5020**
6	132 KV	580	1323	1352	823	686	**4764**
	Total -	**1160**	**3063**	**2992**	**2193**	**1006**	**10414**

[B] Financial

Table-20

(₹in Lacs)

S. No.	Particulars	Achievement during the Year					TOTAL
		2007-08 Actual	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	
A.	**Transmission Lines -**						
1	400 KV	1052	253	0	104	13500	14909
2	220 KV	18792	19547	17203	9638	7871	73051
3	132 KV	5198	14900	18622	9024	8362	56106
	Total (Lines) -	**25042**	**34700**	**35825**	**18766**	**29733**	**144066**
B.	**EHV Sub-Stations -**						
4	400 KV	0	2477	2767	2093	7000	**14337**
5	220 KV	11157	20399	20405	6678	5266	**63905**
6	132 KV	10441	30826	18152	11413	13942	**84774**
7	Misc. Works	520	1231	394	700	5561	**8406**
	Total(Sub-Stations) -	**22118**	**54933**	**41718**	**20884**	**31769**	**171422**
	Grand Total -	**47160**	**89633**	**77543**	**39650**	**61502**	**315488**

Transmission Plan for 2012-13 TO 2016-17 (12th Plan)

3.2 *Accommodating the Evacuation Systems and Downstream System strengthening for generating capacity additions and load growth; the MPPTCL formulated a need based Transmission Plan for FY 2012-13 to FY 2016-17 and filed it before the Commission for approval.*

3.3 *The total Plan amount is proposed as ₹7370.22 Crores, with EHV lines addition of 10667 Ckt. Kms and MVA capacity addition of 19,698 MVA. The year-wise Physical and Financial details are tabulated hereunder;*

Table-21 ***(A) Physical Plan FY 2013 to FY 2017***

S. No.	Particulars	Year-wise Physical Programme (2013-17)					Total 12th Plan (2013-17)
		2012-13	2013-14	2014-15	2015-16	2016-17	
A	EHV Lines (Circuit Kms)						
1	400KV Lines	790	490	90	1100	370	2840
2	220KV Lines	436	412.1	243	468	650	2209.1
3	132KV Lines	876.2	1515	1803	566	858	5618.2
	Total CKT Kms	2102.2	2417.1	2136	2134	1878	10667.3
B	EHV Sub-Stations (MVA)						
1	400KV Sub-stations	1575	1260	945	2205	0	5985
2	220KV Sub-stations	1120	1600	2720	1280	960	7680
3	132KV Sub-stations	649	1717	2152	723	792	6033
	Total MVA	3344	4577	5817	4208	1752	19698
C	EHV Sub-Stations (Nos)						
1	400KV Sub-stations	4	0	2	4	0	10
2	220KV Sub-stations	1	6	4	6	0	17
3	132KV Sub-stations	9	22	32	1	3	67
	TOTAL (Nos)	14	28	38	11	3	94

Table-22 ***(B) Financial Plan FY 2013 to FY 2017***

(₹ in Lakh)

S. No.	Particulars	Year-wise Investment in Twelfths Plan (2013-17)					Total 12th Plan (2013-17)
		2012-13	2013-14	2014-15	2015-16	2016-17	
1	400KV Lines	41324	25500	39288	67190	35270	208572
2	220KV Lines	12328	5710	10814	17057	19740	65649
3	132KV Lines	19762	27415	37096	22794	22011	129078
	Total (Lines)	73414	58625	87198	107041	77021	403299
4	400KV Sub-stations	23044	4680	31004	46800	7600	113128
5	220KV Sub-stations	14919	13272	24511	20185	8760	81647
6	132KV Sub-stations	22505	30200	25346	18209	20490	116750
7	Misc. Works	2074	5658	5558	4658	4250	22198
	Total (Sub-Stations)	62542	53810	86419	89852	41100	333723
	Total (Transmission)	135956	112435	173617	196893	118121	737022

The above mentioned Plan has been approved in principle by the Commission as conveyed vide letter No. MPERC/D(T)/2329 dtd. 31.07.2012 (Order dated 30.07.3012).

Financial Linkage for Plan –

3.4 *Financial linkage of the Transmission Plan is an ongoing process. The linkage for works to be completed in initial years of Plan are available, whereas the action to get the financial linkage for works to be taken in later years of Plan continues. The schemes already sanctioned are ADB-2323, ADB-2346, PFC-II and JICA. Schemes for third loan from ADB and loan from REC / PFC have been posed, which are under process. Certain funding will be available from the State Government for priority works. Schemes are to be posed under externally aided programme for remaining works. Works of ₹ 700.00 Crores are proposed to be allocated under Private Public Participation (PPP) Programme for which funds are to arranged by the private players. The tentative financial linkage for the 12th Plan is shown in following table:*

Table-23

TWELFTH PLAN TRANSMISSION PROGRAMME (2013-17) & BEYOND

FINANCIAL ABSTRACT STATEMENT ₹ in Lacs

S.No.	PARTICULARS	ESTIMATED COST	EXPENDITURE	12TH PLAN (2013-17)					TOTAL 12th PLAN (2013-17)
			UPTO 3/2012	2012-13 (ANTICIPATED	2013-14	2014-15	2015-16	2016-17	
1	2	3	4	5	6	7	8	9	10
Part : A	**ADB SECOND LOAN (NEW + SAVINGS)**	**16463**	**5416**	**10444**	**603**	**0**	**0**	**0**	**11047**
Part : B	**PFC FINANCED WORKS (PFC - II)**	**162341**	**39417**	**59623**	**48432**	**14869**	**0**	**0**	**122924**
Part : C	**JICA FINANCED WORKS (JAPAN)**	**140464**	**0**	**11700**	**44041**	**51077**	**33646**	**0**	**140464**
Part : D	**TRANSMISSION WORKS OF PRIORITY NATURE (CM WORKS, SAC, SIMHASTHA) (PRIORITY - I)**	**9682**	**0**	**5216**	**4466**	**0**	**0**	**0**	**9682**
Part : E	**TRANSMISSION WORKS OF PRIORITY NATURE (PRIORITY - II)**	**11971**	**2126**	**4377**	**5072**	**396**	**0**	**0**	**9845**
Part : F	**SSTD SCHEMES FOR TRANSCO (UNFUNDED) (POSED TO REC / PFC)**	**57223**	**0**	**300**	**13200**	**24242**	**19481**	**0**	**57223**
Part : G	**SSTD SCHEMES FOR TRANSCO (UNFUNDED) (POSED TO ADB FOR THIRD LOAN)**	**191104**	**0**	**0**	**10000**	**68000**	**73300**	**39804**	**191104**
Part : H	**SYSTEM STRENGTHENING WORKS FOR EXISTING SYSTEM (PROPOSED TO BE POSED**	**58006**	**0**	**0**	**0**	**7176**	**14770**	**16380**	**38326**
Part : I	**SSTD SCHEMES FOR TRANSCO (UNFUNDED) (PROPOSED TO BE POSED TO UNDER EAP)**	**259634**	**0**	**0**	**0**	**0**	**0**	**79385**	**79385**
TOTAL INVESTMENT ENVISAGED BY MPTRANSCO (Excluding PPP)		**906888**	**46959**	**91660**	**125814**	**165760**	**141197**	**135569**	**660000**
PPP PROJECTS									
Part : J TRANSMISSION WORKS PROPOSED FOR PUBLIC PRIVATE		**70000**	**0**	**0**	**15000**	**35000**	**20000**	**0**	**70000**
TOTAL INVESTMENT ENVISAGED (Including PPP)		**976888**	**46959**	**91660**	**140814**	**200760**	**161197**	**135569**	**730000**

Expected Capitalization in Control Period –

3.5 *All out efforts are being made by the Petitioner to get the works completed as per Plan. However, it has been experienced in past that certain works are to be shifted to later years on account of slippage in Generating units commissioning schedule to save idling of Transmission Assets. Certain slippage may also be due to problem of getting finance at reasonable rate of interest and lack of getting trained Turn-key contractors to complete the works in contracted time. Therefore, we may at this stage assume a percentage of Plan completion for Tariff purpose, which will be subject to True-up as per actual achievements during True-up exercise.*

3.6 *It may be seen that out of Plan of ₹ 5200.00 Crores, the financial progress is ₹ 3154.88 Crores.*

$$\text{Percentage} = \frac{3154.88}{5200.00} \times 100 \quad = 60.7\%$$

Therefore, for Tariff purpose, we base our projections on the basis of 60% of the Plan provision.

3.7 *We have also excluded the works of ₹ 700.00 Crores scheduled to be completed under PPP Scheme, as these will be financed by the Private Players, and separate Tariff will be worked out for them.*

3.8 *Based on above assumption, the year-wise fund requirement and its tentative resources are tabulated hereunder for the control period only. It is expected that certain fund may shift from FY 2012-13 to control period due to shifting of certain works in subsequent years:*

Table-24

(Amount ₹ in Crores)

S. No.	***Scheme***	***Funds expected in Year***			***Total for Control Period***
		2013-14	***2014-15***	***2015-16***	
1	*ADB-2323 (Tied-up)*	21.50	0.00	0.00	21.50
2	*ADB-2346 (Tied-up)*	22.42	0.00	0.00	22.42
3	*PFC-II (Tied-up)*	230.00	108.50	50.00	388.50
4	*JICA (Tied-up)*	244.50	400.00	300.00	944.50
5	*State Govt. support (Tied-up)*	10.00	20.00	25.00	55.00
6	*ADB Third (to be Tied-up)*	0.00	100.00	70.00	170.00
7	*REC/PFC (to be Tied-up)*	0.00	67.70	148.02	215.72
8	*Other External (to be Tied-up) Aided Project*	0.00	0.00	0.00	0.00
Amount from Loan -		528.42	696.20	593.02	1817.64
Amount from Equity -		226.46	298.36	254.16	778.98
Total Amount -		***754.88***	***994.56***	***847.18***	***2596.62***

Accordingly, physical achievements are also assessed on the basis of 60% of the plan as tabulated hereunder:

Table-25

S. No.	Particulars	Assessed Progress				TOTAL
		Unit	2013-14	2014-15	2015-16	
1	400 KV Lines	Ckt. KMs	294	54	660	1008
2	220 KV Lines	Ckt. KMs	248	146	281	675
3	132 KV Lines	Ckt. KMs	909	1082	340	2331
New Sub-stations -						
1	400 KV S/s	No.	0	1	3	4
2	220 KV S/s	No.	4	3	4	11
3	132 KV S/s	No.	14	19	1	34
Additional Transformers -						
1	400 KV S/s	No.	1	2	2	5
2	220 KV S/s	No.	2	4	3	9
3	132 KV S/s	No.	6	5	1	12
Number of Additional Bays Added -						
1	400 KV S/s	No.	1	2	2	5
2	220 KV S/s	No.	2	4	3	9
3	132 KV S/s	No.	6	5	1	12

3.9 *It may kindly be perused from above mentioned tables that the fund required for works to be completed in FY 2013-14 are tied-up. The Equity is expected to be invested by the State Government. For FY 2014-15 & 2015-16, major part of funds are Tied-up. By that time it is expected that the schemes for ADB third loan and scheme of REC / PFC will be sanctioned, and the funds will be available for the achievements considered for MYT Tariff.*

Projections of Physical Assets

3.10 *Based on Para-4.4 and True-up Petition for FY 2011-12 (Actuals), the cumulative Assets for each year of control period are projected hereunder:*

Table-26

S. No	Particulars	Unit	As on 1.4.12 True-up Petition Actual	Expected Addition in FY 2012-13	As on 1.4.13	Expected Addition in FY 2013-14	As on 1.4.14	Expected Addition in FY 2014-15	As on 1.4.15	Expected Addition in FY 2015-16	As on 1.4.16
1	400 KV Lines	Ckt. KMs	2343	459	2802	294	3096	54	3150	660	3810
2	220 KV Lines	Ckt. KMs	11086	249	11335	248	11583	146	11729	281	12010
3	132 KV Lines	Ckt. KMs	13690	592	14282	909	15191	1082	16273	340	16613
4	400 KV Bays	No.	70	19	89	1	90	8	98	21	119
4	220 KV Bays	No.	462	29	491	22	513	26	539	40	579
6	132 KV Bays	No.	1475	57	1532	84	1616	100	1716	28	1744

3.11 *Projection for O&M, Depreciation, Interest claim and RoE are done in subsequent chapters on the basis of above mentioned projections, conservatively based on the 12th Transmission Plan."*

Provisions of Regulations

3.12 Regulation 17 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 (G-28 (II) of 2012) provides that,

"17.1. Capital cost for a Project shall include:

(a) the Expenditure incurred or projected to be incurred on original scope of work, including interest during construction and financing charges, any gain or loss on account of foreign exchange rate variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, up to the Date of Commercial Operation of the Project, as admitted by the Commission after prudent check, shall form the basis for determination of Tariff.

(b) Capitalized initial spares subject to the following ceiling norms:

(i) Transmission line- 0.75% of Original Project cost
(ii) Transmission substation- 2.5% of Original Project cost
(iii) Series compensation devices- 3.5 % of Original Project cost

(c) Additional capital expenditure determined under Regulation 18:

Provided that the assets forming part of the Project but not in use shall be taken out of the capital cost.

17.2. The capital cost admitted by the Commission after prudent check shall form the basis for determination of Tariff:

Provided that in case of individual transmission project, prudent check of capital cost may be carried out based on the benchmark norms specified by the Central Commission from time to time:

Provided further that in cases where benchmark norms specified by the Central Commission are not applied, prudent check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff:
Provided also that where the Transmission Service Agreement provide for

ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of Tariff:

Provided also that in case of the Existing Projects, the capital cost admitted by the Commission prior to 1.4.2013 and the additional capital expenditure projected to be incurred for the respective Year of the Tariff period during 2013-16, as may be admitted by the Commission, shall form the basis for determination of capital cost.

17.3. Scrutiny of the cost estimates by the Commission shall be with regard to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters. The Commission may obtain expert advice as deemed necessary.

17.4. Restructuring of capital cost in terms of relative share of equity and loan component shall be permitted during the Tariff Period provided it does not affect Tariff adversely. Any benefit from such restructuring shall be passed on to long term intrastate Open Access customers of Transmission Licensee in a ratio as may be specified by the Commission."

3.13 Further, Regulation 20 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 (G-28 (II) of 2012) provides that,

Debt-equity Ratio

" 20.1. For a Project declared under commercial operation on or after 1.4.2013, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of Tariff.

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.- *The premium, if any, raised by the Transmission Licensee, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the Project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the Transmission System.*

20.2. In case of the Transmission System declared under commercial operation prior to 1.4.2013, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2013 shall be considered.

20.3. Any Expenditure incurred or projected to be incurred on or after 1.4.2013 as may be admitted by the Commission as additional capital expenditure for determination of Tariff and Renovation and Modernisation expenditure for life extension shall be serviced in the manner specified in regulation 20.1."

Commission's Analysis

3.14 On preliminary scrutiny of the petition, it was observed by the Commission that the figures of physical achievements under earlier Transmission Plan for FY 2007-08 to FY 2011-12 are not matching with those figures reported in the true-up petition for FY 2011-12 and the capacity additions reported by Reporter of Compliance in his report. Therefore, the reason for this discrepancy was sought from the petitioner.

3.15 In response, MPPTCL through letter no. 1326 dated 20/02/2013 submitted the following clarification: -

"In the table regarding the Transmission Plan, the achievements for FY 2011-12 were the estimated one, which have been by mistake typed as actual, whereas the figures reported in True-up Petition for FY 2011-12 and Reporter of Compliance's report are actual achievements. This is the reason for difference. Since the actual achievements are now known, the table is modified as under;

Table-27 *[A] Physical*

S. No.	Particulars	Unit	Capacity Added				
			2007-08	2008-09	2009-10	2010-11	2011-12
1	400 KV	Ckt-Kms	0	29	0	0	0
2	220 KV	Ckt-Kms	465	872	765	1049	228.92
3	132 KV	Ckt-Kms	253	396	897	798	420.83
Total EHV Lines-			**718**	**1297**	**1662**	**1847**	**650**
4	400 KV	MVA	0	0	0	630	0
5	220 KV	MVA	580	1740	1640	740	760
6	132 KV	MVA	580	1323	1352	823	572
Total Sub-stations -			**1160**	**3063**	**2992**	**2193**	**1332**

It may however be submitted that in the Table of Para 4.5 of the MYT Petition, carrying forward the progress, and that in Para 5.3 of the MYT Petition for working out O&M expenses are on actual basis, and tallies with the Assets as on 31.03.2012 in the Table of Para 6.4 of the True-up Petition for FY 2011-12. Therefore, the above mentioned modified Tables do not affect the O&M expenses claims or any other Tariff claim."

3.16 In sub-para 4.5 of the petition, MPPTCL projected the physical assets on the basis of 12th Transmission Plan (for FY 2012-13 to FY 2016-17) envisaging only 60% actual achievement of the Plan. The petitioner further mentioned anticipated achievement in FY 2012-13. In view of the aforesaid, the actual achievements of the 12th Plan in FY 2012-13 as on 31st January, 2013 were sought from the petitioner to assess the correct projections.

3.17 In response, MPPTCL submitted the following: -

"*The actual achievements in FY 2012-13 as on 31.01.2013 are given in the following table. Since the works ongoing are mostly complete in end of year, the assessment on the progress of April 2012 to January 2013 may not be so representative as the progress of 5 years of previous Plan. However, to give more clear picture, works expected to be completed in February & March 2013 are also shown in Table.*

Table-28

S. No.	Voltage (KV)	Cumulative as on 31/03/2012			Cumulative as on 31/01/2013			During 2012-13 (as on 31/01/2013)		
		Transmission lines (C-Kms.)	EHV Sub-stations		Transmission lines (C-Kms.)	EHV Sub-stations		Transmission lines (C-Kms.)	EHV Sub-stations	
			S/s Nos.	MVA Capacity		S/s Nos.	MVA Capacity		S/s Nos.	MVA Capacity
A	**EHV System**									
1	400 KV	2343.01	5	4515	2448.13	6	4830	105.12	1.00	315.00
2	220 KV	11085.41	55	15110	11332.97	56	15750	247.56	1.00	640.00
3	132 KV Incl 66 KV	13690.23	188	15939	13991.24	192	16325	301.01	4.00	386.00
4	**Total**	**27118.65**	**248**	**35564**	**27772.34**	**254**	**36905**	**653.69**	**6.00**	**1341**
B	**EHV System : Work under progress & anticipated to be completed by 31.03.13**									
1	400 KV	-	-	-	-	-	-	399.70	2.00	1260.00
2	220 KV	-	-	-	-	-	-	8.82	1.00	160.00
3	132 KV Incl 66 KV	-	-	-	-	-	-	312.32	5.00	263.00
4	**Total**	-	-	-	-	-	-	**720.84**	**8.00**	**1683**
C	**EHV System : Work under progress & anticipated to be completed by 31.03.13**									
1	400 KV	-	-	-	-	-	-	0.00	-	-
2	220 KV	-	-	-	-	-	-	4.28	-	-
3	132 KV Incl 66 KV	-	-	-	-	-	-	64.40	-	-
4	**Total**	-	-	-	-	-	-	**68.68**	-	-
D	**EHV System : Progress BY 31.03.13 (A+B+C)**									
1	400 KV	-	-	-	-	-	-	504.82	3.00	1575.00
2	220 KV	-	-	-	-	-	-	260.66	2.00	800.00
3	132 KV Incl 66 KV	-	-	-	-	-	-	677.73	9.00	649.00
4	**Total**	-	-	-	-	-	-	**1443.21**	**14.00**	**3024.0**

3.18 On perusal of the figures filed in the petition for addition to GFA during all three years of the control period (from FY 2013-14 to FY 2015-16), the Commission revisited the figures of addition to GFA allowed by the Commission in its last MYT Order dated 11.01.2010 in Petition No. 26/2009 vis-à-vis the figures projected by MPPTCL in its earlier MYT Petition for the last control period (FY 2009-10 to FY 2011-12).While going through the aforesaid, the following is observed:

(i) MPPTCL had down sized its original 11th Five Year Plan from ₹ 6804.46 Crore to ₹ 5200.00 Crore as mentioned in Para 2.9 of the last MYT Order which is reproduced below:

Table-29

(Amount ₹ in Crores)

Particulars	***Fund requirement for transmission programme during 11th Plan period (07-08 to 11-12)***	
	Prepared in July'07	***Prepared in April'08***
2007-08	*715.79*	*471.60*
2008-09	*1274.40*	*863.00*
2009-10	*1525.07*	*1280.00*
2010-11	*1704.51*	*1300.00*
2011-12	*1584.69*	*1285.40*
Total 11th Plan	***6804.46***	***5200.00***

(ii) MPPTCL claimed addition to GFA @ 60% only of the revised 11th Plan considering certain slippages, expected capitalization, certain funds under CWIP etc. as given below: -

Table-30

(Amount ₹ in Crores)

S. No.	***Year***	***Gross Fixed Assets***		
		At the beginning of the year	***Addition during the year***	***At the end of the year***
1	*2009-10*	*3954.13*	***768.00***	*4722.13*
2	*2010-11*	*4722.13*	***780.00***	*5502.13*
3	*2011-12*	*5502.13*	***771.00***	*6237.13*

3.19 With the same approach, the petitioner projected the addition to GFA and addition in the network length only to the extent of 60% of its 12th Five Year Transmission Plan approved by the Commission.

3.20 In the last MYT Order for FY 2009-10 to FY 2011-12, the Commission had considerably reduced the projections in respect of addition to GFA filed by the MPPTCL for each year of the last control period on account of several reasons mentioned in that order.

3.21 In order to assess the correct projections of addition to GFA and the network length in each year of the control period, the Commission has reviewed the actual GFA additions in each year of the last control period from the audited balance sheet of the petitioner to get into the actual capacity of the petitioner to execute its own proposed plan and to capitalize the same in its books of accounts. The aforesaid exercise is done to arrive at realistic and achievable GFA projections in next control period. The Commission has observed the following status :

Table-31

(Amount ₹ in Crores)

Year	Details of GFA Addition		
	As claimed by the MPPTCL in last MYT petition	**As considered by the Commission in last MYT Order**	**Actual GFA addition as per Audited Balance sheets**
FY 2009-10	768	503	590.48
FY 2010-11	780	413	482.21
FY 2011-12	771	366	229.90
Total	2319	1282	1302.59
% of actual GFA addition	**178%**	**98%**	

3.22 The Commission issued the Transmission Tariff Order for FY 2012-13 on 17th April, 2012. In para 2.18 of the aforesaid Order, GFA up to the end of FY 2010-11 was considered as per audited accounts and the projections in the petition were considered for FY 2011-12. The GFA addition for FY 2012-13 was considered based on the details mentioned in para 2.19 of that order.

3.23 The audited accounts for FY 2011-12 were made available to the Commission much after the transmission tariff Order for FY 2012-13 was passed by the Commission. The Order on true-up of Transmission Tariff for FY 2010-11 was issued by the Commission on 04.02.2013. In para 4.38 of the aforesaid Order, loan and equity were considered based on GFA addition (net of consumer contribution) of ₹ 482.21 Crore for FY 2010-11. These are taken into consideration in this Order.

3.24 In the present Order, the Commission has followed its earlier approach of considering GFA (net of Consumer contribution) for tariff purpose and the average actual addition to GFA of the last three years is considered as the projected GFA addition in each year of the next control period subject to true up. The GFA addition (of ₹ 489.98 Crores) considered by the Commission in its Transmission Tariff Order for FY 2012-13 is considered in this order also.

3.25 In the transmission true-up Order for FY 2010-11, the total GFA of ₹ 5045.91 Crore including consumer contribution of ₹ 19.10 Crore was admitted by the Commission. Therefore, net GFA (excluding consumer contribution) of ₹ 5026.81 Crore is considered for tariff purpose. Note 12 of Audited Balance Sheet for FY 2011-12 shows that GFA (net of consumer contribution on new and existing assets) has increased to ₹ 5256.71 Crore as on 31.03.2012. This is also considered for calculation purpose in this order.

3.26 Based on the above, the GFA addition (net of Consumer contribution on new & existing assets) as considered by the Commission for FY 2013-14 to FY 2015-16 in this Order is summarized as under:

Table-32 GFA addition (projections made on actual past trends)

(Amount ₹ in Crores)

MPPTCL's Audited Financial Statement / Projections			
Year / date	**GFA**	**GFA Addition during the year**	**Remarks**
31/3/2009	3954.12		Actual GFA as per Audited Balance sheet/True up order
31/3/2010	4544.60	590.48	
31/3/2011	5026.81	482.21	
31/3/2012	5256.71	229.90	
31/3/2013	5746.69	489.98	Addition to GFA as per para 2.19 of T.O. dt. 17/04/2012
31/3/2014	**6180.89**	**434.20**	**Projected addition to GFA based on average growth in GFA of 3 Years**
31/3/2015	**6615.09**	**434.20**	
31/3/2016	**7049.29**	**434.20**	

3.27 As per the provisions under Regulations, the Commission has considered the source of funding as 70 % from Loan and 30% from Equity. Accordingly, the loan and equity components are considered as under:

Table-33

(Amount ₹ in Crores)

	Loan	**Equity**	**Total GFA**
FY11-12*	160.93	68.97	229.90
FY12-13*	342.99	146.99	489.98
FY13-14	303.94	130.26	434.20
FY14-15	303.94	130.26	434.20
FY15-16	303.94	130.26	434.20

(* Note: The figures for FY 2011-12 & FY 2012-13 are indicated for pro-forma calculation purpose only and not for approval of Tariff for those years)

3.28 The transmission tariff up to 31/03/2013 has already been determined by the Commission. The figures for present control period of FY 2013-14 to FY 2015-16 are considered for tariff purpose in this Order. The actual capitalization as per the Audited Financial Statements of each year shall be considered appropriately while undertaking true-up exercise for the respective year as per the Regulations.

O&M Expenses

Petitioner's Submission

The petitioner broadly submitted the following:

3.29 *"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 Circuit kilometers of Transmission lines and number of bays in Sub-station. These Norms exclude Pension, Terminal Benefits, incentive and arrears to be paid to employees, taxes payable to the Government and fee payable to MPERC. The Petitioner shall claim the taxes payable to the Government, fees to be paid to MPERC and any arrears paid to employees separately. The Norms for O&M expenses per 100 Ckt-km and per bay have been prescribed in Para 37.1 of the Regulations as under:*

Table-34 *Norms for O&M expenses per 100 Ckt. km and per bay*

S. No.	Particulars	2013-14	2014-15	2015-16
	Lines -	**₹Lacs / 100 Ckt. KM / Annum**		
1	400 KV Line	33.6	36.2	39.1
2	220 KV Line	27.0	29.2	31.5
3	132 KV Line	25.4	27.4	29.6
	Bays -	**₹Lacs / Bay / Annum**		
1	400 KV Bay	15.5	16.7	18.0
2	220 KV Bay	11.5	12.5	13.5
3	132 KV Bay	10.9	11.8	12.7

3.30 *The total allowable O&M expenses for the Transmission Licensee shall be calculated by multiplying the average number of bays and 100 Ckt-km of line length for the Year with the applicable norms for O&M expenses per bay and per 100 Ckt-km respectively.*

Projection of EHV Lines & Sub-Stations

3.31 *Projections of EHV Lines and Sub-stations additions have been made under Para 4.5 as per Transmission Plan. The Petitioner has filed the 'True-up' Petition of FY 2011-12, in which the actual EHV Lines and Sub-stations have been given in the position of 31.03.2012, which is taken as actual Assets as on 01.04.2012. The Petitioner submitted Petition for determination of Transmission charges for FY 2012-13 on 15.02.2012, in which projection were made for FY 2012-13. The Commission in its order dated 17.04.2012 has allowed O&M expenses for FY 2012-13 on the basis of certain projection.*

3.32 *While submitting this Petition, we are having the data of progress made upto Sep' 2012, and the works in progress which are expected to be commissioned till 31.03.2013. The projections of EHV Lines and number of bays in EHV Sub-stations given in the table* *under Para 4.5 of Transmission Plan have therefore been modified for FY 2012-13 on above basis. Projections for the years thereafter are taken on the basis of 60% of Plan provisions.*

Assets during Control Period

3.33 *Based on the table given in Para 4.5 of Transmission Plan, the average length of Lines existed during the years of control period and average number of bays are given in following table:*

Table-35

Voltage	*Length of Line in Ckm as on*					*Average Length of Line during*		
	1.4.12	*1.4.13*	*1.4.14*	*1.4.15*	*1.4.16*	*2013-14 (3+4)/2*	*2014-15 (4+5)/2*	*2015-16 (5+6)/2*
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
400 KV	*2343*	*2802*	*3096*	*3150*	*3810*	*2949*	*3123*	*3480*
220 KV	*11086*	*11335*	*11583*	*11729*	*12010*	*11459*	*11656*	*11869*
132 KV + 66 KV	*13690*	*14282*	*15191*	*16273*	*16613*	*14737*	*15732*	*16443*
TOTAL	***27119***	***28419***	***29870***	***31152***	***32433***	***29145***	***30511***	***31792***

Voltage	*Number of Bays in Ckm as on*					*Average Number of Bays during*		
	1.4.12	*1.4.13*	*1.4.14*	*1.4.15*	*1.4.16*	*2013-14 (3+4)/2*	*2014-15 (4+5)/2*	*2015-16 (5+6)/2*
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
400 KV	*70*	*89*	*90*	*98*	*119*	*90*	*94*	*109*
220 KV	*462*	*491*	*513*	*539*	*579*	*502*	*526*	*559*
132 KV + 66 KV	*1475*	*1532*	*1616*	*1716*	*1744*	*1574*	*1666*	*1730*
TOTAL	***2007***	***2112***	***2219***	***2353***	***2442***	***2166***	***2286***	***2398***

O&M Claim for Control Period

3.34 *Based on the 'O&M Norms' referred in Para 5.1 above, and the average length of EHV Lines and number of Bays, during the three years of control period, O&M expenditure claim for the control period is tabulated hereunder;*

Table-36 *(Amount ₹ in Lacs)*

S. No.	***Voltage***	***2013-14***			***2014-15***			***2015-16***		
		Qty. (Ckt.KM)	***Norms Per 100 KM***	***Amount (3x4)/100***	***Qty. (Ckt.KM)***	***Norms Per 100 KM***	***Amount (6x7)/100***	***Qty. (Ckt.KM)***	***Norms Per 100 KM***	***Amount (9x10)/100***
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1	*400 KV Line*	*2949*	*33.6*	*991*	*3123*	*36.2*	*1131*	*3480*	*39.1*	*1361*
2	*220 KV Line*	*11459*	*27.0*	*3094*	*11656*	*29.2*	*3403*	*11869*	*31.5*	*3739*
3	*132 KV Line (incl. 66 KV)*	*14737*	*25.4*	*3743*	*15732*	*27.4*	*4311*	*16443*	*29.6*	*4867*
A	***Total***	***29144***	*-*	***7828***	***30511***	*-*	***8845***	***31792***	*-*	***9967***
S. No.	***Particulars***	***2013-14***			***2014-15***			***2015-16***		
		Qty. (Nos)	***Norms Per Bay***	***Amount (3x4)***	***Qty. (Nos)***	***Norms Per Bay***	***Amount (6x7)***	***Qty. (Nos)***	***Norms Per Bay***	***Amount (9x10)***
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1	*400 KV Bay*	*90*	*15.5*	*1395*	*94*	*16.7*	*1570*	*109*	*18.0*	*1962*

S. No.	**Voltage**	**2013-14**			**2014-15**			**2015-16**		
		Qty. (Ckt.KM)	**Norms Per 100 KM**	**Amount (3x4)/100**	**Qty. (Ckt.KM)**	**Norms Per 100 KM**	**Amount (6x7)/100**	**Qty. (Ckt.KM)**	**Norms Per 100 KM**	**Amount (9x10)/100**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
2	220 KV Bay	502	11.5	5773	526	12.5	6575	559	13.5	7547
3	132 KV Bay (incl. 66 KV)	1574	10.9	17157	1666	11.8	19659	1730	12.7	21971
B	**Total**	**2166**	**-**	**24325**	**2286**	**-**	**27804**	**2398**	**-**	**31480**
Grand Total (A+B)		**-**	**-**	**32152**	**-**	**-**	**36648**	**-**	**-**	**41446**

3.35 *It is prayed to allow O&M expenses for control period as under:*

(i) FY 2013-14 - ₹321.52 Crores
(ii) FY 2014-15 - ₹366.48 Crores
(iii) FY 2015-16 - ₹414.46 Crores

Other Items

3.36 *The claim for the items not included in O&M such as terminal benefits, Arrears for wage revision, fees, taxes etc. is being made in subsequent paras in this petition."*

Provisions of Regulations

3.37 Regulation 27 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 (G-28 (II) of 2012) provides that,

"27.1. Operation and Maintenance expenses shall be determined for the Tariff Period based on normative O&M expenses specified by the Commission in these Regulations.

27.2. Normative O&M expenses other than expenses on payment of arrears to employees on account of revision of pay scales of the employees in accordance with Sixth Pay Commission recommendations, as implemented by the State Transmission Utility at the commencement of the Tariff Period have been escalated at the rate of 7.93% considering a weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60: 40.

27.3 On examination of the details gathered from MPPTCL regarding transmission network parameters being considered for calculation of normative expenses and actual expenditure from FY 2007-08 to FY 2010-11 and the expenditure assessed by MPPTCL for FY 2011-12 (on account of non availability of the audited balance sheet for FY 2011-12) in respect of Employee expenses, Repair & Maintenance expenses and Administrative & General expenses, it was found that the normative O&M expenses allowed in the last control period was higher than the actual expenditure incurred by MPPTCL. The actual O&M expenses had been 89.6% of the normative O&M expenses. The Commission has considered the actual expenses for FY 2010-11 as base figures, linked them with the parameters used for *calculation of normative O&M expenses, multiplied it with annual escalation factor of 6.14% till FY 2012-13 (up to last control period) and thereafter @ 7.93 % to arrive at the normative O&M norms for the period of present control period of FY 2013-14 to FY 2015-16.*

27.4 The Commission has notified MPERC (Terms and Condition for allowing Pension and Terminal Liabilities of Personal of Board and Successor Entities) Regulations, 2012 (G-38 of 2012) on 20th April, 2012. The expenses towards pension and terminal liabilities will be allowed as per the provisions of aforesaid Regulations.

27.5. Increase in O&M charges on account of war, insurgency or changes in laws, or like eventualities where the Commission is of the opinion that an increase in O&M charges is justified, may be considered by the Commission for a specified period.

27.6. Any saving achieved by a Licensee in any Year shall be allowed to be retained by it. The Licensee shall bear the loss if it exceeds the targeted O&M expenses for that Year."

3.38 Regulation 37 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 (G-28 (II) of 2012) provides that,

"37.1. 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 circuit kilometers of transmission lines and number of bays in substation. These norms exclude Pension, Terminal Benefits, incentive and arrears to be paid to employees, taxes payable to the Government and fee payable to MPERC. The Transmission Licensee shall claim the taxes payable to the Government, fees to be paid to MPERC and any arrears paid to employees separately as actuals. The claim of pension and terminal benefits shall be dealt-with as per Regulation 27.4. The norms for O&M expenses per 100 ckt-km and per bay shall be as under:

Table-37 *Norms for O&M expenses per 100 Ckt. km and per bay*

S. No.	*Particulars*	*FY 2013-14*	*FY 2014-15*	*FY 2015-16*
	Lines	***Rs. Lakh / 100ckt km / annum***		
1.	400 kV Lines	33.6	36.2	39.1
2.	220 kV Lines	27.0	29.2	31.5
3.	132 kV Lines	25.4	27.4	29.6
	Bays	***Rs. Lakh / Bay / annum***		
1.	400 kV Bay	15.5	16.7	18.0
2.	220 kV Bay	11.5	12.5	13.5
3.	132 kV Bay	10.9	11.8	12.7

37.2. The total allowable O&M expenses for the Transmission Licensee shall be calculated by multiplying the average number of bays and 100 ckt-km of line length for the Year with the applicable norms for O&M expenses per bay and *per 100 ckt-km respectively. In support of its claim for allowable O&M expenses, the Licensee shall submit before the Commission, the actual or projected circuit kilometers of line lengths and number of bays for each voltage level separately for each Year of the Tariff Period as the case may be.*

37.3. The terminal benefits shall be paid as provided in Regulation 27.4."

Commission's Analysis

3.39 The actual information of lines and bays as on 01/04/2012 has been verified with the details filed by MPPTCL in its Transmission Tariff true-up petition for FY 2011-12 and also from the report filed by Reporter of Compliance of MPPTCL.

3.40 It is observed that the projections made for FY 2012-13 are based on the actual progress made upto September 2012 and the expected progress in the balance period of the financial year. For FY 2013-14 to FY 2015-16, the projections are on the basis of 60% of the 12th plan provisions.

3.41 As mentioned in the chapter on Capital cost and capital structure, the Commission has considered the GFA addition based on the average of actual GFA addition in the past three years as per the audited balance sheets. The additions to GFA projected for each year in this Order are seen as percentage of the GFA claimed in the petition as given below:

Table-38

Year	**Details of GFA Addition**		
	Claimed by MPPTCL (a)	**Considered in this Order (b)**	**% of(b) to (a)**
FY 2013-14	754.88	434.20	57.52
FY 2014-15	994.56	434.20	43.66
FY 2015-16	847.18	434.20	51.25
Total	**2596.62**	**1302.60**	**50.17**

3.42 In line with the same approach followed in the petition, the Commission has applied the above percentage on the projected physical additions filed by MPPTCL for the purpose of estimating addition to lines and bays for allowing O&M expenses. The details are as under:

Table-39

S. No.	Particulars	Unit	As on 1.4.12 True-up Petition Actual	Expected Addition in FY 2012-13	As on 1.4.13	Expected Addition in FY 2013-14	As on 1.4.14	Expected Addition in FY 2014-15	As on 1.4.15	Expected Addition in FY 2015-16	As on 1.4.16
1	400 KV Lines	Ckt. KMs	2343	459	2802	169	2971	24	2995	338	3333
2	220 KV Lines	Ckt. KMs	11086	249	11335	143	11478	64	11541	144	11685
3	132 KV Lines	Ckt. KMs	13690	592	14282	523	14805	472	15277	174	15451
4	400 KV Bays	No.	70	19	89	1	90	3	93	11	104
5	220 KV Bays	No.	462	29	491	13	504	11	515	21	536
6	132 KV Bays	No.	1475	57	1532	48	1580	44	1624	14	1638

The average line length is as under:

Table-40

Voltage	Length of Line in Ckt.km. as on					Average Length of Line during		
						2013-14	2014-15	2015-16
	1.4.12	**1.4.13**	**1.4.14**	**1.4.15**	**1.4.16**	**(3+4)/2**	**(4+5)/2**	**(5+6)/2**
1	2	3	4	5	6	7	8	9
400 KV	2343	2802	2971	2995	3333	2887	2983	3164
220 KV	11086	11335	11478	11541	11685	11406	11510	11613
132KV+66KV	13690	14282	14805	15277	15451	14543	15041	15364
TOTAL -	**27119**	**28419**	**29254**	**29813**	**30470**	**28836**	**29533**	**30142**

The average number of bays are as under:

Table-41

Voltage	Number of Bays as on					Average Number of Bays during		
						2013-14	2014-15	2015-16
	1.4.12	**1.4.13**	**1.4.14**	**1.4.15**	**1.4.16**	**(3+4)/2**	**(4+5)/2**	**(5+6)/2**
1	2	3	4	5	6	7	8	9
400 KV	70	89	90	93	104	89	91	98
220 KV	462	491	504	515	536	497	509	525
132 KV + 66 KV	1475	1532	1580	1624	1638	1556	1602	1631
TOTAL	**2007**	**2112**	**2174**	**2232**	**2278**	**2143**	**2203**	**2255**

(Note: The figures for FY 2011-12 & FY 2012-13 are indicated for pro-forma calculation purpose only and not for approval of Tariff for those years)

3.43 Based on the norms for O&M provided in the Regulations, the O& M expenses are calculated as under:

Table-42

S. No.	Voltage	2013-14			2014-15			2015-16		
		Qty. (Ckt. KM)	Norms Per 100 KM	Amount (3x4)/100	Qty. (Ckt.KM)	Norms Per 100 KM	Amount (6x7)/100	Qty. (Ckt. KM)	Norms Per 100 KM	Amount (9x10)/100
1	2	3	4	5	6	7	8	9	10	11
1	400 KV Line	2887	33.6	970	2983	36.2	1080	3164	39.1	1237
2	220 KV Line	11406	27.0	3080	11510	29.2	3361	11613	31.5	3658
3	132 KV Line (incl. 66 KV)	14543	25.4	3694	15041	27.4	4121	15364	29.6	4548
A	**TOTAL -**	**28836**	**-**	**7744**	**29534**	**-**	**8562**	**30141**	**-**	**9443**
4	400 KV Bay	89	15.5	1380	91	16.7	1520	98	18.0	1764
5	220 KV Bay	497	11.5	5716	509	12.5	6363	525	13.5	7088
6	132 KV Bay (incl. 66 KV)	1556	10.9	16960	1602	11.8	18904	1631	12.7	20714
B	**TOTAL -**	**2142**	**-**	**24056**	**2202**	**-**	**26787**	**2254**	**-**	**29566**
GRAND TOTAL (A+B) -		**-**	**-**	**-**	**31800**	**-**	**-**	**35349**	**-**	**39009**

Note: Figures rounded off for present analysis. Actuals will be considered in True-up.

3.44 The O&M expenses of **₹ 318.00 Cr, ₹ 353.49 Cr and ₹ 390.09 Cr** are allowed for FY 2013-14,FY2014-15 and FY 2015-16 respectively in this Order. The actual additions of transmission system network shall be considered in the true-up exercise of the respective year after prudence check.

Terminal Benefit Expenses

Petitioner's submission

The petitioner broadly submitted the following:

3.45 *"The Commission notified the MPERC(Terms & Conditions for allowing Pension & Terminal Benefit liabilities of personnel of the Board and successor Entities 2012) (G-38 of 2012) on 20th April 2012, prescribing the funding of Pension and Gratuity of Pensioners of various categories through ARR of different unbundled entities of the Board. Accordingly, the Petitioner (MPPTCL) is required to make provisions in its ARR for the following categories:*

i. *For the Pensioners, retired upto 01.06.2005 from services of MPSEB, Pension liabilities shall form part of ARR of MPPTCL (Petitioner).*
ii. *For the Pensioners retired after 01.06.2005, the liabilities corresponding to their service in Board (i.e. upto 01.06.2005) are to be contributed by MPPTCL.*
iii. *Remaining liabilities against S. No. (ii) above for the persons retired after 01.06.2005 for Pensioners of MPPTCL, MPPMCL.*
iv. *Provisioning for future service for the employees of MPPTCL, MPPMCL.*

v. For contribution to be made for Pension and Terminal Benefit Trust Fund for past services till 31.05.2005 based on Actuarial Analysis.

3.46 *Till FY 2012-13, the current Pension and Terminal Benefits of all the Companies i.e. unbundled entities of MPSEB, were allowed in the ARR of the MPPTCL. The expenses as per Audited Accounts for FY 2011-12 are as mentioned below;*

i. Cash - ₹651.94 Crores
ii. Provisions – ₹ 49.50 Crores (For MPPTCL only)

3.47 *The last 'Actuarial Analysis' was conducted in the position of 31.03.2009, the report of which has been submitted before The Commission on 5th March 2010. The actual Pension outgo during previous years has been quite high as compared to projections in the Actuarial Analysis. However, certain ratios and percentage have been used in bifurcation and assessment of Terminal Benefit liabilities.*

Criteria and Assumptions for Estimation of Terminal Benefit Liabilities

3.48 *The estimation of Terminal Benefits has been done considering following assumptions:*

i. The estimation of figures is based on the requisition received from all Companies on account of Pension & Gratuity from April 2012 to December 2012.
ii. Number of Pensioners prior to 31.05.2005 is 17151 (numbers) (Pensioners + Family Pensioners) and Post 31.05.2005 is 15514 (numbers). These numbers have been taken from monthly requisitions for the month of December 2012 from all Companies. The number of exits in future year has been taken from the Actuary Report - 2009.
iii. In the absence of exact data, the average Pension for the Pensioners upto 31.05.2005 has been estimated as ₹1,336,119/- Pension per annum for FY 2012-13. The basis for average estimation has been made based on actual pay out for FY 2005-06 as intimated by the successor Companies.
iv. The amount of Pension for the Pensioners upto 31.05.2005 has been estimated on the basis of number of Pensioner as on 31.05.2005 multiplied by average Pension.
v. Assumption of average service is taken from Actuary Report 2009 for estimation of pay out on account of MPSEB service and Company service.
vi. The number of exits per annum is taken from Actuary Report 2009.
vii. Weighted Average Growth rate of D.A. is taken as 10.50% per annum. Increase in D.A. is estimated as 7% for every six months based on current trend. Hence, the Weighted Average Rate of DA has been estimated;
Formula used: {(7 x 6 + 14 x 6)/12}
viii. Pension amount includes Pension and Family Pension.
ix. Gratuity, for respective years is calculated on the basis of number of exits per annum (based on Actuary Report) and amount of estimated pay out for FY 2012-13 duly accounted for increase in DA @ 10.5% per annum i.e. cumulative increase @ 6% per annum. The cumulative increase of 6% is in line with escalation in salary estimated by Actuary in his report of 2009.

Table-43 ***Liabilities against Pensioners Retired upto 31.05.2005 and thereafter***

(Amount ₹ in Crores)

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Estimated amount of Pension for Pensioners retired upto 31.05.2005	248.16	262.86	277.56
2	Estimated amount of Pension contribution for Pensioners retired after 01.06.2005	261.94	318.78	377.97
3	Estimated amount of liability of Pension for MPPTCL & MPPMCL	112.78	142.63	175.86
	Total Pension -	**622.88**	**724.27**	**831.39**
4	Liabilities upto 31.05.2005 for Gratuity of Pensioners of other Companies	107.31	126.64	134.04
5	Liabilities of Gratuity for MPPTCL & MPPMCL	30.67	35.96	35.44
	Total Gratuity -	**137.98**	**162.60**	**169.48**
	Total Pension & Gratuity -	**760.86**	**886.87**	**1000.87**

Provisioning for Working Employees

3.49 *The Actuarial Analysis-2009 mentions percentage of salary to be contributed for Pension and Gratuity for each Company. This is worked out for MPPTCL's employees including MPPMCL as under:*

Table-44 *(Amount ₹ in Crores)*

Financial Year	No. of Employees (MPPTCL + MPPMCL)	Salary	Service Cost		Opening Balance	Interest Cost @ 7%	Provision
			Pension	Gratuity			
2013-14	5031	197.46	34.26	7.54	403.95	28.28	70.08
2014-15	4612	205.45	35.65	7.85	474.03	33.18	76.68
2015-16	4149	209.77	36.40	8.01	550.71	38.55	82.96

Contribution to Trust Fund

3.50 *The contribution to be made for Pension and Terminal Benefit Trust Fund for all the past services till 31.05.2005 of the personnel of the Board and its successor entities, both retired and in service, based on Actuarial Analysis undertaken by Madhya Pradesh Power Transmission Company Limited from time to time as per the directions of the The Commission is to be worked out. These shall be allowed in the Tariff of Madhya Pradesh Power Transmission Company Limited in the relevant year limited to the extent to be decided by the The Commission in the relevant Tariff order based on a comprehensive* *assessment of financial implication thereof, its effect on Transmission charges and consequent effect on Retail Tariff payable by the consumers.*

3.51 *The last Actuarial Analysis as per the direction of The Commission was conducted in March 2010 in the position of 31.03.2009. The Actuarial liabilities as on 31.03.2009 was mentioned as ₹ 9866.76 Crores for period upto 01.06.2005 and ₹ 1736.78 Crores for period after 01.06.2005 making a total of ₹ 11603.54 Crores. The Analysis also provided a statement for Company-wise contribution rate per annum for term of 10, 15 and 20 years. The summation is given in following table;*

Table-45 (Amount ₹ in Crores)

S. No.	*Particulars*	*Term of 10 Years*	*Term of 15 Years*	*Term of 20 Years*
1	*For liabilities upto 01.06.2005*	*1404.80*	*1083.31*	*931.34*
2	*For liabilities after 01.06.2005*	*247.31*	*190.70*	*163.96*
3	***Gross Total -***	***1652.11***	***1274.01***	***1095.30***

The above figures include leave encashment on retirement.

3.52 *It may be submitted that the assessment made in Actuarial Analysis as on 31.03.2009 differ appreciably, and another Actuarial Analysis is to be conducted. Further, the Pension & Terminal Benefit Regulations [Para-3(5)] mention the allowance in this regard by The Commission depending on implication on Retail Tariff / Transmission charges. In such a scenario, the actual assessment is not very relevant, and The Commission is to consider and take decision in this regard.*

3.53 *However, a statement of contribution of each Company to be paid by MPPTCL (Petitioner) to develop fund in 15 and 20 years has been prepared. Accordingly, contribution considering 20 years period is mentioned hereunder:*

Table-46 *(Amount ₹ in Crores)*

S. No.	*Particulars*	*FY 2013-14*	*FY 2014-15*	*FY 2015-16*
1	*Contribution amount for Gratuity*	*125.63*	*125.63*	*125.63*
2	*Contribution amount for Pension*	*783.99*	*783.99*	*783.99*
3	***Total Contribution***	***909.62***	***909.62***	***909.62***

Total Terminal Benefit Liabilities Claimed

3.54 *The claims in foregoing Paras are summarized in the following table:*

Table-47 *(Amount ₹ in Crores)*

S. No.	*Particulars*	*FY 2013-14*	*FY 2014-15*	*FY 2015-16*
1	*Current Terminal Benefit Liabilities*	*760.86*	*886.87*	*1000.87*
2	*Provisioning for working employees*	*70.08*	*76.68*	*82.96*
3	*Contribution for developing Trust Fund*	*909.62*	*909.62*	*909.62*
	Total -	***1740.56***	***1873.17***	***1993.45***

3.55 *The other Companies i.e. the Genco and Discoms are required to make provision for the liabilities on their part in their ARR, mainly the contribution to Trust for Pensioners retired after 31.05.2005 corresponding to their services in the Company, and provisioning for their working employees."*

Provisions of Regulations

3.56 The Commission notified MPERC (Terms and conditions for allowing Pension and Terminal Liabilities of Board and Successor Entities) Regulations 2012 (G-38 of 2012). Some relevant provisions of the Regulations are reproduced below: -

a) Regulation 3 (1) & (2) (i), (ii) & (iii)

(1) "The funding of pension and other terminal benefits in respect of Personnel including Existing Pensioners of the Board and the Pensioners of its successor entities shall be allowed in the manner provided for in these Regulations through tariff to be determined by the Commission for the Successor Entities from time to time.

(2) The liability towards the pension and other Terminal Benefits of the Pensioners and Personnel of the Board and its Successor Entities shall comprise of the following :

(i) cash outflow in each fiscal year for making payment to all the Pensioners including Existing Pensioners subject to the provision of Regulation 3 (8).

(ii) contributions to be made for Pension and Terminal Benefit Trust Fund for all the past services till 31.5.2005 of the Personnel of the Board and its successor entities, both retired and in service, based on actuarial analysis undertaken by Madhya Pradesh Power Transmission Company Limited from time to time as per the directions of the Commission; and

(iii) contributions for the current service of the serving Personnel of the Board and the successor entities, for the period 1.6.2005 onwards on a year to year basis as per the actuarial analysis undertaken by the Madhya Pradesh Power Transmission Company Limited from time to time as per the directions of the Commission."

b) Second Proviso of Regulation 3 (4) provides that,

"Provided further that apportionment of liabilities amongst MP Power Transmission Company and other successor entities mentioned in sub-para 1 and 2 above shall be as determined through actuarial analysis undertaken by MP Power Transmission Company."

c) Regarding liabilities with regard to the contribution to be made under sub-clause 3 (2) (ii) and (iii), it is provided in Regulation (5) and (6) that the aforesaid liabilities shall be allowed either in the tariff of MPPTCL or the respective Successor Entities, as the case may be, in the relevant year, *limited to the extent to be decided by the Commission in the relevant tariff order based on a comprehensive assessment of financial implications thereof…….*

d) Regulation 4 (1) and 4 (2) provides that,

"Nodal Agency

(1) The Madhya Pradesh Power Transmission Company Limited shall be the Nodal Agency for all intent and purpose to implement the Pension and Terminal Benefits Trust Funds contributions under these Regulations.

(2) The Madhya Pradesh Power Transmission Company Limited shall coordinate with the representatives of other Successor Entities as well as the Personnel for all matters relating to management and administration of the funds for the pension and terminal benefits in accordance with the applicable law governing such funds."

<u>Commission's Analysis</u>

3.57 Vide Commission's letter No. 382 dated 11/02/2013, the following observations were communicated to the Petitioner;

(i) **"**Regarding terminal benefit expenses, the petitioner in Para 6.4 (iii) stated that average pension for the pensioners up to 31st May, 2005 has been estimated as ₹ 1,336,119/- per person per annum, which means the monthly average pension of ₹ 1.11 Lacs per person per month. This appears to be erroneous. MPPTCL may verify the figures and resubmit the same with justification".

(ii) **"**The petitioner has claimed the provisioning for working employees and the contribution of amount for gratuity and pension on year to year basis for next 15 years and 20 years to build up the terminal benefit fund for the past unfunded liability in (Annexure-8) of the petition. The petitioner has claimed total terminal benefit liabilities including the aforesaid claims also. In view of the aforesaid, MPPTCL is required to substantiate its claim in light of various provisions under MPERC (Terms & Conditions for allowing pension and terminal benefit liabilities of personnel of the Board and Successor Entities) Regulations, 2012 notified on 20th April, 2012".

(iii) **"**In para 6.4 (vi) of the petition, the number of exits per annum is taken from actuarial report of year 2009. However, in the last one year the retirement age of employees has been increased from 58 years to 60 years in most of the Companies. The petitioner may clarify how the effect of the aforesaid change in retirement age has been accounted for while making projections for terminal benefits".

3.58 In response, vide letter No. 1326 dated 20/02/2013, MPPTCL submitted the following:

(i) "*As mentioned in Para 6.5 of the Petition, the working of Average Pension is shown in Annexure-V to the Petition, which is mentioned as ₹1,36,119/- per annum per Pensioner. In text of Para 6.4(iii), the figure 3 repeated by typographical mistake making it ₹1,336,119/-.*

Therefore, Average Pension per Pensioner per annum ₹ 1,36,119/-
Average Pension per month per Pensioner ₹ 11,343/-
Which appears to be quite reasonable.

The calculations are based on the correct figures of ₹ 1,36,119/- per annum only. Therefore, no change is required in the claim".

(ii) "*The Petitioner has claimed the Terminal Benefit liabilities as per the MPERC (Terms & Conditions for allowing Pension & Terminal Benefits liabilities of personnel of the Board and successor Entities, 2012)(G-38 of 2012) notified on 20th April 2012. Only those liabilities have been claimed, which are entrusted to the Transmission Company, and the liabilities on part of other Companies have not been claimed. A specific remark in Para 7.0 is given to clarify this, which is reiterated for reference of the Commission.*
"*7.0 Remarks –*

The other Companies i.e. the Genco and Discoms are required to make provision for the liabilities on their part in their ARR, mainly the contribution to Trust for Pensioners retired after 31.05.2005 corresponding to their services in the Company, and provisioning for their working employees."

However the claims are as per Regulations, and shown in the following table;

Table-48

S. No.	*Category*	*Regulation Para*	*Provision*	*Claim in MYT Petition*	*Amount (Rs Crores) for FY 2013-14*
1	*Existing Pensioners retired upto 01.06.05 cash out flow*	***3** (2) (i) & **3** (3)*	*Shall be allowed as a pass through in the Tariff of MPPTCL.*	***Para 6.6*** *Table S. No. 1* *S. No. 4*	*248.16* *107.31*
2	*Pensioners retired after 01.06.2005*				
(a)	*Corresponding to service upto 01.06.2005*	***3** (2) (i) & **3** (4)*	*Shall be allowed as a pass through in the Tariff of MPPTCL.*	***Para 6.6*** *Table S. No. 2*	*261.94*
(b)	*Corresponding to services after 01.06.2005*	***3** (2) (i) & **3** (4)*	*Shall be allowed as a pass through in the Tariff of respective successor entities*	*Not claimed for Genco and Discoms. To be claimed by them.*	*NIL*
(c)	*Claim for category 2(b) above but for MPPTCL and MPPMCL*	***3** (2) (i) & **3** (4)*	*Shall be allowed as a pass through in the Tariff of respective*	***Para 6.6*** *Table S. No. 3*	*112.78*

S. No.	***Category***	***Regulation Para***	***Provision***	***Claim in MYT Petition***	***Amount (Rs Crores) for FY 2013-14***
			successor entities. Liabilitiesof MPPMCL also entrusted to MPPTCL.	*S. No. 5*	*30.67*
	Total current claim on part of MPPTCL -				***760.86***
3	*Provisioning for working employees for future service*				
(a)	*For employees of MPPTCL & MPPMCL*	***3** (2) (iii) & **3** (6)*	*Shall be allowed in the Tariff of the respective successor entities limited to the extent to be decided by the Commission.*	***Para 6.7*** *Table*	*70.08*
(b)	*For employees of Genco, Discoms.*	***3** (2) (iii) & **3** (6)*	*Shall be allowed in the Tariff of the respective successor entities limited to the extent to be decided by the Commission.*	*Not claimed. To be claimed by Genco and Discoms.*	*NIL*
4	*Contribution to be made for Pension & Terminal Benefit Trust Fund for all the past services till 31.05.2005 of personnel of Board and its successor entities both retired and in service.*	***3** (2) (ii) & **3** (5)*	*Shall be allowed in the Tariff of MPPTCL in the relevant year limited to the extent to be decided by the Commission.*	***Para 6.8***	*909.62*
5	***GRAND TOTAL -***				***1740.56***

***Remarks** - The amount for FY 2014-15 & FY 2015-16 is given in the Petition. Thus, the claims in Petition of the MPPTCL are as per the Terminal Benefit Regulations.*

(iii) *In this regard it is submitted that, the number of exit (Taken from Actuary Report – 2009) had been calculated by actuary on the basis of details of employees of (MPSEB & Successor Companies) provided to him. Further, it had considered following assumptions to calculate number of exit-*

a. ***Mortality*** *– To provide for liability on account of death while in service LIC (1994-96) table was used.*

b. ***Attrition Rate*** *– Attrition rate represent employee turnover other than on account of retirement and death or disablement. For the purpose of valuation average attrition rate of 0.25% p.a. was considered.*

Details of employees of all successor Companies is not available at present. It is submitted that the calculation of number of exit after considering the above mentioned assumption will be available after the Actuarial Analysis.

The procedure to appoint Actuary for conducting Actuarial Analysis is under process and desired information shall be provided after getting new Actuary report.

Therefore, it is submitted for consideration, that the number of exits as per 'Actuary Report, 2009' may be considered. The revised figures will be available on new Actuarial Analysis, which may be considered at the time of 'True-up' exercise for these years.

3.59 As per provisions under MPERC (Terms & Conditions for allowing Pension and Terminal Benefit Liabilities of Personnel of the Board and Successor Entities) Regulation, 2012, the following is observed:

a) The Actuarial Analysis for the contribution of terminal benefits as per Regulations 3(2)(ii) and (iii) is to be undertaken by MPPTCL from time to time as per the directions of the Commission.

b) MPPTCL shall be the nodal agency for all intent and purpose to implement the Pension and Terminal Benefits Trust Funds under the Regulations.

c) MPPTCL is required to coordinate with the representatives of other Successor Entities as well as the Personnel for all matters relating to management and administration of the funds for the pension and terminal benefits funds.

d) The liabilities referred to in Regulation 3(2)(i) related to Personnel who retired after 1st June, 2005 shall be allowed as a pass through in the ARR of such Successor Entities in the relevant year for the period of service rendered after 1st June, 2005.

e) Apportionment of liabilities amongst MPPTCL and other Successor Entities shall be as determined through actuarial analysis undertaken by MPPTCL.

3.60 Further, MPPTCL in its additional submission submitted the following clarification on the issue of Terminal Benefit claim:

a) Details of employees of all Successor Companies are not available at present.

b) The calculation of number of exit after considering the assumptions like Mortality and Attrition Rate will be available after the Actuarial Analysis.

c) The procedure to appoint Actuary for conducting Actuarial Analysis is under process and desired information shall be provided after getting new Actuary Report.

d) It is submitted for consideration that the number of exists as per "Actuary Report, 2009" may be considered.

3.61 The Commission observed that the above issue needs to be dealt with in accordance to the various provisions under MPERC (Terms & Conditions for allowing Pension and Terminal Benefit Liabilities of Personnel of the Board and Successor Entities) Regulation, 2012. Some relevant provision are mentioned in preceding **para 3.59**.

3.62 In so far as provision for contribution for pension and terminal benefit liabilities of personnel of the Board and the successor entities is concerned, this provision can only be made after proper actuarial analysis for which action shall be set in motion shortly. This, however, shall be a separate exercise to be undertaken by Transco on directions of the Commission. Results of this exercise shall get reflected in transmission tariff orders at the discretion of the Commission as per the Regulation referred to above.

3.63 In view of the above, the Commission has considered the terminal benefits and pension expenses for FY 2013-14 in this order on provisional basis on 'pay as you go' principle to the extent of ₹ 677 Crore as allowed in the Retail Supply Tariff Order for FY 2013-14 issued on 23rd March, 2013. Taking into cognizance, the clarifications filed by MPPTCL in its additional submission as mentioned in **para 3.60**, the Commission has considered this amount of ₹ 677 Crore in each year of the control period subject to true-up in each year on availability of the actual figures.

Depreciation

Petitioner's submission

The petitioner broadly submitted the following:

Opening Balance Sheet

3.64 *"The Government of Madhya Pradesh has notified the final Opening Balance Sheet on 12th June 2008 in the position of 31.05.2005. The fixed assets transferred are shown as hereunder;*

(i)	*Opening Gross Block*	*₹ 2932.75 Crores*
(ii)	*Accumulated Depreciation*	*₹ 1205.95 Crores*
(iii)	*Net Fixed Assets*	*₹ 1726.81 Crores*

3.65 *The petitioner has been allowed the True-ups for the year's upto 2009-10, on the basis of final opening Balance Sheet. The development upto 31.03.2013 in respect of Opening Gross Block, Accumulated Depreciation is shown in the following table:*

Table-49

(Amount ₹ in Crores)

S. No.	*Date as on*	*Gross Fixed Assets*	*Accumulated depreciation*	*Net Fixed Assets*
1	31-05-2005	2932.75	1205.95	1726.81
2	31-03-2006	3092.46	1276.85	1815.61
3	31-03-2007	3341.54	1365.91	1975.63
4	31-03-2008	3575.98	1462.71	2113.27
5	31-03-2009	3954.12	1559.44	2394.68
6	31.03.2010	4544.60	1728.20	2816.40
7	31.03.2011	5045.91	1929.61	3116.31
8	31.03.2012	5309.90	2147.00	3162.89
9	31.03.2013	5799.87	2383.34	3416.53

3.66 *The figures upto S. No. 8 i.e. 31.03.2012 are as per 'True-up' Orders / Petition. Whereas for S. No. 9 i.e. 31.03.2013 projections are made as per assessed progress of Asset addition during FY 2012-13.*

Regulations on Depreciation Claim

3.67 *The Regulations on Depreciation till 31.03.2009 provided for Depreciation claim on 'Straight Line Method' considering Depreciation upto 90% of the book value.*

3.68 *From 01.04.2009 onwards the Regulations provide for accelerated rate of Depreciation for initial period of 12 years to enable the Licensee to repay the loans. Thereafter, the rates of Depreciation got reduced as per residual value of Asset and residual life.*

3.69 *The same methodology is prescribed in present control period i.e. FY 2013-14 to FY 2015-16. The salient Para 25(i) (e) & (f) of the Regulations are reproduced hereunder;*

"25.1 (e) "Depreciation shall be calculated annually based on 'straight line method' and at the rates specified in Appendix-II to these Regulations for the assets of the Transmission System.

Provided that, the remaining depreciation value as on 31st March of the Year closing after a period of 12 Years from Date of Commercial Operation shall be spread over the balance useful life of the assets.

Provided further that the Consumer contribution or capital subsidy/ grant etc. for asset creation shall be treated as per the Accounting Rules notified and in force from time to time".

25.1(f) "In case of the existing Projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciation value of the assets. The rate of depreciation shall be continued to be charges at the rate specified in Appendix-II 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%"."

3.70 *Appendix-II of the regulations provides for depreciation rates for different category of Assets.*

Asset Data Base for working out Depreciation

3.71 *The Petitioner has maintained an Asset Database for working out Depreciation for a particular year. The salient features of the database are;*

i. *The database is as per Final Opening Balance Sheet figures notified on 12th June 2008 in the position of 31.05.05.*
ii. *The works Capitalized during subsequent years have been entered in the data base till 31.03.2012.*
iii. *The Depreciation rates after 31.05.05 have been taken as per The MPERC's Regulations applicable time to time.*
iv. *Depreciation working formula is as per Straight Line Method of Depreciation.*
v. *The Depreciation ceases to add further as soon as the Depreciation reaches 90% of Opening Gross Block. 10% is taken as scrap value.*

Updation in the Depreciation Model Software

3.72 *The provisional Asset data base has been modified in light of above mentioned provisions in the following respect:*

(i) *In case of assets created on or after 01.04.2009, the depreciation rates as per Appendix-II of the Regulation will continue upto 31st March of the year closing after a period of 12 years. Thereafter rate automatically changes equal to remaining depreciation out of 90% limit divided by the balance life of assets.*
(ii) *In case of assets commissioned prior to 01.04.2009, the depreciation w.e.f. 01.04.2009 will be booked at the rates mentioned in Appendix-II of regulations till the depreciation reaches 70% of the book value. Thereafter the rate of depreciation automatically change as equal to 20% residual value (90% - 70%) divided by remaining life of assets.*
(iii) *All assets are depreciated to maximum 90% of book value. Thereafter no depreciation is charged.*
(iv) *The Opening Balance Sheet notified on 12th June 2008, transferred no Asset value out of Gross Block of ₹ 2932.75 Crores funded through contribution from consumers. In Asset capitalized from FY 2005-06 to FY 2009-10 too, no works have been capitalized as funded through consumer's contribution. Therefore, no*

Depreciation has been charged by the MPPTCL against contributory works, till FY 2009-10.

Updation in view of current Regulations

3.73 *Since the Regulations for the control period FY 2013-14 to FY 2015-16 notified on 14.12.2012 mention the same methodology as for previous control period, no changes in software of Depreciation Model is required.*

Depreciation for Control Period

3.74 *The figures of Gross Block, Depreciation and Net Block upto FY 2011-12 have been brought forwarded from the True-up Petition for FY 2011-12. The figures for FY 2012-13 have been assessed on the basis of Assets expected to be added in FY 2012-13 as per progress anticipated.*

3.75 *For control period, the Asset addition is taken from Table 4.4 of the Transmission Plan. The category-wise details of Depreciation for control period is given in Format TUT-7 & TUT-8. The summary is given in following table:*

Table-50 *(Amount ₹ in Crores)*

S. No.	Year	Gross Fixed Assets			Provision For Depreciation			Net Fixed Assets	
		At the beginning of Year	Addition During Year	At End of Year	At the beginning of Year	Addition During Year	At End of Year	At the beginning of Year	At the End of Year
1	2013-14	5799.87	754.88	6554.75	2383.34	270.71	2654.05	3416.53	3900.70
2	2014-15	6554.75	994.56	7549.31	2654.05	311.79	2965.83	3900.70	4583.48
3	2015-16	7549.31	847.18	8396.50	2965.83	346.78	3312.61	4583.48	5083.89

3.76 *The petitioner claimed the following Depreciation for control period as under:*

*i. FY 2013-14 – **₹270.71 Crores***
*ii. FY 2014-15 – **₹311.79 Crores***
*iii. FY 2015-16 – **₹346.78 Crores**.”*

Provisions of Regulations

3.77 Regulation 25 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 (G-28 (II) of 2012) provides that,

25.1. 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 rates specified in Appendix-II to these Regulations for the assets of the Transmission System.

Provided that, the remaining depreciable value as on 31st March of the Year closing after a period of 12 Years from Date of Commercial Operation shall be spread over the balance useful life of the assets.

Provided further that the Consumer contribution or capital subsidy/ grant etc for asset creation shall be treated as per the Accounting Rules notified and in force from time to time.

(f) In case of the existing Projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets. The rate of Depreciation shall be continued to be charged at the rate specified in Appendix-II 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%.

(g) Depreciation shall be chargeable from the first Year of commercial operation. In case of commercial operation of the asset for part of the Year, depreciation shall be charged on pro rata basis.

<u>Commission's Analysis</u>

3.78 On preliminary scrutiny of the petition, the following observation was communicated to the petitioner seeking its clarification:

"In table under para 7.1 of the petition, GFA as on 31.03.2012 is mentioned as ₹ 5309.90 Crore, whereas Note 12 of the audited balance sheet mentions GFA as ₹ 5256.71 Crore. This discrepancy be clarified/rectified by the petitioner".

3.79 Vide letter No. 1326 dated 20/02/2013, MPPTCL responded that,

"There is no discrepancy in the figures reported. In Tariff Petition, as per the Regulations, the GFA includes the Assets created out of consumer contributions, whereas the Depreciation earned on them is then subtracted from total Depreciation claim. In the new Format of Accounts (Note 12), these are separately indicated. The matching is shown hereunder;

Table-51

(i)	*GFA shown in Note 12*	*₹ **5256.71** Crore*
(ii)	*Assets created against Consumer Contribution*	*+ ₹ 47.88 Crore*
(iii)	*Assets created against Consumer Contribution (against deferred income)*	*+ ₹ 5.30 Crore*
	Total -	*₹**5309.89** Crore*

*= ₹ **5309.90** Crores*

₹ 5309.90 Crores is the figure in the Table of Para 7.1 of the Petition".

3.80 Considering the petitioner's submission, the capital cost & capital structure is determined by considering GFA (net of consumer contribution) of ₹ 5256.71 Cr as on 31/03/2012 instead of the figure ₹ 5309.90 Cr as mentioned in table for calculation of depreciation filed by the petitioner. The petitioner has filed following table as summary of its claim for depreciation for the control period.

Table-52 (Amount ₹ in Crores)

S. No.	**YEAR**	**Gross Fixed Assets**			**Provision For Depreciation**			**Net Fixed Assets**	
		At the beginning of Year	**Addition During Year**	**At End of Year**	**At the beginning of Year**	**Addition During Year**	**At End of Year**	**At the beginning of Year**	**At the End of Year**
1	**2013-14**	5799.87	754.88	6554.75	2383.34	270.71	2654.05	3416.53	3900.7
2	**2014-15**	6554.75	994.56	7549.31	2654.05	311.79	2965.83	3900.7	4583.48
3	**2015-16**	7549.31	847.18	8396.5	2965.83	346.78	3312.61	4583.48	5083.89

3.81 In its claim for depreciation, MPPTCL considered GFA of ₹ 5309.90 Cr. as on 31.03.2012. The Commission has observed from Note 12 of Audited Accounts for FY 2011-12 that the total fixed assets as on 31.03.2012 are of ₹ 5256.71 Cr. It is also observed that the assets created against consumer contribution have increased to ₹ 47.88 Cr. and consumer contribution against existing assets is also shown as ₹ 5.30 Crore.

3.82 In Schedule TUT-7 of the subject petition, the consumer contribution has been kept constant at ₹ 47.89Cr., during the control period and the addition to depreciation on account of the consumer contribution has been estimated as ₹ 2.02 Cr. annually. However, the past trends show that the assets created against the consumer contribution was nil as on 31.03.2010 which has now increased to ₹ 19.10 Cr. as on 31.03.2011 and to ₹ 47.88 Cr. as on 31.03.2012. The trend of consumer contribution is not found linear. Therefore, the projections on account of consumer contribution and the corresponding depreciation will be considered appropriately in the true-up exercise of the respective years.

3.83 It is observed that the MPPTCL claimed depreciation at the average GFA on the capital cost proposed and claimed in the subject petition. The Commission has worked out the addition to GFA as ₹ 434.20 Crore on account of reasons discussed in preceding paras of this Order. Therefore, there is a difference in the average GFA claimed in the petition and considered by the Commission in this Order. The percentage of average addition to GFA claimed over the opening GFA is considered in this order for calculation of depreciation amount. While doing so, the average rate of depreciation claimed in the petition in each year of the control period is computed on the basis of assumptions made by the petitioner as given below: -

Table-53 Calculation of Depreciation percentage

S.No.	Year	Average GFA	Depreciation Claimed by MPPTCL	% of Depreciation to Average GFA
1	FY 2013-14	6177.31	270.71	4.38%
2	FY 2014-15	7052.03	311.79	4.42%
3	FY 2015-16	7972.91	346.78	4.35%

3.84 Accordingly, the Commission has considered the above mentioned percentages and allowed Depreciation as under:

Table-54 Calculation of Depreciation

S. No.	Year	Opening GFA	Average GFA	Closing GFA	Depreciation	% of Depreciation to average GFA
1	FY 2013-14	5746.69	5963.79	6180.89	261.35	4.38%
2	FY 2014-15	6180.89	6397.99	6615.09	282.87	4.42%
3	FY 2015-16	6615.09	6832.19	7049.29	297.16	4.35%

3.85 Accordingly, the depreciation of **₹ 261.35 Cr, ₹ 282.87 Cr and ₹ 297.16 Cr** for FY 2013-14 to FY 2015-16 is allowed in this Order subject to true-up. The petitioner is directed to complete reconciliation of its Asset Registers and to submit the final Assets – Depreciation Register clearly showing fulfillment of the Regulations while claiming True-up of Depreciation in respective years.

Interest & Finance Charges

Petitioner's submission

The petitioner broadly submitted the following:

3.86 *"The Govt. of M.P. has notified the final Opening Balance Sheet on 12th June 2008, as referred in Chapter 1 of this Petition. Loan liabilities of ₹ 1313.21 Crores are indicated in the Balance Sheet and a liability of ₹ 5.53 Crores is indicated in the footnote as loan from MP Power Generating Company Ltd., making a total of ₹1318.74 Crores. Details of these are mentioned hereunder:*

Table-55

As on 31.05.2005 *(Amount ₹ in Lacs)*

S. No.	Particulars	Opening Balance at the beginning of the year			
		Principal Not Due	Principal Due	Interest overdue	TOTAL
1	Loan from PFC - Unsecured	30990.54	0.00	0.00	30990.54
2	Loan from PFC - Secured	0.00	0.00	0.00	0.00
3	Loan from Canara Bank	0.00	0.00	0.00	0.00
4	Loan from SADA Gwalior	720.00	480.00	302.80	1502.80
5	Bonds & Debentures	29692.14	7655.06	11545.70	48892.90
6	MP Genco	553.00	0.00	0.00	553.00
7	Direct Loans	0.00	0.00	0.00	0.00
8	ADB	20844.32	0.00	0.00	20844.32
9	NABARD	7619.10	1215.02	0.00	8834.32
10	General Loans	2876.59	214.78	0.00	3091.37
11	Market Bonds	15964.95	1200.55	0.00	17165.50
	TOTAL -	**109260.64**	**10765.41**	**11848.50**	**131874.55**

3.87 *There have been fresh loans received in subsequent years, and repayments have also been done during these years. The year-wise growth has been shown in the 'True-up' Petitions of earlier years. Position of outstanding loans as on 31.03.2012, as per 'True-up Petitions, for FY 2011-12 and Audited Accounts for FY 2011-12 latest available is given in the following table;*

Table-56

As on 31.03.2012 *(Amount ₹ in Lacs)*

S. No.	Particulars	Balance at the beginning of year			
		Principal Not Due	Principal overdue	Interest overdue	TOTAL
1	Loan from PFC - Unsecured	13186.20	0.00	0.00	13186.20
2	Loan from PFC - Secured	26096.97	0.00	0.00	26096.97
3	Loan from Canara Bank	0.01	0.00	0.00	0.01
4	Loan from SADA Gwalior	0.00	0.00	0.00	0.00
5	Bonds & Debentures	0.00	5392.00	2783.81	8175.81
6	MP Genco	552.69	0.00	0.00	552.69
7	Direct Loans	232.75	1396.47	608.29	2237.51
8	ADB 1869	30068.11	7219.73	10279.45	47567.29
9	NABARD	124.08	9161.08	3627.69	12912.85
10	Market Bonds	1853.45	15312.05	5391.84	22557.34
11	General Loans	17623.01	3791.36	1577.89	22992.26
12	GoMP ADB 2323	41882.33	0.00	1808.09	43690.42
13	GoMP ADB 2346	58977.43	0.00	2838.08	61815.51
14	TSP	3080.00	420.00	318.34	3818.34
15	SCSP	4620.00	630.00	476.46	5726.46
Total		**198297.03**	**43322.69**	**29709.94**	**271329.66**

3.88 *The Petitioner while filing the Petition for determination of Transmission Tariff for FY 2012-13, made projections for loan growth in FY 2012-13. The Petition was filed on 15.02.2012 purely on assessment basis. Since now position of works which may be completed by March 2013 is clear, the projections have been modified and enclosed as Annexure-IX (2012-13).*

Projections for Control Period

3.89 *The source-wise loans are projected for the three years of control period based on following basis:*

i. *Loan receipts are projected as per Transmission Plan table given in Para 4.4 of the Petition.*
ii. *Principal repayment due is assessed approximately on the basis of repayment terms.*
iii. *Actual repayments are mentioned in full for loans taken from Institutions such as PFC. Since Discoms are not making full payment of bills of Transmission charges, the default in certain State Government loans is shown on anticipation of financial constraints.*
iv. *Interest due is worked out as rate of interest in general.*

3.90 *Based on above, the year-wise loans details are projected and enclosed as Annexure-IX 2013-14 to 2015-16.*

Weighted Average Rate of Interest

3.91 *The Weighted Average Rate of Interest for the three years is worked on the basis of 'Principal Not Due' at the beginning of year, applying the rate of interest from True-up Petition for FY 2011-12 i.e. last actuals available. In case of new loans, rate of interest for PFC is taken same as other PFC scheme. For ADB, new rate is taken as for ADB-1869. JICA loan is expected at low interest, but through Central and State Governments. Adding certain additional charges for overhead and hedging, rate of JICA is therefore taken as 2.5%, which will be subject to 'True-up' when actual rates are finalized.*

Table – 57 *(Amount ₹ in Crores)*

S. No.	Loan Scheme	Rate	FY 2013-14		FY 2014-15		FY 2015-16	
			Principal	Intt.	Principal	Intt.	Principal	Intt.
1	PFC Unsecured	10.91%	96.84	10.56	58.08	6.34	19.33	2.11
2	PFC Secured	12.14%	238.31	28.93	215.64	26.18	192.98	23.43
3	Bonds / Debentures	12.00%	0.00	0.00	0.00	0.00	0.00	0.00
4	MP Genco	9.70%	5.53	0.54	5.53	0.54	5.53	0.54
5	State Govt. Direct	10.50%	2.33	0.24	2.33	0.24	1.13	0.12
6	State Government ADB - 1869	10.62%	285.18	30.29	269.68	28.64	254.18	26.99
7	State Government NABARD	10.50%	0.00	0.00	0.00	0.00	0.00	0.00
8	State Government - General	14.22%	176.23	25.06	123.23	17.52	70.23	9.99
9	State Government Market Bonds	10.93%	17.03	1.86	13.53	1.48	10.53	1.15
10	State Government ADB - 2323	1.84%	454.82	8.37	452.82	8.33	429.33	7.90
11	State Government ADB - 2346	1.84%	607.73	11.18	597.65	10.99	565.15	10.40
12	State Govt. Tribal Sub-Plan	14.50%	53.40	7.74	60.00	8.70	66.10	9.58
13	State Govt. S.C. Sub-Plan	14.50%	67.60	9.80	73.00	10.58	77.90	11.30
14	PFC-II New	10.91%	250.00	27.28	470.00	51.28	553.50	60.39
15	REC	10.00%	0.00	0.00	0.00	0.00	67.70	6.77
16	ADB-III	10.62%	0.00	0.00	0.00	0.00	100.00	10.62
17	JICA	2.50%	47.10	1.18	291.60	7.29	676.00	16.90
	TOTAL -	-	**2302.11**	**163.02**	**2633.11**	**178.11**	**3089.59**	**198.19**
Weighted Average Rate of Interest			$\frac{163.02}{2302.11} \times 100$ **= 7.08%**		$\frac{178.11}{2633.11} \times 100$ **= 6.76%**		$\frac{198.19}{3089.59} \times 100$ **= 6.41%**	

Interest calculation for Control Period

3.92 *The interest during an year is allowed by The Commission on 'Principal Not Due'. At the same time, repayment of principal amount during an year is treated as equal to Depreciation allowed in that year. The final figures as per Audited Accounts are available* *upto 31.03.2012. Taking figures for FY 2012-13 as per order of The Commission for Fy 2012-13, the projections for control period are worked out in the following table:*

Table – 58 *(Amount ₹ in Crores)*

S. No.	Particulars	FY 2012-13*	FY 2013-14	FY 2014-15	FY 2015-16
1	Principal not due on 1st April of year	1870.02	1976.68	2234.39	2618.80
2	Loan received during the year	342.99	528.42	696.20	593.02
3	Principal repayment deemed equal to Depreciation during that year	236.33	270.71	311.79	347.89
4	Principal Not Due on 31st March of year (S. No. 1+2 – 3)	1976.68	2234.39	2618.80	2863.93
5	Average Principal Not due during the year [S. No. (1+4)÷2]	1923.35	2105.54	2426.60	2741.36
6	Weighted Average Rate of Interest for the year	6.47%	7.08%	6.76%	6.41%
7	Interest eligibility for the year	124.44	149.07	164.04	175.72

(As per order dated 17.04.2012 for FY 2012-13).*

Interest During Construction (I.D.C.)

3.93 *As per the 'Audited Accounts' for FY 2011-12 latest available CWIP as on 31.03.2012 is ₹594.46 Crores. This has been projected for the control period, as mentioned in following table. Since, it is assumed that required Loan and Equity are arranged in same year, and there is no transfer to Capital Assets, CWIP seems constant during control period.*

Table – 59 *(Amount ₹ in Crore)*

S. No.	Particulars	Funded from Loan	Funded from Equity	TOTAL
1	CWIP as on 01.04.2012	416.12	178.34	594.46
2	Funds received in FY 2012-13 (Assessed)	410.00	141.20	551.20
3	Assets capitalized in 2012-13 (Assessed)	342.98	146.99	489.97
4	CWIP as on 01.04.2013	483.14	172.55	655.69
5	Funds received in FY 2013-14 (Projected)	528.42	226.46	754.88
6	Assets capitalized in FY 2013-14 (Projected)	528.42	226.46	754.88
7	CWIP as on 01.04.2014	483.14	172.55	655.69
8	Funds received in FY 2014-15	696.20	298.36	994.56
9	Assets capitalized in FY 2014-15	696.19	298.36	994.55
10	CWIP as on 01.04.2015	483.15	172.55	655.69
11	Funds received in FY 2015-16	593.02	254.15	847.18
12	Assets capitalized in FY 2015-16	593.02	254.16	847.18
13	CWIP as on 31.03.2016	483.15	172.55	655.70

Interest Rate for Loan under CWIP

3.94 *The loan under CWIP is mostly funded from new loans received during current year. Therefore, Weighted Average Rate of interest for IDC is worked out on loans received during that year. This is worked out on the basis of Annexure-IX and rates in Para-8.4 above, and mentioned hereunder:*

Table – 60 *(Amount ₹ in Crores)*

S. No.	Loan Scheme	Rate	FY 2013-14		FY 2014-15		FY 2015-16	
			Loan Amount	Intt.	Loan Amount	Intt.	Loan Amount	Intt.
1	ADB - 2323	1.84%	21.50	0.39	0.00	0.00	0.00	0.00
2	ADB - 2346	1.84%	22.42	0.41	0.00	0.00	0.00	0.00
3	T.S.P.	14.50%	10.00	1.45	10.00	1.45	15.00	2.18
4	S.C.S.P.	14.50%	10.00	1.45	10.00	1.45	10.00	1.45
5	PFC-II (New)	10.91%	220.00	24.00	108.50	11.84	50.00	5.45
6	JICA	2.50%	244.50	6.11	400.00	10.00	300.00	7.50
7	REC	10.00%	0.00	0.00	67.70	6.77	148.02	14.80
8	ADB-III	10.62%	0.00	0.00	100.00	10.62	70.00	7.44
9	**TOTAL -**	**-**	**528.42**	**33.81**	**696.20**	**42.13**	**593.02**	**38.82**
10	**Weighted Average Rate of Interest**		$\frac{33.81}{528.42} \times 100$ **= 6.39%**		$\frac{42.13}{\mathbf{696.20}} \times 100$ **= 6.05%**		$\frac{38.82}{593.02} \times 100$ **= 6.55%**	
11	Loan under CWIP Average for year		483.14		483.15		483.15	
12	IDC at the rate mentioned at S. No. 10 above		30.87		29.23		31.63	

Net Interest Claim

Table – 61 *(Amount ₹ in Crores)*

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Interest Eligibility	149.07	164.04	175.72
2	Less IDC	(-) 30.87	(-) 29.23	(-) 31.63
3	Net Interest Eligibility	118.20	134.81	144.09

Interest on Working Capital

3.95 *Interest on working capital for the three years on Normative basis is worked out in the following table:*

Table – 62 *(Amount ₹ in Crores)*

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	O&M Expenses for One month	26.79	30.54	34.54
2	Maintenance Spare @ 15% of O&M Expenses	48.23	54.97	62.17
3	Receivables equivalent to two month's Transmission charges	482.20	529.47	575.69
4	Total Working Capital (1+2+3)	557.22	614.98	672.40
5	SBI's Base Rate + 3½% on 1st April of year (10% + 3½% = 13.5%)	13.5%*	14.0%*	14.5%*
6	Interest on Working Capital for the year	75.22	86.10	97.50

*(*) **Remark**- Base rate for FY 2013-14 is taken 10% i.e. on 1.4.2012 available. Hike of 0.5% is considered for subsequent two years.*

Total Interest Claim

Table – 63 *(Amount ₹ in Crores)*

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Interest on Loan	118.20	134.81	144.09
2	Interest on Working Capital IDC	75.22	86.10	97.50
3	Total Interest	193.42	220.91	241.59

Provisions of Regulations

3.96 Regulation 24 under MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

"24.1. The loans arrived at in the manner indicated in Regulation 20 shall be considered as gross normative loan for calculation of interest on loan.

24.2. The normative loan outstanding as on 1.4.2013 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2013 from the gross normative loan.

24.3. The repayment for each Year of the Tariff period 2013-16 shall be deemed to be equal to the depreciation allowed for that Year.

24.4. Notwithstanding any moratorium period availed by the Transmission Licensee, the repayment of loan shall be considered from the first Year of commercial operation of the Project and shall be equal to the annual depreciation allowed.

24.5. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Project:

Provided that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the Transmission System, does not have actual loan, then the weighted average rate of interest of the Transmission Licensee as a whole shall be considered.

24.6. The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest.

24.7. The Transmission Licensee shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the Beneficiaries and the net savings shall be shared between the Beneficiaries and the Transmission Licensee, in the ratio of 2:1.

24.8. The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

24.9. In case of dispute, any of the parties may make an application in accordance with the MPERC (Conduct of Business) Regulation, 2004, as amended from time to time:

Provided that the Transmission Customers shall not withhold any payment on account of the interest claimed by the Transmission Licensee during the pendency of any dispute arising out of re-financing of loan."

3.97 Regulation 28 under MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

"28.1. Rate of interest on working capital to be computed as provided subsequently in these Regulations shall be on normative basis and shall be equal to the State Bank of India's Base Rate as on 1st of April of that year plus 3.50%. The interest on working capital shall be payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures."

3.98 Regulation 38 of the above Regulations provides that,

"38.1. For each Year of the Tariff Period working capital shall cover the following:

(1) Maintenance spares @ 15% of the O&M expenses specified in Regulation37.1;

(2) Receivables equivalent to two months of transmission charges calculated on Target Availability Level; and
(3) Operation and Maintenance expenses for one month."

Commission's Analysis

3.99 Vide Commission's Order dated 07/02/2013, the petitioner was asked to clarify and submit the following :

(i) The weighted average rate of interest for FY 2013-14 to FY 2015-16 are higher than the weighted average rate of interest claimed in FY 2011-12. The reason for increase in these figures with reference to each loan scheme was sought from the petitioner.
(ii) The petitioner was asked to submit the documents along with terms and conditions of loan schemes to the Commission.
(iii) While indicating the funds received and assets capitalized for the respective years, the **CWIP** as on 1st April, 2013 is kept constant for 1st April, 2014 and 1st April, 2015 in table under Para 8 of the petition. In view of the aforesaid, the reasons for assuming the constant CWIP along with the linkage of various figures mentioned in the table was sought from the petitioner
(iv) The year-wise details regarding the state Government and other loans provided in Annexure-9 of the petition have no relevance in light of the provisions under MPERC (Terms & Conditions for determination of Transmission Tariff) Regulation, 2012 since repayment is now to be considered equal to the depreciation for the year. The working for the lender-wise loan balances at the start and end of each financial year was asked from the petitioner so that computation of interest and finance charges for the multi year period be possible appropriately.

3.100 In response , MPPTCL submitted that;

(i) **"***In the year 2012-13 majority of new loan was expected from ADB-2326 and ADB-2346, where interest rates are about 1.5%. In FY 2013-14, these schemes will be on closure and new loans are expected from PFC, New ADB and Tribal Plans where interest rates are higher.The loan from JICA will be available gradually, which reduces interest rate in FY 2014-15 & FY 2015-16. Inspite of this, the interest rate of MPPTCL is quite less. The Regulations provide for tentative rates in Tariff Petition, which are subjected to the 'True-up' on actual loans received.*

The agreements for older loans have already been provided earlier. Copies of agreements of new loans i.e. JICA and PFC-II new so far executed are enclosed. The loans for new ADB, is yet to be tied-up, after which exact terms will be available.

It is submitted that the loan agreement of JICA is between JICA and the Central Government indicating interest rate of 0.5%. This loan is given by the JICA to the Government, and the State Government gives it to MPPTCL. The terms of giving *this loan to MPPTCL by the State Government are under finalization. It was found in case of ADB's loans that the State Government charge a little higher interest rate. Therefore, the interest rate in our Petition for JICA is assessed as 2.5%, which will be subject to True up at actual rate of interest to be decided.*

Similarly, for PFC-II new scheme, interest rate of 10.91% has been claimed. As per a letter No. 03: 22: MPPTCL: Vol-I – 20603005 dtd. 30th January 2013 received from PFC, the interest rate is indicated as 12.25%. This will also be subject to 'True up' on actual rate charged during control period".

(ii) "*Because of acute problem in tie-up of required loan and Equity, the receipt of loan and Equity is assumed just sufficient to create Asset of particular value. Since the variation in current Assets and liabilities can also not be assessed at this stage, the CWIP worked out is constant for the three years. In True-up exercise later on this will vary because of changes on above factors".*

(iii) "*It is submitted that the Annexure-9 is very relevant because matching of outstanding loans, source-wise with Annual Account, can be done by this Annexure-9. Further calculation of Weighted Average Rate of Interest is done on the basis of the 'Principal Not Due' from this Annexure.*

There is no change from earlier practice, and in this Petition too, the loan from Financial Institution are proposed to be paid as due. In case of the State Government loans, default fully or partly is shown on account of expected financial crunch, due to partial payment of Transmission charges bills by the Discoms".

3.101 As per the provisions under Regulation 24.2, the normative loan outstanding as on 01.04.2013 is to be worked out by deducting the cumulative repayment as admitted by the Commission upto 31.03.2013 from the gross normative loan. Therefore, the figures of Principal not due eligible for interest on loan are either considered from the last true up order for FY 2010-11 or the figures in the Audited Accounts of MPPTCL for FY 2011-12 to arrive at more realistic figures. The aforesaid audited accounts for FY 2011-12 were made available to the Commission after the issue of tariff order for FY 2012-13. The true-up order for FY 2010-11 was also issued by the Commission after the Transmission Tariff Order for FY 2012-13.

3.102 Considering petitioner's submission for keeping CWIP constant at present levels and by applying the rate of interest as filed by it for claiming Interest, the IDC is worked out as under:

Table – 64 IDC Calculation **(₹ in Crores)**

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	CWIP (as per audited Balance sheet of FY 2011-12)	594.46	594.46	594.46
2	CWIP funded from Loan (@70%)	416.12	416.12	416.12
3	Rate of Interest (in % as filed in the petition)	6.39	6.05	6.55
4	**Interest during construction**	**26.59**	**25.18**	**27.26**

3.103 Based on the above and the following figures, the interest on loan (Principal not due) is worked out in this Order as under:

(i) In table 10 of para 4.62 of the Order on true-up of transmission Tariff for FY 2010-11, the “Principal not due” of Rs 1757.56 Cr as on 31/03/2011 was admitted by the Commission.

(ii) The addition of loan in each year is considered as per table 33 in this Order.

(iii) Depreciation for FY 2011-12 is considered as filed by MPPTCL in para 8.8 of its true-up petition for that year (P-75/12).

(iv) Depreciation for FY 2012-13 is considered as admitted in para 2.76 of the Transmission Tariff Order for FY 2012-13 dated 17.04.2012.

(v) Depreciation for the next control period is considered as approved in preceding paras of this order.

(vi) The weighted average rate of interest as filed by the petitioner is considered.

3.104 Accordingly, the interest on loan for the next control period is calculated as under:

Table – 65 Calculation of Interest

S. No	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Principal not due on beginning of year (01.04.2012) as per true-up order for FY 2010-11.	1757.56	1701.10	1807.76	1850.35	1871.42
2	Addition of loan during FY 2010-11 (as per table 33 of this order)	160.93	342.99	303.94	303.94	303.94
3	Repayment (equal to depreciation)*	217.39	236.33	261.35	282.87	297.16
4	Principal not due on end of year(4=1+2-3)	1701.10	1807.76	1850.35	1871.42	1878.20
5	Average of principal not due for the FY {5=(1+4)/2}			1829.05	1860.88	1874.81
6	Rate of Interest (in % as filed in the petition)			7.08	6.76	6.41
7	**Interest**	N.A. *	N.A.*	129.50	125.80	120.18
8	Less : IDC			26.59	25.18	27.26
9	**Net Interest Allowed (9=7-8)**			**102.91**	**100.62**	**92.92**

(Note:1. The figures for FY 2011-12 & FY 2012-13 are indicative for pro-forma calculation purpose only and not for approval of interest for those years)
2. *The figures of depreciation for FY 2011-12 and FY 2012-13 are provisionally considered from the true-up petition for FY 2011-12 and Tariff Order for FY 2012-13 respectively.

Interest on Working Capital

3.105 As per the provisions of the Regulations, the interest on working capital is calculated as under:

Table – 66

Interest on Working capital **(₹ in Cr.)**

S. No.	**Particular**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
i.	O&M expenses for one month	26.50	29.46	32.51
ii.	Maintenance spares @ 15% of the O&M expenses	47.70	53.02	58.51
iii.	Receivables equivalent to 2 months transmission charges	273.75	287.50	299.29
iv.	Total working Capital	347.95	369.98	390.31
v.	Interest on working capital (@ 13.50% as filed)	**46.97**	**49.95**	**52.69**

Return on Equity (RoE)

Petitioner's submission

The petitioner broadly submitted the following:

3.106 *"The Equity held as per the Audited Accounts for FY 2011-12 is as under:*
(i). Equity held on 31.03.2011 - ₹2154.44 Crores
(ii). Equity held on 31.03.2012 - ₹2184.44 Crores

In FY 2012-13, out a total State Government support of ₹ 191.20 Crores planner an amount of ₹ 141.20 Crores is expected as Equity. For the control period, the Equity infusion is taken as per table in Para 4.4 based on Plan.
The Equity growth is accordingly given in following table:

Table – 67 *(Amount ₹in Crores)*

S. No.	***Particulars***	***FY 2012-13***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
1	*Equity at the beginning of the year*	*2184.44*	*2325.64*	*2552.10*	*2850.47*
2	*Equity received during the year*	*141.20*	*226.46*	*298.37*	*254.15*
3	*Equity at the end of the year*	*2325.64*	*2552.10*	*2850.47*	*3104.63*

Equity employed on Completed Capital Works

3.107 *The Petitioner has worked out the Equity employed on completed / capitalized Assets upto 31.03.2012 in the True-up Petition for FY 2011-12. The same is extended upto this control period as under:*

Table – 68 *(₹ in Crores)*

S. No.	Particulars	As on 31.03.12	As on 31.03.13	As on 31.03.14	As on 31.03.15	As on 31.03.16
1	Total Equity held	2184.44	2325.64	2552.10	2850.47	3104.63
2	Equity under CWIP	178.34	172.55	172.55	172.55	172.55
3	Equity temporarily held under current Assets	421.76	421.76	421.76	421.76	421.76
4	Equity Deployed on completed/capitalized Assets	1584.34	1731.33	1957.79	2256.15	2510.31

Rate for claiming RoE

(i). *Base Rate - 15.5%*
(ii). *M.A.T. Rate - 19.887%*
(iii). *Gross Rate -* $\frac{15.50}{(1 - 0.19887)}$ *= 19.35%*

Table – 69 Claim of RoE for Control Period

(Amount ₹ in Crores)

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Equity employed on Capitalized works at the beginning of year	1731.33	1957.79	2256.15
2	Equity employed on Capitalized works at the end of year	1957.79	2256.15	2510.31
3	Equity employed on Capitalized works during the year (Average)	1844.56	2106.97	2383.23
4	Gross Block at beginning of year	5799.87	6554.75	7549.31
5	Gross Block at end of year	6554.75	7549.31	8396.41
6	Average Gross Block for the year	6177.31	7052.03	7972.86
7	Qualifying Equity (30% of S. No. 6)	1853.19	2115.61	2391.86
8	Equity for claim of RoE (Minimum of S. No. 3 & 7)	1844.56	2106.97	2383.23
9	Rate of RoE	19.35%	19.35%	19.35%
10	RoE for year	356.92	407.69	461.15

Incentive for early completion of works

3.108 *The Regulations provide that additional 0.5% RoE will be provided for works completed within time line prescribed. This is applicable for works completed on or after 01.04.2009. These have been taken on actual for works completed during the period 01.04.2009 to 31.03.2012, and thereafter, on assessed basis. The list of such works completed upto 31.03.2012 has been submitted within True-up Petition for FY 2011-12.*

Table – 70 *(₹ in Crores)*

		FINANCIAL YEAR				
S. No.	***Particulars***	***Upto 31.03.12***	***Upto 31.03.13***	***Upto 31.03.14***	***Upto 31.03.15***	***Upto 31.03.16***
1	*Cumulative G-Forms for qualifying works*	*171.00*	*293.50*	*482.22*	*730.86*	*942.65*
2	*Equity employed on 70:30 Ratio*	*51.30*	*88.05*	*144.66*	*219.26*	*282.80*
3	*0.5% Additional RoE*	*0.26*	*0.44*	*0.72*	*1.10*	*1.41*

Table – 71 ***Total RoE claim for Control Period***

(Amount ₹ in Crores)

S. No.	***Particulars***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
1	*RoE Normal*	*356.92*	*407.70*	*461.15*
2	*RoE Incentive*	*0.72*	*1.10*	*1.41*
3	*Total RoE*	*357.64*	*408.80*	*462.56*

3.109 *Thus, RoE claim for three years is submitted as:*

(i). FY 2013-14 - ₹357.64 Crores
(ii). FY 2014-15 - ₹408.80 Crores
(iii). FY 2015-16 - ₹462.56 Crores

<u>Provisions of Regulations</u>

3.110 Regulation 23 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

"23.1 Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with Regulation 20.

23.2. Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause 23.3 of this Regulation:

Provided that in case of Projects commissioned on or after 1st April, 2013, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-I:

Provided further that the additional return of 0.5% shall not be admissible if the Project is not completed within the timeline specified above for reasons whatsoever.

23.3 The rate of return on equity shall be computed by grossing up the base rate *with the normal tax rate for the Year 2012-13 applicable to the Transmission Licensee:*

Provided that return on equity with respect to the actual tax rate applicable to the Transmission Licensee in line with the provisions of the relevant finance acts of the respective year during the Tariff Period shall be trued up separately for each year of the Tariff Period.

23.4 Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)
Where t is the applicable tax rate in accordance with clause 23.3 of this Regulation.

Illustration.-
(i) In case of the Transmission Licensee paying Minimum Alternate Tax (MAT) say, @ 20.1 including surcharge and cess:
Rate of return on equity = 15.50/ (1-0.201) = 19.38%
(ii) In case of the Transmission Licensee paying normal corporate tax say,@ 33.99% including surcharge and cess:
Rate of return on equity = 15.50/ (1-0.3399) = 23.481%"

<u>Commission's Analysis</u>

3.111 On scrutiny of the equity claimed in the petition, it was observed that the portion of equity infused by the State Government in the past (out of which no asset was created and no return was allowed by the Commission) was also accounted for to arrive at the base figure of equity at the beginning of the control period. The subject petition is filed for tariff purpose. Therefore, the figures applicable for the purpose of Return on Equity were sought from the petitioner considering the closing figures as approved in the last true-up Order for FY 2010-11.

3.112 In response MPPTCL through its letter no. 1326 dated 20/02/2013 submitted that;

"the MYT Petition was filed on 17th January 2013, whereas 'True-up' order for FY 2010-11 has been issued at a later date i.e. 2nd February 2013. As such, it was not possible to take any congnizance of True-up order in MYT Petition. It may also be submitted that the MYT Petition is based on projections, and still there are two years in between i.e. FY 2011-12 and FY 2012-13, where data validation is yet to be done under True-ups. Therefore, taking consideration of FY 2010-11, True up may not yield an exact picture. However as desired, the figures are modified hereunder;

Table – 72 *(Amount ₹ in Crores)*

S. No.	**Particulars**	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
1	*Equity at the beginning of year employed on Capital Works*	*1285.15*	*1429.81*	*1503.70*	*1705.38*	*1931.84*	*2230.21*
2	*Equity infused during year employed on Capitalized works taking it as 30% of Assets addition during the year (as decided by The Commission)*	*144.66*	*73.89*	*201.68*	*226.46*	*298.37*	*254.15*
3	*Equity at the end of year employed on Capitalized works*	*1429.81*	*1503.70*	*1705.38*	*1931.84*	*2230.21*	*2484.36*
4	*Average Equity employed on Capitalized works*	*1357.48*	*1466.76*	*1604.54*	*1818.61*	*2081.02*	*2357.28*
5	*RoE Gross up with MAT, if any*	*210.41* ***@ 15.5%***	*227.34* ***@ 15.5%***	*248.70* ***@ 15.5%***	*351.90* ***@ 19.35%***	*402.68* ***@ 19.35%***	***456.13 @ 19.35%***
6	*Remarks i.e. source of data*	*Table No. 13 of the True up order for FY 2010-11 dtd. 2nd Feb. 2013.*	*True up Petition for 2011-12. Equity infused taken as 30% of Assets added excluding consumer contribution Assets (Para 8.7)*	*Tariff order for FY 2012-13. Equity infused taken as 30% of Assets added of 672.28 Crores. Table 32 of order dtd. 17the April 2012.*	*MYT Petition 2013-14 to 2015-16. Equity infused 30% Assets added Table in Para 7.6.*	*MYT Petition 2013-14 to 2015-16. Equity infused 30% Assets added Table in Para 7.6.*	*MYT Petition 2013-14 to 2015-16. Equity infused 30% Assets added Table in Para 7.6.*

3.113 The Commission has considered the equity of Rs 1429.81 Cr (as on 31/03/2011) as admitted in table 13 of para 4.72 of its Order dated 04.02.2013 on true-up of Transmission Tariff for FY 2010-11. The addition to equity is considered as per table 33 of this Order.

3.114 The Company has not paid any Income tax. Therefore, RoE is allowed @ 15.50 % without grossing up. The actual position will be considered appropriately during the true-up exercise of the respective year. The RoE is allowed in this Order as given below:

Table – 73 Calculation for Return on Equity (₹ in crores)

S. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
(i)	Equity at the beginning of FY 2011-12 employed on Capitalized Works (as per para 4.72 of True up order for FY 2010-11	1429.81	1498.78	1645.77	1776.03	1906.29
(ii)	Equity infusion (used in creation of Assets) (as per table 33 of this order)	68.97	146.99	130.26	130.26	130.26
(iii)	Equity at the end of the year employed on Capitalized Works	1498.78	1645.77	1776.03	1906.29	2036.55
(iv)	Average Equity employed on Capitalized Works			1710.9	1841.16	1971.42
(v)	RoE @ 15.5% Base rate as no Income Tax has been paid	N.A.*	N.A.*	**265.19**	**285.38**	**305.57**

(* Note: The figures for FY 2011-12 & FY 2012-13 are indicative for pro-forma calculation purpose only and not for approval of Return on equity for those years)

Taxes, Duties and Fees

Petitioner's submission:

The petitioner broadly submitted the following:

*"**Arrears for Wage Revisions** –*

3.115 *The Commission in the control period from FY 2009-10 to FY 2011-12 included the weighted average of arrears of Wage Revision in O&M Norms, which was True-up on actual. The Petitioner planned to disburse the arrears in five years. Therefore, certain arrears are being released in FY 2012-13 and FY 2013-14 too. The amount for FY 2012-13 will be claimed in True-up on FY 2012-13. For FY 2013-14, claim of arrears is being included with certain amount left in FY 2014-15 and FY 2015-16.*

Table – 74

i.	*Provision made for Arrears in Accounts*	*₹ 80.36 Crores*
ii.	*Actual Arrears Paid* *a. FY 2009-10 – ₹ 9 .12 Crores* *b. FY 2010-11 – ₹ 19.98 Crores* *c. FY 2011-12 – ₹ 15.52 Crores* *d. FY 2012-13 – ₹ 18.50 Crores*	*₹ 63.12 Crores*
	Balance Arrears to be Paid -	***₹17.24 Crores***

Proposed to be paid in FY 2013-14 - ₹ 15.24 Crores
FY 2014-15 – ₹ 1.00 Crores
FY 2015-16 – ₹ 1.00 Crores

MPERC's Fees –

3.116 *The Energy handled in the Transmission System of the State during the last control period show an average yearly growth of 10.82%. Based on this growth rate, the Energy expected to be handled during this control period is projected. The MPERC's fee at the rate of ₹ 200/- per million unit has been worked out, which will be paid every year for the ensuing year. The working is shown in the following table;*

Table – 75

S. No.	Financial Year	Energy Handled (MU)	Remarks
1	2009-10	34346	On Actual Basis showing average Growth of 10.82%.
2	2010-11	37680	
3	2011-12	42175	
4	2012-13	46738	Projected @ 10.82%.Growth.
5	2013-14	51795	Projected @ 10.82%.Growth.
6	2014-15	57399	Projected @ 10.82%.Growth.
7	2015-16	63610	Projected @ 10.82%.Growth.

The MPERC's fee is worked out hereunder for Control Period;

Table – 76

S. No.	Particulars	Units	FY 2013-14	FY 2014-15	FY 2015-16
1	Energy handled during the Year	MU	51795	57399	63610
2	Rate of fees	₹ / MU	200	200	200
3	Amount of fees	₹ Crores	1.04	1.15	1.27

Incentives

3.117 *As per the Regulations, the incentive is linked to the Transmission System Availability and the same is billed to the beneficiaries every month depending on the target and achievements of the Transmission System Availability. Therefore, this is not being claimed through this Petition."*

<u>Provisions of Regulations</u>

3.118 Regulation 30 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides as under:

"Tax on Income

30.1. *Tax on Income streams of the Transmission Licensee shall not be recovered from the Transmission Customers,*

Provided that the deferred tax liability, excluding Fringe Benefit Tax, for the period up to 31st March, 2013 whenever it materializes, shall be recoverable directly from the

Long-term Customers."

3.119 Regulation 37 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

"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 circuit kilometres of transmission lines and number of bays in substation. These norms exclude Pension, Terminal Benefits, incentive and arrears to be paid to employees, taxes payable to the Government and fee payable to MPERC. The Transmission Licensee shall claim the taxes payable to the Government , fees to be paid to MPERC and any arrears paid to employees separately as actuals."

3.120 Regulation 40 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

"In case of the Transmission System, the transmission charge (inclusive of incentive) payable for a calendar month.

The Transmission Licensee shall raise the bill for transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month."

Commission's Analysis

3.121 The application fee paid/ to be paid by the petitioner to the Commission is admitted as filed in the petition. The arrears on account of wage revision shall be allowed on actual in the true up exercise for the respective year.

Non Tariff Income

Petitioner's submission

The petitioner broadly submitted as under:

3.122 *The Petitioner is earning certain minor income on account of incidental income other than Transmission & Allied charges. These are to be reduced from the Gross ARR to work out Net ARR.*

Implication of AS-16 on Income From Interest on Fixed Deposits

3.123 *The Regulations regarding Non Tariff Income (Clause 31.1) provide that the Non Tariff Income shall include income from Investments, Fixed and other Deposits and any other Non Tariff Income. The interest income has therefore been included in Non Tariff Income. However, Para-11 of the Accounting Standards-16 (AS-16) provide as under:*

"11 The financing arrangements for a qualifying Asset may result in an enterprise obtaining borrowed funds and incurring associated borrowing costs before some or all of the funds are used for expenditure on the qualifying Asset. In such circumstances, the funds are often temporarily invested pending their expenditure on the qualifying Asset. In determining the amount of borrowing costs eligible for capitalization during a period, any income earned on the temporary investment of those borrowings is deducted from the borrowing costs incurred."

3.124 *The Accounting Standards are to be complied with. Therefore, the above provision is given effect in the Accounts of the Petitioner's Company. The treatment in Non Tariff Income is projected accordingly.*

Table – 77 *(Amount ₹ in Crores)*

S. No.	***Particulars***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
1 (i)	*Interest on FDs etc.*	*25.00*	*20.00*	*15.00*
(ii)	*Less interest allocated to CWIP*	*(-) 23.00*	*(-) 19.00*	*(-) 14.00*
(iii)	*Net Interest income*	*2.00*	*1.00*	*1.00*
2	*Applications fees Open Access*	*0.40*	*0.45*	*0.50*
3	*Hire charges for Equipments*	*1.00*	*1.10*	*1.20*
4	*Consultancy Service charges*	*2.00*	*2.25*	*2.50*
5	*Rent Staff quarter*	*0.25*	*0.25*	*0.25*
6	*Recovery telephone charges*	*0.12*	*0.12*	*0.13*
7	*Other Miscellaneous receipt*	*1.20*	*1.30*	*1.40*
	Total Non Tariff Income -	***6.97***	***6.47***	***6.98***

Provisions of Regulations

3.125 Regulation 32 of MPERC (Terms & Condition for determination of Transmission Tariff) (Revision–II) Regulations, 2012 provides that,

32.1 A schedule for other income as provided in the schedule of Miscellaneous Charges and General Charges under MPERC (Details to be furnished by licensees for determination of Tariff and manner of making an application) Regulation 2004 as amended from time to time shall be classified under 'Non-Tariff Income'. The non-tariff income shall include income from investments, Fixed and other deposits and any other non-tariff income.

32.2. Revenue from other business shall be treated as income to the extent authorized by the Commission under Section 41 of the Act.

Commission's Analysis

3.126 The Commission has considered the petitioner's filings. The actual other income will be considered appropriately as per the audited financial statement of the respective year during true-up process. As per the provisions of the Regulations, the following income of MPPTCL is considered under Non-tariff Income in this Order.

Table – 78 Non-Tariff Income:

₹ in Crores

S. No.	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Interest Income	25.00	20.00	15.00
2	Applications fees Open Access	0.40	0.45	0.50
3	Hire charges for Equipments	1.00	1.10	1.20
4	Consultancy Service charges	2.00	2.25	2.50
5	Rent Staff quarter	0.25	0.25	0.25
6	Recovery telephone charges	0.12	0.12	0.13
7	Other Miscellaneous receipt	1.20	1.30	1.40
	Total Non Tariff Income -	**29.97**	**25.47**	**20.98**

Annual Revenue Requirement for MYT period

3.127 Based on the above, the ARR for the next control period is approved by the Commission in this Order as given below:

Table – 80 : Annual Revenue Requirement approved by the Commission

(₹ in Crores)

S. No.	Particulars	ARR for the Financial Year		
		FY 2013-14	**FY 2014-15**	**FY 2015-16**
1	**2**	**3**	**4**	**5**
1	O&M Expenses	318.00	353.49	390.09
2	Terminal Benefits -			
	Against Current Liabilities	677.00	677.00	677.00
3	Depreciation	261.35	282.87	297.16
4	Interest & Finance Charges	102.91	100.62	92.92
5	Interest on Working Capital	46.97	49.95	52.69
6	Return on Equity	265.19	285.38	305.57
7	MPERC's Fee	1.04	1.15	1.27
8	**TOTAL -**	**1672.46**	**1750.46**	**1816.70**
9	Less Non-Tariff Income (-)	-29.97	-25.47	-20.98
10	**NET ARR -**	**1642.49**	**1724.99**	**1795.72**

Transmission Charges for Long Term / Short Term Customers-

Petitioner's submission

3.128 The petitioner in its revised submission dated 26/03/2013 filed as under:

Table – 81

S No	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Annual Fixed Cost in ₹ Crores	2893.17	3176.83	3454.13
2	Transmission System Capacity (MW)	10530	13015	14540
3	Transmission Charges for Long Term Customers ₹ Lacs per MW per Annum	27.48	24.41	23.76
4	Transmission Charges for Long Term Customers ₹ per MW per Day	7527.53	6687.39	6490.72
5	Short Term Rates (25% of above) ₹ per MW per Day	1881.88	1671.85	1622.68
6	Short Term Rates for 6 hour block ₹ per MW	470.47	417.96	405.67
7	Short Term Rates for more than 6 hour to 12 hour in one block - ₹ per MW	940.94	835.92	811.34
8	Short Term Rates for more than 12 hour upto 24 hour in ₹ per MW	1881.88	1671.85	1622.68
9	Units expected to be transmitted in a year (MU)	56437	62543	69310
10	Short Term Open Access Rates in ₹ per MWH (from S No 1/ S No 9)*0.25	128.16	126.99	124.59

Commission's Analysis

3.129 Based on the ARR approved by the Commission in this Order, the following transmission charges are approved by the Commission:

Table – 82

S No	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
1	Annual Fixed Cost in ₹ Crores	1642.49	1724.99	1795.72
2	Transmission System Capacity (MW)	10530	13015	14540
3	Transmission Charges for Long Term Customers ₹ Lacs per MW per Annum	15.60	13.25	12.35
4	Transmission Charges for Long Term Customers ₹ per MW per Day	4273.48	3631.19	3374.37
5	Short Term Rates (25% of above) ₹ per MW per Day	1068.36	907.80	843.59
6	Short Term Rates for 6 hour block ₹ per MW	267.09	226.95	210.90

S No	Particulars	FY 2013-14	FY 2014-15	FY 2015-16
7	Short Term Rates for more than 6 hour to 12 hour in one block - ₹ per MW	534.18	453.90	421.80
8	Short Term Rates for more than 12 hour upto 24 hour in ₹ per MW	1068.37	907.80	843.59
9	Units expected to be transmitted in a year (MU)	56437	62543	69310
10	Short Term Open Access Rates in ₹ per MWH (from S No 1/ S No 9)*0.25	72.76	68.95	64.77

Annual Fixed Cost Allocated to the Long Term Customers -

Petitioner's submission

3.130 The petitioner in its revised submission dated 26.03.2013 filed the following allocation of the annual fixed cost as filed in the petition:

Table – 83

S. No.	Customers	FY 2013-14		FY 2014-15		FY 2015-16	
		Capacity MW	Amount (₹ in Crores)	Capacity MW	Amount (₹ in Crores)	Capacity MW	Amount (₹ in Crores)
1	MP Poorva Kshetra VVCL Jabalpur	3141.41	863.12	3883.61	947.95	4339.08	1030.79
2	MP Madhya Kshetra CCVL Jabalpur	3346.21	919.39	4136.79	1009.75	4621.95	1097.99
3	MP Paschim Kshetra VVCL Indore	4030.38	1107.37	4982.61	1216.20	5566.97	1322.49
4	MP AKVN SEZ – Pithampur	12	3.30	12	2.93	12	2.85
	Total -	**10530**	**2893.17**	**13015**	**3176.83**	**14540**	**3454.13**

3.131 The above allocation is reworked and allowed as given below on the basis of Annual fixed cost approved in this Order:

Table – 84

S. No.	Customers	FY 2013-14		FY 2014-15		FY 2015-16	
		Capacity MW	Amount (₹ in Cr.)	Capacity MW	Amount (₹ in Cr.)	Capacity MW	Amount (₹ in Cr.)
1	MP Poorva Kshetra VVCL Jabalpur	3141.41	490.00	3883.61	514.73	4339.08	535.89
2	MP Madhya Kshetra CCVL Jabalpur	3346.21	521.95	4136.79	548.28	4621.95	570.82
3	MP Paschim Kshetra VVCL Indore	4030.38	628.67	4982.61	660.39	5566.97	687.53
4	MP AKVN SEZ – Pithampur	12	1.87	12	1.59	12	1.48
	Total -	**10530**	**1642.49**	**13015**	**1724.99**	**14540**	**1795.72**

Transmission Charges for Non-conventional Energy source based Generating Units Connected on 132 KV or above Voltage -

Petitioner's submission

3.132 The petitioner submitted the following:

> *"The Commission has approved the Transmission Charges for FY 2012-13 in respect of the above mentioned category under Petition No. 49/2012, by its order dated 1st September 2012. At present there is one consumer of 16 MW capacity namely M/s KS Oil Mills, Morena. As per the applications under process, following additional capacity is expected during the control period;*

Table – 85

S. No.	Name of Developer	FY 2013-14		FY 2014-15		FY 2015-16	
		Addition	Total	Addition	Total	Addition	Total
1	M/s KS Oil Mills (existing)	0	16	0	16	0	16
2	M/s Wespun Energy, Neemuch	25	25	0	25	105	130
3	M/s ACME Telepower, Rajgarh	25	25	0	25	0	25
4	M/s D.J. Energy, Jaora, Ratlam	0	0	100	100	80	180
5	M/s Consolidated Energy, Burhanpur	22	22	58	80	0	80
6	M/s NTPC, Rajgarh	50	50	0	50	0	50
7	M/s Alfa Infra, Kukshi, Dhar	20	20	0	20	0	20
Total -		**142**	**158**	**158**	**316**	**185**	**501**

3.133 *The Commission for FY 2012-13 determined the Transmission Charges for this category on Energy Based Pooled Method. The petitioner in its revised submission dated 26/03/2013 filed that the Transmission Charges for the ensuing control period are also worked out on the same method, as given in the table hereunder:*

Table – 86

S. No.	*Particulars*	*Unit*	*Figures 2012-13*	*FY 2013-14*	*FY 2014-15*	*FY 2015-16*
1	*Annual Fixed Cost as per Tariff*	*₹ Crores*	*1526.19*	*2893.17*	*3176.83*	*3454.13*
2	*Transmission System capacity*	*MW*	*10200.6*	*10530*	*13015*	*14540*
3	*Transmission charges per MW per Annum*	*₹ Lacs / MW*	*14.96*	*27.48*	*24.41*	*23.76*
4	*Capacity of Non-conventional Energy based Plants*	*MW*	*16*	*158*	*316*	*501*
5	*Total Pooled Capacity*	*MW*	*10216.6*	*10792*	*13462*	*14978*
6	*Pooled Cost Addition*	*₹ Crores*	*0*	*0*	*0*	*0*
7	*Total Pooled Cost*	*₹ Crores*	*1526.39*	*2893.17*	*3176.83*	*3454.13*
8	*Energy expected to be transmitted*	*MU*	*44328*	*56437*	*62543*	*69310*
9	*Energy generated by Non-conventional Energy based Plant at 20% CUF with MW capacity*	*MU*	*28.03*	*277*	*554*	*878*
10	*Total Energy Handled*	*MU*	*44356.03*	*56714*	*63097*	*70188*
11	*Transmission Charges per Unit*	*₹ / Unit*	*0.3441 (Say 0.34)*	*0.510 (Say 0.51)*	*0.503 (Say 0.50)*	*0.492 (Say 0.49)*

Commission's Analysis

3.134 The above transmission charges are reworked and allowed as given below on the basis of Annual fixed cost approved in this Order:

Table – 86

S. No.	**Particulars**	**Unit**	**Figures 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
1	Annual Fixed Cost as per Tariff	₹ Crores	1526.19	1642.49	1724.99	1798.72
2	Transmission System capacity	MW	10200.6	10530	13015	14540
3	Transmission charges per MW per Annum	₹ Lacs/ MW	14.96	15.60	13.25	12.35
4	Capacity of Non-conventional Energy based Plants	MW	16	158	316	501
5	Total Pooled Capacity	MW	10216.6	10688	13331	15041
6	Pooled Cost Addition	₹ Crores	0	0	0	0
7	Total Pooled Cost	₹ Crores	1526.39	1642.49	1724.99	1798.72
8	Energy expected to be transmitted	MU	44328	56437	62543	69310
9	Energy generated by Non-conventional Energy based Plant at 20% CUF with MW capacity	MU	28.03	277	554	878
10	Total Energy Handled	MU	44356	56714	63097	70188
11	Transmission Charges per Unit	₹ / Unit	0.344	0.290	0.273	0.256
			(Say 0.34)	(Say 0.29)	(Say 0.27)	(Say 0.26)

3.137 These charges shall be applicable for such non-conventional energy based generating units which are connected to the Transmission System at voltage 132 KV and above for energy supplied by them to customers other than Discoms/MP Power Management Co. Ltd.

3.138 Fifty percent (50%) of the revenue thus earned through the transmission charges recovered from non-conventional energy source based generating units shall be utilized to reduce the transmission charges of the long term open access customers. The remaining 50% revenue shall be kept by the transmission licensee for making capital expenditure for development of the infrastructure.