MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

5th Floor, Metro Plaza, Bittan Market, Bhopal - 462 016

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2015-16

Petition No. 30/2014

PRESENT:

Dr. Dev Raj Birdi, Chairman
A. B. Bajpai, Member
Alok Gupta, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2015-16 based on the ARR & Tariff Application made by the Distribution Licensees namely Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (East Discom), Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (West Discom), Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (Central Discom), and Madhya Pradesh Power Management Company Limited (MPPMCL).

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A1: ORDER

(Passed on this 17th Day of April, 2015)

1.1 This order is in response to the petition No. 30 of 2014 jointly filed by Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited, Jabalpur, Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited, Indore and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited, Bhopal (hereinafter individually referred to as East Discom, West Discom and Central Discom respectively and collectively referred to as Discoms or Distribution Licensees or Licensees or the petitioners), and Madhya Pradesh Power Management Company Limited, Jabalpur (hereinafter referred as the MPPMCL or collectively with Discoms referred to as the petitioners) before the Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). This petition has been filed as per the requirements of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2012 {RG-35 (I) of 2012) (hereinafter referred to as the Tariff Regulations or Regulations).

1.2 In accordance with the Tariff Regulations, the Distribution Licensees were required to file their respective petition(s)/proposal(s) for the determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2015-16 latest by 31st October, 2014. Vide letter dated 28th October, 2014, the MPPMCL requested the Commission to extend the date of filing of the petition up to 30th November 2014 Based on the grounds that the accounts of the Discoms were recently finalized and therefore more time is needed to work out the revised Capex plan. It further stated that the Discoms were collating the commercial data with regard to sales, number of consumers, etc. and also working for the projection of expenses for the control period. The Commission accepted the request. Vide letter dated 28th November 2014 MPPMCL again requested the Commission to extend the date of filing of the petition by 19th December 2014. MPPMCL stated that Discoms are in the process of finalising the petition and therefore needed some more time. The Commission accepted the request. Vide letter dated 17/12/2014 MPPMCL once again requested the time extension for filing of the petition up to 31st December on the same grounds iterated in their requests submitted on 28th October 2014 and 28th November 2014. The Commission did not allow any further time extension as MPPMCL and Distribution Companies were repeatedly seeking the time extension on similar grounds.

1.3 MPPMCL and Distribution Companies jointly filed the petition (No. 30/2014) on 19th December 2014. The Commission slated the motion hearing on 06th January 2015. The Commission observed a number of errors and deficiencies in the data/information furnished in the petition. The Commission further observed that the basis for calculation of power purchase cost was also inconsistent with the orders issued by the appropriate Commissions. The Commission ordered that the petition would be taken up for consideration on receipt of the reply of the petitioners to all the observations communicated to petitioners vide Commission's letter dated 07th January 2015. The petitioners filed their response and the revised petition incorporating corrected information on 02nd February 2015.

1.4 Motion hearing on the revised petition was held on 10th February, 2015. During the hearing, representatives on behalf of the petitioners submitted salient features of the petition. The Commission admitted the petition vide order dated 10th February, 2015 and issued the following directives to the petitioners:

i. To publish the public notice in Hindi and English in the newspapers latest by 13th February, 2015 for inviting objections /comments/suggestions from the stakeholders on the subject petition.

ii. English and Hindi version of the petition be kept ready for sale to stakeholders from 13th February, 2015 positively at the offices mentioned in the public notice.

1.5 Public notices comprising the gist of the tariff applications and tariff proposals were published by East Discom, West Discom and Central Discom on 13th February, 2015 in the Hindi and English newspapers. The stakeholders were requested to file their objections/comments/suggestions latest by 9th March, 2015.

1.6 The Commission received 129 written objections from various stakeholders. Details of objections received, response from the petitioners and views of the Commission thereof are given in the chapter 'A6: Public Objections and Comments on petition' of this order.

1.7 Gist of the petition is given below:

Table 1 : Snapshot of the petition for FY 2015-16 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Revenue from sale of power	7,448	8,263	7,901	23,612
Aggregate Revenue Requirement	9,130	10,098	9,630	28,858
Revenue gap in Income and Expenditure for FY 2015-16	1,682	1,835	1,729	5,246

1.8 Revenue gap of Rs. 1682 Crore, Rs. 1835 Crore, and Rs. 1729 Crore has been projected for East Discom, West Discom and Central Discom respectively. The petitioners have proposed to bridge the aforementioned revenue gap through increase in the retail supply tariff as well as through additional estimated revenue on account of efficient management of surplus energy.

State Advisory Committee

1.9 The Commission convened a meeting of the State Advisory Committee (SAC) on 03rd March 2015 for seeking advice on the petition. The SAC members provided several valuable suggestions regarding true-up cost, sales projections, surplus energy, rationalisation of tariff schedules and terms and conditions of tariff and terminal benefit. Views of the SAC members are indicated in the chapter 'A6: Public Objections and Comments on petition' of this order. These issues have been duly considered by the Commission while determining the ARR and Tariff for the FY 2015-16.

1.10 A meeting was convened by the Commission with the Principal Secretary (Energy), GoMP, MDs and concerned officers of the Discoms and MPPMCL on 13th March 2015. Various relevant issues related to this petition were discussed with focus on power purchase and terminal benefits.

Public Hearing

1.11 The Commission issued a public notice, on 27th February 2015 published in various newspapers across the state on 01st March 2015, and partial modification for rescheduling the hearing at Bhopal on 05th March 2015 inviting interested stakeholders to present their views on the petition during public hearings.

1.12 The Commission held public hearings on the ARR/Tariff petition at, Indore, Bhopal and Jabalpur as given in the following table.

Table 2: Public hearings

Sr. No.	Name of Discom	Venue of Public Hearing	Date
1	M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore	Santosh Sabhagrah, Charak Hospital Campus, Rani Sati Gate, Near temple, Yashwant Niwas Road, Indore	17th March 2015
2	M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal	Auditorium, Academy of Administration, 1100 Quarters, Bhopal	20th March 2015
3	M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur,	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	24th March 2015

1.13 The Commission has ensured that due process to ensure transparency and public participation is followed at every stage meticulously. Adequate opportunity was given to all stakeholders to file and present their objections/comments/suggestions in the matter.

1.14 All objections/comments/suggestions related to the petition received from the stake holders as also the issues raised by them during the hearings have been duly considered while finalizing this order.

Distribution Losses

1.15 Distribution loss reduction trajectory specified in the Tariff Regulations for the period from FY 2013-14 to FY 2015-16 is given in the following table:

Table 3: Distribution loss reduction trajectory as per Regulations

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
East Discom	23%	20%	**18%**
West Discom	20%	18%	**16%**
Central Discom	23%	21%	**19%**

1.16 The Commission has determined the ARR and tariffs for FY 2015-16 for the Discoms of the State on the basis of the distribution loss trajectory as specified in the Regulations.

Energy Accounting and Meterisation

1.17 The Commission had emphasized the importance of energy accounting and meterisation from time to time including in previous tariff orders. Need for proper Energy Accounting and Energy Audit at various levels such as sub-stations, distribution feeders and distribution transformers as well as at the consumer end was also impressed upon the Discoms so as to provide reliable data about the actual level of distribution losses – technical and other. Discoms were directed to prepare and implement appropriate loss reduction strategies and schemes. Meterisation at various levels of the distribution network such as feeder/ DTR metering and consumer metering is of prime importance to locate high loss areas and to take action to curb losses. The Commission has noted that the progress of Discoms in this regard have not been satisfactory. While there appears to be some progress with regard to feeder meterisation, that of agricultural DTRs and individual un-metered domestic connections in rural areas remains neglected. The status as per periodic reports submitted by Discoms with regard to meterisation of un-metered rural domestic connections, agricultural predominant DTRs and HT feeders up to December 31, 2014 is given below:

Table 4: Status of feeder meterisation

Sr. No.	Particulars	Central Discom		West Discom		East Discom	
		33kV feeders	11kV feeders	33kV feeders	11kV feeders	33kV feeders	11kV feeders
1	Total No. of energy Audit points	1,489	3,830	2,382	5,129	1,575	3,684
2	No. of feeders provided with energy audit metering.	1,371	3,460	2,382	4,346	1,575	3,684
3	No. of feeders where energy audit meters are lying defective	210	584	342	1009	97	265
4	No. of feeders on which energy audit meters are yet to be provided	118	370	Nil	783	Nil	Nil

Table 5: Status of meterisation of un-metered rural domestic consumers/agricultural DTRs

Particulars	Domestic Rural		
	Total no. of connections	**No. of un- metered connections**	**Percentage (%) un-Metered**
East Discom	2,077,798	371,289	17.76%
West Discom	1,699,594	129,892	7.64%
Central Discom	1,150,306	179,006	15.56%
State Total	**4,927,698**	**680,187**	**13.77%**

Particulars	Agricultural DTR		
	Total no. of Pre-dominant Agricultural DTRs	**No. of DTRs provided with meters**	**Percentage (%) of DTRs provided with meters**
East Discom	65,737	3,489	5.31%
West Discom	93,524	20,426	21.84%
Central Discom	100,198	23,112	23.07%
State Total	**259,459**	**47,027**	**18.13%**

1.18 The Commission had been repeatedly directing the Discoms to step up meterisation of agriculture predominant distribution transformers. Discoms were directed to take meterisation of un-metered HT feeders and individual domestic connections on priority. The Commission had directed the Discoms to complete the work of 100% meterisation by end of March, 2014 in the tariff order for FY 2013-14. Subsequently on request of East Discom, the Commission had permitted it to complete 100% meterisation of un-metered connections under rural domestic category by the end of March, 2015. The Discoms have committed for 100% meterisation of rural domestic connections by March 2015. The Discoms have been directed to submit the status as on 31st March 2015 by 31st May 2015. The Commission shall review the status in this regard in June 2015.

1.19 The Commission would like to reiterate that directive for meterisation of agricultural predominant DTRs is an interim arrangement till meters on all individual agricultural connections are provided. The Commission is of the firm view that all consumers should be metered individually. The present regime of billing on benchmark consumption to either domestic or agriculture consumers has no incentive for energy saving by the consumers and it is also not possible to work out the real energy loss scenario. Since without the proper metering system in place it is not possible to assess the demand of the agricultural consumers, the Commission has directed the Discoms to expedite feeder meterisation and DTR meterisation on priority basis. Discoms should file a detailed plan in this regard to the Commission by 31st May 2015. The Commission shall review the status in this regard in June 2015.

Wheeling Charges and Cross Subsidy Surcharge

1.20 The Wheeling Charges and Cross Subsidy Surcharge for open access consumers have been dealt with in 'Chapter – A4: Wheeling Charges and Cross Subsidy Surcharge'.

Aggregate Revenue Requirement of Discoms

1.21 The Commission has determined the aggregate revenue requirement of the Discoms for FY 2015-16 and accordingly revised the tariffs (energy charges and fixed charges) for different consumer categories. Revenue income from the tariffs has been equivalent to the ARR determined for the Discoms. ARR determined takes into account the true-up of ARR for Discoms and ARR true up for MP Power Transmission Co. Ltd. (MPPTCL) and MP Power Generation Co. Ltd. (MPPGCL) for previous years.

1.22 The Commission has passed the orders for true up of ARR for Discoms for FY 2009-10 (Rs. 494.00 Crore), FY 2010-11 (Rs. 318.00 Crore) and FY 2011-12 (Rs. 932.00 Crore), true-up of ARR for MPPTCL for FY 2012-13 (Rs. 174.00 Crore) and true-up of ARR for MPPGCL for FY 2011-12 ((-) Rs. 188.00 Crore) after the issuance of Retail Supply tariff order for FY 2014-15. This would result in an impact of Rs. 1730.00 Crore. Discoms have been allowed to recover these costs from ARR for FY 2015-16.

1.23 The ARR admitted for three Distribution licensees of the State is given below in the table:

Table 6: ARR admitted by the Commission for FY 2015-16 (Rs. Crore)

Particulars	**East**	**West**	**Central**	**Total**
Power Purchase Cost including MPPMCL cost	4,713.09	7,027.10	6,020.24	17,760.42
PGCIL charges	436.78	555.16	422.43	1,414.36
Transco Charges (MP TRANSCO) including Terminal Benefits	538.79	691.25	573.91	1,803.95
O&M cost	1,091.05	993.84	976.05	3,060.93
Depreciation	125.76	107.63	137.60	371.00
Interest on Project Loans	183.93	106.20	262.22	552.35
Return on Equity	237.26	182.03	258.98	678.27
Interest on Working Capital	24.93	3.48	31.90	60.31
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	61.68	89.22	61.22	212.11
Less: Other Income - Retail & Wheeling	202.24	341.25	551.11	1,094.61
ARR for FY 2015-16	**7,213.03**	**9,416.65**	**8,195.43**	**24,825.10**
Gap of True-up of FY 2009-10	353.00	60.00	81.00	494.00

Particulars	East	West	Central	Total
Gap of True-up of FY 2010-11	164.00	-139.00	293.00	318.00
Gap of True-up of FY 2011-12	545.00	78.00	309.00	932.00
Transmission true up FY 2012-13	52.00	55.00	67.00	174.00
Generation true up FY 2011-12	-38.00	-37.00	-113.00	-188.00
Total ARR for FY 2015-16	**8,289.03**	**9,433.65**	**8,832.43**	**26,555.10**
Revenue from existing tariff	7,602.64	8,493.67	8,082.46	24,178.77
Uncovered Gap/Surplus at existing tariff	**-686.39**	**-939.98**	**-749.96**	**-2,376.33**
Revenue from proposed tariff	8,289.03	9,433.65	8,832.42	26,555.10
Uncovered Gap/Surplus at proposed tariff	**0.00**	**0.00**	**0.00**	**0.00**

1.24 The petitioners have requested vide letter dated 19th Mar 2015 for recovery of FCA with effect from 1.4.2015 on the basis of variation in the variable rates of thermal generating stations for the period from November, 2014 to January, 2015. While working out variable charges in this tariff order, the Commission has considered the energy rates based on information filed by the petitioners for the period Feb., 2014 to January, 2015. Therefore, the recovery of the FCA separately with effect from 1.4.2015 is not required.

1.25 The Commission has continued with the prescribed mechanism for recovery of Fuel Charge Adjustment (FCA) on quarterly basis so that uncontrollable costs on account of variations in the variable charges are adjusted timely in accordance with the spirit of the tariff policy and as further directed by the Hon'ble APTEL.

1.26 The Commission has made suitable provisions to fulfil the RPO obligations as per relevant Regulations in the ARR of the Discoms.

1.27 The Commission has determined voltage wise cost of supply vis-a-vis cross subsidy percentage of the consumer categories on that voltage based on the proposals submitted by the Discoms. It may be mentioned here that the data/ information for working out the voltage wise cost of supply needs to be further validated to get a fair and correct picture. The voltage wise cost of supply vis-a-vis cross subsidy percentage worked out in this tariff order is only indicative in nature in the absence of requisite data. This is in compliance of directives given in the judgment of Hon'ble APTEL on this issue as a first step in this direction.

Implementation of the order

1.28 The Distribution Licensees must take immediate steps to implement this order after giving seven (7) days Public Notice in the newspapers, in accordance with 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, as amended from time to time. The tariff determined by this order shall be applicable from 25th April 2015 to 31st March 2016, unless amended, extended or modified by an order of this Commission.

1.29 The Commission has thus accepted the petition of the Distribution Licensees of the State and MPPMCL with modifications and conditions and has determined the retail supply tariffs and charges recoverable by the Distribution Licensees in their area of supply for FY 2015-16. The Commission directs petitioners that this order be implemented along with directions given and conditions mentioned in the detailed order and schedules attached to this order. It is further ordered that the licensees are permitted to issue bills to the consumers in accordance with the provisions of this tariff order and applicable Regulations.

(Alok Gupta)	(A. B. Bajpai)	(Dr. Dev Raj Birdi)
Member	**Member**	**Chairman**

A2: DETAILED REASONS AND GROUNDS ATTACHED WITH RETAIL SUPPLY TARIFF ORDER ISSUED BY THE MPERC ON 17TH APRIL, 2015 IN RESPECT OF PETITION NUMBER 30/2014

The subject petition has been jointly filed by:-

Shri F.K.Meshram, Chief General Manager (Tariff) represented MPPMCL

Shri P.K. Singh, Executive Director (Commercial) represented East Discom

Shri Kailash Shiva, Chief Engineer (Commercial) represented West Discom

Shri A.R. Verma, G.M. & S.E. (Commercial) represented Central Discom

2.1 Following is the detailed order with grounds and reasons of determining the ARR, the tariff and the charges recoverable during FY 2015-16 by the three Distribution licensees. The detailed order discusses the functional and financial performance of the three Distribution licensees and includes a section dealing with the status report on the compliance of the Commission's Directives as well as the responses of the Distribution Licensees thereto and Commission's observations on the suggestions and comments received from the stakeholders on the ARR and the tariff proposal.

A3: AGGREGATE REVENUE REQUIREMENT FOR FY 2015-16 OF MADHYA PRADESH POORV, PASCHIM AND MADHYA KSHETRA VIDYUT VITARAN COMPANIES LIMITED (EAST, WEST AND CENTRAL DISCOMS)

Sales forecast as projected by the Petitioners

3.1 The petitioners have submitted that for projection of sales for FY 2015-16, category wise and slab wise actual data of the sales, number of consumers, connected/contract load, etc. of the preceding four years have been used. It has been observed that the actual sales during FY 2013-14 have deviated significantly from the sales forecast submitted by the petitioners in their ARR/tariff petition and also as compared to sales admitted in tariff order for FY 2013-14. Further, Discoms have stated that sales for FY 2014-15 were projected on the basis of actual data of FY 2012-13 and since actual data of FY 2013-14 is now available it is appropriate to revise the sales estimation for FY 2014-15. Based on revised estimation of sales for FY 2014-15, projections of sales for FY 2015-16 have been made. The approach followed is to analyse the Compound Annual Growth Rates (CAGRs) of each category and its subcategories in respect of urban and rural consumers, separately. After analysis of the data, appropriate/reasonable growth rates have been assumed for future consumer/ sale forecasts from the past CAGRs of the Category/Sub-category. The forecast also considers the impact of Capex schemes/ plans of licensees such as Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)/Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), future meterization plan of domestic consumers and separation of feeders of agriculture and other categories of consumers as well as increase in supply hours in the rural areas.

3.2 It is submitted that for projecting un-metered domestic consumption, the average consumption per consumer per month has been considered as 75 units for rural area. Discoms have stated that they have no urban unmetered domestic connection.

3.3 Details of the category wise sales as projected by the petitioners, are given in the table below:

Table 7: Category wise sale projected by Discoms (MU)

Particulars	**Projections For FY 2015-16**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LT				
LV-1: Domestic	4,234	3,966	4,318	12,518
LV-2: Non Domestic	1,001	897	901	2,799
LV-3.1: Public Water Works	537	219	241	997
LV-3.2: Street Light	207	155	122	484
LV4: LT Industrial	345	549	285	1,179
LV 5.1: Agriculture Irrigation Pumps	5,484	7,981	6,727	20,192
LV-5.3 :Agriculture related Use	6	2	19	27

Particulars	**Projections For FY 2015-16**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LT Sale (MU)	**11,814**	**13,769**	**12,613**	**38,196**
HV-1: Railway Traction	612	562	1,019	2,193
HV-2: Coal Mines	474	0	39	513
HV-3.1: Industrial	2,199	2,070	2,008	6,277
HV-3.2: Non-Industrial	240	371	396	1,007
HV-3.3: Shopping Mall	7	62	12	81
HV-3.4: Power Intensive Industries	66	587	139	792
HV-4: Seasonal	15	5	2	22
HV-5.1: Public Water Works and Irrigation	94	344	151	589
HV-5.3: Other Agricultural	13	6	5	24
HV-6: Bulk Residential Users	363	21	151	535
HV-7: Synchronization/ Start-up Power	0	8	0	8
HT Sale (MU)	**4,083**	**4,036**	**3,922**	**12,041**
Total LT + HT Sale (MU)	**15,897**	**17,805**	**16,535**	**50,237**

Commission’s Analysis of Sale

3.4 Discoms have estimated that the sales would increase on account of implementation ofRGGVY/DDUGJY, Feeder Separation Scheme and increase in supply hours in rural areas. Discoms have stated that they have increased hours of supply of electricity to every household in the state aimed at accelerating socio-economic development, particularly in the rural areas.

3.5 The Commission reviewed the sales forecast and compared the same with past trends. The Commission has taken due cognizance of various submissions made by Discoms for projected increase in sales. The Commission is supportive of the Discoms endeavour to provide unrestricted supply to all the consumers. Therefore, the Commission considers it prudent to accept the total quantum of energy sale as filed by the petitioners. However, the analysis of the sale filed in the petition in the consumer categories LV- 1 domestic and LV 5.1 agriculture indicated that the sale filed by the petitioners in these two consumer categories has not been appropriately projected. The Commission is of the view that the projection of sale in domestic category is not supportive to the fact that the feeder separation programme is presently undergoing, at a large scale. This would yield in further increase in the sale of domestic consumer category. On the other hand, the sale for the agriculture category has been projected on higher side when compared with the trend observed in past few years. The Commission has, therefore, appropriately realigned the projections of sale in these two consumer categories. The Commission has admitted the category-wise sales as given in the Table below:

Table 8: Category wise sale admitted by the Commission (MU)

Customer Categories	East Discom	West Discom	Central Discom	Total for State
LV: Customer Categories				
LV-1: Domestic Consumers	4559	4696	4963	14218
LV-2: Non Domestic	1001	897	901	2799
LV-3.1: Public Water Works	537	219	241	997
LV-3.2: Street light	207	155	122	484
LV-4: Industrial	345	549	285	1179
LV-5.1 Agriculture	5158	7251	6082	18492
LV-5.3 Other than agriculture use	6	2	19	28
HV: Customer Categories				
HV-1: Railway Traction	612	562	1019	2193
HV-2: Coal Mines	474	0	39	513
HV-3.1: Industrial	2199	2070	2008	6277
HV-3.2: Non-Industrial	240	371	396	1007
HV-3.3: Shopping mall	7	62	11	81
HV-3.4: Power Intensive Industries	66	587	139	792
HV-4: Seasonal and Non Seasonal	15	5	2	22
HV-5: Irrigation, PWW and other than Agriculture	107	349	156	612
HV-6: Bulk Residential Users	363	21	151	535
HV-7: Synchronization/ Start-up Power	0	8	0	8
Total	**15897**	**17805**	**16535**	**50237**

3.6 The Commission further directs the petitioners that they should not unduly restrict supply to any category of consumers during the tariff period.

Energy Balance and Power Purchase as Proposed by the Petitioners

3.7 The petitioners have considered the requirement for procurement of energy for projected sale of 50237 MU as filed by the three Discoms as 64793 MU. Discom-wise break-up is shown in the table below:

Table 9: Energy balance for FY 2015-16 as proposed by Discoms

Particulars	East	West	Central	State
Sale to LT category (MU)	11,814	13,769	12,613	38,196
Sale to HT category (MU)	4,083	4,036	3,922	12,041
Total Sale (MU)	**15,897**	**17,805**	**16,535**	**50,237**
Distribution losses (%)	18.00%	16.00%	19.00%	18.14%
Input at Distribution Interface (MU)	19,440	21,484	20,445	61,369

Particulars	East	West	Central	State
Transmission loss (%)	3.00%	3.00%	3.00%	3.00%
Input at MP State Periphery (MU)	20,041	22,148	21,077	63,266
External Loss (MU)	485	532	509	1,527
Total Power Purchase Quantum (MU)	**20,526**	**22,680**	**21,587**	**64,793**

3.8 The petitioners have converted the annual projected sales into monthly sales using the sales profiles observed in the past years. It is submitted by the petitioner that for computation of the intra-State transmission losses (MPPTCL losses), the actual data has been taken from the MP-SLDC online portal for the period October 2013 to September 2014 (52 weeks) and accordingly average 3.00% has been considered for the future period.

3.9 The petitioners have submitted that the inter-State transmission losses have been computed separately for Eastern Region (ER) and Western Region (WR) stations. For WR, past data of 52 weeks from November 4, 2013 till November 9, 2014 as available on the POSOCO/NLDC website has been considered and an average loss level of 3.83% has been considered for FY 2014-15 and FY 2015-16. In case of ER, transmission losses of stations allocated to Madhya Pradesh have been considered and average loss level of 2.09% has been considered for FY 2014-15and FY 2015-16.

3.10 The petitioners have claimed that they have projected energy requirement on the basis of the month wise grossing up of the projected distribution losses. Details are as given under:

Table 10: Monthly loss percentage as filed

Sr. No.	Month	FY 2015-16		
		East Discom	West Discom	Central Discom
1	April	19.31%	19.15%	19.02%
2	May	18.89%	21.47%	18.02%
3	June	13.70%	15.59%	17.89%
4	July	15.18%	5.93%	17.25%
5	August	17.78%	4.28%	18.86%
6	September	18.35%	8.10%	19.14%
7	October	19.15%	23.47%	20.51%
8	November	19.07%	23.24%	20.13%
9	December	20.78%	20.75%	19.57%
10	January	19.59%	21.72%	20.55%
11	February	16.17%	16.00%	19.20%
12	March	18.03%	12.29%	17.86%
13	**Average losses for the year as filed (Arithmetic average)**	**18.00%**	**16.00%**	**19.00%**
14	**As specified in Regulations**	**18.00%**	**16.00%**	**19.00%**

Assessment of Energy Availability by the Petitioners

3.11 The petitioners have submitted that assessment of energy availability for the State is based on the following:

(a) Current long term allocated generation capacity of MP.
(b) New generating capacities coming up in future years for MP Genco, Central Sector, Joint Ventures, UMPP and under Competitive Bidding process.
(c) Impact of generation capacity allocation in WR and ER.
(d) Performance of plant during past three years.

3.12 The petitioners have submitted that future projections for Central Generating Stations (CGS) allocated to Madhya Pradesh have been done on the basis of average availability of the past three years. Further, for projecting the availability from the Central Sector Stations, the latest allocation made by Western Regional Power Committee in their letter no. WRPC/Comml-I/6/Alloc/2014/10874 dated 3 December, 2014 and for Eastern Region NTPC Kahalgoan 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21 February, 2007 have been considered for FY 2015-16.

3.13 Following table shows the existing MPPMCL allocated stations as well as the future capacity additions which are expected to become operational till end of FY 2015-16:

Table 11: **MPPMCL Allocated Generating Station submitted by the petitioners for FY 2015-16**

Sl.No.	Name of Project	Unit	Region	Capacity (MW)	MP's Share (MW)	COD/ Expected COD
1	NTPC Korba –III	Unit 7	WR	500.00	77.00	Comm
2	NTPC Sipat Stage – 1	3 units	WR	1,980.00	340.00	Comm
3	MPPGCL - Satpura TPS Extension	Unit 10	State	250.00	250.00	Comm
	MPPGCL - Satpura TPS Extension	Unit 11	State	250.00	250.00	Comm
4	MPPGCL - Shri Singaji STPS Phase -1	Unit 1	State	600.00	600.00	Comm
	MPPGCL - Shri Singaji STPS Phase -1	Unit 2	State	600.00	600.00	Comm
5	NTPC Mouda STPS, Stage -1	Unit 1	WR	500.00	92.70	Comm
	NTPC Mouda STPS, Stage -1	Unit 2	WR	500.00	78.00	Comm
6	NTPC Vindhyanchal MTPS, Stage – 4	Unit 1	WR	500.00	143.00	Comm
	NTPC Vindhyanchal MTPS, Stage – 4	Unit 2	WR	500.00	128.00	Comm
7	DVC DTPS	Unit 1	ER	500.00	50.00	Comm
	DVC DTPS	Unit 2	ER	500.00	50.00	Comm
8	UMPP Sasan	Unit 1	WR	660.00	247.00	Comm
	UMPP Sasan	Unit 2	WR	660.00	248.00	Comm
	UMPP Sasan	Unit 3 & 4	WR	1,320.00	495.00	Comm

Sl.No.	Name of Project	Unit	Region	Capacity (MW)	MP's Share (MW)	COD/ Expected COD
	UMPP Sasan	Unit 5 & 6	WR	1,320.00	495.00	Unit 5- Nov 14 & Unit 6- Mar 15
9	Jaypee Bina Power	Unit 1 & Unit 2	State	500.00	350.00	Comm
10	Jaiprakash Power, Nigri	Unit 1	WR	660.00	248.00	Comm
	Jaiprakash Power, Nigri	Unit 2	WR	660.00	247.00	Feb-15
11	MB Power Unit 1	Unit 1	WR	600.00	210.00	April, 2015*
	MB Power Unit 2	Unit 2	WR	600.00	210.00	Dec-15
12	BLA Power	Unit 1	State	45.00	16.00	Comm
	BLA Power	Unit 2	State	45.00	16.00	May-15*
13	Jhabua Power	Unit 1	WR	600.00	210.00	Sep-15*
14	Lanco Amarkantak	Unit 1	WR	300.00	300.00	Comm
15	Sugen Torrent	Unit 2	WR	382.50	100.00	Comm
16	Renewable Energy - Solar	NA	State	-	370.25	-
17	Renewable Energy - Other than Solar	NA	State	-	847.05	-
	Total				**7,298.00**	

**The petitioners vide letter date 1 April, 2015 has submitted the revised COD.*

3.14 The petitioners have submitted that energy availability from new stations has been considered from the expected month of commissioning in FY 2015-16 as per the data projected by the State Planning Cell. The availability forecast is based on the number of days in the months of operation in a year.

3.15 Annual availability as filed is shown in the table below:

Table 12: Energy availability ex-bus as filed by petitioners for FY 2015-16 (MU)

Generating Stations	FY 2015-16
CGS	
NTPC-Korba	3,179
NTPC-Vindyachal I	3,029
NTPC-Vindyachal II	2,314
NTPC-Vindyachal III	1,873
NTPC-Kawas	442
NTPC-Gandhar	399
KAPP	835
TAPS	1,505
NTPC - Sipat Stage II	1,217

Generating Stations		**FY 2015-16**
NTPC - Kahalgaon 2		289
Bilateral and Joint Venture Stations		
NHDC - Indira Sagar		1,958
Sardar Sarovar		1,791
Omkareshwar HPS		1,156
DVC (MTPS, CTPS)		2,347
MP Genco Stations		
ATPS - Chachai-PH 1&2		1,189
STPS - Sarani-PH 1, 2 & 3		3,901
SGTPS - Bir'pur - PH 1 & 2		4,127
SGTPS - Bir'pur – Extn		3,209
ATPS - Chachai-Extn		1,498
CHPS-Gandhi Sagar		189
CHPS-RP Sagar & Jawahar Sagar		325
Pench THPS		210
Banasgar Tons HPS		997
Banasgar Tons HPS-Silpara		135
Banasgar Tons HPS-Devlone		86
Bargi HPS		507
Rajghat HPS		43
Marhi Khera HPS		74
Other		
Captive		50
RSEB (Chambal,Satpura)		0
UPPMCL (Rihand,Matatila,Rajghat)		289
Total		**39,163**
Allocated to MPPMCL		
NTPC Korba – VII		757
NTPC Sipat Stage – 1	Unit 1	2,264
Satpura TPP Extension, Betul (Share = 100%)	Unit 10	1703
	Unit 11	1703
Singaji TPP Phase -1, Khandwa (Share = 100%)	Unit 1	4133
	Unit 2	4133
NTPC Mauda STPS, Satge -1,	Unit 1	647

Generating Stations		**FY 2015-16**
Nagpur (NTPC)	Unit 2	647
Vindhyachal Mega Project, Stage - 4, Sidhi (NTPC)	Unit 1	981
	Unit 2	952
DVC Durgapur Steel TPS	Unit 1	293
	Unit 2	293
UMPP Sasan, Sidhi	Unit 1	1,706
	Unit 2	1,505
	Unit 3 & 4	3,023
	Unit 5 & 6	3,333
JP Bina Power, Sagar	Unit 1	2320
	Unit 2	
Jaiprakash Power, Nigri	Unit 1	1,662
	Unit 2	1,656
MB Power, Anuppur	Unit 1	1,408
	Unit 2	280
BLA Power, Narsinghpur	Unit 1	104
	Unit 2	73
Jhabua Power, Seoni	Unit 1	1,348
Lanco TPS, Amarkantak	Unit 1	2,066
Torrent Power GPP		256
Renewable Energy (Solar)		541
Renewable Energy (Wind)		1,670
TOTAL		**41,457**
Grand Total		**80,620**

3.16 The petitioners have submitted that the aforementioned energy availability is based on:

- Capacity allocation of Central Generating Stations to the Madhya Pradesh as per Western Region Power Committee's (WRPC) letter no. WRPC/Comml-I/6/Alloc./2014/10874 dated December 3, 2014.
- Existing capacities allocated to the state and future capacities proposed to be commissioned.
- Capacity allocation of individual stations to the three Discoms based on the GoMP Gazette notification.

3.17 Further the petitioners have applied month-wise merit order dispatch principle on the basis of variable costs for FY 2015-16, after considering both Discom allocated generating stations as well as MPPMCL allocated generating station. The petitioners have also considered partial backing down of units / stations which ate higher up in the MOD, during those periods when their running is not required to meet the demand in that period and the market rates do not justify their running either. Accordingly the petitioners have proposed availability of 76,836 MU.

Management of Surplus Energy

3.18 The petitioners have submitted that as per the power supply position, the state is expected to have surplus energy in most of the months in FY 2015-16. Currently, MPPMCL sells surplus power through Power Exchange (IEX) at a cost which is determined by the market.

3.19 The petitioners have submitted that for FY 2015-16, the Discoms have applied Merit order dispatch (MoD) for all available capacities i.e. energy from generating stations is scheduled in order of total per unit power purchase costs. After application of MoD, the petitioners have proposed to sell surplus energy through the power exchange at the average rate of IEX for W1 region for the last 12 months from February 2014 to January 2015 i.e., at Rs.3.16 per unit. The petitioner also submitted expenditure (NLDC, SLDC, CTU, STU charges) of Rs. 0.22 in sale of each unit and hence submitted net realizable rate of Rs. 2.94 per unit.

3.20 Further, the petitioners have submitted that this revenue has been subtracted from the variable power purchase costs of MPPMCL allocated stations, while computing the total power purchase costs of Discoms. Submission of the petitioners about the energy surplus of the Discoms vis-à-vis overall energy availability and energy requirement as well as the details of revenue from sale of surplus energy are shown in the table below:-

Table 13: Management of surplus energy with DISCOMs for FY 2015-16

Particulars	**Unit**	**FY2015-16**
Ex-bus energy available	MU	76,836.00
Ex-bus energy required by Discoms	MU	64,793.00
Surplus Energy	MU	12,043.00
Rate of Sale of Surplus Energy at IEX	Rs. per unit	2.94
Revenue from Sale of Surplus Energy through IEX	**Rs. Crore**	**3,540.56**

Assessment of Power Purchase Cost (Fixed and Variable Cost) by the Discoms

3.21 The petitioners have projected the power purchase cost on the basis of fixed and variable costs as per the last 12 months' bills, i.e., from October 2013 to September 2014 for Discom allocated stations and a few MPPMCL allocated stations. The petitioners also submitted that fixed and variable costs of some MPPMCL allocated stations have been considered as per their respective tariff orders. Details of the same are given below:

Table 14: Tariff orders of MPPMCL allocated stations

Station	Petition No.	Order Dated
MPPGCL – Satpura TPS Extension, Unit 10	11 of 2013	October 8, 2013
MPPGCL – Shri Singaji STPS Phase – 1 Unit 1	05 of 2014	November 10, 2014
Jaypee Bina Power (Unit 1 & Unit 2)	40 of 2012	November 26, 2014
Jaiprakash Power, Nigri (Unit 1 & Unit 2)	03 of 2014	September 24, 2014
BLA Power, Unit 1	28 of 2012	July 24, 2012

3.22 The table below provides the details of the costs viz. fixed costs and variable costs for all the existing plants for determining the power purchase cost for FY 2015-16.

Table 15 : Fixed cost and Variable cost as filed for the Existing Stations for FY 2015-16

Station	Fixed Cost (Rs. Crore)	Variable Charges (Rs. /kWh)
NTPC-Korba	200.83	1.01
NTPC-Vindyachal I	208.45	1.73
NTPC-Vindyachal II	150.83	1.64
NTPC-Vindyachal III	199.81	1.64
NTPC-Kawas	83.64	2.66
NTPC-Gandhar	92.60	2.66
KAPP	-	2.38
TAPS	-	2.85
NHDC - Indira Sagar	533.50	0.38
Sardar Sarovar	162.50	0.93
Omkareshwar HPS	421.56	0.31
ATPS - Chachai-PH 1&2	81.67	1.56
STPS - Sarani-PH 1, 2 & 3	259.45	2.00
SGTPS - Bir'pur - PH 1 & 2	346.40	2.73
CHPS-Gandhi Sagar	17.94	-
CHPS-RP Sagar & Jawahar Sagar	48.89	-
Pench THPS	22.28	-
Banasgar Tons HPS	167.30	-
Banasgar Tons HPS-Silpara	15.93	-
Banasgar Tons HPS-Devlone	31.87	-
Bargi HPS	30.92	-
Rajghat HPS	8.10	-
Marhi Khera HPS	36.23	-
UPPCL (Rihand,Matatila,Rajghat)	5.00	-

Station	Fixed Cost (Rs. Crore)	Variable Charges (Rs. /kWh)
NTPC - Sipat Stage II	175.36	1.58
NTPC - Kahalgaon II	62.18	2.61
DVC (MTPS, CTPS)	440.80	2.28
SGTPS - Bir'pur – Extn	442.92	2.50
ATPS - Chachai-Extn	209.11	1.41

Details of Costs for existing and future capacities allocated to MPPMCL

3.23 For MPPMCL allocated stations, the petitioners have considered cost as per the actual power purchase bills from October 2013 to September 2014. Details of the costs of MPPMCL allocated stations are mentioned in the table below:

Table 16 : **Fixed and Variable costs of MPPMCL allocated stations submitted by the petitioners for FY 2015-16**

Sr. No.	Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore)	Remarks	Variable Charges for (Rs. /kWh)	Remarks
1	NTPC Korba –VII	Unit 7	77.00	90.04	As per Actual Bills from Oct-13 To Sept.-14	1.00	As per Actual Bills from Oct-13 To Sept.-14
3	NTPC Sipat Stage - 1	3 units	340.00	348.76	As per Actual Bills from Oct-13 To Sept.-14	1.47	As per Actual Bills from Oct-13 To Sept.-14
4	MPPGCL - Satpura TPS Extension	Unit 10	250.00	304.29	As per MPERC tariff order dated 8/10/2013	1.78	As per MPERC tariff order dated 8/10/2013
5		Unit 11	250.00	304.29	Taken same as Unit 1	1.78	Taken same as Unit 1
6	MPPGCL - Shri Singaji STPS Phase -1	Unit 1	600.00	684.40	As per MPERC tariff order dated 10/11/2014	1.86	As per MPERC tariff order dated 10/11/2014
7		Unit 2	600.00	684.40	Taken same as unit 1	1.86	Taken same as unit 1
8	NTPC Mauda STPS, Stage -1	Unit 1	92.70	126.33	As per Actual Bills from Oct-13 To Sept.-14	3.56	As per Actual Bills from Oct-13 To Sept.-14
9		Unit 2	78.00	126.33	Taken same as unit 1	3.56	Taken same as unit 1
10	NTPC Vindhyachal MTPS, Stage - 4	Unit 1	143.00	219.34	As per Actual Bills from Oct-13 To Sept.-14	1.63	As per Actual Bills from Oct-13 To Sept.-14
11		Unit 2	128.00	219.34	Taken same as unit 1	1.63	Taken same as unit 1

Sr. No.	Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore)	Remarks	Variable Charges for (Rs. /kWh)	Remarks
12	DVC DTPS	Unit 1& Unit 2	100	123.02	As per Actual Bills from Oct-13 To Sept.-14	2.65	As per Actual Bills from Oct-13 To Sept.-14
13	UMPP Sasan	Unit 1	247.00	28.98	Calculated As per Tariff quoted in accepted bid	1.149	As per Tariff quoted in accepted bid
14		Unit 2	248.00	26.05	Calculated As per Tariff quoted in accepted bid	1.149	As per Tariff quoted in accepted bid
15		Unit 3 & 4	495.00	51.68	Calculated As per Tariff quoted in accepted bid	1.149	As per Tariff quoted in accepted bid
16		Unit 5 & 6	495.00	57.04	Calculated As per Tariff quoted in accepted bid	1.149	As per Tariff quoted in accepted bid
17	Jaypee Bina Power	Unit 1 & Unit 2	350.00	518.58	As per MPERC order dated 26/11/14	2.65	As per Actual Bills from Oct-13 To Sept.-14
18	Jaiprakash Power, Nigri	Unit 1	248.00	313.16	As per MPERC tariff order dated 26/09/2014	1.17	As per MPERC tariff order dated 29/09/2014
19		Unit 2	247.00	313.16	As per MPERC tariff order dated 26/09/2014	1.17	As per MPERC tariff order dated 29/09/2014
20	MB Power	Unit 1	210.00	239.54	As per MW rate of Shri Singaji Thermal Power Project according to MPERC order dated 10/11/2014	1.61	Taken as per Lanco Amarkantak
21		Unit 2	210.00	59.89	As per MW rate of Shri Singaji Thermal Power Project according to MPERC order dated 10/11/2014 for 3months during the year i.e. 1/4th of year	1.61	Taken as per Lanco Amarkantak

Sr. No.	Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore)	Remarks	Variable Charges for (Rs. /kWh)	Remarks
22	BLA Power	Unit 1	16.00	19.01	As per MPERC tariff order dated 24/07/2012	2.37	As per Actual Bills from Oct-13 To Sept.-14
23		Unit 2	16.00	19.01	Same As Unit no.-I	2.37	Same As Unit no.-I
24	Jhabua Power	Unit 1	210.00	239.54	As per MW rate of Shri Singaji Thermal Power Project according to MPERC order dated 10/11/2014	1.61	Taken as per Lanco Amarkantak
25	Lanco Amarkantak	Unit 1	300.00	323.14	As per Actual Bills from Oct-13 To Sept.-14	1.61	As per Actual Bills from Oct-13 To Sept.-14
26	Sugen Torrent	Unit 2	100.00	86.23	As per Actual Bills from Oct-13 To Sept.-14	6.42	As per Actual Bills from Oct-13 To Sept.-14
27	Renewable Energy-Solar	NA	370.25	413.30	Taken at 7.6329 per unit for 541.47 MU's	-	-
28	Renewable Energy-Other than Solar	NA	847.05	824.98	Taken at 4.945 per unit for 1670 MU's	-	-

RPO Cost

3.24 The petitioners have submitted that the Commission has notified MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulation, 2010 on November 19, 2010. The Commission has considered procurement of power from renewable energy sources through PPA or short term market to ensure RPO compliance.

3.25 As per Regulation 4.1 of MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulation, 2010, the minimum quantum of electricity for FY 2014-15 is 1% for Solar and 6% for Non-solar. The same has been considered by the petitioners for projection of RPO cost for FY 2015-16.

3.26 Accordingly the Petitioners have calculated the RPO requirement (which is already included in the power purchase cost) is shown in the following table:

Table 17: RPO Obligation for FY 2015-16

Renewable Purchase Obligation Computations		**FY 2015-16**
Solar	%	1.00%
Other than Solar	%	6.00%
Total	%	7.00%
Ex-bus renewable energy requirement to fulfill RPO (MU)		
Solar	MU	648
Other than Solar	MU	3,888
Total	MU	4,536
Energy Available from existing Renewable Sources		
Solar	MU	541
Other than Solar	MU	1,670
Total	MU	2,211
Shortfall		
Solar	MU	106
Other than Solar	MU	2,218
Total	MU	2,324
Extra Surplus available after meeting RPO obligations	MU	2,324
IEX rate	Rs/unit	2.94
Additional revenue from sale of surplus due to RPO obligation	Rs Crore	683.27
Renewable Energy purchase Rates		
Solar	Rs./unit	7.64
Other than Solar	Rs./unit	4.94
Additional Cost due to RPO Obligation		
Solar	Rs. Crore	81.34
Other than Solar	Rs. Crore	1,095.49
RE Power Purchase from new/other sources to fulfill RPO	Rs. Crore	1,176.83
Revenue from sale of surplus units	Rs Crore	(683.27)
Net RE Power Purchase from new/other sources to fulfill RPO	Rs. Crore	493.56

Assessment of Other Elements of Power Purchase Cost by the petitioners

Inter State Transmission Charges associated with existing capacities:

3.27 The petitioners have submitted that Inter-State transmission charges to be paid are consisting of charges for transmission system of WR and ER. The actual inter-state transmission charges for FY 2013-14 amounted to Rs 1,165 Crore and the actual interstate transmission charges for FY 2014-15 up to November 2014 amounted to Rs 855.76 Crore whereas such charges for FY 2013-14 up to November 2013 amounted to Rs 735.49 Crore. There is an increase of about 16.35% in inter-state transmission charges. Therefore, the same growth rate has been considered for projecting the Inter-State transmission charges for FY 2014-15 and FY 2015-16.

3.28 The petitioners have further submitted that the estimated Inter-State transmission charges for FY 2014-15 and FY 2015-16 amounts to Rs 1,356 Crore and Rs 1,577 Crore, respectively. These costs have then been allocated to Discoms based on past trend of actual costs as shown in the table below:

Table 18: **PGCIL Costs: Inter-State transmission charges filed by Discoms**

Particulars	**PGCIL Costs (Rs Crore)**
East Discom	487
West Discom	619
Central Discom	471
Total	**1577**

Intra - State Transmission Charges

3.29 The petitioners have submitted that for the purpose of calculation of intra-state transmission charges, various expense items of MPPTCL costs (other than terminal benefits liabilities) have been considered as admitted by the Commission in MYT order for MP Transmission Company dated April 2, 2013.

3.30 Fixed cost for FY 2015-16 as admitted by the Commission vide MYT order for MP Transmission Company dated April 2, 2013 has been considered.

3.31 SLDC charges of Rs. 7.79 Crore as admitted by the Commission vide order dated June 18, 2014 have been considered for FY 2014-15. For FY 2015-16 the annual SLDC charges have been computed based on the transmission capacity of Discoms and the rate for Long-term open access customers has been considered as Rs. 5933.54/ MW as admitted by the Commission in the SLDC tariff order for FY 2014-15.

3.32 The petitioners have submitted that the Terminal Benefits as allowed by the Commission are not sufficient to meet the actual cash outflow of the State Power Sector Utilities. The actual cash outflow for Terminal Benefits for FY 2013-14 and for 5 months of FY 2014-15 is shown in the table below:

Table 19: Actual Cash Outflow towards Terminal Benefits for all State Power Sector Utilities (Rs. Crore)

	Particulars	**MP Genco**	**MP Transco**	**East Discom**	**Central Discom**	**West Discom**	**MPP MCL**	**Total**
1	Terminal Benefits (Cash Outflow) - FY'14 - as per actuals	91.64	83.72	226.42	196.15	270.68	71.33	939.94
	Terminal Benefits (Cash Outflow) - FY'15 - 5 months as per actuals							

	Particulars	MP Genco	MP Transco	East Discom	Central Discom	West Discom	MPP MCL	Total
	Apr-14	9.36	5.77	20.87	16.59	23.72	5.38	81.69
	May-14	10.78	6.82	22.07	20.74	27.22	6.44	94.07
	Jun-14	10.82	8.02	20.60	18.76	25.51	5.72	89.42
	Jul-14	11.21	6.32	20.33	19.11	23.95	5.34	86.26
	Aug-14	10.94	5.76	18.96	20.83	24.63	5.33	86.44
	Total - 5 months of FY'15	53.11	32.69	102.84	96.03	125.02	28.19	437.87
	Average Terminal Benefits (Cash Outflow) per month for FY'15							87.57
2	Terminal Benefits (Cash Outflow) - FY'15 - estimated							**1,050.89**
3	Terminal Benefits (Cash Outflow) - FY'16 - estimated assuming an overall increase of 10% compared to FY'15							**1,155.98**

3.33 For projecting the cash outflow towards Terminal Benefits for FY 2015-16, a growth rate of 10% has been assumed

3.34 It is further submitted by the petitioners that the total transmission charges including the Terminal Benefits (Cash Outflow) have been allocated to three Discoms as per past trend as indicated in the table below:

Table 20: Intra-State Transmission Charges filed by petitioners for FY 2015-16 (Rs. Crore)

Particulars	**FY 2015-16**
East Discom	682.78
West Discom	882.65
Central Discom	718.87
Total	**2284.30**

MPPMCL Costs: Details and Discom wise Allocation

3.35 The petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. 363.10 Crore for FY 2015-16 and allocated the same to three Discoms based on total energy requirement at state boundary. Details of the expenses and costs allocated to Discoms are mentioned in the table below:

Table 21: Expenses of MPPMCL as filed for FY 2015-16 (Rs Crore)

Particulars	**FY 2015-16**
Purchase of Power	68.50

Particulars	FY 2015-16
Inter-State Transmission Charges	133.85
Depreciation Expenses	2.09
Interest and Finance Charges	81.89
Repairs and Maintenance Expenses	1.93
Employee Expenses	57.89
A&G Expenses	15.19
Other Expenses	1.76
Total	363.10
Net Expenses	**363.10**

Table 22: **MPPMCL Costs allocated to Discoms (Rs Crore)**

Particulars	FY 2015-16
East Discom	115.07
West Discom	126.89
Central Discom	121.14
Total	**363.10**

3.36 Details of total power purchase cost as filed by the petitioners, is given in the table below:

Table 23: Total Power Purchase Cost as filed for FY 2015-16

Total Power Purchase Cost		**East Discom**	**West Discom**	**Central Discom**	**State**
A	Ex-bus Units to be Purchased (MU)	20,526	22,680	21,587	64,793
B	Fixed Cost (Rs. Crore)	1,273.01	1,806.16	1,376.89	4,456.06
C	Variable Cost (Rs. Crore)	3,712.20	4,871.99	4,421.26	13,005.46
D	MPPMCL costs (Rs. Crore)	115.02	127.11	120.97	363.10
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crore)	5,100.23	6,805.27	5,919.12	17,824.62
E/A	**Rate of Power Purchase (Rs./kWh)**	**2.48**	**3.00**	**2.74**	**2.75**
H	External Losses (MU)	485	532	509	1,527
I	Inter -State Transmission Cost (Rs. Crore)	487.19	619.36	470.63	1,577.19
J = (A-H)	Energy to be Purchased at State Periphery (MU)	20,041	22,148	21,077	63,266
K = (I + E)	Total Power Purchase Cost at State Boundary (Rs. Crore)	5,587.43	7,424.63	6,389.76	19,401.81
J/K	**Rate of Power Purchase at State Boundary (Rs./kWh)**	**2.79**	**3.35**	**3.03**	**3.07**

Total Power Purchase Cost		East Discom	West Discom	Central Discom	State
L	Intra State Transmission Cost – MPPTCL including SLDC (Rs. Crore)	682.78	882.65	718.87	2,284.30
M = (K+L)	Total Power Purchase Cost at Discom Interface (Rs. Crore)	6,270.21	8,307.28	7,108.62	21,686.11
N	Intra- State Transmission Loss (MU)	601	664	632	1,898
O = (K-N)	Energy to be Purchased at Discom Boundary (MU)	19,440	21,484	20,445	61,368
O/M	**Rate of Power Purchase at Discom Boundary (Rs./kWh)**	**3.23**	**3.87**	**3.48**	**3.53**

Commission's Analysis of Energy Balance and Power Purchase

Distribution Losses

3.37 The distribution loss level trajectory as specified in the Tariff Regulations is given in the table below:

Table 24: Loss targets as per Regulations (in %)

Loss Targets	FY 2013-14	FY 2014-15	FY 2015-16
East Discom	23%	20%	**18%**
West Discom	20%	18%	**16%**
Central Discom	23%	21%	**19%**

3.38 The Commission has considered the distribution losses for FY 2015-16 as specified in the Tariff Regulations for projecting the energy requirement. It is observed that the petitioners have taken arithmetical averages of month wise losses to calculate yearly loss levels while calculating month wise power input. This is not in consonance with the annual loss trajectory as specified in the Tariff Regulations. The Commission has considered annual sale grossed up by annual level of prescribed loss levels as per the calculations shown in subsequent paragraphs/ tables.

External (PGCIL) Losses

3.39 The inter-State transmission losses have been considered separately for Eastern and Western Region stations. For Western Region average transmission losses of 3.83% have been considered based on actual losses of past 52 weeks (November, 2013 to November, 2014). Similarly these losses have been considered as 2.09% for Eastern Region.

3.40 The Commission has considered intra-State transmission losses at 3.00% for FY 2015-16 as filed by the petitioners. The energy balance / power purchase requirement on the basis of the sale admitted by the Commission for the Discoms for FY 2015-16 is presented in the following table:

Table 25: Power purchase requirement as worked out by the Commission

Particular	East Discom	West Discom	Central Discom	State
Total Sales (MU)	15,897	17,805	16,535	50,237
Distribution loss (%)	**18.00%**	**16.00%**	**19.00%**	**17.64%**
Distribution loss (MU)	3,490	3,391	3,879	10,760
Input at T-D interface (MU)	19,387	21,196	20,414	60,997
Transmission loss (%)	**3.00%**	**3.00%**	**3.00%**	**3.00%**
Transmission loss (MU)	600	656	631	1,887
Input at G-T interface (MU)	19,986	21,852	21,045	62,883
PGCIL Losses %				
WR- PGCIL Losses %	3.83%	3.83%	3.83%	3.83%
ER- PGCIL Losses %	2.09%	2.09%	2.09%	2.09%
PGCIL Losses (MU)	475	446	457	1,378
Power Purchase Requirement (MU)	**20,462**	**22,298**	**21,502**	**64,261**

3.41 Energy Deptt. Govt. of Madhya Pradesh (GoMP) vide notification no. 2260-F-3-24-2009-xiii dated March 19, 2013, had revised the existing generating capacity allocation to the three Discoms for maintaining uniform tariff across the state. This notification is still in force. The GoMP vide letter no.2287/2015/13 dated 1 April, 2015 has advised to the Commission to maintain uniform retail tariff across the state for same category of consumers of all the three Discoms. Accordingly, in this tariff order the Commission has considered the existing generating capacity allocation to the three Discoms as per notification and has also apportioned the capacities/ costs of stations allocated to MPPMCL further to Discoms for maintaining uniform tariff across the state.

3.42 The table below presents the allocation of existing generation capacities to the East, West and Central Discoms including specific allocation of 200 MW to Bundelkhand region and others.

Table 26: Station wise capacity allocation of existing long term sources to the Discoms

Proposed Discom wise Allocation for FY 2015-16									
SL No	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Specific Allocation to Bundelkhand Region (MW)	Allocation to state(excluding specific allocation) (MW)	Discom wise Allocation (in % excluding specific allocation)			
						East	West	Central	Total
A.	Central Generating								

Proposed Discom wise Allocation for FY 2015-16										
SL No	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Specific Allocation to Bundelkhand Region	Allocation to state(excluding specific allocation)	Discom wise Allocation (in % excluding specific allocation)				
	Stations									
1	WR – KSTPS	2,100.00	477.86	52.63	425.23	32%	37%	31%	100%
2	WR - VSTPS-I	1,260.00	439.81	32.26	407.55	31%	32%	37%	100%
3	WR - VSTPS-II	1,000.00	315.51	25.47	290.04	30%	35%	35%	100%
4	WR - KAWAS GPP	656.20	140.00	0.00	140.00	35%	40%	25%	100%
5	WR - GANDHAR GPP	657.39	117.00	0.00	117.00	32%	38%	30%	100%
6	WR - KAKRAPAR APS	440.00	110.44	11.21	99.23	25%	40%	35%	100%
7	WR - TARAPUR APS Unit 3 & 4	1,080.00	228.58	27.50	201.08	25%	40%	35%	100%
8	WR - VSTPS – III	1,000.00	242.51	25.47	217.04	25%	40%	35%	100%
9	WR - SIPAT –II	1,000.00	184.66	25.47	159.19	30%	40%	30%	100%
10	ER - FARAKKA STPS	0.00	0.00	0.00	0.00	30%	40%	30%	100%
11	ER- KAHALGAON STPS-II	1,500.00	73.95	0.00	73.95	27%	53%	20%	100%
12	ER - KAHALGAON STPS	0.00	0.00	0.00	0.00	27%	53%	20%	100%
13	ER - TALCHER STPS	0.00	0.00	0.00	0.00	25%	55%	20%	100%
14	ER-DVC (MTPS,CTPS)	1,000.00	400.00	0.00	400.00	33%	53%	14%	100%
	SUB TOTAL	**11,693.59**	**2,730.32**	**200.01**	**2,530.31**				
B. State Generating Stations									
I	**THERMAL**								
1	AMARKANTAK COM	240.00	240.00	0.00	240.00	27%	33%	40%	100%
2	AMARKANTAK EXT	210.00	210.00	0.00	210.00	27%	33%	40%	100%
3	SATPURA TPS PH I & II &III	830.00	830.00	0.00	830.00	29%	32%	39%	100%
4	SGTPS EXT	500.00	500.00	0.00	500.00	28%	32%	40%	100%
5	SGTPS	840.00	840.00	0.00	840.00	28%	32%	40%	100%
	SUB TOTAL	**2,620.00**	**2,620.00**	**0.00**	**2,620.00**				
II	**HYDEL**								
	INTERSTATE								
1	GANDHI SAGAR	115.00	57.50	0.00	57.50	23%	27%	50%	100%
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	271.00	135.50	0.00	135.50	20%	30%	50%	100%
3	PENCH	160.00	106.67	0.00	106.67	20%	40%	40%	100%
4	RAJGHAT	45.00	22.50	0.00	22.50	20%	40%	40%	100%
	SUB TOTAL	**591.00**	**322.17**	**0.00**	**322.17**				
	FULL MP ALLOCATION								
1	BARGI	100.00	100.00	0.00	100.00	25%	50%	25%	100%
2	BIRISINGHPUR	20.00	20.00	0.00	20.00	30%	50%	20%	100%

Proposed Discom wise Allocation for FY 2015-16										
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Specific Allocation to Bundelkhand Region**	**Allocation to state(excluding specific allocation)**	**Discom wise Allocation (in % excluding specific allocation)**				
3	BANSAGAR – I	315.00	315.00	0.00	315.00	30%	40%	30%	100%
4	BAN SAGAR II	30.00	30.00	0.00	30.00	30%	40%	30%	100%
5	BAN SAGAR III	60.00	60.00	0.00	60.00	30%	40%	30%	100%
6	BAN SAGAR IV	20.00	20.00	0.00	20.00	30%	40%	30%	100%
7	MARIKHEDA	60.00	60.00	0.00	60.00	30%	50%	20%	100%
	SUB TOTAL	605.00	605.00	0.00	605.00				
BILATERAL AND OTHERS									
1	INDIRA SAGAR	1,015.00	1,015.00	0.00	1,015.00	22%	53%	25%	100%
2	NCE- WIND GENERATION	63.00	63.00	0.00	63.00	30%	40%	30%	100%
3	CAPTIVE	17.00	17.00	0.00	17.00	29%	41%	30%	100%
4	SARDAR SAROVAR	1,450.00	826.50	0.00	826.50	32%	43%	25%	100%
5	OMKARESHWAR	520.00	520.00	0.00	520.00	30%	45%	25%	100%
	SUB TOTAL	**3,065.00**	**2,441.50**	**0.00**	**2,441.50**				
6	RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00	29%	38%	33%	100%
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	55.00	55.00	0.00	55.00	29%	38%	33%	100%
	SUB TOTAL	**3,120.00**	**55.00**	**0.00**	**55.00**				
	GRAND TOTAL	**21,694.59**	**8,773.99**	**200.01**	**8,573.98**				

3.43 Details of the generating stations assigned to the MPPMCL including the details of stations that got commissioned in the past and expected to be commissioned in FY 2015-16. Details of generating stations allocated to MPPMCL are given in the table below:-

Table 27: Generating Stations allocated to MPPMCL for FY 2015-16

Sr. No.	Particulars	Allocation to MPPMCL (MW)
1	WR - SIPAT -I (3 Units)	340
2	WR-NTPC Korba – 7	77
3	Singaji Thermal Power Stations Phase I -Unit-1	600
	Singaji Thermal Power Stations Phase I -Unit-2	600
4	Satpura Thermal Power Stations Exten - Unit 10	250
	Satpura Thermal Power Stations Exten - Unit 11	250

Sr. No.	Particulars	Allocation to MPPMCL (MW)
5	WR- NTPC Mauda TPS- Unit-1	93
	WR-NTPC Mauda TPS- Unit-2	78
6	WR-Vindhyachal Mega Project, Stage 4-Unit-1	143
	WR-Vindhyachal Mega Project, Stage 4-Unit-2	137
7	ER-DVC Durgapur Steel TPS- Unit-1	50
	ER-DVC Durgapur Steel TPS- Unit-2	50
8	WR-UMPP Sasan, Sidhi Unit-1	247
	WR-UMPP Sasan, Sidhi Unit-2	248
	WR-UMPP Sasan, Sidhi Unit 3& 4	495
	WR-UMPP Sasan, Sidhi Unit 5&6	495
9	Jaypee Bina Power, Sagar Unit-1	175
	Jaypee Bina Power, Sagar Unit-2	175
10	WR-Jaiprakash Power, Nigri- Unit-1	248
	WR-Jaiprakash Power, Nigri- Unit-2	248
11	WR-MB Power, Annupur, Unit 1	210
	WR-MB Power, Annupur, Unit 2	210
12	BLA Power, Narsinghpur- Unit-1	16
	BLA Power, Narsinghpur-Unit-2	16
13	WR- Jhabua Power, Seoni	210
14	WR-Lanco TPS, Amarkantak	300
15	WR-Torrent Power GPP	100
16	WR-Concessional Energy from Essar Power	30
17	Renewable Energy Solar	370
18	Renewable Energy Non Solar	847
	Total	**7307**

3.44 In order to ascertain the availability of the energy individually from each station, the availability as filed by the petitioners have been compared with the availability as worked out on the basis of past 3 years performance of the Generating Stations. Further, the Commission has considered the average of actual energy generation of the generating stations allocated to the state as filed in the petition for projecting the energy availability of existing Central Generating Stations.

3.45 The Commission directed the M.P Genco to submit their projections of energy availability for M.P Genco stations for FY 2015-16. In response, MP Genco submitted their projections of energy availability for FY 2015-16 vide letter No.07-12/CS-MPPGCL/MPERC/RSTP-15/101 dated 15 January, 2015. Accordingly the Commission has considered the energy availability for thermal generating stations as submitted by M.P Genco for FY 2015-16.

3.46 The Commission sought details from NHDC regarding their availability projections for FY 2015-16 in respect of Indira Sagar Power Station (ISPS) and Omkareshwar (OSP). NHDC has furnished the actual energy availability for FY 2013-14 and FY 2014-15 till December, 2014 and projections for FY 2015-16 vide letter No. NHDC/1/O&M/06/2015/528 dated 15 January, 2015.

3.47 The Commission has considered the average of actual energy availability during last three years i.e. FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 (till December) for projecting the energy availability for FY 2015-16 for hydro generating stations of MP Genco. and Inter-State.

3.48 Energy availability of new generating stations allocated to MPPMCL has been projected based on the norms specified in the CERC (Terms and Conditions of Tariff) Regulations, 2009 and MPERC Generation Tariff Regulations on case to case basis.

3.49 Month wise details of projected availability for FY 2015-16 are indicated in the table below:

Table 28 : Month wise MUs projection for FY 2015-16

Sr. No.	Generating Stations	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Total
1 Allocated to Discom														
A. Central Generating Stations														
1	WR – KSTPS	277	286	230	238	267	277	286	277	267	267	268	238	3,179
2	WR - VSTPS-I	230	238	230	270	270	230	238	261	270	270	253	270	3,029
3	WR - VSTPS-II	196	202	196	202	130	196	202	196	202	202	189	202	2,314
4	WR - KAWAS GPP	33	34	38	39	39	34	35	34	39	39	37	39	442
5	WR - GANDHAR GPP	35	36	35	36	30	26	30	35	36	36	34	30	399
6	WR - KAKRAPAR APS	47	75	73	75	75	73	75	73	75	75	44	75	835
7	WR - TARAPUR APS Unit 3 & 4	131	88	84	135	135	131	135	131	135	135	127	135	1,505
8	WR - VSTPS – III	158	164	158	105	164	158	164	158	164	164	153	164	1,873
9	WR - SIPAT –II	103	106	103	68	106	103	106	103	106	106	100	106	1,217
10	ER-KAHALGAON STPS-II	24	25	24	25	25	24	25	24	25	25	22	25	289
11	ER-DVC (MTPS,CTPS)	192	199	192	199	199	192	199	192	199	199	186	199	2,347
	SUB TOTAL	**1,426**	**1,453**	**1,363**	**1,392**	**1,440**	**1,444**	**1,495**	**1,484**	**1,517**	**1,517**	**1,414**	**1,484**	**17,429**
	B. State Generating Stations													
I	THERMAL													

Sr. No.	Generating Stations	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Total
1	AMARKANTAK COM	106	109	106	109	57	58	109	106	109	109	102	109	1,189
2	AMARKANTAK EXT	133	137	133	137	137	8	137	133	137	137	129	137	1,498
3	SATPURA TPS PH I & II &III	347	358	347	358	192	264	280	347	358	358	336	358	3,901
4	SGTPS EXT	285	294	285	294	294	18	294	285	294	294	277	294	3,209
5	SGTPS	360	371	360	196	286	360	371	360	371	371	349	371	4,128
	SUB TOTAL	**1,231**	**1,269**	**1,231**	**1,094**	**967**	**708**	**1,191**	**1,231**	**1,269**	**1,269**	**1,193**	**1,269**	**13,924**
II	HYDEL													
	INTERSTATE													
1	GANDHI SAGAR	7	11	8	3	12	7	7	13	24	26	17	20	154
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	24	18	19	19	20	33	40	33	34	43	24	19	325
3	PENCH	12	11	11	11	19	42	52	30	16	16	24	14	260
4	RAJGHAT	0	0	4	2	4	3	3	8	7	2	2	1	37
	SUB TOTAL	**44**	**39**	**42**	**35**	**55**	**85**	**102**	**84**	**80**	**88**	**67**	**54**	**776**
	FULL MP ALLOCATION													
1	BARGI	48	28	24	27	54	53	49	39	39	37	33	43	473
2	BIRISINGHPUR	0	0	1	6	8	8	3	5	1	0	0	0	33
3	BANSAGAR – I	119	137	140	140	170	168	166	130	109	134	116	150	1,677
4	BAN SAGAR II	0	0	0	0	0	0	0	0	0	0	0	0	0
5	BAN SAGAR III	0	0	0	0	0	0	0	0	0	0	0	0	0
6	BAN SAGAR IV	10	10	5	7	7	10	11	9	10	12	11	12	115
7	MARIKHEDA	5	3	0	7	27	15	14	11	11	12	7	7	120
	SUB TOTAL	**182**	**178**	**170**	**187**	**266**	**253**	**243**	**193**	**170**	**195**	**167**	**213**	**2,417**
	BILATERAL AND OTHERS													
1	INDIRA SAGAR	218	158	132	256	462	485	263	277	250	235	174	225	3,133
2	CAPTIVE	4	4	4	4	4	4	4	4	4	4	4	4	50
3	SARDAR SAROVAR	201	121	101	175	184	514	224	180	230	264	186	198	2,577
4	OMKARESHWAR	99	76	68	114	156	192	107	114	105	103	80	102	1,317
	SUB TOTAL	**523**	**359**	**305**	**549**	**806**	**1,195**	**599**	**575**	**589**	**605**	**444**	**529**	**7,077**
5	RSEB (CHAMBAL,SATPURA)													
6	UPPCL (RIHAND, MATATILA,RAJGHAT)	23	14	11	20	21	58	25	20	26	30	21	22	289
	SUB TOTAL	**23**	**14**	**11**	**20**	**21**	**58**	**25**	**20**	**26**	**30**	**21**	**22**	**289**

Sr. No.	Generating Stations	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Total
	GRAND TOTAL	**3,428**	**3,311**	**3,122**	**3,277**	**3,554**	**3,743**	**3,655**	**3,588**	**3,651**	**3,704**	**3,306**	**3,572**	**41,912**
2. Allocated to MPPMCL														
1	WR - SIPAT -I (3 Units)	190	196	190	196	148	190	196	190	196	196	183	196	2,264
2	WR-NTPC Korba – 7	66	68	19	68	68	66	68	66	68	68	64	68	757
3	Shri Singaji Thermal Power Stations Phase I -Unit-1	236	244	236	244	244	236	244	236	244	244	221	244	2,876
	Shri Singaji Thermal Power Stations Phase I -Unit-2	234	242	234	242	242	234	242	234	242	242	218	242	2,847
4	Satpura Thermal Power Stations Exten - Unit 10	129	133	129	133	133	129	133	129	133	133	120	133	1,567
	Satpura Thermal Power Stations Exten - Unit 11	129	133	129	133	133	129	133	129	133	133	120	133	1,567
	WR- NTPC Mauda TPS-Unit-1	57	59	57	59	59	57	59	57	59	59	53	59	692
5	WR-NTPC Mauda TPS-Unit-2	48	49	48	49	49	48	49	48	49	49	45	49	581
	WR-Vindhyachal Mega Project, Stage 4-Unit-1	88	90	88	90	90	88	90	88	90	90	82	90	1,065
6	WR-Vindhyachal Mega Project, Stage 4-Unit-2	84	87	84	87	87	84	87	84	87	87	78	87	1,022
	ER-DVC Durgapur Steel TPS- Unit-1	27	24	25	24	25	25	24	25	24	25	25	23	295
7	ER-DVC Durgapur Steel TPS- Unit-2	27	24	25	24	25	25	24	25	24	25	25	23	295
	WR-UMPP Sasan, Sidhi Unit-1	151	156	151	156	156	151	156	151	156	156	141	156	1,839
	WR-UMPP Sasan, Sidhi Unit-2	152	157	152	157	157	152	157	152	157	157	142	157	1,847
	WR-UMPP Sasan, Sidhi Unit 3& 4	303	313	303	313	313	303	313	303	313	313	283	313	3,686
8	WR-UMPP Sasan, Sidhi Unit 5&6	303	313	303	313	313	303	313	303	313	313	283	313	3,686
	Jaypee Bina Power, Sagar Unit-1	108	112	108	112	112	108	112	108	112	112	101	112	1,319
9	Jaypee Bina Power, Sagar	108	112	108	112	112	108	112	108	112	112	101	112	1,319

Sr. No.	Generating Stations	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Total
	Unit-2													
	WR-Jaiprakash Power, Nigri-Unit-1	157	162	157	162	162	157	162	157	162	162	146	162	1,908
10	WR-Jaiprakash Power, Nigri-Unit-2	157	162	157	162	162	157	162	157	162	162	146	162	1,908
11	WR-MB Power, Annupur, Unit 1	0	136	132	136	136	132	136	132	136	136	123	136	1,471
	WR-MB Power, Annupur, Unit 2	0	0	0	0	0	0	0	0	0	136	123	136	395
12	BLA Power, Narsinghpur-Unit-1	10	10	10	10	10	10	10	10	10	10	9	10	120
13	BLA Power, Narsinghpur-Unit-2	0	0	10	10	10	10	10	10	10	10	9	10	100
14	WR- Jhabua Power, Seoni	0	0	0	0	0	0	136	132	136	136	123	136	799
15	WR-Lanco TPS, Amarkantak	184	190	184	190	190	184	190	184	190	190	171	190	2,234
16	WR-Torrent Power GPP	21	22	21	22	22	21	22	21	22	22	20	22	256
17	WR-Concessional Energy from Essar Power	16	17	16	17	17	16	17	16	17	17	15	17	201
18	Renewable Energy Solar	46	51	50	49	47	46	44	43	41	41	40	43	541
19	Renewable Energy Non Solar	139	143	142	144	143	141	138	137	135	134	136	138	1,670
	SUB TOTAL	**3,169**	**3,405**	**3,266**	**3,415**	**3,366**	**3,308**	**3,540**	**3,433**	**3,534**	**3,671**	**3,348**	**3,673**	**41,128**
	Grand Total	**6,597**	**6,717**	**6,388**	**6,691**	**6,920**	**7,051**	**7,195**	**7,021**	**7,185**	**7,375**	**6,654**	**7,245**	**83,040**

3.50 Energy availability of 41912 MU from the Discoms allocated sources has been allocated amongst the Discoms as per Energy Deptt. GoMP's letter no. 2254/13/13/02 Bhopal dated March 19, 2013. Subsequently, MPPMCL sources have been allocated on the basis of balance requirement of the Discoms. The Commission has allowed backing down of some generating stations viz., NTPC Mauda TPS Unit#1 & 2 and Concessional Energy from Essar, to save on the variable costs being incurred as their running do not justify scheduling of above power. Energy availability from the sources allocated to MPPMCL is of the order of 39,654 MU. Accordingly, details of month wise Discom wise requirement and the estimated availability are given below:

Table 29 : Month wise Energy Availability and Requirement (MU)

FY 2015-16 (Projections)													
Power Purchase Requirement – Ex Generating Bus(MU)													
Particulars	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Total**
East Discom	1,429	1,638	1,639	1,638	1,636	1,634	1,635	1,844	2,046	2,047	1,638	1,636	20,462
West Discom	1,557	1,787	1,788	1,785	1,780	1,777	1,781	2,009	2,231	2,233	1,786	1,783	22,298

FY 2015-16 (Projections)													
Power Purchase Requirement – Ex Generating Bus(MU)													
Central Discom	1,501	1,721	1,722	1,722	1,720	1,719	1,718	1,937	2,150	2,152	1,721	1,719	21,502
Total for State	**4,487**	**5,146**	**5,150**	**5,145**	**5,136**	**5,130**	**5,135**	**5,791**	**6,427**	**6,432**	**5,146**	**5,137**	**64,261**
Availability from all Sources – Ex Generating Bus (MUs)													
Requirement to be met from Long term sources	**3,428**	**3,311**	**3,122**	**3,277**	**3,554**	**3,743**	**3,655**	**3,588**	**3,651**	**3,704**	**3,306**	**3,572**	**41,912**
Balance Requirement after Discom's allocated stations	1,059	1,835	2,028	1,868	1,582	1,388	1,480	2,202	2,775	2,728	1,839	1,566	22,349
MPPMCL sources as Available	3,169	3,405	3,266	3,415	3,366	3,308	3,540	3,433	3,534	3,671	3,348	3,673	41,128
Requirement to be met from MPPMCL sources	1,059	1,835	2,028	1,868	1,582	1,388	1,480	2,202	2,775	2,728	1,839	1,566	22,349
Surplus After Discoms and MPPMCL allocated stations	2,110	1,571	1,238	1,546	1,784	1,920	2,060	1,230	759	943	1,508	2,108	18,779
Backing down stations availability	121	125	121	125	125	121	125	121	125	125	113	125	1,474
Net Surplus availability	1,989	1,446	1,117	1,421	1,659	1,799	1,935	1,109	633	818	1,395	1,982	17,305
Total Availability	**6,476**	**6,591**	**6,267**	**6,566**	**6,795**	**6,930**	**7,070**	**6,900**	**7,060**	**7,250**	**6,541**	**7,120**	**81,566**

3.51 The station-wise power allocation in MW to the three Discoms of the State is given in the following table:

Table 30 : Station wise capacity allocation by GoMP to Discoms (in MW)

Sl No.	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Allocation to State %	Discom wise Allocation (in MW including specific allocation)			
A.	**Central Generating Stations**				**East**	**West**	**Central**	**Total**
1	WR – KSTPS	2,100	478	23%	189	157	132	478
2	WR - VSTPS-I	1,260	440	35%	159	130	151	440
3	WR - VSTPS-II	1,000	316	32%	112	102	102	316
4	WR - KAWAS GPP	656	140	21%	49	56	35	140
5	WR - GANDHAR GPP	657	117	18%	37	44	35	117
6	WR - KAKRAPAR APS	440	110	25%	36	40	35	110
7	WR - TARAPUR APS Unit 3 & 4	1,080	229	21%	78	80	70	229
8	WR - VSTPS – III	1,000	243	24%	80	87	76	243
9	WR - SIPAT –II	1,000	185	18%	73	64	48	185
10	ER- KAHALGAON STPS-II	1,500	74	5%	20	39	15	74
11	ER-DVC (MTPS,CTPS)	1,000	400	40%	132	212	56	400
	SUB TOTAL	**11,694**	**2,730**	**23%**	**965**	**1,012**	**754**	**2,730**

Sl No.	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Allocation to State %	Discom wise Allocation (in MW including specific allocation)			
B. State Generating Stations								
I	**THERMAL**							
1	AMARKANTAK COM	240	240	100%	65	79	96	240
2	AMARKANTAK EXT	210	210	100%	57	69	84	210
3	SATPURA TPS PH I & II &III	830	830	100%	241	266	324	830
4	SGTPS EXT	500	500	100%	140	160	200	500
5	SGTPS	840	840	100%	235	269	336	840
	SUB TOTAL	**2,620**	**2,620**	**100%**	**737**	**843**	**1,040**	**2,620**
II	**HYDEL**							
INTERSTATE								
1	GANDHI SAGAR	115	58	50%	13	16	29	58
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	271	136	50%	27	41	68	136
3	PENCH	160	107	67%	21	43	43	107
4	RAJGHAT	45	23	50%	5	9	9	23
	SUB TOTAL	**591**	**322**	**55%**	**66**	**108**	**148**	**322**
FULL MP ALLOCATION								
1	BARGI	100	100	100%	25	50	25	100
2	BIRISINGHPUR	20	20	100%	6	10	4	20
3	BANSAGAR – I	315	315	100%	95	126	95	315
4	BAN SAGAR II	30	30	100%	9	12	9	30
5	BAN SAGAR III	60	60	100%	18	24	18	60
6	BAN SAGAR IV	20	20	100%	6	8	6	20
7	MARIKHEDA	60	60	100%	18	30	12	60
	SUB TOTAL	**605**	**605**	**100%**	**177**	**260**	**169**	**605**
BILATERAL AND OTHERS								
1	INDIRA SAGAR	1,015	1,015	100%	223	538	254	1,015
2	CAPTIVE	17	17	100%	5	7	5	17
3	SARDAR SAROVAR	1,450	827	57%	264	355	207	827
4	OMKARESHWAR	520	520	100%	156	234	130	520
	SUB TOTAL	**3,065**	**2,442**	**0%**	**649**	**1,134**	**595**	**2,379**
6	RSEB (CHAMBAL,SATPURA)	0	0	0%	0	0	0	0
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	55	55		16	21	18	55
	SUB TOTAL	**3,120**	**55**	**2%**	**16**	**21**	**18**	**55**
	GRAND TOTAL	**21,695**	**8,774**	**40%**	**2,610**	**3,378**	**2,724**	**8,711**

3.52 The station wise ex-bus availability for Discoms allocated stations for FY 2015-16 is shown in the Table below:

Table 31 : Station wise availability to Discoms (in MU)

Sr. No.	Generating Stations	Availability (Ex-Bus)			
		East	West	Central	State
A. Central Generating Stations					
1	WR - KSTPS	1,255	1,047	877	3,179
2	WR - VSTPS-I	1,092	898	1,039	3,029
3	WR - VSTPS-II	825	745	745	2,314
4	WR - KAWAS GPP	155	177	110	442
5	WR - GANDHAR GPP	128	151	120	399
6	WR - KAKRAPAR APS	272	300	263	835
7	WR - TARAPUR APS Unit 3 & 4	512	530	463	1,505
8	WR - VSTPS - III	616	671	587	1,873
9	WR - SIPAT -II	483	420	315	1,217
10	ER- KAHALGAON STPS-II	78	153	58	289
11	ER-DVC (MTPS,CTPS)	774	1,244	329	2,347
	SUB TOTAL	**6,190**	**6,335**	**4,904**	**17,429**
B. State Generating Stations					
I	THERMAL				
1	AMARKANTAK COM	321	392	476	1,189
2	AMARKANTAK EXT	404	494	599	1,498
3	SATPURA TPS PH I & II &III	1,131	1,248	1,521	3,901
4	SGTPS EXT	899	1,027	1,284	3,209
5	SGTPS	1,156	1,321	1,651	4,128
	SUB TOTAL	3,911	4,483	5,531	13,924
II	HYDEL				
	INTERSTATE				
1	GANDHI SAGAR	36	42	77	154
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	65	97	162	325
3	PENCH	52	104	104	260
4	RAJGHAT	7	15	15	37
	SUB TOTAL	**160**	**258**	**358**	**776**
FULL MP ALLOCATION					0
1	BARGI	118	236	118	473
2	BIRISINGHPUR	10	16	7	33
3	BANSAGAR - I	503	671	503	1,677
4	BAN SAGAR II	0	0	0	0

Sr. No.	Generating Stations	Availability (Ex-Bus)			
		East	West	Central	State
5	BAN SAGAR III	0	0	0	0
6	BAN SAGAR IV	34	46	34	115
7	MARIKHEDA	36	60	24	120
	SUB TOTAL	**701**	**1,029**	**686**	**2,417**
BILATERAL AND OTHERS					
1	INDIRA SAGAR	689	1,661	783	3,133
2	NCE- WIND GENERATION	0	0	0	0
3	CAPTIVE	15	21	15	50
4	SARDAR SAROVAR	825	1,108	644	2,577
5	OMKARESHWAR	395	593	329	1,317
	SUB TOTAL	1,924	3,382	1,772	7,077
6	RSEB (CHAMBAL,SATPURA)	0	0	0	0
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	83	110	95	289
	SUB TOTAL	**83**	**110**	**95**	**289**
GRAND TOTAL		**12,970**	**15,597**	**13,346**	**41,912**

3.53 It is apparent from the above that there would be a gap between energy availability and requirements of Discoms estimated on the basis of normative loss levels. The month wise requirement of the Discoms would not be met through their share from allocated capacities. Since the month wise requirement of the Discoms are more than the availability directly assigned to them, the same would further be met from the availability of the Stations assigned to MPPMCL.

3.54 The Commission has applied the principle of merit order dispatch Merit Order Dispatch (MOD) on the generating stations allocated to MPPMCL for FY 2015-16. Month wise dispatch from these stations based on MOD is given in the table below:

Table 32 : Month-wise dispatch based on MOD from MPPMCL allocated stations for FY 2015-16 (MU)

Month	Dispatch from MPPMCL allocation stations (MU)			
	East	West	Central	State
April	365	293	401	1,059
May	603	586	645	1,835
June	666	660	702	2,028
July	623	564	682	1,868
August	551	406	624	1,582

Month	Dispatch from MPPMCL allocation stations (MU)			
	East	West	Central	State
September	483	298	606	1,388
October	509	419	552	1,480
November	737	679	786	2,202
December	916	883	976	2,775
January	901	866	960	2,728
February	608	579	652	1,839
March	529	467	569	1,566
Total	**7,492**	**6,701**	**8,156**	**22,349**

3.55 Details of Discom wise requirement of Ex-bus power purchase, energy availability from Discoms allocated sources and purchase from MPPMCL allocated stations are given in the table below:

Table 33 : Requirement, availability and shortfall (in MU)

Particular	East	West	Central	State
Total Required Ex-Bus	20,462	22,298	21,502	64,261
Total available Ex-Bus After MOD from firm availability	12,970	15,597	13,346	41,912
Difference	7,492	6,701	8,156	22,349
Purchase from MPPMCL allocated stations based on MOD	7,492	6,701	8,156	22,349
Balance required	0	0	0	0

3.56 After applying MOD on the MPPMCL stations, it has been observed that during most of the months of FY 2015-16, the availability from MPPMCL stations would remain partly unutilized by the Discoms. The Commission directs the petitioners to sale the surplus power through power exchanges or through bidding, as has been proposed by them, after fully meeting demand of their consumers.

Power Purchase Costs

Central Generating Stations (Thermal)

3.57 The Commission has considered latest available tariff orders issued by CERC for NTPC and other Stations in Western Region and Eastern Region for determination of fixed cost of individual stations. Details are given in the table below:

Table 34: Fixed cost order reference for thermal Generating Stations other than MPPGCL, allocated to Discoms

Sr.No.	Name of Station	Fixed Cost order Reference
1	WR – KSTPS	CERC order dated 05.11.2014, Petition No.230/GT/2013
2	WR - VSTPS-I	CERC order dated: 07.08.2014, Petition No. 182/GT/2013
3	WR - VSTPS-II	CERC order dated: 25.5.2012, Petition No.258/2009

Sr.No.	Name of Station	Fixed Cost order Reference
4	WR - KAWAS GPP	CERC order dated: 25.6.2014, Petition No. 285/2009
5	WR - GANDHAR GPP	CERC order dated: 25.6.2014, Petition No.226/2009
6	WR - VSTPS – III	CERC order dated: 15.5.2014, Petition No. 148/GT/2013
7	WR - SIPAT –II	CERC order dated: 17.9.2014, Petition No.132/GT/2013
8	ER- KAHALGAON STPS-II	CERC Review order dated: 08.02.2013, Petition No. 11/RP/2012
9	WR - SIPAT -I (3 Units)	CERC order dated: 22.08.2013, Petition No. 28/2011
10	NTPC Korba – VII	CERC Review order dated: 9.04.2013, Petition No. 16/RP/2012
11	IPP Torrent	CERC order dated: 1.10.2014, Petition No. 221/GT/2013

3.58 Fixed costs of thermal power stations have been computed as per recovery of fixed cost Regulations in CERC (Terms and Conditions of Tariff) Regulations, 2009.

3.59 The Commission has considered variable cost as charged in actual bills raised by NTPC, MPPGCL and other generators to MPPMCL for the period February 2014 to January 2015 for FY 2015-16.

Central and State Generating Stations (Hydel)

3.60 The Commission has considered latest available tariff orders issued by CERC for individual stations for Hydel Stations. The fixed costs have been further computed as per recovery of fixed charges Regulations in CERC (Terms and Conditions of Tariff) Regulations, 2009 and MPERC (Terms and Conditions for Determination of Generation Tariff) (Revision –I) Regulations, 2009.

Indira Sagar (NHDC)

3.61 Charges for Indira Sagar hydel power plant have been admitted as per the CERC tariff order, dated June 13, 2012 for FY 2014-15 in Petition No. 154/2010.

Sardar-Sarovar

3.62 The Commission has admitted annual fixed charges as per the tariff order issued by it on dated August 6, 2013.

Omkareshwar:

3.63 The Commission has admitted annual fixed charges for Omkareshwar as per the tariff order issued by the CERC dated June 9, 2014 in Petition No. 265/2010.

Renewable Sources

3.64 Discoms have proposed to purchase 2211 MU from renewable energy sources including solar and non solar energy sources. The cost of solar energy for FY 2015-16 has been considered as Rs 7.63/kWh and for non solar as Rs 4.95/kWh.

3.65 The Commission has notified MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulation, 2010 on November 19, 2010. The Commission has considered procurement of power from renewable energy sources through PPA or short term market to ensure RPO compliance.

3.66 The relevant section of the MPERC (Co-generation and generation of Electricity from Renewable sources of energy) (Revision-I) Regulations, 2010, is reiterated below:

"4.1 The minimum quantum of electricity to be procured by all the Obligated Entities from generators of Energy including Co-generation from Renewable Sources of electricity expressed as percentage of their total annual procurement of Electrical Energy during the following Financial Years shall be as under:-

Financial Year	***Cogeneration and other Renewable Sources of Energy***		
	Solar (%)	***Non Solar (%)***	***Total (%)***
2010-11	-	*0.80*	*0.80*
2011-12	*0.40*	*2.10*	*2.50*
2012-13	*0.60*	*3.40*	*4.00*
2013-14	*0.80*	*4.70*	*5.50*
2014-15	***1.00***	***6.00***	***7.00***

."

3.67 For FY 2015-16 the Commission has specified the minimum percentage of RPO same as specified for FY 2014-15. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2015-16, as shown in the table below:

Table 35: Renewable energy requirement computed by the Commission (MU)

Particulars	**East**	**West**	**Central**	**State**
RPO Solar	1%	1%	1%	1%
RPO Non Solar	6%	6%	6%	6%
Total	**7%**	**7%**	**7%**	**7%**
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	205	223	215	643

Particulars	East	West	Central	State
RPO Non Solar	1,228	1,338	1,290	3,856
Total (MU)	1,432	1,561	1,505	4,498
Energy available from existing Renewable Sources (MU)				
Solar	172	188	181	541
Other than Solar	532	579	559	1,670
Total	704	767	740	2,211
Shortfall				
Solar	32	35	34	101
Other than Solar	696	758	731	2,186
Total	728	793	765	2,287

3.68 The Commission has accepted the rates for purchase of renewable energy as per the petitioners' submission. The Commission has computed the cost of Renewable energy power purchase to fulfil the RPO compliance as shown in the table below:

Table 36: RE power purchase cost admitted by the Commission

Particulars	East	West	Central	State
Power Purchase Rate (Rs/kWh)				
Solar	7.63	7.63	7.63	7.63
Non-Solar	4.95	4.95	4.95	4.95
A- RE Power Purchase Cost from existing sources (Rs Crore)				
Solar	131.60	143.41	138.29	413.30
Non-Solar	262.95	286.55	276.32	825.81
Sub-Total	**394.55**	**429.95**	**414.61**	**1,239.11**
B- RE Power Purchase Cost from new/ other sources to fulfill RPO(Rs Crore)				
Solar	24.58	26.79	25.83	77.20
Non-Solar	344.15	375.03	361.64	1,080.82
Sub-Total	**368.73**	**401.82**	**387.48**	**1,158.02**
Total (A+B)	**763.28**	**831.77**	**802.09**	**2,397.14**

Captive Generation

3.69 Discoms have filed total availability of 50 MU from captive power plants during FY

2015-16. The Commission has admitted availability of 50 MU from Captive sources. Supply of power from captive power plants has been considered @ Rs. 2.45/ kWh for FY 2015-16. The rate provided in this order for purchase of power from captive power plants has been taken as per the last 12 months bills. The Commission directs Discoms that Purchase of power from captive power plants should be undertaken as per procedure prescribed in MPERC (Power purchase and other matters with respect to conventional fuel based Captive Power Plants) Regulations (revision – 1) 2009 dated 31st January, 2009.

Generating Station assigned to MPPMCL:

3.70 The Commission has considered the rates from the relevant CERC, MPERC orders for new generating stations, wherever available. The Commission has considered the fixed charges and variable charges on case to case basis for the new generating stations where orders are not available.

3.71 Following methodology has been adopted for considering the fixed and variable charges for the new stations which will become available to the state during FY 2015-16 from the Central and State sector:

Table 37: Basis of Fixed and Variable charges for MPPMCL plants

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Basis	Energy Charges (Paisa/kWh)	Basis
1	WR - SIPAT -I (3 Units)	298.25	CERC order dated: 22.08.2013, Petition No. 28/2011 from date of COD to 31.03.2014	144	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
2	NTPC Korba – 7	87.21	CERC order dated: 9.04.2013, Petition No. 16/RP/2012 from date of COD to 31.03.2014	102	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
3	Singaji Thermal Power Stations Phase I -Unit-1	440.58	As per MPERC order dated 10.11.2014 in Petition No. 05 of 2014	221	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	Singaji Thermal Power Stations Phase I -Unit-2	420.80	As per MPERC order dated 18.03.2015	221	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
4	Satpura Thermal Power Stations Exten - Unit 10	256.15	MPERC order dated 8.10.2013 in Petition No. 11 of 2013	185	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	Satpura Thermal Power Stations Exten - Unit 11	256.15	MPERC order dated 8.10.2013 in Petition No. 11 of 2013	186	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
5	NTPC Mauda TPS- Unit-1	99.85	CERC order dated: 02.07.2014 in Petition No. 69/GT/2013	0	Being backed down

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Basis	Energy Charges (Paisa/kWh)	Basis
	NTPC Mauda TPS- Unit-2	83.75	CERC order dated: 02.07.2014 in Petition No. 69/GT/2013	0	Being backed down
6	Vindhyachal Mega Project, Stage 4-Unit-1	140.88	CERC order dated 23.06.2014 in Petition No. 70/GT/2013	161	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	Vindhyachal Mega Project, Stage 4-Unit-2	135.26	CERC order dated 23.06.2014 in Petition No. 70/GT/2013	161	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
7	DVC Durgapur Steel TPS-Unit-1	61.51	As per actual bills submitted by the petitioners from Oct. 2013 to Sept. 2014	236	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	DVC Durgapur Steel TPS-Unit-2	61.51	As per actual bills submitted by the petitioners from Oct. 2013 to Sept. 2014	236	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
8	UMPP Sasan, Sidhi Unit-1	31.63	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit-2	31.76	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit 3& 4	63.40	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit 5&6	63.40	As per quoted Tariff	115	As per quoted Tariff
9	Jaypee Bina Power, Sagar Unit-1	246.61	MPERC order dated 26.11.2014 in Petition No. 40 of 2012	265	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	Jaypee Bina Power, Sagar Unit-2	246.61	MPERC order dated 26.11.2014 in Petition No. 40 of 2012	265	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
10	Jaiprakash Power, Nigri-Unit-1	313.17	MPERC order dated 26.09.2014 in Petition No. 03 of 2014	160	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
	Jaiprakash Power, Nigri-Unit-2	313.17	MPERC order dated 26.09.2014 in Petition No. 03 of 2014	160	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
11	WR-MB Power, Annupur, Unit 1	188.44	As per Amarkantak Ext.	138	As per the per unit rate of Amarkantak Ext.
	WR-MB Power, Annupur, Unit 2	50.63	As per Amarkantak Ext.	138	As per the per unit rate of Amarkantak Ext.
12	BLA Power, Narsinghpur-Unit-1	19.16	Fixed cost-As MPERC order dated 24 July, 2012	242	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Basis	Energy Charges (Paisa/kWh)	Basis
	BLA Power, Narsinghpur-Unit-2	15.96	Fixed cost-As MPERC order dated 24 July, 2012	242	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
13	M/s Jhabua Power, Seoni	102.38	As per Amarkantak Ext.	138	As per the per unit rate of Amarkantak Ext.
14	Lanco TPS, Amarkantak	323.14	As per actual Power Purchase bills from Oct., 2013 to Sept., 2014	180	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
15	Torrent Power GPP	42.49	As per CERC tariff order dated 29 May, 2013	662	As per actual bills submitted by the petitioners from Feb. 2014 to Jan. 2015
16	Renewable Energy Solar	413.30	As filed	0	
17	Renewable Energy Non Solar	825.81	As filed	0	
	SUB TOTAL	**5,632.97**			

3.72 Fixed and Variable rates for some of the above mentioned generating stations are considered provisionally for billing purpose as the tariff orders for the Generating Station of the appropriate Regulatory Commissions are not yet available. After issuance of the relevant tariff order of the generating station by the appropriate Commission, the tariff admitted in that order will be considered applicable. Difference in the cost provisionally allowed in this order and actual cost will be considered in the true-up of FY 2015-16 or allowed to be recovered through the FCA in case of variable charges.

3.73 The petitioners have filed separately a proposal of recovery of FCA with effect from 1.4.2015 on the basis of variation in the variable rates of thermal generating stations for the period from November, 2014 to January, 2015. While working out variable charges in this tariff order, the Commission has considered the variable rates based on information filed by the petitioners for the period February, 2014 to January, 2015. Therefore, the separately filed FCA for the period November, 2014 to January, 2015 has not been considered.

M.P Power Generating Stations

3.74 Fixed Costs of the MP Genco Stations have been considered in accordance with the Generation MYT order for the control period FY 2013-14 to FY 2015-16.These fixed costs have been adjusted based on availability considered from the Generating Stations in this order as per Recovery of Annual Capacity (fixed) charges provided in the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) (Revision –I) Regulations, 2009.

3.75 Allocation of fixed costs for the stations allocated to Discoms is given in the following table:

Table 38 : Allocation of Fixed costs amongst Discoms (Rs Crore)

Particulars	Fixed Cost (Rs. Crore)			
	East	West	Central	State
WR - KAKRAPAR APS	0.00	0.00	0.00	0.00
WR - TARAPUR APS Unit 3 & 4	0.00	0.00	0.00	0.00
GANDHI SAGAR	3.01	3.53	6.54	13.09
RANAPRATAP SAGAR & JAWAHAR SAGAR	6.42	9.62	16.04	32.08
PENCH	7.00	14.00	14.00	35.00
RAJGHAT	2.62	5.25	5.25	13.12
BARGI	5.32	10.63	5.32	21.26
BIRISINGHPUR	1.23	2.05	0.82	4.11
BANSAGAR – I	69.57	92.75	69.57	231.89
BAN SAGAR II	0.00	0.00	0.00	0.00
BAN SAGAR III	0.00	0.00	0.00	0.00
BAN SAGAR IV	5.42	7.23	5.42	18.07
MARIKHEDA	11.63	19.38	7.75	38.76
INDIRA SAGAR	139.85	336.90	158.92	635.67
SARDAR SAROVAR	133.66	179.61	104.42	417.70
OMKARESHWAR	134.09	201.13	111.74	446.96
UPPCL (RIHAND,MATATILA,RAJGHAT)	0.96	1.27	1.10	3.33
WR – KSTPS	62.33	51.97	43.54	157.84
AMARKANTAK EXT	52.42	64.07	77.66	194.16
WR - SIPAT –II	58.48	50.85	38.14	147.47
WR - VSTPS – III	62.38	67.92	59.43	189.73
WR - VSTPS-II	50.71	45.76	45.76	142.24
AMARKANTAK COM	27.65	33.79	40.96	102.41
WR - VSTPS-I	64.55	53.08	61.38	179.01
SATPURA TPS PH II &III	64.81	71.51	87.16	223.48
ER-DVC (MTPS,CTPS)	82.93	133.19	35.18	251.30
CAPTIVE	0.00	0.00	0.00	0.00
ER- KAHALGAON STPS-II	8.88	17.43	6.58	32.88
WR - GANDHAR GPP	12.39	14.71	11.61	38.71
SGTPS EXT	100.98	115.41	144.26	360.64
WR - KAWAS GPP	11.80	13.49	8.43	33.71
SGTPS	86.35	98.68	123.35	308.38
RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00
Total	**1,267.42**	**1,715.24**	**1,290.33**	**4,272.99**

Variable Cost

3.76 Variable costs computed on the basis of the availability considered for purchase from Discoms allocated stations at Ex-Bus, are shown below in the table:

Table 39: Station wise admitted variable cost for the Discoms (Rs Crore)

Particulars	Variable Rate (Paisa/Unit)	Variable Cost (Rs. Crore)			
		East	West	Central	State
WR - KAKRAPAR APS	231	63.04	69.47	60.79	193.30
WR - TARAPUR APS Unit 3 & 4	280	143.47	148.38	129.83	421.68
GANDHI SAGAR	0	0.00	0.00	0.00	0.00
RANAPRATAP SAGAR & JAWAHAR SAGAR	0	0.00	0.00	0.00	0.00
PENCH	0	0.00	0.00	0.00	0.00
RAJGHAT	0	0.00	0.00	0.00	0.00
BARGI	0	0.00	0.00	0.00	0.00
BIRISINGHPUR	0	0.00	0.00	0.00	0.00
BANSAGAR – I	0	0.00	0.00	0.00	0.00
BAN SAGAR II	0	0.00	0.00	0.00	0.00
BAN SAGAR III	0	0.00	0.00	0.00	0.00
BAN SAGAR IV	0	0.00	0.00	0.00	0.00
MARIKHEDA	0	0.00	0.00	0.00	0.00
INDIRA SAGAR	0	0.00	0.00	0.00	0.00
SARDAR SAROVAR	0	0.00	0.00	0.00	0.00
OMKARESHWAR	0	0.00	0.00	0.00	0.00
UPPCL (RIHAND,MATATILA,RAJGHAT)	0	0.00	0.00	0.00	0.00
WR – KSTPS	102	127.89	106.63	89.34	323.87
AMARKANTAK EXT	138	55.85	68.26	82.74	206.84
WR - SIPAT –II	149	71.84	62.47	46.85	181.15
WR - VSTPS – III	158	97.51	106.17	92.90	296.58
WR - VSTPS-II	161	133.06	120.08	120.08	373.22
AMARKANTAK COM	164	52.54	64.22	77.84	194.60
WR - VSTPS-I	170	185.53	152.56	176.40	514.49
SATPURA TPS PH II &III	215	242.84	267.96	326.58	837.38
ER-DVC (MTPS,CTPS)	229	177.17	284.55	75.16	536.88
CAPTIVE	245	3.55	5.02	3.68	12.25
ER- KAHALGAON STPS-II	252	19.70	38.67	14.59	72.97
WR - GANDHAR GPP	267	34.07	40.45	31.94	106.46
SGTPS EXT	275	247.26	282.58	353.23	883.07
WR - KAWAS GPP	279	43.22	49.40	30.87	123.49

Particulars	**Variable Rate (Paisa/Unit)**	**Variable Cost (Rs. Crore)**			
		East	**West**	**Central**	**State**
SGTPS	300	346.80	396.35	495.44	1,238.59
RSEB (CHAMBAL,SATPURA)	419	0.00	0.00	0.00	0.00
Total		**2,045.34**	**2,263.23**	**2,208.25**	**6,516.82**

3.77 After allowing dispatch from Discoms allocated stations, 22,349 MU remains to be arranged in various months of FY 2015-16. This balance requirement would be met through availability of energy from generating stations allocated to MPPMCL. Total MU dispatch and cost of MPPMCL allocated generating stations are shown in the table below:

Table 40: Total MU dispatch and cost of MPPMCL allocated generating stations

Dispatch from MPPMCL Stations	**Energy in MU**				**Cost (Rs Crore)**			
	East	**West**	**Central**	**Total**	**East**	**West**	**Central**	**Total**
Total for the State	**7,492**	**6,701**	**8,156**	**22,349**	**1,765**	**1,589**	**1,917**	**5,271**

3.78 The Commission has appropriately considered the quantum and cost of the concessional energy provided to the State while working out the power purchase cost.

3.79 After allowing long term purchases from Discoms and MPPMCL allocated generating stations as per merit order principle, it has been observed that there is a surplus of 17,305 MU from conventional sources during FY 2015-16. Further the Commission has approved the additional renewable energy purchase of 2287 MU for fulfilling the RPO compliance. Thus additional energy of 2287 MU from conventional sources will also be available to Discoms for sale outside the state. Accordingly, the total surplus energy available with the Discoms shall be 19,592 MU for FY 2015-16.

3.80 The petitioners have proposed to sale surplus energy through the power exchange at the average rate of IEX for W1 region for the last 12 months from February 2014 to January 2015 i.e., at Rs.3.16 per unit. The petitioners also submitted expenditure (NLDC, SLDC, CTU, STU charges) of Rs. 0.22 in sale of each unit and hence submitted net realizable rate of Rs. 2.94 per unit. The Commission observed that Short-term average bilateral rate for calendar year 2014 is Rs. 4.28 per unit, the average rate of IEX and PXIL for W1 region for the last 12 months from February 2014 to January 2015 are Rs.3.16 per unit and Rs.3.35 per unit, respectively. The Commission is of the view that if surplus energy can be sold at higher rate through bilateral contracts or through PXIL, the petitioners should manage to sale surplus energy in such a way that the revenue from surplus energy be maximized. Further, the Commission has considered the rate of Rs.3.16 per unit for sale of surplus power through IEX, PXIL and bilateral contracts. Accordingly, the Commission worked out the revenue from sale of power.

3.81 Energy surplus of the Discoms vis-à-vis the overall energy availability and energy requirement and the details of profit earned from sale of energy, total MU dispatch and cost of MPPMCL allocated generating stations are shown in the table below:

Table 41 : Details of revenue from sale of Surplus energy

SL No	Particulars	Admitted
1	Total energy availability (MU)	81,566
2	Total energy requirement of Discoms (MU)	64,261
3	Surplus energy available for sale of power (MU)	17,305
4	Additional energy available after adjustment of purchase from RE sources for meeting RPO compliance (MU)	2,287
5	**Total surplus energy available (MU)**	**19,592**
6	Per unit cost of sale of power (Rs/kWh)	3.16
7	**Total revenue earned (Rs Crore)**	**6,191**

3.82 Revenue earned from sale of surplus energy has been used to balance the ARR of Discoms. Discom-wise distribution of revenue from surplus energy is shown below in the table :

Table 42 : Discom-wise details of Revenue from sale of Surplus energy (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**Total**
Revenue from sale of Surplus energy	**2,755**	**1,542**	**1,894**	**6,191**

Inter-State and Inter-Regional Transmission Charges

3.83 PGCIL charges for MP Discoms consist of charges to be paid for transmission system of Western Region and Eastern Region.

3.84 The Commission has reviewed inter-state transmission charges as per the actual bills available for FY 2013-14, estimated for FY 2014-15 and FY 2015-16 and the claims filed by the petitioners. The Commission observed that the petitioners have indicated actual inter-State transmission charges during FY 2014-15 up to Nov. 2014-15 as Rs. 855.76 Crore, i.e. about 10% increase over Rs. 1165 Crore of FY 2013-14. Further the Commission has considered the same percentage increase of about 10% over the estimated amount of FY 2014-15 for working out inter-state charges for FY 2015-16. These charges have been further allocated amongst Discoms, based on past trend of actual cost as submitted by the petitioners in the following Table:

Table 43: PGCIL charges allowed to Discoms (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**Total**
Inter-State Transmission charges	**437**	**555**	**422**	**1,414**

Intra-state Transmission Charges

3.85 The Commission has considered the transmission charges as admitted in the Transmission MYT order for FY 2013-14 to FY 2015-16. Further the terminal benefits have been admitted as per MPPTCL Multiyear tariff order for FY 2013-14 to FY 2015-16. SLDC charges have been considered as Rs. 9.71 Crore as per SLDC tariff order dated 31 March, 2015, for FY 2015-16. Accordingly intra–State transmission charges including SLDC charges for FY 2015-16 for the Discoms have been admitted as given in the table below:

Table 44 : MPPTCL charges including SLDC charges admitted for FY 2015-16 (Rs. Crore)

Annual MPPTCL Charges including SLDC charges	FY 2015-16
MP Poorv KVVCL	539
MP Paschim KVVCL	691
MP Madhya KVVCL	574
Total	**1804**

3.86 With regard to the issue of expenses against terminal benefits for MPSEB/ successor entities employees who are to retire in FY 2015-16 as well as pension payments to be paid to the pensioners in FY 2015-16, the petitioners have prayed to allow expenses to the extent of expected cash outgo during FY 2015-16 on this account. They have claimed Rs.1156 Crore under the intra-state transmission charges. The provision of terminal benefits and pension payments for all the successor companies of erstwhile MPSEB are covered under intra-state transmission charges. Hence, no additional provisions are required on this account. The Commission has allowed the terminal benefits and pension expenses for FY 2015-16 on provisional basis on "pay as you go" principle payable to MP Transco to the extent of Rs.677 Crore. This is based on the MPPTCL Multiyear tariff order for FY 2013-14 to FY 2015-16. The actual amount of terminal benefits shall be considered by the Commission in the true-up petition to be filed by MPPTCL after exercising prudence check. Meanwhile, the Commission has directed that payment of terminal benefits should not be stopped.

MPPMCL Cost

3.87 The Petitioners have filed Rs. 363.10 Crore as MPPMCL expenses for FY 2015-16. The Commission has observed that most of the expenses included in MPPMCL cost relate to the expenses proposed to be incurred for the power purchase. The Commission is of the opinion that such expenses should have been included under power purchase cost. Therefore, the Commission has admitted expenses of Rs. 75.01 Crore towards O&M Charges only. The expenses related to Power Purchase, if any, incurred by MPPMCL would be appropriately considered at the time of truing up for FY 2015-16, after prudence check.

SLDC Charges

3.88 The Commission has considered the SLDC charges of Rs. 9.71 Crore as per SLDC tariff order dated 31 March, 2015 for FY 2015-16. This has been included in the aforementioned transmission charges.

Total power purchase cost

3.89 The Commission observed that the petitioners have not considered the variable cost of surplus energy, while determining the total power purchase cost. The Commission has appropriately considered the same in this order.

3.90 The total power purchase cost as admitted by the Commission is summarized in the following table:

Table 45 : Total power purchase cost admitted for FY 2015-16 (Rs Crore)

Particulars	**East**	**West**	**Central**	**State**
Total Fixed Charges including cost of surplus energy charges (Rs Crore)	3,052	3,663	3,192	9,906
Total Variable Charges including cost of surplus energy charges (Rs Crore)	4,024	4,478	4,310	12,812
Total Power Purchase cost (Rs Crore)	**7,075**	**8,141**	**7,502**	**22,718**
Additional RE cost (Rs Crore)	369	402	387	1,158
Less: Revenue From Sale of Surplus Power (Rs Crore)	2,755	1,542	1,894	6,191
MPPMCL Cost (Rs Crore)	24	26	25	75
Total Power Purchase cost (Rs Crore)	**4,713**	**7,027**	**6,020**	**17,760**
PGCIL Charges (Rs Crore)	437	555	422	1,414
MPPTCL Charges (Rs Crore)	539	691	574	1,804
Grand Total (Rs Crore)	**5,689**	**8,274**	**7,017**	**20,979**

Pooled Power Purchase Cost

3.91 The Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 have stipulated the provision for determining the pooled cost of power purchase for the purpose of computing the Floor and Forbearance price of Renewable Energy Certificates. The relevant provision of the Regulation is reproduced below:

"5 ***Eligibility and Registration for Certificates:***
(1)
:
:
c. it sales the electricity generated either (i) to the distribution licensee of the area in which the eligible entity is located, at a price not exceeding the pooled cost of power purchase of such distribution licensee, or (ii) to any other licensee or to an open access consumer at a mutually agreed price, or through power exchange at market determined price.

Explanation.- for the purpose of these regulations 'Pooled Cost of Purchase' means the weighted average pooled price at which the distribution licensee has purchased the electricity including cost of self generation, if any, in the previous year from all the energy suppliers long-term and short-term, but excluding those based on renewable energy sources, as the case may be."

3.92 Accordingly, the pooled power purchase cost has been computed considering ex-bus power purchase excluding renewable energy sources as mentioned in the table below:

Table 46 : Pooled Power Purchase cost for FY 2015-16

Particulars	**FY 2015-16**
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	59,763
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	16,661
Pooled Power Purchase Cost (Rs/kWh)	**2.79**

Network Cost

Capital Expenditure Plans/ Capitalization of Assets

Petitioner's submissions

Investments

3.93 The petitioners have submitted the Capital Investment Plan under various schemes like Feeder Bifurcation, ADB, R-APDRP, System Strengthening (STN/TSP/SCSP), DDUGJY/RGGVY, Kisan Anudan Yojana (New Agricultural Pumps), etc. It is further submitted that the petitioners' focus is on the creation of new 33/11 kV substations, bifurcation of overloaded 33 kV feeders, feeder bifurcation as 11 kV level of agricultural feeder, additional/augmentation of PTRs, installation of DTRs, conversion of bare LT line into AB Cables and replacement of service lines etc.

3.94 The petitioners have further submitted that technical losses forming a part of distribution losses of the system are mainly due to poor infrastructure which needs strengthening, renovation and up-gradation of the capacity of lines, sub-stations and associated infrastructure. Commercial losses on account of pilferage of energy can be reduced to a large extent by re-engineering the system, which requires capital investment and directed efforts. Distribution Licensees are working for reduction in both technical and commercial losses. Distribution losses have also reduced in recent years but not up to the normative loss levels.

3.95 Details of Discom wise Capital Investment Plans under various schemes for FY 2014-15 and FY 2015-16 as filed are indicated below:

Table 47 : Capital Investment plan (Rs. Crore)

Distribution Company	FY 2014-15	FY 2015-16
East Discom	1,022.95	1,156.28
West Discom	855.63	1,941.36
Central Discom	744.87	892.71
Total for the State	**2,623.45**	**3,990.35**

Capitalization and CWIP

3.96 Discom wise Capitalization Plan and the status of Capital Works in progress(CWIP) as filed by the petitioners for FY 2014-15 and FY 2015-16 are indicated below:

Table 48 : Discom wise year wise capitalization and bifurcation of CWIP (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16
East Discom		
Opening Balance of CWIP	317	568
Fresh Investment during the year	881	1197
Interest and Expenses Capitalized	221	163
Investment Capitalized	409	810
Closing Balance of CWIP	**568**	**792**
West Discom		
Opening Balance of CWIP	1312	1050
Fresh Investment during the year	856	1941
Interest and Expenses Capitalized	433	518
Investment capitalized	685	1553
Closing Balance of CWIP	**1050**	**921**
Central Discom		
Opening Balance of CWIP	505	204
Fresh Investment during the year	883	1023
Interest and Expenses Capitalized	814	370
Investment capitalized	370	439
Closing Balance of CWIP	**204**	**419**

Commission's Analysis on Asset Capitalization

3.97 Tariff Regulations specify the manner of submission of the Capital Investment Plan. As per these Regulations, the Discoms shall submit a detailed Capital Investment Plan, Financing Plan and Physical targets indicating physical and financial achievement against various Capex schemes for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering etc.

3.98 The Capital Investment Plan shall show separately, ongoing projects that will spill over into the year under review and new Projects (along with justification) that may commence but may be completed within or beyond the Tariff Period.

3.99 The petitioners have filed the Capital Investment Plan for FY 2014-15 and FY 2015-16 as shown in the table below:

Table 49: Asset capitalization considered by Discoms for FY 2014-15 to FY 2015-16 (Rs. Crore)

Particulars	East	West	Central
FY 2014-15	631.00	1,117.00	1,184.00
FY 2015-16	973.00	2,071.00	809.00

3.100 The progress of asset addition by the Discoms for FY 2011-12, FY 2012-13, and FY 2013-14 reveal that the Gross Fixed Assets (GFA) addition has been as follows:

Table 50 : Asset capitalization during FY 2011-12 to FY 2013-14 (Rs. Crore)

Particulars	East	West	Central
FY 2011-12	573.47	490.48	779.32
FY 2012-13	1,095.24	661.50	1,171.82
FY 2013-14	1072.52	466.33	1136.35

3.101 For East and Central Discom, the Commission finds it appropriate to consider the capitalization as projected by the petitioners during FY 2014-15 and FY 2015-16. For West Discom, the Commission observed that the Discom had maximum capitalization of Rs. 661 Crore during last three years as per available audited accounts. The projected capitalization for FY 2014-15 and FY 2015-16 are highly optimistic. Therefore, the Commission has admitted capitalization of Rs. 661 Crore for FY 2014-15 and same capitalization for FY 2015-16, which is also the maximum capitalization achieved in last three years. Accordingly, the Commission has admitted asset capitalization for FY 2014-15 and FY 2015-16 as shown in the table below:

Table 51: Asset capitalization admitted for FY 2014-15 to FY 2015-16 (Rs. Crore)

Particulars	East	West	Central
FY 2014-15	631.00	661.50	1,184.00
FY 2015-16	973.00	661.50	809.00

Operations and Maintenance Expenses

Petitioners submission

3.102 The petitioners have submitted that Operation and Maintenance (O&M) expenses are projected based on the relevant provisions of the Tariff Regulations. Component wise O&M expenses have been discussed below:

Employee Expenses

3.103 The petitioners have submitted that employee costs have been calculated as per the provisions of the Tariff Regulations.

3.104 Petitioners have made following assumptions for calculation of Employee costs:

a) Basic pay has been taken at the same level as specified in the Tariff Regulations for calculation of the Dearness Allowance (DA). Current DA rate has been considered for first quarter i.e. April to June for computation of DA. 7% increase has been considered for second and third quarter i.e. July to December, 2014.Further 7% increase has been considered for fourth quarter i.e. Jan to March, 2016. Based on these assumptions, the DA considered by the petitioners as a percentage of Basic Salary is shown in the table below:

Particulars	FY 2014-15	FY 2015-16
DA as percentage of Basic for first quarter - Apr to June	100%	114%
DA as percentage of Basic for 2nd and 3rd quarter - July to Dec	107%	121%
DA as percentage of Basic for 4th quarter - Jan to March	114%	128%

b) Incentives/ Bonus to be paid to the employees have been considered as per the previous trend in the audited accounts.

c) Arrears on account of pay fixation by the sixth pay Commission have been considered as specified in the Tariff Regulations.

d) Other than these components, the petitioners have submitted that they make payment of leave encashment and PF/CFA/GTIS/NPS. Hence, expenses incurred on account of the above have been claimed separately in addition to the terminal benefits costs claimed as part of intra-state transmission charges in the total power purchase of the petitioners.

3.105 Accordingly, employee expenses have been claimed as Rs 834 Crore, Rs 780 Crore and 740 Crore by East, West and Central Discoms.

A&G Expenses

3.106 Petitioners have claimed the A&G expenses as per the provision of the Regulation 34.1 of the Tariff Regulations as Rs 135 Crore, Rs 124 Crore and Rs 101 Crore for East, West and Central Discoms. Petitioners have further submitted that norms of A&G expenses specified in the Tariff Regulations exclude Fees paid to the MPERC and Taxes payable to the Government. Accordingly, Fees paid to the MPERC and Taxes payable to the Government have been considered over and above the normative A&G expenses specified in the Tariff Regulations.

R&M Expenses

3.107 Petitioners have submitted that as per the provisions of Tariff Regulations, Repair and Maintenance (R&M) expenses are admissible @ 2.3 % of opening GFA. These expenses are projected as Rs. 137 Crore, Rs. 125 Crore, and Rs. 152 Crore for East, West and Central Discoms, respectively for FY 2015-16.

3.108 Summary of claims of the petitioners in respect of O&M Expenses is shown in the table below:

Table 52: O&M expenses claimed for FY 2015-16 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Employee Cost (including arrears, DA and others)	834	780	740
A&G Expenses	135	124	101
R&M expenses	137	125	152
MPERC Fees	1	1	1
Total O&M expenses	**1107**	**1030**	**993**

Commission's Analysis on O&M Expenses

3.109 Tariff Regulations specify normative O&M Expenses for the Discoms. Operation and Maintenance (O&M) expenses comprise Employee expenses, Repair and Maintenance (R&M) cost and Administrative and General (A&G) expenses. The amount of employee expenses, expenses against arrears on account of 6th Pay Commission and A&G expenses for FY 2015-16 have been specified in the Regulations. R&M expenses are specified as 2.3% of opening GFA for the FY 2015-16.

3.110 These norms exclude pension, terminal benefits and incentive to be paid to employees, taxes payable to the Government, MPSEB expenses and fee payable to MPERC.

3.111 The Commission has allowed the terminal benefits and pension expenses for the FY 2015-16 on provisional basis under the transmission charges. Therefore no separate provisions under O&M expenses of Discoms are warranted.

3.112 The Commission considers it appropriate to allow DA @ 114% for April to June and @ 121% for May to March of the Basic salary based on historical trends subject to true-up. The Commission has also considered expected expenditure against salary arrears for FY 2015-16 as specified in the Tariff Regulations, subject to true up.

3.113 The Commission has admitted the incentive/bonus to employees as projected by the petitioners. Further the PF/NPS liability for the employees being recruited after 2005 has also been considered as proposed by the petitioners.

3.114 The Commission admitted Employee expenses as shown in the table below:

Table 53: Employee Expenses as admitted for FY 2015-16 (Rs. Crore)

Particulars	**East**	**West**	**Central**
Employee Expenses excluding arrears, DA, Terminal Benefits and incentives	365.00	344.00	322.00
DA	435.26	410.22	383.99
Arrears	14.17	10.00	12.30
Incentive/Bonus to Employees	0.29	0.52	0.43
NPS/PF	7.00	6.00	6.00
Total	**821.72**	**770.74**	**724.72**

3.115 The Commission has considered the A&G expenses as specified in the Tariff Regulations and also considered the Fees paid to the Commission as claimed by the petitioners. However, the Commission has not considered the taxes payable to the Government as this would be considered at the time of true-up. Details of A&G expenses and fees paid to the MPERC as admitted are given in the Table below:

Table 54: A&G Expenses as admitted for FY 2015-16 (Rs. Crore)

Particulars	**East**	**West**	**Central**
A&G expenses	131.38	108.00	99.18
MPERC fees	0.58	0.64	0.61
Total A&G expenses	**131.96**	**108.64**	**99.79**

3.116 R&M expenses @ 2.3% of opening GFA of respective Discoms for the financial year have been considered.

Table 55: R&M Expenses as admitted for FY 2015-16 (Rs. Crore)

Particulars	**East**	**West**	**Central**
Opening GFA as on 1st April, 2014	5,341.45	4,314.87	5,404.74
Asset addition considered during FY 2014-15	631.00	661.50	1,184.00
Opening GFA as on 1st April, 2015	5,972.45	4,976.37	6,588.74
% as R&M of opening GFA as specified in Tariff Regulations	2.30%	2.30%	2.30%
Total R&M	**137.37**	**114.46**	**151.54**

3.117 Total O&M expenses admitted by the Commission for FY 2015-16, have been summarized in the table below:

Table 56: O&M Expenses as admitted for FY 2015-16 (Rs. Crore)

Particulars	East	West	Central	State
Employee Expenses	821.72	770.74	724.72	2,317.18
A&G Expenses	131.96	108.64	99.79	340.39
R&M Expenses	137.37	114.46	151.54	403.36
Total O&M expenses	**1,091.05**	**993.84**	**976.05**	**3,060.93**

Depreciation

Petitioners submissions

3.118 The petitioners have submitted that they have developed detailed depreciation model based on rates specified by the Commission in Annexure-II of Tariff Regulations. The depreciation worked out for FY 2014-15 and FY 2015-16 is shown in Table below:

Table 57: Depreciation claimed by petitioners (Rs. Crore)

Particulars	East Discom		West Discom		Central Discom	
	FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16
Land under Lease	0	0	0	0	0	0
Building	2	2	3	3	2	3
Hydraulic Works	0	0	0	0	1	1
Other Civil Works	0	0	0	0	0	0
Plant and Machinery	63	73	80	102	100	112
Line Cable Networks etc.	121	146	98	145	139	163
Vehicles	0	0	0	0	0	0
Furniture and fixtures	0	0	0	0	0	0
Office Equipments	4	4	1	1	7	8
Assets not belonging to board/RGGVY	0	0	22	32	17	27
Total	**190**	**225**	**205**	**283**	**266**	**315**

Commission's Analysis of Depreciation

3.119 As per the Tariff Regulations, depreciation shall be calculated annually based on 'straight line method' and at the rates specified in Annexure II of the Regulations on the assets of Distribution System declared in commercial operation as on 31st March, 2015. 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.

3.120 In case of existing Projects, the Tariff Regulations specify that the balance depreciable value as on 1st April, 2015 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2014 from the gross depreciable value of the assets. The rate of depreciation shall continue to be charged at the rate specified in Annexure-II of Tariff Regulations 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 %.

3.121 The Commission has observed that depreciation claimed by the Discoms has not been duly substantiated with the detailed asset wise registers to ensure that claims made are only against those assets which have not been fully depreciated.

3.122 For computing the depreciation, the Commission has considered the closing GFA of true-up order for FY 2011-12 as opening GFA for FY 2012-13. Asset addition has been considered as per actual capitalization in audited accounts for FY 2012-13 and FY 2013-14, while admitted capitalization for FY 2014-15 and FY 2015-16. Consumer Contribution, Grants and Subsidies toward cost of capital assets during respective years have been reduced from the GFA for arriving at net GFA for FY 2015-16. Consumer contribution, Grants and Subsidies during FY 2014-15 and FY 2015-16 have been considered the same as an average of FY 2012-13 and FY 2013-14. Net GFA has been considered for allowing depreciation for FY 2015-16 on the basis of opening GFA of FY 2015-16 plus half of average addition during FY 2015-16 after netting of consumer contribution to arrive net GFA at the midpoint of the year.

3.123 The Commission has considered the depreciation rates i.e. 2.44%, 2.81%, and 2.44% for East, West and Central Discoms for FY 2015-16, as considered in the tariff order for FY 2014-15. However, the Commission clarifies that the difference in depreciation amount as admitted by the Commission in this tariff order and the actual Depreciation as per audited accounts for FY 2015-16 shall be duly considered in the true-up order for FY 2015-16.

3.124 The depreciation admitted for FY 2015-16 is given in the following table:

Table 58: Depreciation admitted (Rs. Crore)

Particular	East	West	Central
Opening GFA as on 1st April, 2012 (closing GFA from true-up order for FY 2011-12)	**2,408.84**	**2,467.16**	**2,478.34**
Add: Addition during FY 2012-13	1,095.24	661.50	1,171.82
Less: Consumer Contribution in FY 2012-13	193.62	191.59	177.68
Opening GFA as on 1st April, 2013	**3,310.46**	**2,937.07**	**3,472.48**
Add: Addition during FY 2013-14	1,072.52	466.33	1,136.35
Less: Consumer Contribution in FY 2013-14	114.88	240.96	242.66
Opening GFA as on 1st April, 2014	**4,268.10**	**3,162.44**	**4.366.16**

Particular	East	West	Central
Add: Addition during FY 2014-15	631.00	661.50	1,184.00
Less: Consumer Contribution in FY 2014-15	154.25	216.28	210.17
Opening GFA as on 1st April, 2015	**4,744.85**	**3607.67**	**5339.99**
Average of addition less addition to Consumer Contribution during FY 2015-16	409.38	222.61	299.42
GFA considered for Depreciation for FY 2015-16	**5154.22**	**3830.28**	**5639.41**
Depreciation Rate (%)	2.44%	2.81%	2.44%
Depreciation admitted for FY 2015-16	**125.76**	**107.63**	**137.60**

Interest and Finance Charges

Petitioners submissions

3.125 The petitioners have submitted that Regulation 31 of Tariff Regulations provides the method of calculation of Interest and Finance Charges on loan capital. The methodology adopted by the commission in the tariff order for FY 2014-15 has been adopted for projecting the Interest and Finance charges on project loans for FY 2015-16.

East Discom

3.126 The East Discom has filed following details for working the interest on capital loans:

Table 59: Interest cost claimed (Rs. Crore)

Particulars	East Discom	
	FY 2014-15	**FY 2015-16**
Opening balance of GFA identified as funded through debt	1,688.70	1,935.07
Addition to GFA during the year	630.56	973.06
Consumer contribution during the year	48.03	50.43
Net addition to GFA during the year	582.53	922.63
30% of addition to net GFA considered as funded through equity	174.76	276.79
Balance addition to net GFA during the year funded through debts	407.77	645.84
Debt Repayment due during the year (equal to the depreciation claim)	190.27	224.77
Closing balance of GFA identified as funded through debt	1,935.07	2,385.28
Average of loan balances	1,811.89	2,160.18
Weighted average rate of interest % on all loans	7.25%	8.74%

Total interest on project loans	131.36	188.73
Finance charge	2.97	3.19
Total Interest on Project loans & Finance Charge	**134.32**	**191.93**

West Discom

3.127 The West Discom has filed following details for working the interest on capital loans:

Table 60: Interest cost claimed (Rs. Crore)

Particulars	West Discom	
	FY 2014-15	**FY 2015-16**
Opening balance of GFA identified as funded through debt	866.10	1,443.43
Addition to GFA during the year	1,117.44	2,070.75
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	0.00	0.00
Net addition to GFA during the year	1,117.44	2,070.75
30% of addition to net GFA considered as funded through equity	335.23	621.23
Balance addition to net GFA during the year funded through debt	782.21	1,449.53
Debt Repayment due during the year (equal to the depreciation claim)	204.88	282.76
Closing balance of GFA identified as funded through debt	1,443.43	2,610.20
Average of loan balances	1,154.76	2,026.81
Weighted average rate of interest % on all loans	8.10%	9.12%
Total Interest on project loans	93.50	184.82
Finance Charges	6.67	7.34
Total Interest on Project loans & Finance Charge	**100.17**	**192.16**

Central Discom

3.128 The Central Discom has filed following details for working the interest on capital loans:

Table 61: Interest cost claimed (Rs. Crore)

Particulars	Central Discom	
	FY 2014-15	**FY 2015-16**
Addition to GFA during the year	1,183.95	809.04
Consumer contribution during the year	0	0
Net addition to GFA during the year	1,183.95	809.04

30% of addition to net GFA considered as funded through equity	355.19	242.71
Balance addition to net GFA during the year funded through debt	828.77	566.33
Debt Repayment due during the year (equal to the depreciation claim)	266.08	315.42
Average of loan balances	2,197.03	2,447.93
Weighted average rate of interest % on all loans	9.33%	10.02%
Total Interest on project loans	205.04	245.40
Finance Charges	18.49	24.33
Total Interest on Project loans & Finance Charge	**223.52**	**269.73**

Commission's Analysis of Interest and Finance Charges

3.129 Tariff Regulations provide interest charges only for those loans to be pass through in the ARR for which the associated capital works have been completed and assets have been put to use.

3.130 Interest on loans for works under construction is considered as Interest during Construction (IDC) which shall be capitalized and added to the project cost at the time of asset capitalization. Therefore, such interest cost has not been considered as pass through in the ARR. The underlying principle for considering the capitalization instead of capital expenditure incurred during the year is that the consumer should bear the interest cost related to those assets only which are put to use. The asset under construction is not used by the consumers. Interest cost incurred during the course of construction of assets becomes a part of CWIP and therefore, is not admitted as pass through.

3.131 The Commission has worked out the interest cost for FY 2015-16 in the following manner:

a) Net asset addition to GFA during the year is arrived by subtracting the consumer contribution received from total asset addition to GFA. The Commission has considered the average value of consumer contribution; grants and subsidies added during FY 2012-13 and FY 2013-14 to project for FY 2014-15 and FY 2015-16.

b) 30% of the net asset addition to GFA during the year has been considered as funded through the equity. Balance of net asset addition to GFA is considered as having been funded through debt and added to the total debt in GFA

c) Debt repayments have then been subtracted from the total debt identified with completed assets as computed from the above. The repayment for FY 2014-15 and FY 2015-16 shall be deemed to be equal to the depreciation allowed for that year.

d) Asset additions during the year have been treated as financed 70% through loan and 30% through equity. The Commission has considered the weighted average rate of interest as worked-out based on the Discoms' submissions for allowing the Interest and Finance charges on the project loans.

e) The Commission has admitted the interest rate for long term loans as filed by the petitioners.

f) Other finance costs have been admitted as filed by the petitioners.

3.132 Interest and finance charges admitted for FY 2015-16 are as under:

Table 62: Interest and Finance Charges admitted for FY 2015-16 (Rs. Crore)

Particular	**East**	**West**	**Central**
FY 2012-13			
Debt identified with GFA as on 1st April, 20012 (Closing of FY 2011-12 true-up order)	481.30	440.34	516.86
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	631.13	328.94	695.90
Debt repayment	69.78	75.93	72.60
Debt identified with GFA as on 31st March, 2013	1,042.65	693.34	1,140.15
FY 2013-14			
Debt identified with GFA as on 1st April, 2013	1,042.65	693.34	1,140.15
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	670.35	157.76	625.58
Debt repayment	92.46	85.70	95.63
Debt identified with GFA as on 31st March, 2014	1,620.55	765.40	1,670.10
FY 2014-15			
Debt identified with GFA as on 1st April, 2014	1,620.55	765.40	1,670.10
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	333.73	311.66	681.68
Debt repayment	109.96	95.12	118.42
Debt identified with GFA as on 31st March, 2015	1,844.31	981.94	2,233.37
FY 2015-16 Interest Cost			
Debt identified with GFA as on 1st April, 2015	1,844.31	981.94	2,233.37
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	573.13	311.66	419.18
Debt repayment	125.76	107.63	137.60
Total debt associated with GFA as on 31st March, 2016	2,291.68	1,185.97	2,514.95
Average of loan Balance for FY 2015-16	2,067.99	1,083.96	2,374.16
Weighted average rate of interest (%) (as per Interest on Project Loans)	8.74%	9.12%	10.02%
Interest charges	180.74	98.86	237.89
Other Finance Charges	3.19	7.34	24.33
Interest and Finance charges on Project Loans	**183.93**	**106.20**	**262.22**

Interest on Working Capital

Petitioners submission

3.133 The petitioners have stated that the working capital requirement has been estimated based on the norms specified in the Regulations. East, West and Central Discoms have considered interest rate of 13.50% for the calculation of the Interest on the working capital.

3.134 Discoms have further requested the Commission to consider the amount of security deposit received during the year only, for the purpose of computing working capital requirement. Claims made by the Discoms are given below:

Table 63: Interest on Working Capital as filed for 2015-16

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	For Wheeling Activity			
1	1/6th of annual requirement of inventory for previous year	9.46	7.24	8.56
2	O&M expenses			
2.1	R&M expenses	137.36	124.94	151.54
2.2	A&G expense	135.61	124.88	101.44
2.3	Employee expenses	833.30	780.21	740.41
2.4	Total of O&M expenses	1,106.26	1,030.03	993.39
2.5	1/12th of total	92.19	85.84	63.32
3	Receivables	0.00		
3.2	Annual Revenue from wheeling charges	0.00	2.58	0.00
3.3	Receivables equivalent to 2 months average billing of wheeling charges	0.00	0.43	0.00
4	**Total Working capital (1+2.5+3.3)**	**101.64**	**93.51**	**91.34**
5	Rate of Interest	13.5%	13.50%	13.50%
6	Interest on Working capital	13.72	12.62	12.33
	For Retail Sale activity			
1	1/6th of annual requirement of inventory for previous year	0.50	1.81	0.45
2	Receivables			
2.1	Annual Revenue from Tariff and charges	7,448.41	8,443.74	7,900.76
2.2	Receivables equivalent to 2 months average billing	1,241.40	1,407.29	1,316.79
3	Power Purchase expenses	6,251.65	6,805.27	5,919.12
3.1	1/12th of power purchase expenses	522.52	567.11	493.26
4	Consumer Security Deposit	725.61	1,049.62	720.22
5	**Total Working capital (1+2.2-3.1-4)**	**-6.23**	**-207.62**	**103.76**

6	Rate of Interest	13.50%	13.50%	13.50%
7	Interest on Working capital	-0.84	-28.03	14.01
	Total Interest on Working Capital from Wheeling Activity	13.72	12.62	12.33
	Total Interest on Working Capital from Retail Activities	-0.84	-28.03	14.01
	Net Interest on Working Capital	**12.88**	**-15.41**	**26.34**

Commission's Analysis of Interest on Working Capital

3.135 Tariff Regulations specify that the total Working Capital shall consist of expenses towards working capital for the supply activity and wheeling activity. The parameters considered for computation of working capital for wheeling and supply activity have also been specified. Rate of interest on working capital shall be equal to the State Bank Base Rate as on 1st of April of the relevant year plus 3.50%.

3.136 The Commission has considered Gross block at the start of FY 2015-16 as 5972.45, Rs. 4976.37 Crore and Rs. 6588.74 Crore for East, West and Central Discom, respectively. One percent of this value pro-rated to two months would work out to Rs. 9.95 Crore, Rs. 8.29 Crore, and Rs. 10.98 Crore for East, West and Central Discom respectively. This has been considered as the inventory requirement for wheeling activity and retail activity. This has been further divided into wheeling and retail inventory in the ratio of 80:20 as adopted in last tariff order. The Consumer Security Deposit has been considered as discussed in the section on Interest on Consumer Security Deposit. Values of other elements of working capital have been recomputed for the expenses admitted by the Commission in the relevant sections of this order.

3.137 The Commission has been allowing the Interest on Working Capital separately for wheeling and retail activity in earlier tariff orders. However, during the true up exercise for the year 2011-12, it had been observed that the Discoms were not able to provide segregated details for wheeling and retail activity. Moreover, as both activities are undertaken simultaneously by the Discoms, the available resources are common for both. Therefore, the Commission has taken working capital requirement together for wheeling and retail activities.

3.138 Tariff Regulations allow working capital interest to the Discoms at the rate equal to the State Bank of India (SBI) Base Rate as on 1st of April of that year plus 3.5%. The SBI Base Rate presently stands at 10%. Accordingly, the normative interest rate for working capital loans to Discoms would be limited to 13.50%. The interest on working capital admitted by the Commission for wheeling and retail sale activity combined together is shown in the table below:

Table 64: Interest on Working Capital admitted by the Commission (Rs. Crore)

Particulars	Months	East	West	Central
Wheeling				
Inventory	2	7.96	6.64	8.78
Approved O&M	1	90.92	82.82	81.34
Receivables equivalent to 2 months average billing of wheeling charges		0.00	0.43	0.00
Total Working Capital Requirement (Rs. Crore) – Wheeling		98.88	89.88	90.12
Interest Rate (%)		13.50%	13.50%	13.50%
Total Interest on Working Capital (Rs. Crore)		**13.35**	**12.13**	**12.17**
Retail				
Inventory	2	1.99	1.66	2.20
Revenue	2	1,202.17	1,569.44	1,365.90
Less: Power Purchase Cost	1	392.76	585.59	501.69
Less: Consumer Security Deposit		725.61	1,049.62	720.22
Total Working Capital Requirement (Rs. Crore) – Retail		85.79	-64.11	146.19
Interest Rate (%)		13.50%	13.50%	13.50%
Total Interest on Working Capital (Rs. Crore)		**11.58**	**-8.65**	**19.74**
Total interest on Working Capital Requirement (Rs. Crore) – Wheeling		13.35	12.13	12.17
Total interest on Working Capital Requirement (Rs. Crore) – Retail		11.58	-8.65	19.74
Net Interest on Working Capital		**24.93**	**3.48**	**31.90**
Total Interest on Working Capital admitted (Rs. Crore)		**24.93**	**3.48**	**31.90**

Interest on Consumer Security Deposit

Petitioners submissions

3.139 Discoms have submitted that interest on consumer security deposit has been paid to the consumers according to relevant Regulations. They have further submitted that interest on consumer security deposit has been calculated as per the RBI Bank Rate as on April 1, i.e., 9%.

Table 65: Interest on Consumer Security Deposit as per Regulations for FY 2015-16 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Interest on Consumer Security Deposit	65	94	65

Commission's Analysis of Consumer Security Deposit

3.140 The Commission has computed the interest on consumer security deposit as per the norms of the Tariff Regulations at RBI latest Bank Rate of 8.5% and admitted the same as shown in the table below:

Table 66: Interest on Consumer Security Deposit (CSD) admitted for FY 2015-16 (Rs. Crore)

Particular	East	West	Central
Interest on Consumer Security Deposit	62	89	61

Return on Equity

Petitioners submissions

3.141 The petitioners have submitted that the Return on Equity (RoE) for the period has been calculated as per the Tariff Regulations. Claims made by the Discoms are shown in the following table:

Table 67: Return on Equity (Rs. Crore)

Sr. No.	Particulars	East Discom		West Discom		Central Discom	
		FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16
A	**Gross Fixed Assets at the beginning of year (net of consumer contributions)**	**2,113.65**	**2,113.65**	**1,906.85**	**2,819.42**	**5,404.73**	**6,588.68**
A1	Opening balance of GFA identified as funded through equity	984.15	984.15	1,040.76	1,375.99	1,621.42	1,976.61
A2	Opening balance of GFA identified as funded through debt	1,129.50	1,129.50	866.10	1,443.43	3,783.31	4,612.08
B	**Proposed capitalization of assets as per the investment plan (net of consumer contribution)**	**409.18**	**810.31**	**1,117.44**	**2,070.75**	**1,183.95**	**809.04**
B1	Proportion of capitalized assets funded out of equity,	307.04	307.04	335.23	621.23	279.39	265.35

Sr. No.	Particulars	East Discom		West Discom		Central Discom	
		FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16	FY 2014-15	FY 2015-16
	internal reserves						
B2	Balance Proportion of capitalized assets funded out of project loans (B - B1)	102.14	503.28	782.21	1,449.53	904.57	543.69
C1	Normative additional equity (30% of B)	122.75	243.09	0.00	0.00	355.19	242.71
C2	Normative additional debt (70% of B)	286.43	567.22	0.00	0.00	828.77	566.33
D1	Excess / shortfall of additional equity over normative (B1-C1)	184.28	63.94	335.23	621.23	-75.80	22.64
D2	Excess / shortfall of additional debt over normative (B2-C2)	-184.28	-63.94	782.21	1,449.53	75.80	-22.64
E	**Equity eligible for Return (A1+(C1/2)) or (A1+(B1/2)), whichever is lower**	**1,384.75**	**1,622.95**	**1,208.37**	**1,686.60**	**1,761.11**	**2,097.96**
	Return on Equity (16% on E)	**221.56**	**259.67**	**193.34**	**269.86**	**281.78**	**335.67**

Commission's Analysis of Return on Equity

3.142 Tariff Regulations specify that RoE shall be computed on pre-tax basis @ 16%. The paragraphs under the Commission's analysis of Interest and Finance charges in this order explain the approach for identification of debt and equity component related with completed assets. This approach results in the total equity identified with GFA as at the end of FY 2015-16. The return on equity is then determined by allowing the specified rate of 16% on the total equity identified which is allocated in proportion to GFA. The total equity identified along with RoE as admitted for FY 2015-16 is tabulated below.

Table 68: Return on Equity admitted for FY 2015-16 (Rs. Crore)

Particular	East	West	Central
FY 2012-13			
Total Equity identified with GFA as on 31st March, 2012 (Closing total equity in the true-up order for FY 2011-12)	270.49	140.97	298.24
Total Equity identified with GFA as on 31st March, 2013	929.76	869.75	968.53
FY 2013-14			
30% of addition to net GFA considered as funded through equity net of consumer contribution	287.29	67.61	268.11
Total Equity identified with GFA as on 31st March, 2014	1,217.05	937.36	1,236.63

Particular	**East**	**West**	**Central**
FY 2014-15			
30% of addition to net GFA considered as funded through equity net of consumer contribution	143.03	133.57	292.15
Total Equity identified with GFA as on 31st March, 2015	1,360.08	1070.93	1528.78
FY 2015-16			
30% of addition to net GFA considered as funded through equity net of consumer contribution	245.63	133.57	179.65
Total Equity identified with GFA as on 31st March, 2016	1,605.70	1204.50	1708.43
Average Equity	1,482.89	1137.72	1618.61
RoE @16% of FY 2015-16	**237.26**	**182.03**	**258.98**

Other items of ARR

3.143 Apart from the expense components discussed above, there are certain other items which form part of the ARR of the Discoms. These include provision for Bad Debts, and Other (Non-Tariff) Income. These are detailed below:

Bad and doubtful debts

Petitioners submission

3.144 The petitioners have claimed provision for bad debts as 1% of the total revenue earned from the projected sale. Discoms further requested the Commission to allow the complete 1% amount of revenue as bad debts as per Tariff Regulations. The petitioners also submitted that they have actual write-off of bad debts is more than the prescribed 1% of revenue. The petitioners requested that the commission allow 1% of revenue as bad debts as per Tariff Regulations.

Table 69: Bad and Doubtful Debts for FY 2015-16 as per Regulations (Rs Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Bad and Doubtful Debts	74.48	84.44	79.01

Commission's Analysis on Bad and Doubtful debts

3.145 Tariff Regulations specify that Bad and Doubtful Debts in the ARR shall be allowed based on actually written off bad debts in the past as per the available latest audited financial statements to the extent Commission considers it appropriate and shall be trued up during the true up exercise for the relevant year subject to a maximum limit of 1% of the yearly revenue.

3.146 Tariff Regulations stipulates that the delayed payment surcharge is not an income therefore the amount written- off against it shall also not be considered as an expense. The Commission has also not considered principal amount written off under any scheme as it has been waived off at the behest of the company to attract recovery of arrears.

3.147 Discoms have neither stated the efforts they made for recovery of the principal amount nor given any reasoning for such waiver except that waiver has been made under some scheme. The Commission therefore is not inclined to admit expenses against such waivers by the Discoms so that the regular paying consumers are not loaded with this burden.

3.148 The Commission provisionally admits the expenses against the bad and doubtful debts to the tune of Rs 2 Crore for each Discom, subject to true up.

Other Income

Petitioners submission

3.149 The petitioners have submitted that main components of Non-Tariff Income are meter rent, wheeling charges, supervision charges, sale of scrap and miscellaneous charges from consumers. Meter rent and Miscellaneous Charges have been projected as a percentage of tariff income.

3.150 Table below indicates the details of other income filed by Discoms for FY 2015-16:-

Table 70: Other Income (Rs Crore)

Particulars	East Discom	West Discom	Central Discom
Income from Investment, Fixed & Call Deposits	9	13	37
Interest on loans and Advances to staff	0	0	0
Interest on Advances to Suppliers / Contractors	0	7	11
Income/Fee/Collection against staff welfare activities	0	0	0
Miscellaneous receipts	71	54	147
Misc. charges from consumers	39	50	0
Deferred Income (Consumer Contribution)	14	0	258
Wheeling charges	0	3	1
Income from Trading other than Power (i.e. sale of scrape, tender form)	18	37	0
Meter rent/Others	0	17	0
Total	**152**	**180**	**454**

Commission's Analysis on Other Income

3.151 The actual other income received as per Audited Accounts for the previous year's are shown in the table below:

Table 71: Total actual other income as per audited accounts (Rs Crore)

Discoms	FY 2011-12 Audited	FY 2012-13 Audited	FY 2013-14 Audited
East	139.51	162.45	152.02
West	196.79	289.67	252.28
Central	293.94	231.20	378.43
Total	**630.24**	**683.32**	782.73

3.152 Based on the above actual other income received as per Audited Accounts for FY 2011-12 to FY 2013-14, which includes the receipts against meter rent, recovery from billing against cases of theft/ unauthorized use of energy, misc. receipts etc., the Commission has admitted other income for FY 2015-16 as tabulated below:

Table 72: Other Income admitted for FY 2015-16 (Rs. Crore)

Particulars	East	West	Central	State
Other Income	202.24	341.25	551.11	1,094.61

3.153 The ARR as admitted for FY 2015-16 is presented in following table:

Table 73: Aggregate Revenue Requirement (ARR) as admitted (Rs Crore)

Particulars	East	West	Central	Total
Power Purchase Cost including MPPMCL cost	4,713.09	7,027.10	6,020.24	17,760.42
PGCIL charges	436.78	555.16	422.43	1,414.36
Transco Charges (MP TRANSCO) including Terminal Benefits	538.79	691.25	573.91	1,803.95
O&M cost	1,091.05	993.84	976.05	3,060.93
Depreciation	125.76	107.63	137.60	371.00
Interest on Project Loans	183.93	106.20	262.22	552.35
Return on Equity	237.26	182.03	258.98	678.27
Interest on Working Capital	24.93	3.48	31.90	60.31
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	61.68	89.22	61.22	212.11
Less: Other Income - Retail & Wheeling	202.24	341.25	551.11	1,094.61
ARR for FY 2015-16	**7,213.03**	**9,416.65**	**8,195.43**	**24,825.10**

Segregation of admitted ARR between Wheeling and Retail Sale activities

3.154 Tariff Regulations provide that the Discoms should file the Aggregate Revenue Requirement in three parts, viz. for power purchase activity, for wheeling (distribution) activity and for retail sale activity. The Regulations clearly list out the items of fixed costs (i.e. other than power purchase) that should be included in wheeling and retail sale activities. The purpose of segregating the total distribution expenses into wheeling and retail sale activities is to establish the wheeling charges that are to be recovered from open access customers.

3.155 Discoms have complied with the Tariff Regulations to the extent that they have filed the ARR segregated among expenses for power purchase, wheeling and retail sale activities. Discoms have considered normative interest on working capital, bad debts and interest on consumer security deposits in retail sale activity. All other items have been considered entirely as part of wheeling activity.

3.156 The Commission allocates the fixed costs (i.e. other than power purchase) in the following manner:

Wheeling activity shall include:

(a) O&M expenses
(b) Depreciation
(c) Interest on project loans
(d) Interest on working capital loans – for normative working capital for wheeling activity
(e) Return on Equity
(f) Other miscellaneous expenses
(g) Less: Other Income as attributed to wheeling activity

Retail sale activity shall include:

(a) Interest on working capital loans – for normative working capital for retail sale activity
(b) Interest on Consumer Security Deposits
(c) Bad and Doubtful debts
(d) Less: Other Income as attributed to retail sales activity

Aggregate Revenue Requirement (ARR) admitted by the Commission for FY 2015-16

3.157 On the basis of above, the ARR for FY 2015-16 for wheeling and retail sale activity for all the three Discoms is admitted as under:

Table 74: Total ARR (wheeling and retail) as admitted (Rs. Crore)

Particulars	**East**	**West**	**Central**	**Total**
Power Purchase Cost including MPPMCL cost	4,713.09	7,027.10	6,020.24	17,760.42
PGCIL charges	436.78	555.16	422.43	1,414.36
Transco Charges (MP TRANSCO) including Terminal Benefits	538.79	691.25	573.91	1,803.95
(A) Sub Total- Power Purchase Cost	5,688.65	8,273.51	7,016.57	20,978.73
Wheeling Activity				
O&M cost	1,091.05	993.84	976.05	3,060.93
Depreciation	125.76	107.63	137.60	371.00
Interest on Project Loans	183.93	106.20	262.22	552.35
Return on Equity	237.26	182.03	258.98	678.27
Interest on Working Capital – Wheeling	24.93	3.48	31.90	60.31
(B) Sub Total- Wheeling ARR for FY 2015-16 as approved	1,662.94	1,393.18	1,666.75	4,722.86
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	61.68	89.22	61.22	212.11
Less: Other Income - Retail & Wheeling	202.24	341.25	551.11	1,094.61
(C) Sub Total- Retail ARR for FY 2015-16 as approved	-138.56	-250.04	-487.89	-876.49
Total ARR for FY 2015-16	**7,213.03**	**9,416.65**	**8,195.43**	**24,825.10**

Revenue from revised tariffs

3.158 The consumer category wise revenue at admitted tariff for FY 2015-16 is presented in the table below:

Table 75: Revenue from revised tariffs in FY 2015-16 (Rs. Crore)

Customer Categories	East		West		Central		State	
	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)
LV: Categories								
LV-1: Domestic Consumers	4,559	2,297	4,696	2,373	4,963	2,603	14,218	7,273
LV-2: Non Domestic	1,001	707	897	644	901	663	2,799	2,014
LV-3.1: Public Water Works	537	227	219	104	241	109	997	440
LV-3.2: Street light	207	95	155	129	122	60	484	284
LV-4: Industrial	345	231	549	365	285	190	1,179	786
LV-5.1 Agriculture	5,158	2,057	7,251	3,217	6,082	2,633	18,492	7,906
LV-5.2 Other than agriculture use	6	3	2	1	19	8	28	12
HV: Categories								
HV-1: Railway Traction	612	383	562	354	1,019	670	2,193	1,407
HV-2: Coal Mines	474	335	0	0	39	29	513	364
HV-3.1: Industrial	2,199	1,474	2,070	1,435	2,008	1,331	6,277	4,239
HV-3.2: Non-Industrial	240	181	371	247	396	299	1,007	727
HV-3.3: Shopping mall	7	5	62	47	11	8	81	60
HV-3.4: Power Intensive Industries	66	42	587	320	139	73	792	435
HV-4: Seasonal and Non Seasonal	15	9	5	3	2	1	22	14
HV-5.1: Irrigation, PWW and other than Agriculture	107	55	349	177	156	75	612	307
HV-6: Bulk Residential Users	363	190	21	12	151	80	535	282
HV-7: Synchronization/ Start-up Power	0	0	8	5	0	0	8	5
Total	**15,897**	**8,289**	**17,805**	**9,434**	**16,535**	**8,832**	**50,237**	**26,555**

Gap / surplus at revised tariffs:

3.159 Details of total ARR as admitted by the Commission and the revenue income from existing tariff is shown in the table below:

Table 76: Final ARR and revenue from existing tariffs (Rs Crore)

Particulars	**East**	**West**	**Central**	**State**
Total ARR for FY 2015-16 (A)	**7,213**	**9,417**	**8,195**	**24,825**
Impact of True Up for Discoms for FY 10	353	60	81	494
Impact of True Up for Discoms for FY 11	164	-139	293	318
Impact of True Up for Discoms for FY 12	545	78	309	932
Impact of True up for MP Transco for FY 13	52	55	67	174
Impact of True up for MP Genco for FY 12	-38	-37	-113	-188
Total Gap of True-ups (B)	1,076	17	637	1,730
Total ARR for FY 2014-15 (A+B=C)	**8,289**	**9,434**	**8,832**	**26,555**
Revenue at existing Tariffs (D)	7,603	8,494	8,082	24,179
Uncovered Gap/Surplus (D-C=E)	**-686**	**-940**	**-750**	**-2,376**
Revenue at Proposed Tariffs (F)	8,289	9,434	8,832	26,555
Uncovered Gap/Surplus (F-C=G)	**0**	**0**	**0**	**0**

A4: WHEELING CHARGES AND CROSS SUBSIDY SURCHARGE

Determination of "wheeling cost"

4.1 The Commission allocates the fixed costs of distribution (i.e. other than power purchase) for wheeling activity in the following manner for the purpose of determining wheeling cost:

Wheeling activity shall include:

(a) O&M expenses
(b) Depreciation
(c) Interest on project loans
(d) Interest on working capital loans – on normative working capital for wheeling activity
(e) Return on Equity
(f) Other miscellaneous expenses
(g) Less: Other Income as attributed to wheeling activity

4.2 On the basis of the admitted ARR for FY 2015-16, the expenditure towards wheeling activity for all the Discoms is Rs. 4722.86 Crore.

Segregation of costs among voltage levels

4.3 The costs of distribution identified as attributable to wheeling activity may further be distributed among the two voltage levels of distribution i.e. 33 kV and below 33 kV. Though, the EHT consumers (i.e. at voltages above 33 kV) are consumers of the Discoms but they are not directly connected to the distribution system. Certain costs such as cost related with metering, billing and collection are associated with EHT consumers. At this juncture, the Commission is not inclined to get into those details, primarily on account of data unavailability.

4.4 The Distribution Licensees in the State presently do not maintain account of their costs on voltage-wise basis. Similar is the case with other Government owned Distribution Licensees operating in most of the states in India.

4.5 It is observed that the present accounting practices followed by Discoms do not permit segregation of GFA among the voltage levels directly. The Commission, therefore, considers it appropriate to adopt the approach to use the transformation capacity in MVA at interfaces of 33/11 kV and 11/0.4 kV.

4.6 The data used for this exercise for the value of the asset base is as follows:

Table 77 : Identification of asset value

Voltage level of Lines	East (ckt-kms)	West (ckt-kms)	Central (ckt-kms)	Cumulative length of lines (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crs.)
33KV	17,341.00	14,846.00	14,980.50	47,167.50	12.92	6,094.04
Below 33 KV						
(a) 11 KV	113,273.00	103,247.00	98,201.67	314,721.67	9.17	28,859.98
(b) LT	115,235.00	151,107.00	111,670.58	378,012.58	5.20	19,656.65
Sub-Total	228,508.00	254,354.00	209,872.25	692,734.25		48,516.63
Total	**245,849.00**	**269,200.00**	**224,852.75**	**739,901.75**		**54,610.67**

Table 78 : Total Cost of transformer voltage level

Transformer Voltage Level	East	West	Central	Cumulative capacity (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11KV Transformer	7,698.00	9,903.00	8,730.00	26331.00	36.73	9671.38
11/0.4KV Transformer	7,477.00	12,337.00	11,221.00	31035.00	2.52 per 100 KVA	7820.82
Total	**15,175.00**	**22,240.00**	**19,951.00**	**57366.00**		**17492.20**

4.7 Data for length of lines and transformation capacity expected to be added during FY 2015-16 are taken as provided in the petition.

4.8 In order to identify the asset values at different voltage levels, it is necessary to "assign" the interface transformers to either voltage levels. For this exercise, the Commission considers it appropriate to include the distribution transformers (11/0.4 kV) to be a part of the 11 kV network and the power transformers of 33/11 kV to be a part of the 33 kV network. Based on this method, the asset values at different voltage levels work out to:

Table 79 : Identification of value of network at each voltage level

Voltage level	Cost of Lines (Rs. Crore)	Cost of Transformation (Rs. Crore)	Total Cost (Rs. Crore)
33KV	6094.04	9671.38	15765.42
Below 33 KV	48516.63	7820.82	56337.45
Total	**54610.67**	**17492.20**	**72102.87**

4.9 Expenses of wheeling activity are worked out using the asset value ratios as obtained from above, as given in table below:

Table 80 : Identification of network expenses (wheeling cost) at different voltage level)

Voltage level	Assets value (Rs. Crore)	Assets value Ratio (%)	Total wheeling cost (Rs Crore)	Wheeling Cost (Rs Crore)
33KV	15765.42	21.87%	4722.86	1032.66
Below 33 KV	56337.45	78.13%		3690.20
	72102.87	**100.00%**		

Sharing of Wheeling costs

4.10 The cost of wheeling is again required to be allocated to the users at the same voltage levels since the 33 kV network is used by the consumers at 33 kV and below 33 kV (those at 11 kV and LT).

4.11 This allocation of wheeling cost is done based on the usage of the network at different voltage level by consumers. The Commission has chosen to adopt "Units to be Sold" at different voltage levels as the measure of network usage to allocate the costs as detailed below:

Table 81 : Allocation of wheeling cost over distribution system users

	Particulars	**Rs in Crore**
A	Wheeling Cost at 33 kV	1032.66
B	Sales at 33 kV(MU)	5910.75
C	Total Sales (MU) {excluding sales at 132 kV}	44823.63
D	Proportion of 33 kV sales to total sales (%)	13.19%
	Cost allocation	
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D)**	136.17

4.12 The wheeling cost allocated to 33 kV works out to Rs. 135.51 Crore. Based on this allocation and considering the consumption at 33 kV, the wheeling charges in Rupees per unit are determined as follows :

Table 82 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs./unit)
EHT	-	-	-
33 kV	136.17	5910.75	0.23

Applicability of wheeling charges under different scenarios

4.13 Various scenarios of location of Open Access generators and their consumers and the consequent applicability of transmission and wheeling charges shall be as below:

(a) Scenario 1: Generator is connected to Transmission network (EHT voltages), while the consumer is connected to the distribution network at 33 kV of Distribution Licensee: The scenario shall attract both transmission and wheeling charges since power required by the open access consumer will flow downstream from the transmission network through distribution network up to the consumer's connection.

(b) Scenario 2: Generator is connected to distribution network at 33 kV of Distribution licensee, while the consumer is connected to the transmission network (132 kV or above): In this scenario, the consumer's requirement will be met by power flow over transmission network alone. The power generated by the open access generator will be locally consumed within the Discom and will not flow upstream to the open access consumer. Hence, such transactions shall attract only the transmission charges.

(c) Scenario 3: Both Generator and consumer are connected to the transmission network (132 kV or above): Only transmission charges shall apply, since there is no usage of distribution network.

(d) Scenario 4: Both generator and consumer are connected to the distribution system of any of the Distribution Licensee at 33 kV: The power generated by the open access generator will be consumed within the Discoms under the conditions of uniform retail tariff throughout the M.P. and hence it will contribute to meeting the demand of the open access consumer. Therefore, there is no additional usage of transmission network in this transaction. Hence, such transactions shall attract only the wheeling charges.

4.14 The Commission has determined the applicability of above charges for encouraging open access. Above formulations also conform to the principle that power flows on the network by displacement method.

Determination of Cross-Subsidy Surcharge

4.15 The Tariff Policy prescribes the following formulae for determination of cross- subsidy surcharge for various categories of consumers.

"8.5 Cross-subsidy surcharge and additional surcharge for open access

8.5.1 …

….

Surcharge formula:

$S = T – [C (1+L/100) + D]$

Where

S is the surcharge
T is the Tariff payable by the relevant category of consumers;
C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power
D is the Wheeling charge
L is the system Losses for the applicable voltage level, expressed as a percentage
….
8.5.5 Wheeling charges should be determined on the basis of same principles as laid down for intra-state transmission charges and in addition would include average loss compensation of the relevant voltage level.”

4.16 The Tariff Policy at clause 8.5.1 states that *“National Electricity Policy lays down that the amount of cross subsidy surcharge and the additional surcharge to be levied from the consumers who are permitted open access should not be so onerous that it eliminates the competition which is intended to be fostered in generation and supply of power directly to the consumers through open access.”*
The first proviso of the above clause states that “*.... a consumer would avail of open access only if the payment of all the charges leads to benefit to him....*”
The second proviso of the above clause states that “*..... Accordingly, the cost of supply to the consumer for this purpose may be computed as the aggregate of (a) The weighted average of power purchase cost (inclusive of fixed and variable charges) of top 5% power at the margin, ...*”. The last proviso to the above clause states that “*the cross subsidy surcharge should be brought down progressively and, as far as possible, at a linear rate to a maximum of 20% of its opening level by the year 2010-11.*”

4.17 As mentioned in the preceding para, the cost of supply to the consumer for this purpose may be computed on the basis of the aggregate of top 5 % at the margin of the power purchase costs.

4.18 The cost of marginal power purchase of top 5% power works out as below :

Total Energy required in FY 2015-16 = 64,261 MU

Table 83 : Cost of marginal power purchase of top 5% power i.e. 3213.07 MU

Stations	**Units (MU)**	**Cost (Rs./unit)**	**Total cost (Rs. Crore)**
SGTPS EXT	3,208.98	3.88	1,243.71
SGTPS	4.09	3.75	1.53
Total	**3,213.07**	**3.88**	**1,245.24**

4.19 The weighted average cost of power purchase of top 5% at the margin works out as Rs. 1245.24 Crore/3213.07 MU = Rs. 3.88 per unit.

4.20 Tariff Policy specifies that the Loss level (term 'L') should be worked out for each voltage level separately. Losses at each voltage level are assumed as below for this purpose because of non-availability of required reliable data with the Discoms:

Table 84 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	5.32%
33 kV (only 33 kV system)	5.83%

4.21 The cost of transmission shall be uniformly spread over all consumers at every voltage level, as the transmission network is utilized by all consumers. Therefore, similar to wheeling costs, the admitted transmission charges for FY 2015-16 are worked out as under:-

Table 85 : Transmission Charges

Particulars	Rs. Crore
PGCIL Charges	1,414.36
MPPTCL Charges	1,803.95
Total Charges	**3,218.31**
Units to be handled by MPPTCL	64,261.36
Transmission Charges per unit	0.50

4.22 Finally, the last term in the Tariff Policy formula 'T', Average Tariff for each category is derived from their expected revenue for FY 2015-16.

4.23 As per the MPERC (Open Access) Regulations, 2005, the consumers with contract demand of 1 MW or above are allowed open access w.e.f. 1st October, 2007. These consumers are to be connected at 33 KV or above as per Madhya Pradesh Electricity Supply Code, as amended from time to time.

4.24 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV under various scenario are worked out as detailed in the table below ("scenario wise cost"). The Cross-Subsidy Surcharge shall be the difference of average tariff and the total cost (Rs/unit) for the particular category at particular voltage. The category wise average tariff as per tariff order for FY 2015-16 is given in the table below ("category wise average tariff"). For example, for Railway Traction at 132 kV the average tariff for FY 2015-16 as per tariff order works out to Rs. 6.41 per unit and total cost works out to Rs. 4.59 per unit. Therefore, Cross-Subsidy Surcharge shall be Rs. 6.41 – Rs. 4.59 = Rs. 1.82 per unit. However, in case where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.

4.25 Aforementioned wheeling charges and cross subsidy surcharges are not applicable to consumers availing open access from renewable sources of energy.

Table 86 : Scenario wise cost (Rs. per unit)

Scenario	Cost of Power at 5% Margin	Cost of Power grossed up for distribution losses (4.5%)	Cost of Power grossed up for transmission losses (3.97%)	Transmission charges	Wheeling charges	Total Cost [C(1+L/100)+D]
1	3.88	4.12	4.35	0.50	0.23	5.08
2	3.88		4.09	0.50		4.59
3	3.88		4.09	0.50		4.59
4	3.88	4.12	4.35		0.23	4.58

Table 87 : Category wise average tariff (Rs. per unit)

Category of HT/EHT consumers	Average Tariff 'T'
HV- 1 : Railway Traction	6.41
HV- 2 : Coal Mines	7.10
HV- 3.1 : Industrial	6.75
HV- 3.2 : Non-Industrial	7.21
HV-3.3: Shopping Malls	7.48
HV-3.4: Power Intensive Industries	5.48
HV-4 : Seasonal	6.26
HV- 5.1 : Public Water Works	5.02
HV- 5.2 : Other than Irrigation	5.27
HV- 6 :Bulk Residential Users	5.27
HV-7: Start-up power for generators connected to the grid	6.25

A5: FUEL COST ADJUSTMENT CHARGE

Petitioner's submission

5.1 The petitioners have submitted that the prevailing FCA formula does not cover the recovery of incremental power purchase cost wherein power purchase has been made due to factors beyond their control. This includes shortage in supply from the identified power supply sources in the tariff order requiring them to purchase power at a higher price from the power market or other sources to meet the demand.

5.2 They have further submitted that quantum of power purchase may not be restricted on the basis of normative loss levels, as the petitioners have to meet the power demand of the consumers according to obligation to supply mandated under the Electricity Act, 2003. It is also submitted that in the given operating conditions of the power system, the quantum of energy and the power demand are more or less uncontrollable variables. It is submitted that for the purpose of tariff determination, the average power purchase cost per unit based on the prudent cost may be considered. The petitioners have also submitted the interpretation that the cost based on the average power purchase cost per unit on the quantum of power based on normative loss should be passed on to the consumer and any cost in excess of that shall be borne by the petitioners. It is also averred that the methodology of passing on full fixed cost element of the power purchase cost to consumers as a legitimate cost shall maintain proper balance between the interests of consumers and the petitioners, since it is based in overall averaging method and impact of all the factors over an annual cycle are covered and distributed equitably.

5.3 The petitioners have submitted that in view of the aforementioned facts and as per the Regulations, it will be more appropriate to design single formula for recovery of FCA charge simultaneously with incremental power purchase cost. The formula proposed by the Petitioners is produced as under:

$$PPCA\ for\ billing\ quarter\ (\mathrm{p/u}) = \frac{\mathrm{APPC\ (Rs.Crore)x100}}{\mathrm{Normative\ Sale\ (MU)}}$$

Where,

APPC (Average Power Purchase Cost) = sum of (a) difference in per unit average cost actually billed by each power generator/sources and as allowed in the tariff order, multiplied by (b) units availed from each such generating station in the preceding quarter,

Preceding Quarter = the period of preceding three months excluding the period of two months immediately preceding to the billing quarter,

Billing Quarter = the period of three months for which IPPCA is to billed and shall be a period commencing on first day to last day of quarter for the quarter commencing from 1st April ending 30th June and so on.

Normative Sale = the sale grossed down from the total actual ex-bus drawal from all sources (generators + other sources) during preceding quarter by the normative PGCIL, transmission and distribution losses for the months of the preceding quarter provided in the tariff order.

Commission's analysis

5.4 The Commission has considered the submissions made by the petitioners. The relevant Regulations have provision for allowing incremental power purchase costs in addition to the levy of FCA. However, at this juncture, the Commission is of the opinion that only FCA be allowed to be recovered and any further additional burden on the consumers during the tariff period may not be warranted. Any additional costs on this account would be considered after due prudence check at the time of true up. Moreover, a substantial portion on account of increases in power purchase costs is taken care of levy of FCA. The Commission therefore decides to continue with levy of quarterly FCA charge only.

5.5 In view of Regulation 9 of the Tariff Regulations, the Commission hereby decides to continue with the FCA formula along with its associated mechanism/modalities as detailed in the following paragraphs.

5.6 FCA formula for deriving Fuel Cost Adjustment for recovery/adjustment of un-controllable costs due to increase or decrease in the cost of fuel in case of coal, oil, and gas based generating plants is as shown below:

$$\text{FCA for billing quarter (p/u)} = \frac{\text{IVC (Rs. Crore)x1000}}{\text{Normative Sale (MU)}}$$

Where,

IVC = sum of – (a) difference in per unit variable cost actually billed by each long term coal or gas based power generator and variable cost as allowed in the tariff order, multiplied by (b) units availed from each such generating station in the preceding quarter. Variable costs of Hydel Generating Stations shall not be considered for the purpose of working out the increase in variable Cost of Power Purchase.

Preceding Quarter = the period of preceding three months excluding the period of two months immediately preceding to the billing quarter,

Billing Quarter = the period of three months for which FCA is to billed and shall be a period commencing on first day to last day of quarter for the quarter commencing from 1st April ending 30th June and so on.

Normative Sale = the sale grossed down from the total actual ex-bus drawal from all sources (Generators + Other sources) during preceding quarter by the normative PGCIL, transmission and distribution losses for the months of the preceding quarter provided in the tariff order.

5.7 FCA shall have to be worked out on the basis of the normative parameters as per respective generation tariff orders issued by the appropriate Commissions. Further variation if any, shall need prior approval of the Commission.

5.8 FCA charge shall be in the form of paise per unit (kWh) rounded off to the nearest integer. For this purpose, fraction up to 0.5 shall be ignored and fraction higher than 0.5 shall be rounded off to the next higher integer. This charge shall be added to or deducted from, as the case may be, the energy charges as per the existing tariff for the energy billed to every consumer and shall be indicated separately in the electricity bills issued to the consumers and shall be treated as part of energy charge.

5.9 FCA charge shall be uniformly applicable to all categories of consumers of the Distribution Companies in the State.

5.10 MPPMCL has been authorized by the Discoms to procure power on their behalf for retail supply to consumers. The responsibility of working out the rate of FCA every quarter shall rest with the MPPMCL.

5.11 MPPMCL shall workout change in variable cost of power purchase during the preceding quarter based on the bills received by them from the Long Term Coal, oil and Gas based Generators. The information shall be prepared in the following manner for every month of the "preceding quarter" and summated thereafter for the quarter:

Table 88: Format for FCA charge

Month/ quarter	**Name of generating station/ other source**	**Power Drawn ex-bus**	**Variable cost incurred based on actual variable charges**		**Variable cost as per rates provided in tariff order**		**Increase in variable cost of power purchase**
		(MU)	**Rate (paise/unit)**	**Cost (Rs. Cr)**	**Rate (paise/unit)**	**Cost (Rs. Cr)**	**[5-7] (Rs. Cr)**
1	2	3	4	5	6	7	8
Total							

5.12 MPPMCL shall workout "normative sale". For this purpose normative PGCIL, transmission and distribution loss (percentage /quantum) for the months of preceding quarter, as provided in the tariff orders, shall be subtracted from the total ex-bus power drawn during the preceding quarter to arrive at normative sale.

5.13 FCA charge shall be worked out by the MPPMCL based on the formula provided here in above and details shall be submitted to the Commission for verification at least 15 days before the commencement of the billing quarter. After approval of the Commission FCA charge shall be leviable for the following quarter.

5.14 The Distribution Companies shall commence billing of FCA charge from the first day of the billing quarter.

5.15 The rate and amount of FCA charge shall be shown separately in the consumer bills.

5.16 Following illustration is given for the purpose of understanding:

5.17 If the "billing quarter" is say "July to Sept", then the "preceding quarter" shall mean the period "Feb to April" and the period of May and June months is allowed to collect the data/ details and finalization of FCA charge.

5.18 The details of the normative Losses for PGCIL System and MPPTCL System and normative distribution losses as per the tariff orders of the Commission are indicated in the table below:

Table 89: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	%	%	%
Jan., 15	W.R.	2.28%	3.00%	19.59%
	E.R.	2.50%		
Feb., 15	W.R.	2.28%	3.00%	19.59%
	E.R.	2.50%		
March, 15	W.R.	2.28%	3.00%	19.59%
	E.R.	2.50%		
April, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%
May, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%
June, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%
July, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%
August, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%
September, 15	W.R.	3.83%		
	E.R.	2.09%	3.00%	17.64%

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	%	%	%
October, 15	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
November, 15	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
December, 15	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
January, 16	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
February, 16	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
March, 16	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		

* PGCIL Losses: % PGCIL loss is based on input separately from E.R. and W.R.

** Transmission Losses: % M.P. Transmission losses are based on input at State periphery.

*** Distribution Losses: % Distribution losses are based on input at Discoms periphery.

A6: PUBLIC OBJECTIONS AND COMMENTS ON LICENSEES' PETITIONS

6.1 After admission of the ARR and Tariff proposals for FY 2015-16 filed by the three Discoms, salient features were published in the newspapers. The tariff petition filed by the petitioners was uploaded on the Commission's website and also uploaded on the petitioner's website. The Commission had directed the petitioners to publish gist of their tariff applications and proposals to invite comments/objections/suggestions from various stakeholders in the news papers latest by February 13, 2015 and the last date of submission was March 9, 2015. The Commission has considered all the comments received up to the date of public hearings. Names of objectors who had filed the comments/ objections on Discoms ARRs/Tariff Proposals for FY 2015-16 are given in Annexure-I.

6.2 The Commission subsequently issued a public notice inviting all stake holders willing to present their suggestions/objections related to the ARR and Tariff proposals in person during the public hearings. Number of comments received on ARRs/Tariff proposals is shown in the table below :-

Table 90 : No. of objections received

Sr. No.	Name of Discom	Number of suggestions/ objections received on ARR & Tariff Proposal for FY 2015-16
1.	West Discom, Indore	64
2.	Central Discom, Bhopal	36
3.	East Discom, Jabalpur	29
	Total	**129**

6.3 The Commission held public hearing as per following schedule:-

Table 91 : Public hearings held:

Sr. No.	Name of the Distribution Company	Date of hearing	Venue of hearing
1	West Discom, Indore	17th March 2015	Santosh Sabhagrah, Film Bhavan, Near Rani Sati Gate, Yashwant Niwas Road, Indore.
2	Central Discom, Bhopal	20th March 2015	Auditorium, Academy of Administration, 1100 Quarters, Bhopal
3	East Discom, Jabalpur	24th March 2015	"Tarang Auditorium", Shakti Bhavan, Rampur, Jabalpur

6.4 During the course of hearing, majority of the respondents from all consumer categories opposed tariff hike as proposed by the Discoms .Most of the respondents were of the view that major cause of poor performance of the three Discoms was high distribution losses including theft of electricity and lack of meterisation of un-metered connections for domestic and agriculture categories. Many respondents raised their concerns on poor progress of meterisation so far achieved by Discoms specifically in case of metering of domestic and agricultural connections in rural areas. They were of the view that a definite plan for implementing 100% meterisation for all categories of consumers be enforced in line with the provisions of the Electricity Act 2003.

6.5 Representatives from industries/industrial associations/organizations have opposed the recovery of around Rs. 1730 Crore on account of true-up of past period. While some of the objectors opposed levy of true-up cost as the matter is sub-judice, many objectors requested that true-up cost be recovered either across a period of 3 years or by converting the same into regulatory assets. Objectors also submitted that true-up cost be recovered through a separate head so as to avoid levy of electricity duty. Majority of the respondents objected to the proposed change in general terms and conditions of tariff.

6.6 With regard to management of surplus power available in the State, majority of the objectors were of the view that there is need to explore alternative mechanisms to deal with the issue of surplus power in a prudent manner. They objected upon the proposal of the Discoms to sell surplus power at Rs. 2.94/unit, and submitted that the possibility of sale of surplus power at a higher rate may be explored. They further opined that merit order dispatch may be followed for purchase of power. Some objectors requested that the Commission may determine tariff in such a way that surplus power is consumed within the state.

6.7 As part of the tariff exercise, a meeting of the State Advisory Committee (SAC) was convened on 03.03.2015 at the Commission's office to obtain their views on the ARR/Tariff proposals of licensees. The issues raised and suggestions made by the members of SAC have been duly considered.

6.8 While a number of suggestions/ objections and comments have been received and given due consideration by the Commission, only salient objections related to tariff petition received including those raised during the public hearings, have been grouped together according to the nature of the suggestions/objections and are summarized in this chapter as given in following paragraphs:

ISSUE NO. 1: Railway Traction

Issue raised by objectors

- West Central Railway submitted that the Discoms have proposed hike in traction tariff to the extent of 20% in energy charges and 13.2% in demand charges. This hike is unreasonably high and would result in cross subsidy burden of +25.34%, which is beyond the ±20% limit specified by National Tariff Policy, 2006.
- Railway traction tariff should not be hiked since the matter is sub-judice in the Hon'ble Supreme Court vide Civil Appeal No. 10079 of 2014 against the Commission's tariff order for FY 2012-13.
- Further, representative opposed the proposal for levy of power factor penalty on leading P.F and requested that the existing provision should be continued.

- Incentive for early payment of 0.25% and incentive for newly electrified sections, etc., should not be deducted for the purpose of calculating average tariff and cross subsidy.

Response from Discoms

Discoms have already adopted a roadmap for reducing the cross subsidy as per the National Tariff Policy. However, Discom would like to highlight the fact that power supply for railway traction is of highest quality and is accorded special priority in restoration of supply during disruptions/breakdowns, if any. Discoms have also submitted that the voltage wise cost of supply has been calculated in a manner which has been considered by the Commission in its tariff order for FY 2014-15. Moreover, methodology adopted for computing voltage-level wise cost of supply is as per the judgments of the Hon'ble APTEL in Appeal No. 103 of 2010.

- Proposed tariff is in line with the provisions of Electricity Act, 2003, National Tariff Policy, National Electricity Policy, relevant regulations, average cost of supply and cross subsidy roadmap.
- Discoms' concerns are limited to the recovery of cost of supply, as per statutory provisions.
- The Hon'ble Supreme Court has neither issued any directives nor granted any stay on the issues raised by Railway.
- The reactive flows, whether leading or lagging, in any part or element of the system has the same effect on the losses and blockage of system capacity. Moreover, leading reactive power flow leads to steady state and transient overvoltage which endangers system security and operation. Therefore, leading reactive flows have to be curbed. Static VAr compensation can be the solution for avoiding capacitive over-compensation, as it closely follows the load curve and continuously adjusts the compensation to the required level.
- Discoms have submitted that there is no provision in the Tariff Policy regarding the deduction of incentive for calculating the average tariff and cross subsidy. The word "average" has been provided for calculating the cost of supply and tariff which means that all the components and attributes having a direct impact on the effective tariff should be included and accounted for in determination of average tariff, so that, Discoms can recover the entire legitimate cost. Excluding the impact of incentives would effectively make the burden two-fold on the licensee for promoting best practices and efficient usage of energy.

Commission's views

- The Commission has determined the railway traction tariff in accordance with Electricity Act, 2003, Tariff Policy 2006 and provisions of all relevant regulations.
- The Commission has not changed the existing system of power factor measurement in this tariff order.

  The Commission has retained the existing tariff structure. The concerns of the Railways have been appropriately considered.

ISSUE NO.2: Determination of category-wise cost of supply and cross subsidy

Issue raised by objectors

Representatives from industries/industrial associations and organizations submitted the following objections/suggestions:

- Category wise cost of supply may be worked out
- Notional growth of 5%-7% allocated for cross-subsidy with respect to consumers in irrigation category.
- Determination of agriculture tariff may be considered at 90% of cost of supply to reduce the burden of cross subsidy on other consumers.
- Tariff for subsidized class of consumers should be hiked to 85% of ACoS.
- Roadmap for cross subsidy reduction may be prepared. Cross subsidy may be limited to ±10% in FY 2015-16 and elimination of cross subsidies in the next 2-3 years.

Response from Discoms

- Discoms have submitted that the proposed tariff is in line with the provisions of Electricity Act, 2003, National Tariff Policy, National Electricity Policy, relevant regulations, average cost of supply and cross-subsidy roadmap.
- Discoms have also submitted that the voltage wise cost of supply has been calculated in a manner which has already been approved by the Commission in the tariff order for FY 2014-15. Moreover, methodology adopted for computing voltage-wise cost of supply is as per the judgments of Hon'ble APTEL in Appeal No. 103 of 2010.

Commission's views

- Tariff has been determined in line with the provisions of the Electricity act,2003, tariff policy and relevant regulations .
- In absence of requisite data, only indicative VCoS cross subsidy percentages have been worked out based on available information. These may have to be further validated in due course of time when requisite data / information are available.

ISSUE NO.3: Opposed change in proposed reduction in excess demand limit from existing 105% to 100% of contract demand

Issue raised by objectors

Respondents have submitted the following:

- Discoms' proposal to withdraw the provision of maximum demand recorded in any month over and above 5% of contract demand should not be considered.
- In view of power surplus situation in the state, excess demand up to 15% may be encouraged and no charges be levied on demand exceeding 15%.
- Existing penal charges with respect to demand based tariff consumers applicable when maximum demand exceeds the sanctioned contract demand also needs to be reduced.
- No penalty on energy charges irrespective of any rise in excess demand.
- Contract demand above 105% and temporary demand should be billed at 1.2 times of normal tariff & corresponding excess energy charges should be supplied at normal energy rates.

Response from Discoms

As per the tariff order the computation of excess demand is to be done on the basis of difference of recorded maximum demand and 105% of contract demand. This clearly indicates that the demand over and above the contract demand and up to 105% of contract demand shall not be termed as Excess Demand and consumers would be billed on normal tariff without paying any additional charge and this is a breach of the agreement. It means that the word "Contract" of the contract demand has no relevance to the agreement. This anomaly needs to be reviewed and rectified and therefore change in definition of the excess demand is proposed. In any increase in contract demand, the decision of the Hon'ble Supreme Court in Sitaram Rice Mill case (2012{2} sec 108) will be apply.

Commission's views

The Commission has retained the existing structure in this regard.

ISSUE NO. 4: Regarding Time of Day (ToD) incentive/surcharge

Issues raised by objectors

- Reduction in ToD peak surcharge to 5% from 7.5% and increase in off-peak hour rebate to 20% from 15%.
- In view of surplus power and need to improve DSM, off-peak incentive needs to be increased from 5%. Surcharge during peak hours to be withdrawn owing to availability of surplus power and lack of need for short-term power purchase.
- Peak hour surcharge should be abolished.
- Rebate should be allowed in peak load hours instead of 7.5% surcharge.
- During day time and during peak hours, consumers can use power to the extent of 10% of contract demand and 10% of tariff minimum consumption to carry out office works, repair works and the like.
- Increase in off-peak hour incentive to 15% on account of availability of surplus power.
- Peak hour rebate to be increased to 30%.
- Rebate of 25% for power supply between 10 PM – 6 AM and elimination of surcharge.
- Representatives from industries/industrial associations requested introduction of night tariff.

Response from Discoms

The purpose of having ToD tariff is to ensure economical utilization of electricity. Usually, during the peak hours, the demand in the system is highest; this is also mirrored by the changes in the rate of power during peak hours. In order to reduce the financial burden or purchasing power during peak hours, at ToD surcharge is put in place to discourage consumers to draw electricity during peak hours.

With regard to the request of night tariff, Discoms submitted that the Commission has already approved time of day surcharge/rebate in Tariff order 2014-15. In this ToD tariff percentage of surcharge/rebate has been given in two separate hours. (1) Evening peak load period(6 PM to 10 PM) with 7.5% of normal rate of energy charge as surcharge and (2) off peak load period (10 PM to 6 AM next day) with 15% normal rate of energy charge as rebate. Thus the night tariff has already been given in the above mentioned order.

Commission's views.

ToD surcharge during peak load hours has been brought down to 5% while the rebate during off peak load hours has been kept at 15%.

ISSUE NO. 5: Review of domestic tariff category

Issue raised by objectors

Domestic consumers including representatives from various organisations have opposed the proposed tariff hike in domestic category. They suggested that except for up to 30 units, a single slab be created for other levels of consumption. Uniform charges may be applicable on the same. Further, authorised load for domestic category should be clearly defined.

Response from Discoms

The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views

With regard to the proposal for review of domestic tariff structure, the Commission has rearranged the consumption slabs appropriately.

ISSUE NO. 6: Single tariff category in LT Industrial consumers for 0 – 150 HP load

Issue raised by objectors

There should be one tariff category for LT industrial consumers from 0-150 HP. For encouraging small industries, reduction in tariff for consumption up to first 1000 units may be provided. In the current mechanism of two slabs for demand based tariff, Discoms are invoking Section 126 of Electricity Act, 2003 despite the fact that penal provisions already exist in the tariff schedule and clause 7.26 of the supply code

Response from Discoms

The petitioner has not proposed any change in the existing tariff structure for LT Industrial tariff category. Discoms referred to the judgments of Hon'ble APTEL in Appeal No. 158 of 2014 and Hon'ble Supreme Court in the case of Sri Seetharam Mills and submitted that Sections 126 and 127 have been described as complete code in themselves. In view of the aforesaid pronouncements, Discoms have submitted that the matters falling under Sections 126 and 127 of Electricity Act, 2003 cannot be inferred with by any other statutory authority and the remedy lies in the avenue prescribed under Electricity Act, 2003.

Discoms further submitted that the proposals made in the petition are fair and reasonable and do not in any way excessively burden the consumers.

Commission's views

The Commission has appropriately revised tariff structure of LV-4 tariff category.

***ISSUE NO. 7: Permitting use of 10% of domestic sanctioned load for* non-domestic purpose**

Issue raised by objectors

Representative from various industrial associations have requested that in respect of domestic category, 10% of the sanctioned load should be allowed to use for non-domestic purpose.

Response from Discoms

The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views:

The Commission is of the view that these issues were raised during previous tariff determination exercises as well. The Commission does not find any justification for the provision sought by the objector.

ISSUE NO. 8: Change in definition of rural area

Issue raised by objectors

Representatives from various organizations & industries have opposed the Discoms' proposal regarding change in respect of definition of "Rural area" and requested that the existing definition be continued.

Response from Discoms

The concept of urban area in electricity field is quite different, which is in the interest of public at large as well as number of equity that the consumers, who are getting supply from urban feeders under urban discipline that must be billed on urban tariff. Since Discoms are supplying 24 hours excluding agriculture feeder, Discoms requested the Commission to consider the defining of rural area according to supply hours. State Govt. notification for declaring rural area is meant for the purpose of Section 14 of Electricity Act, 2003. The Discoms' request for declaring rural area is meant for billing purpose which is entirely different from State Govt. notification under Section 14 of Electricity Act, 2003.

Commission's views

The issue has been repeatedly raised in the past. The Commission remains of the view that no change is required.

ISSUE NO. 9: Tariff for Telecom service Providers

Issue raised by objectors

Representative from Telecom service providers requested that rural area rebate of Rs. 0.25/unit be continued and tariff for mobile services not be hiked. The representative requested separate category for infrastructure services. They also requested that E-payment facilities at single point shall be provided for all connections.

However, objector from East Discom opposed the rebate; on the grounds that infrastructure in rural areas serves urban areas as well. The objector requested that the rebate be discontinued and tariff be hiked.

Response from Discoms

Discoms have submitted that as per the tariff order for FY 2014-15, LV-2.2(Non-Domestic tariff category) and HV-3 (Industrial, Non-Industrial and Shopping Mall) tariff categories of consumers were provided with incentive of rural feeder. In the current scenario of power supply position, all the rural feeders excluding agricultural feeder are provided 24 hours of supply. Therefore, it will be appropriate to withdraw the incentive for these categories of consumers who are connected with the rural feeders.

Commission's views

The Commission has taken note of the objectors' submissions. The Commission is of the view that creation of separate category for infrastructure services is not warranted. However, to give impetus to expansion of telecom infrastructure in rural areas suitable rebate in energy charges has been provided.

***ISSUE NO. 10:* Abolition of provision of minimum consumption charges**

Issue raised by objectors

Representatives from various industrial organizations requested abolition of minimum charges after fixing adequate fixed charges.

One of the objectors suggested that tariff minimum consumption in HV-3 (Industrial, Non-Industrial & Shopping Mall) tariff category for supply at 220/132 kV(for others) tariff category be recovered in inverse proportion to class of voltage and the same should correspondingly reduce with increase in demand and energy charge. Therefore, tariff minimum of 1800 unit/kVA should reduce to 900 unit/kVA.

Response from Discoms

Discoms have submitted that the minimum charges are levied on the consumers because fixed cost incurred by the licensee is not fully recovered through fixed charges as the fixed charges are at low level and therefore, there is no alternative left but to levy minimum charges so as to maintain revenue balance. Discoms added that various courts have settled the issue and upheld levy of minimum charges.

With regard to the suggestion for tariff category HV-3, the Discoms referred to the Commission's view on the same in the tariff order for FY 2011-12 and added that it would need to study the impact of recovery of tariff minimum in inverse proportion on Discoms' revenue.

Commission's views
No change in existing provision is considered appropriate by the Commission

ISSUE NO.11: Request for new tariff slabs
Issue raised by objectors
Representatives from Agro based industries have requested that a new slab up to 10 HP be provided for atta chakki, halar, power loom industries in place of the existing 25 HP.

Response from Discoms
Discoms have submitted that in its tariff proposal, they have not suggested any change in existing tariff structure with regards to proposed tariff category.

Commission's views
The Commission has appropriately revised the tariff structure for LV-4 tariff category.

ISSUE NO .12: Power factor incentives/penalty for HT and LT consumers
Issue raised by objectors
Representatives from industries/industrial associations/organizations have submitted that they have made huge investment for installing capacitor banks for improvement of power factor which results in considerable savings to the Discoms, besides improvement of system. In lieu of the above, they have submitted that the deduction of power factor incentive for the purpose of calculating the average tariff and cross subsidy should not be allowed.

Further, representatives have submitted that for HT consumers, incentives should be provided for power factor at 90% and above, while penalty is to be provided at 80% in place of existing 90%. Some of the representatives have submitted that for LT consumers power factor incentives should be provided at 80% and above in place of 85% and above.

Response from Discoms
Discoms have submitted that as per the Grid code they have to maintain the power factor at the level of 95% otherwise they will be liable to pay the penalty. Further an incentive is the prerogative of the licensee to promote its business interest and create goodwill amongst consumers & general public and should not be inferred as a matter of right. From this point of view the proposed slabs of incentive are justified.

Commission's views
No change in existing provisions is considered appropriate by the Commission.

ISSUE NO .13: Switchover from kWh to kVAh billing
Issue raised by objectors
The Commission should consider abolishing power factor incentive by switching over from kWh to kVAh billing, pending existing implementation.

Response from Discoms
Any improvement in the power factor reduces maximum demand and reduces the bill of the consumer. Incentive above 95% power factor was provided to compensate the cost of

additional equipment required to improve the system. Incentive proposed is quite reasonable and fair. Moreover, incentive as such is a prerogative of the licensee to promote its business and create goodwill amongst the consumers and general public and may not be construed as a matter of right.

Commission's views
The Commission has considered the suggestions of the objector and is of the opinion that the suggestion is not found acceptable.

ISSUE NO. 14: Temporary supply at HT
Issue raised by objectors
Representatives from industrial associations have suggested that temporary supply at HT be charged at 1.1 times in order to encourage more consumers to take temporary supply.

Response from Discoms
The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views
The Commission remains of the view that no change is required. This issue has already been dealt with in the previous tariff orders.

ISSUE NO. 15: Reduction in period for advance payment for temporary agriculture connections
Issue raised by objectors
Representatives from agricultural associations opposed the existing provision in Para 1.4 of LV 5 (Agriculture and Allied Activities) tariff category of tariff order for FY 2014-15 of agricultural consumers availing temporary supply by paying charges in advance of 3 months. They suggested that charges be levied on monthly basis.

Response from Discoms
Commission may take a view on the matter

Commission's views
After going through due process, the Commission had decided in the past, that advance deposits equal to three months be taken for serving of temporary agricultural supply. However, in case the consumer wishes to discontinue supply in less than three months, the refund be arranged within prescribed time limits by the licensee. No change in this provision is considered necessary.

ISSUE NO. 16: Rebate in Cold storage tariff

Issue raised by objectors

Representatives from cold storage associations have requested that the cold storage be considered in the agriculture category and tariff meant for agriculture should be made applicable to HT and LT category.

Response from Discom

It may be mentioned that cold storages are being operated on commercial basis as they are charging the cost of service provided by them to their customers; hence the category need not be changed.

Commission's views

The Commission remains of the view that no change is required in the existing provisions. This issue has already been dealt with in the previous tariff orders.

ISSUE NO. 17: Distribution Losses

Issue raised by objectors

Objector from West Discom has suggested that distribution losses for all 3 Discoms be specified at the same level. Further, the Commission may consider conducting a study on transmission losses and third party audit of distribution losses as per provisions of Tariff Policy, 2006. Another objector requested that fixed charges be reduced and category-wise losses are determined so that losses of other categories are not loaded on each tariff category.

Objector from Central Discom objected to commercial losses at 400, 220 and 132 kV voltage levels and theft of power cannot be allowed at these voltage levels. Another objector has submitted that reduction of T&D losses is to be resolved on priority basis within a specific time period. The objector requested the Commission to initiate action in this regard as directives have not yielded in results. Loading losses on account of various inefficiencies on the consumer is unfair.

Response from Discoms

Levelising the distribution losses for all the distribution licensee at the same level is under the purview of the Commission.

Discoms have submitted that they are adopting various measures to curb the losses and also for meterisation. The tariff petition is always filed as per the provisions of the regulations which prescribe benchmark loss levels. Any increase in the benchmark loss level by the distribution licensee results in the financial loss as no compensation for increased loss level is given to the distribution licensee by the Commission. Therefore as such there is no implication on consumer tariff because of losses higher than benchmark level.

Commission's views

The Commission determines the tariff based on annual normative level of losses. Burden on account of any losses in excess of normative level is not passed on to the consumers and such excess losses are borne by the licensees.

Issue No. 18: Terminal benefits

Issues raised by Objectors

Representative from Madhya Pradesh Vidyut Mandal Abhiyanta Sangh requested the Commission to take suo-motu action in allowing an appropriate amount towards contribution for the terminal benefit trust as deemed.

Response from Discoms

The petitioners agree with the contention of the stakeholder.

Commission's views

The Commission has issued separate regulations to deal with this issue and has also allowed expenses for FY 15-16 towards yearly cash out go for Pension and Terminal Benefits in the ARR.

Issue no. 19: Norms for unmetered connections

Issues raised by Objectors

Many representatives from organizations and individuals objected to supply to agricultural pumps on unmetered basis using ad-hoc and arbitrary norms. One of the Objectors stated that the norms for agricultural unmetered consumers should be as per Para 8.3 (3) of Tariff Policy, 2006.

Response from Discoms

Under Atal Jyoti Abhiyaan by the Government of Madhya Pradesh, all the three Discoms have increased the supply hours to rural areas to 10 hours of quality power supply in a day, an increase of 25% compared to 8 hours of power supply prevalent during the past years. Based on this increase, the Commission rightly increased the norms for agriculture consumers. The revised norms are based on increased supply hour and detailed studies. Further, the Discoms are bound by the directives given by the Commission on meterisation.

Commission's views

Discoms should strive to attain 100% meterisation of balance rural domestic consumers and agriculture DTRs at the earliest so that the actual consumption gets properly accounted.

Issue No. 20: Opposed proposal for rounding off of fractional load

Issue raised by objectors:

Many objectors have opposed the Discoms proposal for change in general terms and conditions with regard to rounding off of fractional load to next higher integer.

Response from Discom

Discoms have submitted that with regard to their requirement for maintaining the electrical network for higher value of fractional load, the proposed changes are in line with commercial principles and principles of electrical engineering

Commission's views

The Commission has retained the existing provisions in this regard.

Issue No. 21: Rounding off of load factor

Issue raised by objectors:

Many objectors have opposed the existing mechanism of rounding off of load factor to the nearest lower integer.

Response from Discom

Any change of terms and conditions pertaining to tariff is the prerogative of the Commission.

Commission's views

The Commission has retained the existing structure in this regard.

Issue No. 22: Load factor incentive for HT consumers

Issue raised by objectors:

- While some of the objectors suggested that incentives be made applicable from 50% and above, another objector submitted that for small industries, since achieving load factor of 50% is difficult, the limit of the same should be reduced to 25%.
- However, one of the objectors submitted that load factor incentive should be abolished after carrying out due adjustment in energy charges.
  Some of the objectors have suggested a change in the formula for calculating load factor to the formula adopted by the Commission in the tariff order for FY 2010-11

Response from Discom

The basic purpose of providing Load factor incentive is to encourage the consumers towards optimum utilization of load. The licensee's average power purchase cost and consumers average tariff will automatically get reduced if consumer's draws maximum power in the same Contract Demand and therefore the gain on account of reduction on average power purchase cost will be passed on to the consumer through load factor incentive. Hence, consumer gets double benefit, first in terms of reduction in its average tariff and secondly through load factor incentive.

Apart from the above, in general, incentive is a distinguishing factor between consumers according to the optimal utilization of resources put in place. Further, the Commission in its tariff order issued for the year FY 2011-12 has expressed the view that the load factor incentives should progressively be reduced which it has been doing in the past tariff orders.

Commission's views

The Commission has noted the submissions of the objectors and response of the Discoms and does not find any further changes necessary in the existing structure in this regard.

Issue No. 23: Recovery of true-up cost pertaining to past period

Issue raised by objectors:

Many objectors opposed the proposal to recover the cost on accounting of true-up of past period pertaining to Rs. 1730 Crore. Suggestions made in this regard are given below:

- Recovery of true-up costs of Discoms not to be allowed as the matter is sub-judice.
- Impact of true up cost to be recovered over a period of 3 years.
- Recovery of true up cost to be under a separate head to avoid burden of electricity duty
- Mechanism for recovery of true-up cost be prepared and clearly indicated in the bill.
- True-up cost may be recovered 3 or 4 installments by converting the same into regulatory assets.
- True-up cost may be recovered progressively in subsequent years.
- True-up costs from FY 2009-10 onwards may not form part of ARR and these costs be met through restructuring of finances.

Response from Discom

- The manner of recovery of true-up costs is the prerogative of the Commission. However, it should be recovered immediately after finalization of the true-up exercise so that future consumers are not unduly burdened with cost pertaining to prior period, including the progressively increasing carrying costs.
- The Commission may take an appropriate view relating to the method of recovery of true-up costs.

Commission's views

True-up cost is the difference between admitted expenses in the tariff order and actual expenses considered to be prudent on the basis of audited accounts of the Discoms. This is a part of the tariff structure and hence would need to be recovered through tariff only.

Issue No. 24: Estimation of sales

Issue raised by objectors:

- For projecting consumption of domestic consumers, realistic estimate to the extent of 8-10% should be considered.
- Projection of sales towards agriculture consumers is very high and not realistic
- High projection of growth for LT demand has distorted the HT/LT ratio, which may cause high T&D losses and low realization rates. Discoms should improve HT/LT ratio if financial stability is to be achieved.
- Sales projections with regard to water works are not realistic.

Response from Discom

The Discoms have submitted that sales for FY 2015-16 have been projected on the basis of the actual data of number of consumers, connected load and consumption during the last 4 years and on the basis of revised estimate for FY 2014-15. The approach being followed is to analyze 3 year and 2 year Compound Annual Growth Rates (CAGRs) and year on year growth rate of each category and its sub-categories in respect of urban & rural consumers separately. After analysis of the data, appropriate / reasonable growth rates have been assumed for future consumer forecasts from the past CAGRs of the category/sub-category by the three Discoms.

The past CAGR on sales per consumer / sales per kW and connected load has been applied while forecasting the connected load and sales in each category/sub-category. The use of specific consumption i.e. consumption per consumer and / or consumption per unit load is the basic forecasting variable and is widely used in load and energy sales forecasting. The basic intent in using this model is that, the specific consumption per consumer and / or consumption per unit load captures the trends and variations in the usage of electricity over a growth cycle more precisely. This method has been recommended by the CEA as well.

Commission's views
The Commission has appropriately considered the matter as elaborated in the section on "Commission's analysis of sale" of this order.

Issue No. 25: Management of surplus power
Issue raised by objectors:
Representatives from various industries/associations and organizations opposed to the proposed mechanism for management of surplus energy. They suggested the following:

- Discoms should sell surplus power through trading companies and agreements with power deficit states like Maharashtra, Delhi, etc.
- Services of trading company/consultant may be availed to explore sale of surplus power at Rs. 3.50/unit and avoid backing down.
- Surplus power should be sold through open bidding.
- Domestic consumers are being discouraged from consuming power while power is being sold at cheaper rates in the name of surplus power. Discoms are thus incurring losses and loading the same on consumers. Therefore, surplus power should be allowed to be consumed by domestic consumers without charging higher tariff for higher consumption. Further, industries in the state should be encouraged to use surplus power by making suitable adjustment in tariff and devising a mechanism to encourage industries to consume surplus power.
- The Commission is requested to determine tariff so that surplus power can be purchased by captive power plants and open access consumers in the state.
- Power exchange rates are not the maximum rates on which the power is disposable. In a vibrant market, price will depend on the demand and supply position and time of disposal. Further, it is possible to realize more revenue from sale of power. The Commission is requested to give specific direction with regard to sale of surplus power in accordance with the provisions of Regulations on the subject.
- Surplus power should not be disposed through traders or intermediaries as it puts additional burden of trading margin on consumers.
- Rate of sale of surplus power may be considered at Rs.3.50/unit.

Response from Discom

- The proposed rate of Rs. 2.94/unit is the average rate of actual sale of surplus energy by MPPMCL for the past year and the same has been proposed for sale of surplus energy for the ensuing year.
- Appropriate rate for sale of surplus energy may be further determined by the Commission as deemed suitable, considering various power sale options like short term sale, competitive bidding, power banking to other states, etc.

- Surplus energy has been projected on provisional basis and this may further reduce based on actual power demand in the state as well as actual energy availability from various stations.
- The actual revenue realized from sale of surplus power and the consequent power purchase costs shall also be submitted to the Commission at the time of true-up to account for any variation from projections.

Commission's views

The Commission has noted the submissions of the objectors in this regard and has dealt with the issue in the section on "Power purchase costs" of the tariff order.

Issue No. 26: Fuel Cost Adjustment

Issue raised by objectors:

Representatives from various industries/associations and organizations submitted that the FCA charges should not be recovered on deficit units (tariff minimum) and should be levied on actual consumption.

Response from Discom

Fuel Cost Adjustment ("FCA") is for recovery/adjustment of un-controllable costs due to increase or decrease in the cost of fuel in case of coal, oil, and gas for generating plants only.

The Discoms have further submitted that the FCA is in line with the Commission's regulations and judgment of Hon'ble APTEL in OP No. 1 of 2011. Discoms added that the present calculation of FCA is well settled by the Commission of the tariff order for FY 2013-14 same is part of the revenue obtained from energy charges.

Commission's views

The FCA is levied to recover the difference of variable cost of generators provided in the tariff and as billed in actual. Variable charges are essentially the energy charge rates billed by the generators to recover the variable cost of generation. Thus the FCA is part of energy charge and accordingly is levied as per the provisions elucidated in the relevant section of this order. The suggestions are therefore not found acceptable.

Issue No. 27: Abolition of slab tariff of load factor below 50% and above 50% in HT category

Issue raised by objectors:

- Some of the objectors have requested that existing two-slab tariff for HT consumers may be merged into one.
- Objector opposed the method of energy accounting of a consumer drawing energy from two sources, i.e., licensee and through open access simultaneously.

Response from Discom

- The matter does not pertain to ARR petition but related to the Commission's open access regulations.
- The Commission may take a suitable view on the matter.

Commission's views

- The Commission has continued with the existing tariff structure for HT consumers as any such change at this juncture would result in tariff shock to some of the consumers, particularly having high load factor. Therefore attempt is being made to bridge the gap of these two rates gradually.
- The Commission does not find any merit in the suggested change in methodology of billing in case of consumers availing open access.

Issue No. 28: Change in terms and conditions of tariff

Issue raised by objectors:

- Some of the objectors submitted that review of terms and conditions of tariff to be done at the time of fixing multi-year tariff. In the meantime, no changes are to be made to existing terms and conditions.
- Some of the objectors also suggested that any change to terms and conditions should be made after conducting a separate public hearing.

Response from Discom

The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views

Changes in terms and conditions of tariff have financial and other implications. The Commission considers it appropriate that any changes in the terms and conditions of the tariff schedule have to be considered with the ARR/tariff petition.

Issue No. 29: HV-7 tariff category (Synchronization and Start-up Power for Generators Connected to the Grid) be continued

Issue raised by objectors:

Some of the objectors submitted that terms and conditions provided in tariff order for FY 2014-15 for synchronization and start up power for generators connected to the grid should not be changed.

Response from Discom

Discoms are of the view that the issue regarding start up/auxiliary power should be dealt with in the Supply Code and the CPP (captive power plant) Regulation and should not be a part of the retail supply tariff order.

Commission's views

The Commission finds no justification for any change in the existing provisions.

Issue No. 30: Investment plan and capitalization of assets

Issue raised by objectors:

Some of the objectors have submitted that for projecting capitalization for FY 2015-16, the approach used by the Commission in the tariff order for FY 2014-15 should be followed.

Response from Discom

Discoms have submitted that the Commission's guidelines have been adhered to in projecting the investment plan and capitalization of assets.

Commission's views

The Commission has dealt with the issue appropriately in the relevant chapter of this order on the basis of past performance of the licensee and projections made by the Discoms.

Issue No. 31: Review of HV-3 (Industrial, Non-Industrial and Shopping Mall) tariff category.

Issue raised by objectors:

Representatives from industries/industrial associations have submitted that tariff for industries; non-industries and power intensive industries should be the same.

Response from Discom

The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views

The Commission has differentiated among the tariff of industries, non-industries and power intensive industries on the basis of the use, load, etc. as per the provisions of the Electricity Act, 2003, and the relevant regulations.

Issue No. 32: Review of HV-3.4 (Power Intensive Industries) tariff category.

Issue raised by objectors:

- Representatives from power intensive industries have opposed the Discoms' proposal wherein preferential rate is withdrawn in the proposed tariff.
- Further, representative from industrial association has requested the Commission to permit load factor incentives to power intensive industries as applicable for other industrial consumers.

Response from Discom

The proposed tariff has been finalized in a very scientific manner and as per the principles laid down in the National Tariff Policy.

Commission's views

The Commission finds no justification for any change in the existing tariff structure.

Issue No. 33: HV-4 seasonal tariff

Issue raised by objectors:

- Representatives from industries/industrial associations have submitted that off-season period should be for 4-6 months as per consumers' requirement.
- Further, representative from industry has also requested that seasonal tariff be made applicable for micro/mini & small hydro plants for synchronization, start-up and plant and colony maintenance.

Response from Discom

The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

With regard to the request for seasonal tariff for hydro plants, the Discoms requested the Commission to take a suitable view on the matter.

Commission's views

The Commission has retained the existing tariff structure in this regard.

Issue No. 34: Separate tariff category

Issue raised by objectors:

Representatives from industries/associations/organizations made requests for separate tariff categories. These are as under:

- Separate tariff category for co-generation in HT industries.
- Separate tariff category for captive power plants to avail power from Discoms instead of availing power through open access.
- Separate tariff category for consumers getting supply through independent feeder. For said category, specific line loss should be considered as under present mechanism, these consumers are being punished by the Discoms by considering generalized line loss. The objector also requested concessional tariff for consumers getting supply through independent feeder in line with the mechanism prevalent for SEZ in certain areas.

Response from Discom

- The Commission, vide various regulations has specified provisions to safeguard the interests of the consumer and the licensees and accordingly made provisions to determine retail tariff for all categories of consumers. Further, Discoms have to schedule energy and maintain its network. Hence, new tariff category is not required.
- Discoms are of the view that the issue regarding start up/auxiliary power should be dealt with in the Supply Code and the CPP (captive power plant) Regulation and should not be a part of the retail supply tariff order.

Commission's views

The Commission has stipulated the existing tariff structure after considering all aspects including the nature of load and all relevant factors. The Commission finds no merit in the submission of the objectors.

Issue No. 35: Request to be covered under Domestic category

Issue raised by objectors:

Representatives from associations/organizations have submitted requests to be covered under domestic category. They are as given below:

- As rooms in hostels are rented for domestic use to students, hostels should fall under domestic category instead of non-domestic category. The objector requested subsidy on tariff as students are getting incentives and subsidy in every government scheme.
- Since blood banks are an essential service, domestic tariff category should apply.
- Representative from Indian Dental Association requested the Commission to consider OPD, dental and medical clinics (not nursing homes) as non-commercial activity.

Response from Discom

- Providing hostel to needy students by private parties/individuals is a business activity. Therefore, this activity is covered under non-domestic category.
- Request for change of category falls under the purview of the Commission.

Commission's views

The Commission has retained the existing tariff structure as it does find any merit in the suggestions of the objectors.

Issue No. 36 Return on Equity(RoE)

Issue raised by objectors:

Some of the objectors have requested the Commission to allow RoE only if equity has actually been invested and used in creation of tangible assets.

Response from Discom

Equity of the Company is invested in – installation of poles and LT lines, HT lines, installation of 33/11 KV substations and transformers etc. which are purely tangible assets hence RoE becomes the major part of the ARR.

Commission's views

RoE has been determined as per the provisions of the regulations.

Issue No. 37: Bad and Doubtful Debts

Issue raised by objectors:

Some of the objectors have submitted that bad and doubtful debts have to be based on actual and not on an empirical formula of 1% of revenue collected. Further, one of the objectors has suggested that in order to tackle the issue of bad debts, connections of those consumers who draw electricity more than the amount of security deposit may be disconnected.

Response from Discom

Discoms have submitted that they have claimed bad and doubtful debts by observing the maximum limit of 1% of estimated revenue for FY 2015-16. Since actual revenue for FY 2015-16 will be available after the end of FY 2015-16 and preparation of audited accounts, the actual bad and doubtful debts shall be determined at the time of true-up.

Commission's views

The Commission has made the provisions for the expenses against the bad and doubtful debts as per the provisions of the Regulations.

Issue No. 38: Uniform tariff structure

Issue raised by objectors:

Some of the objectors have objected to determination of uniform tariff across all three Discoms. While one of the objectors has submitted that uniform tariff determination is not possible due to the fact that power purchase, losses and other expenses of each Discom is different, another objector requested the Commission to review the uniform structure and allow competition amongst the Discoms and provide better services to the consumers.

Commission's views

The Commission has determined uniform tariff as per the advice of the State Government under the relevant provisions of the Electricity Act, 2003.

Issue No. 39: Concessional tariff for industries with export status

Issue raised by objectors:

Representative from textile industry has submitted that concessional tariff may be given to entities with export status, covered under EPCG scheme and with export obligation from the government. The representative also requested exemption from additional charge on electricity tariff on account of export status.

Response from Discom

The argument given by the objector is true in various other types of industries also. The Commission has already fixed lower tariff for power intensive industries which only cover the mini steel plants, rolling mills & sponge iron plants. The textile industry has much lower electricity consumption as compared to aforementioned industries and therefore has not been considered for a separate (lower) tariff. The Discoms are also in a view to keep the tariff of textile industry in HV-3.1 along with the other industries having similar electricity consumption.

Commission's views

The Commission finds no merit in the suggestion.

Issue No. 40: Abolition of different tariff for rural and urban areas

Issue raised by objectors:

Some of the objectors have requested for abolition of different tariff for urban and rural areas.

Response from Discom

The Commission may take a suitable view on the matter.

Commission's views

Though the feeder separation scheme is in full flow, it has been observed that hours of supply and quality in rural areas are still not comparable with urban areas. Thus, the differential tariff for rural areas is not being abolished as of now.

Issue No. 41: Review of specific consumption

Issue raised by objectors:

One of the objectors has submitted that specific consumption in agriculture category needs review due to change in supply hours and crop pattern.

Response from Discom

The Commission may take a suitable view on the matter.

Commission's views

The Commission after due deliberations and examination of the data submitted by the licensees in the past had revised the norms for assessment of unmetered agriculture connection in FY 2014-15 tariff order and does not consider it appropriate to make any further review of the same.

Issue No. 42: Fixed charges in domestic tariff category.

Issue raised by objectors:

- The objector submitted that fixed charges are to be fixed instead of being linked to consumption, as applicable in non-domestic category. The objector added that parameters for basis of fixed charges should be the same for all sub-categories.
- Fixed charges for domestic and non-domestic categories need to be the same. Further, domestic and commercial categories be merged and slab tariff eliminated.

Response from Discom

In case of domestic consumers, fixed charges are based on the authorized load of the consumers, in line with the fifth amendment of the Supply Code, 2004. It would be appropriate to compare per unit average tariff on the basis of both fixed and energy charges as a whole and not on the basis of fixed or energy charges separately. Further, there are no guidelines with regard to the cross subsidy within a particular category. If any reduction in cross-subsidy within the sub-category of a particular category is considered then the tariff of consumers with lower or medium consumption shall have to be increased, which is neither rational nor justified.

The Discom referred to Section 62(3) of Electricity Act, 2003 and submitted that the purpose for supply in domestic and non-domestic categories is different. Therefore, merging the two categories would be against the spirit of Electricity Act, 2003.

Commission's views
The Commission agrees with the views of the Discoms.

Issue No. 43: Incentives to Municipal Solid Waste (MSW) Plants
Issue raised by objectors:

- Representative from Essel Jabalpur MSW Pvt. Ltd. requested that the RPO target for FY 2015-16 be increased. Further, the objector requested that the Commission stipulate exclusive target of 1% of power procured by obligated entities for MSW plants under the Non-Solar category.
- Respondent also requested various incentives, such as exemption from levy of open access charges, zero contract demand charges, signing of part PPA, net metering for power drawn during start-up, shut down and third party sale, grant of must –run status and non-allowance of discount on early payment.

Response from Discom

- The issues raised by the objector are related to regulations on renewable energy, not the tariff petition.

Commission's views
The Commission agrees with the views expressed .by the Discoms.

Issue No. 44: Request for applicability of HV-6 (Bulk Residential Users) tariff category
Issue raised by objectors:
Many representatives have requested to revise the applicability of tariff category HV-6 (Bulk Residential Users) incorporating other registered group housing societies, individual domestic users, old age houses and rescue houses, etc., run by charitable trust in addition to the cooperative group housing society as specified under MoP Notification No. S.No. 798 (E) dated June 9, 2005.

Response from Discom
The Discoms submitted that, in principle, the tariff proposal should be the prerogative of the licensee to safeguard not only its commercial interests but also consumers' interest as well. The licensees proposed changes in tariff rates and some changes in the general terms and conditions of LT and HT tariff. The tariff changes proposed in LT and HT tariff are after the due study and well within the purview of Electricity Act, 2003 and compliance of the tariff regulations.

Commission's views
The Commission has appropriately incorporated the provisions of MoP Notification No. S.No. 798 (E) dated June 9, 2005 in the tariff schedule and no further changes are warranted.

Issue No. 45: Integration cycle for calculation of demand be considered as 30 minutes in place of 15 minutes

Issue raised by objectors:

Representative from industry has submitted that in respect of sliding window principle, time interval of 30 minutes may be considered instead of 15 minutes.

Commission's views

This issue has been raised several times in the past and was given due consideration. There is no justification for any further change in the matter.

Issue No. 46: Fixed charges to be the same for all categories

Issue raised by objectors:

Objector from East Discom has requested that fixed charges for all categories are the same for all categories and be made on per unit basis.

Response from Discom

Fixed charge on consumption basis is applicable only for the domestic category.

Commission's views

The Commission finds no merit in the objector's suggestion.

ISSUE NO. 47: Off-Seasonal energy consumption

Issue raised by objectors

Representatives from industry covered under HV-4 (Seasonal tariff category) and LV-4 (Industrial tariff category) tariff categories has requested the Commission that monthly off-seasonal energy consumption should be raised from 15% to 30% as maximum demand is also allowed up to 30% of contract demand during off-season owing to the fact that maintenance works are carried out.

Commission's views

The Commission is of the opinion that no change is required to the existing tariff structure in this regard.

ISSUE NO. 48: Compliance of Renewable Purchase Obligation (RPO)

Issue raised by objectors

Representatives from renewable energy association have submitted that the Discoms have not submitted any data related to compliance of RPO. The representative requested the Commission to review the actual performance in terms of RPO and issue applicable directive as per the regulations.

Further, with regard to solar RPO and its compliance, one of the objectors has stated on account of reduction of price of solar Renewable Energy Certificates (REC) and its availability in abundance at floor price, the same is more economically viable option for the Discoms for compliance of solar RPO. Therefore, the Commission is requested to direct the Discoms to take effective measures in fulfilling their mandatory obligations from valid instruments as specified by relevant regulations.

Commission's views

The Commission, in the tariff order, has determined the quantum of electricity to be procured through renewable sources of energy for the purpose of compliance of RPO. With regard to the actual performance of Discoms in this matter, this issue will be taken up at the time of true-up as actual data will only be available at that point of time.

ISSUE NO. 49: Prepaid meters

Issue raised by objectors

The Commission is requested to encourage prepaid meters as they are in operation in other states of the country. The objectors submitted that the same would result in efficient realization of revenue without theft of electricity and need for meter reader.

Commission's views

The Commission observes that the Discoms have proposed the introduction of prepaid metering in LV-1.3 (Domestic tariff category) and LV 2.3 (Non-Domestic tariff category) tariff categories in their tariff proposal. The Commission is agreeable to the suggestion of the stakeholder and the proposals made by the Discoms in this regard. The Commission has appropriately provided provision for the same in the tariff schedule for LV-1 and LV-2 consumer categories.

A7: RETAIL TARIFF DESIGN

Legal Position

7.1 In exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Commission has determined the Aggregate Revenue Requirement and Tariff for FY 2015-16 for the petitioners. Due consideration was given to the submissions made by petitioners, objectors and all other relevant material. While determining tariff for various consumer categories, the Commission has given due consideration to the relevant provisions of the Electricity Act, 2003, National Tariff Policy and relevant Regulations.

Commission's Approach to Tariff Determination

7.2 As per the advice of GoMP vide letter no. 2287/2015/13 dated 1 April, 2015, uniform retail supply tariffs shall be continued for FY 2015-16.

7.3 Aggregate Revenue Requirement is determined on the basis of distribution loss level trajectory specified in the Tariff Regulations.

Linkage to Average Cost of Supply

7.4 Vide letter no. MPERC/RE/2013/2780 dated October 25, 2013, the Commission directed Discoms to determine the voltage wise cost of supply for compliance of the directives given in the judgment passed by Hon'ble Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010. The Discoms have submitted the details of calculation of the voltage wise cost of supply as per the methodology provided by the Hon'ble APTEL.

7.5 Petitioners have submitted that the Tariff Regulations do not provide segregation of normative losses for the Distribution Licensees into voltage wise normative losses in respect of technical and commercial losses. Petitioners have further submitted that determination of voltage-wise losses would require detailed technical studies of the Distribution network. Therefore, for the purposes of illustrative computation of voltage-wise cost of supply, the petitioners have assumed voltage-wise losses; the data therein is not duly verified and so, should not be relied upon.

7.6 In view of the above, the Commission has endeavoured to work out approximate category wise cross subsidy based on voltage wise cost of supply in-spite of constraints in segregation of voltage wise cost of losses and capital expenditure related costs. As can be seen from the foregoing, the Hon'ble APTEL has concluded that the mandate of the Tariff Policy to limit cross subsidies within (+/-) 20% of the overall average cost of supply can be applied to determine the category wise retail tariff. However, determination of voltage wise cost of supply is required to enable the Commission to evaluate cross subsidies prevalent at various voltages. The Commission would thus be guided by the voltage wise cost of supply in seeking to gradually reduce cross subsidies at various voltage levels.

In the absence of requisite data, the Hon'ble APTEL has further advised that the power purchase cost which is the major component of the Discoms' costs can be apportioned to different voltage levels in proportion to the sale and losses at the respective voltage levels. As regards the other costs such as Return on Equity, Interest on Loan, depreciation, Interest on Working Capital and O&M costs, these costs can be pooled and apportioned equitably, on pro-rata basis to all voltage levels.

7.7 The Commission agrees with the petitioners' submission that determination of voltage-wise losses would require detailed technical studies of the distribution network. As a first step in the direction of working out category wise cross subsidy based on voltage wise cost of supply, the Commission has attempted to determine the same based on the methodology proposed by the petitioners. The category wise cross subsidy so worked out is indicative in nature and not accurate, as the base data for the same need to be duly culled out on actual. The Commission has adopted following methodology for determination of voltage wise cost of supply:

(i) Voltage wise cost of supply has been computed for above 33 kV and below 33 kV and 11 kV (inclusive of LT) categories only.

(ii) Sales as admitted by the Commission for above 33 kV and below 33 kV and 11 kV (inclusive of LT) categories have been considered.

(iii) Total technical and commercial losses of the petitioners have been considered the same as specified in the Tariff Regulations for FY 2015-16.

(iv) Total losses as admitted by the Commission have been segregated voltage wise for above 33 kV, 33 kV and 11 kV (inclusive of LT) in the same proportion as submitted by the petitioners.

(v) Power purchase costs at the Discom periphery for above 33 kV, below 33 kV and 11 kV (inclusive of LT) based on the voltage-wise input energy have been considered. All other costs of the Discom are allocated based on the sales to each voltage-level.

(vi) Voltage wise total cost derived has been divided by voltage wise sales for working out the voltage wise cost of supply

7.8 Based on the above methodology, the Commission has worked out indicative voltage wise cost of supply and commensurate cross-subsidy as shown in the table below:

Table 92: Computation of voltage-wise cost of supply for the State

State	Units	EHT System (400 kV, 220 kV, 132 kV & 66 kV)	33 KV System	11 KV + LT System	Total
Sales	MU	5,414	5,911	38,913	50,237
Loss%	%	5.32%	5.83%	16.65%	21.23%
Energy input submitted	MU	5,718	6,630	52,445	64,793
Energy input admitted	MU	5,682	6,567	52,012	64,261
Energy lost (Technical up to 33kV voltage & 11 kV + LT technical and commercial)	MU	269	656	13,099	14,024
Commercial loss assumed as 50% of 11kV and LT overall losses	MU			6,550	6,550
Balance 50% commercial losses for all voltage in proportion to sales	MU	706	771	5,073	6,550
Net Energy loss admitted	MU	975	1,427	11,623	14,024
Net energy input 3	MU	6,388	7,337	50,536	64,261
Power Purchase Costs - allocated based on voltage-wise losses	Rs. Crore	1,873	2,248	16,857	20,979
Other costs - allocated based on voltage-wise sales	Rs. Crore	552	568	3,821	4,941
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	115	131	849	1,095
Recoveries of Past	Rs. Crore	237	169	1,323	1,730
Total Costs (ARR requirement)	Rs. Crore	2,548	2,855	21,152	26,555
VCoS	**Rs. /unit**	**4.71**	**4.83**	**5.44**	**5.29**

7.9 Consumer category wise approximate cross-subsidy worked out based on voltage wise cost of supply for FY 2015-16 is shown in the table below:

Table 93: Cross-subsidy based on voltage wise cost of supply for FY 2015-16 for the State

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV-1: Domestic Consumers	5.44	5.12	94%
LV-2: Non Domestic	5.44	7.20	132%
LV-3.1: Public Water Works	5.44	4.41	81%
LV-3.2: Street light	5.44	5.87	108%
LV-4: Industrial	5.44	6.67	123%

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV-5. Agriculture	5.44	4.28	79%
LV			
HV-1: Railway Traction	4.71	6.41	136%
HV-2: Coal Mines	4.79	7.10	148%
HV-3.1: Industrial	4.81	6.75	141%
HV-3.2: Non-Industrial	5.01	7.21	144%
HV-3.3	4.85	7.48	154%
HV-3.4	4.83	5.48	114%
HV-4	4.94	6.26	127%
HV-5.1: Irrigation, PWW and other than Agriculture	4.80	5.02	105%
HV-6: Bulk Residential Users	4.89	5.27	108%
HV-7: Start-up Power to Generators	4.71	6.25	133%
HV			
Total	**5.29**	**5.29**	**100%**

7.10 While determining the tariffs for FY 2015-16, the Commission has given due consideration to the requirement of the Electricity Act, 2003 that consumer tariffs should reflect the cost of supply. The average cost of supply for the year FY 2015-16 works out to Rs.5.29 per unit as against Rs. 4.84 per unit for FY 2014-15. The table below shows the cost coverage on account of tariff for FY 2015-16 as compared to the cost coverage as determined by the Commission in the tariff order for FY 2014-15:

Table 94: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2014-15 (as per tariff order)	FY 2015-16 (achieved as per this tariff order)
LV categories		
Domestic	100%	97%
Non-domestic	136%	136%
Public water works & Street Light	88%	92%
Industrial	122%	125%
Agriculture	77%	81%
HV categories		
Railways	121%	121%

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2014-15 (as per tariff order)	**FY 2015-16 (achieved as per this tariff order)**
Coal Mines	135%	134%
Industrial	123%	125%
Non-industrial	137%	137%
Irrigation, PWW and Other than agriculture	88%	95%
Bulk residential users	99%	100%

7.11 The cost structure has undergone a change during the year as explained in previous sections of this order. The Commission has been consciously making efforts over the past several years to reduce the cross subsidy levels across all consumer categories. However, while doing so it has also kept in mind that any category of consumers is not put to tariff shock by a sudden steep hike. It may also be seen that although there is no change in the tariff for any category of consumers, however, the percentage cross subsidy vis-a-vis overall average cost of supply has undergone a marginal change. This is on account of change in the sale vis-a-vis total load of that category and change in sales mix of categories/ sub-categories.

7.12 After giving due consideration to the suggestions/ objections of the Objectors and the proposals submitted by the Discoms, the Commission has made some changes in the tariff design for FY 2015-16. These changes are mentioned in following paragraphs:

i). **Modification in applicability of LV 1 Domestic Category:** The Commission has included “Gaushalas” in the applicability of Domestic Category.

ii). **Simplification in the tariff structure of Domestic Category:** The issue of simplification of tariff structure in domestic category and reduction in number of slabs has been raised by the objectors. The Commission is also of the same view. However looking to various constraints in doing so, the Commission as a first step has dispensed with the slab of above 500 unit. Now there would be only 4 consumption slabs instead of 5 in LV 1.2.

iii). **Provision for Pre-paid tariff**: The Commission has introduced the prepaid tariff for LV 1 (Domestic category) and LV 2 (Non-Domestic category) consumer categories in the respective tariff schedule.

iv). **Modification in tariff structure of LT industrial category:** Representatives from various industries/ organisations/ associations/ consumers have requested removal of sub-categories based on connected load. This submission was found to be acceptable by the Commission. The Commission therefore has provided demand based tariff for all LT Industrial consumers. For consumers presently under the connected load tariff category. Discoms are directed to execute the agreement based on the contract demand declared by such consumers within two months of the issue of this order. Till declaration of contract demand by the consumers and subsequent execution of agreement, Discoms may bill the consumers by treating their sanctioned load as the contract demand under demand based tariff.

All the three existing subcategories of LT Industrial tariff have been merged to simplify it. However, consumers having loads up to 25 HP have been provided with lower tariff to avoid any tariff shock.

v). **Tariff schedule LV 5 Agriculture and Allied Activities:** The Electiricity Act, 2003 and consequent Tariff policy provide for levy of a fixed charge to the consumers in addition to the charges for energy supplied. The agricultural connections hereto were not charged fixed charges. Complying with the provisions of the law, appropriate fixed charges have been levied on agricultural category.

vi). **Change in TOD Surcharge and Rebate:** The Commission has taken cognizance of the surplus power situation in the State and has appropriately reduced the evening peak load surcharge from 7.5% to 5%. The off peak load rebate has been retained at 15%.

A8: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2014-15

The response submitted by Discoms on the directives issued by the Commission in the Retail Supply tariff order for FY 2014-15 and the Commission's observations/directions thereon are given below:

8.1 Distribution Losses:

Commission's Directives:

Although all the Discoms have shown reducing trend of losses, efforts to reduce losses need to be further intensified. The Discoms should not only endeavor to achieve the benchmarks but to improve further to justify capital invested on loss reduction and system improvement.

Discoms' response:

East Discom's: Discom submitted that following steps are being taken up to reduce the losses:

a) System strengthening works / Augmentation of distribution capacity:

In order to reduce the technical losses, the distribution system is being strengthened /augmented. Following addition in the distribution system has been made till October, 2014.

Sr. no.	Particulars	Unit	As on Mar-2013	Added in FY 2013-14	As on Mar-2014	Added during FY 14-15 (up to Oct-14) (Overall)
1	33/11KV S/s	No.	922	25	947	9
2	Power Transformer	No.	1463	134	1597	45
3	PTR Capacity	MVA	5914.8	861.85	6776.65	349.25
4	33KV Line	Km	15288	757	16045	431
5	11KV Line	Km	95985	9557	105542	4735
6	LT Line	Km	110614	2391	113005	1218
7	DTR	No	116651	15350	132001	6701
8	DTR Capacity	MVA	6430.62	614.93	7045.55	272.06

b) Implementation of Non-RAPDRP Schemes:

In order to bring down the Distribution losses, various works under Non-RAPDRP schemes are being carried out in selected Non-RAPDRP towns. In Phase-I of the scheme, 21 towns were selected. Average loss level of these towns has reduced from 47.28% in the month of March, 2010 to 16.17% in the month of September, 2014. In Phase-II of the scheme, 27 towns have been selected, average loss level of these towns has reduced from 53.26% to 18.96% in the month of September, 2014. In Phase-III of the scheme, 35 towns have been selected. Work in 35 towns is being executed with ADB assistance with estimated cost of Rs. 67.44 Crore. Average loss level of these towns has reduced from 57.66% to 21.33% as of September, 2014. Further in Phase IV of the scheme, 35 towns have been selected with the estimated cost of Rs. 49.58 Crore in which work is under progress. The average loss level of these towns has reduced from 50% to 26.46% as of September, 2014. Further, similar work in 98 Gram Panchayats (Rural DC Head Quarters) was also carried out with an estimated cost of Rs. 27.57 Crore.

c) Feeder Separation scheme:

Provision for separation of 1645 nos. 11 kV feeders has been made under Feeder separation scheme. It is expected that after completion of the project there would be reduction of about 3% in distribution losses from the losses during FY 2009-10. T&D loss in FY 2009-10 was 33.45%, which has come down to 26.02% in March, 2013 and further to 23.94% in November, 2013. The reduction in distribution loss is in line with the objective of Feeder separation scheme.

West Discom's: Discom submitted that they are sincerely striving for reduction in line losses to bring it to the normative level.

Discom submitted the achievement in loss level as compared to the previous financial year for the period from April to July as under:

FY 2013-14		**FY 2014-15**	
Months	**Loss (%)**	**Months**	**Loss (%)**
April 2013	23.61	April 2013	14.58
May 2013	39.88	May 2013	35.74
June 2013	37.97	June 2013	33.96
July 2013	18.01	July 2013	23.04
Average	29.87	Average	26.83

It is submitted that due to increase in supply hours and adverse ground realities, Discom is facing difficulties to achieve distribution loss level according to loss trajectory defined by the Commission. Discom has strengthened vigilance wing and launched intensive checking drives to curb pilferage of energy. Vigilance cell has conducted regular raids to check and to keep surveillance on pilferage of energy. Details from April 2014 to October 2014 are given as below:-

Connection's Checked	**No. of cases of irregularities/theft detected during the period**			**Total amount billed (Rs. Crore)**			**Total amount realized (Rs. Crore)**		
	Direct Theft	Mal-practice	Total	Direct Theft	Mal-practice	Total	Direct Theft	Mal-practice	Total
101254	10259	7912	18171	38.87	32.90	71.78	32.06	29.30	61.36

Feeder separation and other schemes: Discom has launched the feeder separation scheme in two phases. Phase one covers Indore, Dhar, Khandwa, Khargone, Barwani, Burhanpur and Ratlam districts, while phase two covers Ujjain, Dewas, Mandsaur, Neemuch, Alirajpur, Jhabua and Shajapur Districts. Works are under execution.

Discom has also launched various schemes for system strengthening under GoMP / TSP, SCSP, Feeder bifurcation, new irrigation pumps, ADB Second (TR 4 and 5), RGGVY(10th and 11th Plan), JBIC First and Second scheme.

Following addition in the distribution system has been made during FY 2013-14:

Sr. no	**Particulars**	**FY 2013-14**		
		At the Start of year	**Additions during the year**	**At the end of year**
1	Length of lines (ckt-km)			
	- 33kV	13,577	365	13,942
	- 11kV	84,238	11365	95603
	- LT	145878	1743	147621
	Total	243693	13473	257166
2	Number of 33/11kV substations	1,091	49	1140
3	No. of Power Transformers	1,805	222	2027
	Total MVA capacity of power transformers	7,693	1010	8703
4	Number of Distribution Transformers	123805	22963	114768
	Total MVA capacity of Distribution Transformer	**9,957**	**1027**	**10984**

Central Discom's: Discom submitted that the distribution losses for the year FY 2013-14 was nearly 29% which has been brought down to 26.74% as on September 30, 2014.

Commission's observations/ directions:
Although the Discoms have shown reducing trend of losses, efforts to reduce losses need to be further intensified. The Discoms should not only endeavour to achieve the benchmarks but to improve further to justify capital invested on loss reduction and system improvement. The Discoms have been directed to prepare and implement appropriate loss reduction strategies and schemes with a focus on prevention of theft of electricity. The Commission observed that the Central Discom has not cared to furnish requisite details on the efforts made for loss reduction. Such an important issue has been dealt in a very careless manner and it appears that directives of the Commission are not being taken seriously. The Central Discom should furnish detailed report on the steps taken and results achieved during FY 2014-15 within a month alongwith the reasons for making such sketchy submission in their ARR petition.

8.2 Meterization of unmetered connections

Commission's Directives:

During the meeting held on April 23, 2014 with the PS Energy GoMP, MDs of the Discoms and MPPMCL, the issue of delay in meterisation of feeders, agricultural DTRs and unmetered domestic consumers was discussed. Discoms assured the Commission that Meterisation with respect to feeders, agricultural DTRs and unmetered rural domestic consumers would be completed as per directives of the Commission. The Commission directs Discoms to submit the latest status in this regard within a month and shall accordingly review the matter suitably.

Discoms' response:

East Discom: Status and plan of meterisation of un-metered domestic connections, agricultural DTRs and HT feeders is as follows:-

a) Feeder Meterisation: All the metering points of 33kV feeders and 11kV feeders have been provided with the meters.

b) Meterisation of un-metered domestic connections: Meters have been provided on all un-metered domestic connections in urban areas. In rural areas, during FY 2013-14 3,49,845 meters have been provided on rural un-metered domestic connections. Thus, un-metered DLF connections of rural area have reduced from 9,41,085 as on March, 2013 to 5,91,240 as on March, 2014. During FY 2014-15, as on September, 2014, 2,11,615 meters have been provided in un-metered DLF connections. Therefore, as on September 2014, 3,79,625 DLF connections are un-metered. It is planned to provide meters on un-metered connections up to March, 2015.

c) Meterisation of Agricultural DTRs:- Discom as on September, 2014 is having 65511 agricultural DTRs out of which 3355 DTRs have been provided with DTR meters. In addition 34859 DTRs have been provided with 124269 meters in their distribution boxes for individual consumers. Further meterisation of 20,000 DTRs is being taken up in FY 2014-15. The balance DTR meterisation is proposed to be taken up in FY 2015-16 and FY 2016-17.

West Discom: Discom has achieved 100% meterisation in respect of urban domestic category. Out of 14 circles 7 have achieved meterisation. Only 8.63% rural consumers are in metered category which will be metered in 2015. Further Discom submitted that it will adhere to deadlines of meterisation plan and factual position submitted to the Commission.

Central Discom: Discom submitted the status of meterisation as under:

Sl. No.	**Category**	**Total as on June 2014**	**No. of Un-metered as on June 2014**
1	Domestic (Rural)	1135272	232251
2	Feeder meter 33/11 KV	5193	503
3	DTR meter	149985	106518

Discom also submitted that all domestic urban consumers are metered and remaining domestic rural unmetered consumers are being meterized during FY 2014-15 along with feeders. The Central Government is lodging a scheme for 100% meterisation in which all the unmetered agriculture DTRs will be meterized.

Commission's observations/ directions:

The Commission directed the Discoms to expedite feeder meterisation and DTR meterisation on priority basis. Discoms should file a detailed plan in this regard to the Commission by 31st May 2015. Further, the Commission has observed that the Discoms have committed for 100% meterisation of rural domestic connections by 31 March, 2015. A status report in this regard be filed by 31 May 2015. The Commission shall review the status in June 2015.

8.3 Capex. Plan for reduction of technical losses:

Commission's directives:

The licensees should closely monitor progress of implementation of the Capex plans to avoid slippages. The Discoms should monitor the benefits accrued after execution of schemes under the Capex plan and ensure that additional capex does lead to actual pay-back in commercial and technical terms as per provisions envisaged in the schemes.

Discoms' response:

East Discom: Discom submitted that it is continuously monitoring the benefits accrued after execution of schemes under the capex plan. Year wise investment and reduction in T&D losses achieved is shown as below:

Particular	Investment (Cr.)	T&D losses (%)
2012-13	857.63	26.02
2013-14	1016.47	23.68

Thus, investment has redulted in reduction of losses Scheme-wise unit saving. .

West Discom: Discom submitted that implementation of the Capex schemes is under progress. Benefits on account of schemes under execution are evident in improved supply arrangements and continuous supply. Further, implementation of these schemes is resulting in reduction of losses.

Central Discom: Discom submitted that the Commission's directives are being adhered to.

Commission's observations/ directions:
The licensees should closely monitor progress of implementation of the Capex plans to avoid slippages. The Discoms should monitor the benefits accrued after execution of schemes under the Capex plan and ensure that additional capex does lead to actual pay-back in commercial and technical terms as per provisions envisaged in the schemes.

8.4 Segregation of rural feeders into agricultural and others:

Commission's Directives:

The Commission is in receipt of progress in the matter. Feeder separation is reported to be completed in a majority of feeders under the schemes. However, other provisions of the schemes like installation of DTRs, meters, laying of LT cables etc. are lagging behind. It is obvious that the present status of implementation has been below expectations. Petitioners are directed to complete all works envisaged under these schemes expeditiously.

Discoms' response:

East Discom: Discom submitted that it is regularly submitting the progress report of feeder separation work in line with the Commission's directives. The remaining work of feeder separation, i.e., cabling, meters, etc., is also being carried out. Discom further submitted that action is being taken against turnkey contractors not conforming to the given targets. The corporate office is regularly monitoring the progress of FSP and all necessary action is being taken to expedite and complete the work.

West Discom: Discom is way ahead in feeder separation scheme, which was launched in two phases. Phase one covers Indore, Dhar, Khandwa, Khargone, Barwani, Burhanpur and Ratlam districts while second phase covers Ujjain, Dewas, Mandsaur, Neemuch, Alirajpur, Jhabua and Shajapur Districts. Feeder separation works are under execution. Discom has supplied the electricity above the average of minimum daily supply hours as directed in the tariff order for FY 2012-13 to the area where feeder separation scheme has been completed.

Central Discom: Discom submitted the progress for FY 2013-14 and targets for FY 2014-15 and FY 2015-16 as under:

Particulars	**Contract Price**				**11kV line**				**11 kV bay with VCB**			
	FSP	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**
	Rs. Cr.				**Km**				**No.**			
FY 2013-14	143	66	37	246	3271	2115	144	5530	112	0	0	112
FY 14-15 (as on Sept 14)	57	20	21	98	674	194	35	903	29	0	0	29

Particulars	**DTR's**				**Cabling**				**Connection served**			
	FSP	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**
	No.				**Km**				**No.**			
FY 2013-14	3878	1463	1963	7304	2173	510	340	3023	68582	30852	8898	1084322
FY 14-15 (as on Sept 14)	1282	147	1737	3166	613	103	63	779	29934	22689	4322	56945

Sl.No.	**Particulars**	**Unit**	**Target for FY 2015-16**
1	Financial in CR.	Rs. In Cr.	150
2	11 kV Feeder	Nos.	126
3	Villages	Nos.	1742
4	11 kV Add. Bay	Nos.	130
5	11 kV Line	Kms.	2200
6	New DTR	Nos.	4000
7	LT Cabling	Kms.	2500
8	Connection Served	Nos.	50000
A	NSC	Nos.	50000
b	Renovation of service connection	Nos.	50000

Commission's observations/ directions:

The Commission is in receipt of progress in the matter. Feeder separation is reported to be completed in a majority of feeders under the schemes. However, other provisions of the schemes like installation of DTRs, meters, laying of LT cables etc. are lagging behind. It is obvious that the present status of implementation has been below expectations. Petitioners are directed to complete all works envisaged under these schemes expeditiously.

8.5 Issue of tariff card with first bill based on new tariff :

Commission's Directives:

The Commission directs that the practice of providing tariff cards should be continued for Tariff Order of FY 2014-15.

Discoms' response:

East Discom: Discom had arranged to print tariff cards for tariff order FY 2014-15 for different categories of the consumers and the same were provided to the consumers.

West Discom: Information related to tariff for FY 2014-15 was given to the consumers.

Central Discom: Tariff cards were issued to LT consumers. In addition, tariff schedule booklets were provided to all HT consumers.

Commission's observations/ directions: The Commission directs that the practice of providing tariff cards should be continued for tariff order of FY 2015-16.

8.6 Filing of ARR and tariff proposals in Hindi language

Commission's Directives:

Subsequent to the filing of the ARR/Tariff Petition in English, Discoms have submitted its Hindi version which was made public. The next filing of ARR/ tariff proposals should also be made in Hindi and English.

Discoms' response:

Hindi version of the main petition has been submitted subsequent to filing of petition in English.

Commission's observations/ directions: Subsequent to the filing of the ARR/Tariff Petition in English, Discoms have submitted its Hindi version which was made abailable to stake-holders. The next filing of ARR/ tariff proposals should also be made in Hindi and English. In addition the Discoms are directed to submit replies to objectors in the language English/ Hindi in which objections are filed.

8.7 Accounting of rebates/incentives/ surcharge:

Commission's Directives:

The Discoms are directed to continue to compile the requisite details in respect of HT *consumers and submit with their next ARR/ tariff proposal. They should also collect and submit the details in respect of LT consumers.*

Discoms' response:

East Discom: Discom submitted that the requisite information in respect of HT Consumers is being submitted in soft copy. However, in case of LT consumers, the information is voluminous and is required to be retrieved from two separate billing systems i.e., RMS and CC&B software as billing of most of the towns has been switched over to CC&B from RMS. Both the software cells have been requested to provide the desired information which will require some time to extract the information in similar fashion and consolidate the same. Therefore, the requisite information in respect of LT consumers shall be submitted separately in due course.

West Discom:, Discom has complied with the Commission's directive in respect of HT consumers. However, in respect of LT consumers, the Discom is implementing R-APDRP project in which M/s TCS is developing a billing software. In the billing software, TCS has included the features like separate rebate/ incentive/ surcharge.

Central Discom: Discom will comply with the directives of the Commission.

Commission's observations/ directions: The Discoms are directed to continue to compile the requisite details in respect of HT consumers and submit with their next ARR/ tariff proposal. They should also collect and submit the details in respect of LT consumers.

8.8 Maintaining uniform accounts:

Commission's Directives:

The Commission reiterates that Discoms should bring uniformity in maintaining the accounts at an early date. MPPMCL,as holding Company of all the Discoms, is directed to coordinate with the Discoms to bring about such uniformity.

Discoms' response:

East Discom: Discom submitted that from FY 2011-12 onwards they are preparing Annual Accounts as per revised schedule VI of the Companies Act, 1956.

West Discom: Discom submitted the following:

Discom was incorporated on 31st May 2002 under Companies Act 1956 (now Companies Act 2013). However, the commercial operations commenced from 1st June 2005 pursuant to Government of Madhya Pradesh Notification No. 226 dated 31st May 2005. Schedule VI to the Companies Act, 1956(now Companies Act 2013) provides the manner in which every company shall prepare its Balance Sheet, Statement of Profit and Loss and notes thereto.

The Ministry of Corporate Affairs (MCA) has issued a revised form of Schedule VI vide gazette notification 30th March, 2011.

The requirements of the Revised Schedule VI, do not apply to companies as referred to in the proviso to Section 211 (1) and Section 211 (2) of the Act, i.e., any insurance or banking company, or any company engaged in the generation or supply of electricity or to any other class of company for which a form of Balance Sheet and Profit and Loss account has been specified in or under any other Act governing such class of company.

However, in the guidance note issued by Institute of Chartered Accountants of India, it is clarified that for companies engaged in the generation and supply of electricity, neither the Electricity Act, 2003, nor the rules framed there under, prescribe any specific format for presentation of Financial Statements by an electricity company. Section 616(c) of the Companies Act states that the Companies Act will apply to electricity companies, to the extent it is not contrary to the requirements of the Electricity Act. Keeping this in view, Revised Schedule VI may be followed by such companies till the time any other format is prescribed by the relevant statute.

As such, the financial statements for the year 2011-12 onwards are being prepared as per Revised Schedule VI of the Companies act 1956, this ensure uniform presentations in the accounts of all Discoms from the FY 2011-12 onwards. The company prepares its financial statements under historical cost basis in accordance with Generally Accepted Accounting Principles (GAAP) and the Accounting Standards as notified by the Companies (Accounting Standard) Rules 2006.

It is also submitted that ERP project of MPPKVVCL, Indore is proposed for procurement, customization, implementation and subsequent support of Enterprises Resources Planning (ERP) application system for finance, HR, Material Management and Project Management modules are in scope of implementation. This ERP implementation will ensure best accounting practices and regulatory compliance.

Central Discom: Discom submitted that MPPMCL has been requested to hold a meeting of all the Discoms to finalize the methodology to be adopted for maintaining uniform accounts.

Commission's observations/ directions: The Commission reiterates that Discoms should bring uniformity in maintaining the accounts at an early date. MPPMCL, as holding Company of all the Discoms, is directed to coordinate with the Discoms to bring about such uniformity.

8.9 Compliance of Regulations:

Commission's Directives:

The compliance of the directives should be maintained in future also.

Discoms' response:

East Discom: Discom submitted that the instant Petition is according to the provisions of the prevailing Regulations of the MPERC.

West Discom: Discom submitted that Discom is committed to adhere to directives issued by the Commission.
Central Discom: Discom submitted that it will comply with the directives issued by the Commission.

Commission's observations/ directions: The compliance of the directives should be maintained in future also.

8.10 Installation of AMR meters for all Non-domestic LV consumers having load in excess of 25 HP

Commission's Directives:

The Commission directs the Central Discom to expedite the installation of AMR meters on remaining installations.

Discoms' response:

East Discom*: It is submitted that directives issued is not applicable to it.*

West Discom: It is submitted that directives issued is not applicable to it.

Central Discom: Discom submitted that all HT consumers have already been provided with AMR facility. Discom is presently undertaking installation, downloading and billing of balance LT high value consumers.

Commission's observations/ directions:
The Commission directs the Central Discom to expedite the installation of AMR meters on remaining installations.

8.11 Assessment of consumption for billing to consumers
Commission's Directives:
During the public hearing some of the stakeholders had raised the issue of assessment in cases where the meter is correctly working and no other anomaly has been observed. The Commission directs the Discoms to strictly comply with the provisions of the Regulations in the matter and take stringent action in cases where noncompliance in the matter is found.

Discoms' response:

East Discom: Discom submitted that it is strictly adhering to the directive and accordingly, all filed offices have been directed to ensure assessment for billing only as per the provisions given in Supply Code, 2004 and the tariff order.

West Discom: Discom submitted that they are strictly adhering the directive and unless the meter is found defective/ dysfunctional or tampered or evidence of theft of energy in the premises is established, no consumer is billed on the basis of any kind of assessment of consumption other than the consumption that is recorded in the meter

Central Discom: Discom submitted that it is complying with the directive of the Commission.

Commission's observations/ directions:
The Commission directs the Discoms to strictly comply with the provisions of the Regulations in the matter and take stringent action in cases where noncompliance in the matter is found.

Fresh directives:

8.12 Technical studies of the Distribution network to ascertain voltage-wise cost of supply

Commission's observations/ directions:
The Commission directs the petitioners to carry out detailed technical studies of the Distribution network required for computing voltage-wise losses.

Annexure-1 (List of Objectors)

List of objectors of East Discom - FY 2015-16

Sl No.	Name	Organization
1	Shri H.P.Agrawal	Chief Electrical Distribution Engineer, West Central Railway, Indira Market, G.M. Office, Jabalpur.
2	Shri R. K. Ram	67, Civil Ward No. 9, Damoh M.P.
3	Shri Ramesh Kumar Ramvani	H. No. 784 Rewa House Ganiyari, Distt. Singrouli
4	Dr. Eknath Jyotishi	Advocate, Post Bag. 38, Head Post Office, Civil Line, Jabalpur.
5	Shri Rajendra Agrawal	1995/1, Gyan Vihar Colony, Narmada Road, Jabalpur.
6	Shri D. Khandelwal	Advocate, 960, Napier Town, Jabalpur.
7	Shri C.L. Swarnkar	CE (Retd.), MP State Electricity Board, Near Rachna Medical Stores, Nehanagar, Makroniya, Sagar.
8	Shri Pawan Tiwari	AGM M/s. Essel Jabalpur MSW Pvt. Ltd., K-9, Kachnar City, Vijay Nagar, Jabalpur.
9	Mr. Jabir Khan	M/s. Prism Cement Ltd. Mankahari, Satna
10	Shri Shankar Nagdeo and Shri Ravi Gupta	Vice President, M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur
11	Shri Anand Agrawal	M/s. Electrical Merchant Association, Super Market, Jaystanbh Chowk, Satna.
12	Shri V.P. Singh	Chairman, M.P.E.B. Pensioners Association, Branch Rewa & Farmer Representative, Shri B.L. Gupta, 24/134 Dwarika Nagar, Rewa Office Add. 39, Satyanand Vihar, Rampur, Jabalpur.
13	Shri D R Jeswani	M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur.
14	Er. V.K.S Parihar	General Secretary, Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008
15	Shri K.K. Agrawal	Divisional President, Bharat Krishak Samaj, Shri Shantilal Shah Kisan Karyalaya, Gangotri Apartment, Gol Bazar, Jabalpur.
16	Shri Sourabh Jain	Sansthapak Sadasya, M/s. Hindu Seva Parishad, 2022 Gupteshwar Road, Ratan Nagar, Jabalpur.
17	Shri L.K. Mishra	Vice-President, Akhil Bhartiya Grahak Panchayat, 16/620, Before P.K. School, Gali No.1, Urhat, Zila Rewa.

Sl No.	Name	Organization
18	Dr. P.G. Najpande	Area Secretary, 6/47, Ram Nagar, Aadhartaal, Jabalpur.
19	Shri Ajay Porwal	M/s. Idea Cellular Ltd., 139-140 Electronics Complex, Pardeshipura, Indore - 452 010.
20	Shri Anand Nema	Akhil Bhartiya Grahak Panchayat, Khermaye Mandir Parisar, Wright Town, Jabalpur (M.P.).
21	Shri Manoj Badaria	252, Kamla Nehru Nagar, Jabalpur.
22	Shri Paras Dada Saklecha	Shri Paras Dada Saklecha, Ex MLA, 19, Shanti Nagar, Ratlam 457001
23	Shri Radheshyam Agarwal	142/1, Professor Colony, Bhopal - 462001.
24	Shri Ramratan Yadav	Adarsh Nagar, Jabalpur
25	Shri Thadheshwar Mahavar	30, Azad Chowk, Rampur, Jabalpur. (Shiv Sena)
26	Shri Rakesh Agarwal	Balaji Porboiling Udyog Balaghat President Rice Mill Association, Balaghat.
27	-	M/s Jabalpur Entertainment Pvt. Ltd., South Avenue Mall, Narmada Road, Adjoining Perfect Pottery, Jabalpur.
28	Shri Bhagwat Singh	Gram Belwa, Distt. Rewa
29	Shri Jagatnath Yadav	Jaibhim Nagar, Jabalpur
30	Shri Subhash Chandra	Citizen Welfare Association, P-46, Jawahar Nagar, Adhartaal, Jabalpur (M.P.)
31	Shri Shobnath Kushwaha	Bhartiya Kisan Sangh, Zila Rewa, Gram Bisar, Post Atariya, Rewa.
32	Shri Ramesh Patel	Bhartiya Kisan Union, Sehora Distt. Jabalpur.
33	Shri Sourab Sharma Shri Sanjay Yadav	M.P. Congress Committee, 1786, Govind Kunj Colony, Rasal Chowk, Napier Town, Jabalpur.
34	Shri Amol Chourasia	M.P. Yuva Congress, Janda Bazar, Sihora, Jabalpur
35	Shri Sharad Khare	Advocate, M.P. High Court, Jabalpur.
36	Shri Ravidatt Singh	Pradesh Mahamantri, Bhartiya Kisan Sangh, Sirmour Road, Near Khutehi Block Office, Panchvati Petrol Pump, Sirmour Road, Rewa

List of objectors of West Discom - FY 2015-16

Sr. No.	Name	Organization
1	Shri Rakesh Singh,	Commissioner, Indore Municipal Corporation, Indore
2	Shri Harishankar Suryavanshi & Shri Rakesh Pancholi,	M/s. Indore Electric Contractor Association, 236, Sector B, Slice 2, Scheme No. 78, Near Ujala Electric, Indore.
3	Shri Sureshchandra Agrawal,	M/s. Manav Seva Samiti (Blood Bank), College Road, Ratlam
4	Shri Satish Verma,	M/s. Akhil Bhartiya Upbhokta Utthan Sangthhan Madhya Pradesh, All India Consumer Protection Organisation, 5, Datt Gali, Rasmandal, Dhar 454001
5	Shri Ashok Mittal,	Chairman, Agrawal Parishad, 18,Vaibhav Chamber, 1st Floor, 7/1, Ushaganj, Indore 452001
6	Shri Kishore Goyal,	President, Shri Agrawal Samaj Kendriya Samiti, 410-411, Chatak centre, 12/2 RNT Marg, Indore
7	Secretary	M/s. Vidyut Upbhokta Jagriti Samiti, 23/2, Shanku Marg, Freeganj, Ujjain
8	Dr. Gautam Kothari,	M/s. Rashtrakshetra Karmanishtha Sangh, "RAKSHAK", Saket Nagar, Indore 452018
9	Dr. Gautam Kothari,	M/s. Pithampur Audyogik Sangthan, 231, Saket Nagar, Indore 452018
10	Shri P.L. Nene, Dr. Gautam Kothari,	M/s. Electricity Consumers Society, C/o. AIMO (MPSB), Industrial Estate, Pologround, Indore 452015
11	Shri Mahesh Mittal,	Chairman, M/s. All India Manufacturers Organisation, Industrial Estate, Pologround, Indore 452 015
12	Shri P.L. Nene,	M/s. Grasim Industries Ltd., Birlagram, Nagda 456 331
13	Shri M.C. Rawat,	Secretary, The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
14	Shri Manjit Chawala,	M/s. Herman Cotex, Bistan Road, Opp. Dejla Dewada Colony, Khargone 451 001
15	Shri Manjit Singh Chawala,	Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
16	Shri Kalashchandra Khandelwal,	M/s. Vikash Cott Fiber Pvt. Ltd. Verla Road, Sendhwa, Distt. Barwani 451666

Sr. No.	Name	Organization
17	Shri Kalashchandra Khandelwal,	M/s. M.P. Cotton Processors and Traders Association, C/o. Vikash Cott Fiber Pvt. Ltd. Verla Road, Sendhwa, Distt. Barwani 451666
18	Shri Kailashchandra Khandelwal,	M/s. Sendhwa Cotton Association, C/o Vikas Cot Fiber Pvt. Ltd., Verla Road Sendhwa, Distt. Barwani 451666
19	Shri Sanjay Mittal,	M/s. Mittal Oil Industries, Pansemal Road, Khetia 451 881 Distt.Barwani
20	Shri Dilip Jain,	M/S Mahavir Cot Fibers, Pansemal Khetia Road., Khatia, Tahsil Pansemal, Distt:- Barwani.
21	Shri Manish Shrimali,	M/s. Tirupati Fibers, Julwania Road, Khargone.
22	Shri Mahesh Gupta,	M/s. Laghu Udhyog Bharti, C/o. Rohit Offset Pvt. Ltd. 99, Pologround, Indore 452015
23	Shri R.C. Somani	M/s. Kashyap Sweetners Limited, Chetanya Gram, Badnawar, Dist. Dhar (MP) – 454 660.
24	Shri R.C. Somani	M/s. Divya Jyoti Industries Ltd, 92/3, Sapna Sangita Main Road, Indore 452 001
25	Shri R.C. Somani	M/s. Oasis Distillries Limited, H No. 102, B-2 Metro Towers, Vijay Nagar, Indore
26	Shri R.C. Somani	M/s. Dhanalaxmi Solvex Pvt. Ltd., Dewas, 201, Bansi Plaza, 581 M.G. Road, Indore
27	Shri R.C. Somani	M/s. Dhanalaxmi Solvex Pvt. Ltd., Shajapur 201, Bansi Plaza, 581 M.G. Road, Indore
28	Shri Ashok Khandelia,	President, M/s. Association of Industrties, Dewas, 1/B/1, 1B/2A, I.S. Gajra Industria Area, No. 1, A.B. Road, Dewas 455001
29	Shri Maliram Goyal,	M/s. Narmada Agro Industries, Tejaji Chouk Palda, Indore (Indore O&M Div.)
30	Shri Pramod Dafaria, Hon. Secretary, Shri Sunil Vyas,	M/s. Association of Industries Madhya Pradesh, 96, Udyog Bhawan, Pologround, Indore
31	Shri Hansumukh Jain Gandhi,	President, M.P. Cold Storage Association, 211, Devdhar Complex, Chawani, Indore-452001.
32	Shri S.M. Jain,	President M.P. Chapter, M/s. All India Induction Furnaces M.P. Chapter, C/o. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
33	Shri S.M. Jain,	Director, M/s. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
34	Shri Pankaj Bansal,	M/s. Shivangi Rolling Mills Pvt. Ltd. 305-306, 3rd Floor, Airen Heights Near Pakiza, A.B. Road, Indore

Sr. No.	Name	Organization
35	Shri Pawan Singhania,	Director M/s. Rathi Iron & Steel Industries Ltd. 103, Laxmi Tower, 576, M.G. Road, Indore
36	Shri Sandeep Jain,	M/s. Jaideep Ispat & Alloys Pvt. Ltd. Unit-II, 103, Laxmi Tower, 576, M.G. Road, Indore
37	Shri Vimal Todi	M/s. Bharti Ignot Pvt. Ltd. Laxmi Tower, 576, M.G. Road, Indore
38	Shri Narang	M/s. Sardar Ispat Pvt. Ltd., Tejpur Bridge, A.B. Road, Post. Rajendra Nagar, Indore 452 012
39	Shri R.D. Kirtani, Shri K.K. Kanani,	M/s. Gajra Differential Gears Limited, Lohar Pipaliya, Kshipra, Dewas
40	Shri M.K. Porwal,	M/s. National Steel & Agro Industires, 401, Mahakosh House, 7/5, South Tukoganj, Nath Mandir Road, Indore 452001
41	Shri Mahesh Varun,	M/s. Mahesh Electricals, Sanjay Chowk, Mahakal Marg, Ujjain
42	Kishore Deepak Kodwani,	Vikash Mitra Drishti, Pushpdip Apartment, 14, Sarvodaya Nagar, Sapna Sangeeta Road, Indore 452 001
43	Shri Dev Kumar Rai,	Indore
44	Shri Praveen Kumar Jain,	23/2, Shankumarg, Freeganj, Ujjain
45	Mr.M.S. Khan (B.E.),	375, Jawahar Marg, Indore
46	Shri R C Somani,	67 CH Scheme No. 74 C, Vijaynagar Indore 452010
47	Shri R S Goyal,	51, Prakash Nagar, Nemawar Road, Indore 452001
48	Shri Narendra Singh Yadav,	General Secretary, Zila Congress Committee,157 LIG Vikas Nagar Dewas
49	Shri Rudrapal Yadav,	Sachiv, Bhartiya Communist Party, Indore Jeela Parishad, Shahid Bhawan, 64, New Dewas Road, Indore 452003
50	Shri Govind Sharma,	Mahamantri, Shahar Congress Mhow, Distt. Indore
51	Shri Rajendra Agrawal,	Samta Party, Office. Aabkari Compound,, Ratlam
52	Shri Sanjay Agrawal ,	M/s Upbhokta Hit Prahari ,970,Manak Chowk , Mhow , Indore
53	Shri Kailash Agarwal,	M.P. Association of Cotton Processers and Traders, Indore.
54	Shri Shyam Sunder,	M/s. Radha Krishna Mathuralal, Khargone.
55	Shri Dheeraj Mohaniya,	RTI Activist, Indore.
56	Shri Kalyan	M/s. Rashtriya Upbhokta Parishad, Indore.

Sr. No.	Name	Organization
	Mundra,	
57	Shri Dinesh Dangi,	M/s.Iron and Steel Re-rollers Association of M.P., Indore.
58	Mr. Hazi Salim Ahmed,	Indore.
59	Shri Ranjan Mimani,	M/s. Mimani Wires Pvt. Ltd., Indore.
60	Shri Pankaj Wadhvani,	Advocate, Indore.
61	Shri Dinesh Gupta,	M/s. Ranbaxy, Indore.
62	Shri Yuvraj Singh & Others,	Aam Aadmi Party(AAP), Indore.
63	Shri Lakhmechand Gupta,	M.P. Cotton Seed Crushers Association, 14, Station Road, Barwah.
64	Shri Dinesh Singh Mahabariya,	Indore

List of objectors of Central Discom - FY 2015-16

Sl No.	Name	Organization
1	Shri Din Dayal	Advocate, B-7, Alkapuri, Habibganj, Bhopal.
2	Shri Vishal Chouhan	Advocate, 53, Sarita Complex, Shivaji Nagar, Bhopal
3	Shri R. Mitra	Ch-15, A Sector, Barkheda, Bhopal 462021
4	Shri N.K. Jain	Advocate, B-6, Alkapuri, Bhopal
5	Shri Bharat Jain	Jawahar ganj, Dabra, Distt. Gwalior
6	Shri Suhas Virani	A-66, Shahpura, Bhopal.
		M/s. Bhopal Owner's Association Reg. Office C/o. Vidhyashree Girls Hostel, 50, Zone-II, M.P. Nagar, Bhopal.
7	Shri Jaykishan Chandel	Workshop Sanchalak Laghu Udyog Welfare Sangh, Multai, Samiti Multai.
8	-	Residents of Brahmapuri Colony, Nilbad, Bhopal.
9	Shri Shyam Vaidya	M/s. Barna Hydro Projects Pvt. Ltd., Plot No. 302, Plot No. 75-B, Kasturba Nagar, Near Chetak Bridge, Bhopal.
10	Shri S. Pal	M/s. Vardhman Textile Ltd. A1-A6, Industrial Area-II, Mandideep Distt. Raisen.
11	Executive Director	M/s. Sagar Manufacturing Pvt. Ltd., The Sagar, E-2/4, Arera Colony, Opp. Habibganj Railway Station, Bhopal.

Sl No.	Name	Organization
12	Director	M/s. K.G Iron & Steel Castings Pvt. Ltd., Formerly Known as Suchita (India) Alloys & Steels Pvt. Ltd. 64-G, Sector-A, Industrial Area Mandideep, Hoshangabad Road, Distt. Raisen, Bhopal
13	Shri Ateet Agrawal	M/s. Laghu Udyog Bharti, 7, Hamidiya Road, Bhopal
14	Shri K.N. Mathur	M/s. HEG Ltd., Mandideep (Near Bhopal), Distt.Raisen.
15	Dr. Praveen Agrawal	M/s. Madhya Pradesh Chamber of Commerce & Industry, Chamber Bhawan, Sanatan Dharm Mandir Marg, Gwalior.
16	Shri Purnendu Shukla	The Senior Friends Society, E-4/53, Arera Colony, Bhopal.
17	Shri M.C. Bansal	The Justices for Public Cause Foundation, E-5, 1st Floor, Arera Colony, Bhopal.
18	Shri Alok Agrawal & Dr. Kalpana Parulkar, Shri Paras Saklecha, Shri Akshay Hunka, Shri Sanjeev Sharma, Shri Avdhesh Purohit & Others	Aam Aadmi Party (AAP), Madhya Pradesh, Housing Board Complex, Old Subhash Nagar, Bhopal
19	Dr.Surendra Agrawal	President, M/s.Indian Dental Association, M.P. State Branch, 38-39, Mahesh Colony, Idgah Hills, Bhopal.
20	Shri Ravidatt Singh	Pradesh Mahamantri, Bhartiya Kisan Sangh, Sirmour Road, Near Khutehi Block Office, Panchvati Petrol Pump, Sirmour Road, Rewa
21	Shri Vipin Kumar Jain, Shri Anil Kumar	M.P. Small Scale Industries Organization, E-2/30, Arera Colony, Bhopal.
22	Shri Shashank Pandey	Tulip Green Group Housing Maintenance & Welfare Cooperative Society Ltd., Off. At D-18, Tulip Green Gram Mahabadiya, Near Mother Teresa School, Kolar Road, Bhopal.
23	Shri K.K. Mishra, Shri J.P. Dhanopia, Shri Ravi Saxena, Smt. Sangeeta Sharma, Smt. Vibha Patel, Shri Anand Taran, Shri Yogendra S Parihar, Shri Jitendra Mishra, Shri Rakesh Jain	M.P. Congress Committee, Indira Bhavan, Shivaji Nagar, Bhopal.
24	Shri Ajay Gond	Rashtriya Jagran Manch Madhya Pradesh, Mandir Shri Dharnichar Pachisa Ghat, Fatahgarh, Bhopal.
25	Shri Ashu Gupta	Green Energy Association, Sargam, 143, Taqdir Terrace, Near Shirodkar High School, Dr. E. Borjes Road, Parel

Sl No.	Name	Organization
		(E), Mumbai.
26	Shri Sanjay Agarwal	Khai ka Bazar, Bhandheer, Datia
27	Shri Pawan Kabde	E-4/48, A.C. Bhopal
28	Shri Lalaji Vashishtha	Bhopal
29	Smt. Tapeshwari Devi	Jr. MIG, E-8, Akashganga Colony, Shahpura, Bhopal

TARIFF

SCHEDULES

Annexure-2 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2015-16

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

TARIFF SCHEDULES FOR LOW TENSION CONSUMERS

Table of Contents

Tariff Schedule- LV-1

DOMESTIC:

Applicability:

This tariff is applicable for light, fan and power for residential use only. Dharamshalas, Gaushalas, old age homes, day care centres for senior citizens, rescue houses, orphanages, places of worship and religious institutions will also be covered under this category.

Tariff:

LV 1.1 (Consumers having sanctioned load not more than 100 watts (0.1 kW) and consumption not more than 30 units per month)

(a) Energy Charge and Fixed Charge – For metered connection

Monthly Consumption (units)	Energy Charge (paise per unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)
Up to 30 units	290	NIL

(b) Minimum Charges: Rs. 40 per connection per month as minimum charges is applicable to this category of consumers.

LV 1.2

(i) Energy Charge and Fixed Charge – For metered connection

Monthly Consumption Slab (units)	Energy Charge with telescopic benefit (paise per unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)	
		Urban areas	**Rural areas**
Up to 50 units	340	40 per connection	25 per connection
51 to 100 units	405	70 per connection	45 per connection

Monthly Consumption Slab (units)	**Energy Charge with telescopic benefit (paise per unit)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
101 to 300 units	520	80 for each 0.5 kW of authorised load	60 for each 0.5 kW of authorised load
Above 300 units	570	85 for each 0.5 kW of authorised load	80 for each 0.5 kW of authorised load

Minimum Charges: <u>Rs. 60 per connection</u> per month as minimum charges towards energy charges are applicable for above categories.

<u>Note:</u> The Authorized Load shall be as defined in the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time. (Every 75 units of consumption per month or part thereof shall be considered equal to 0.5 kW of authorised load. Example: If consumption during the month is 125 units, then the authorised load will be taken as 1 kW. In case the consumption is 350 units then the authorised load will be taken as 2.5 kW.)

Temporary/ DTR meter connection	**Energy Charge (paise per unit)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Temporary connection for construction of own house (max. up to one year).	730	330 for each one kW of sanctioned or connected or recorded load, whichever is the highest	250 for each one kW of sanctioned or connected or recorded load, whichever is the highest
Temporary connection for social/ marriage purposes and religious functions.	730	50 for each 1 kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	35 for each 1 kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.

Temporary/ DTR meter connection	**Energy Charge (paise per unit) Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Supply through DTR meter for clusters of Jhuggi/Jhopadi till individual meters are provided	300	NIL	NIL

Minimum Charges: Rs. 1000/- per connection per month is applicable towards energy charges for temporary connection and no minimum charges are applicable for supply through DTR meter for clusters of Jhuggi/Jhopadi.

(ii) Energy Charge and Fixed Charge for un-metered domestic connections:

Particulars	**Units and Energy Charge to be billed per month for unmetered connections (paise per unit)**	**Monthly Fixed Charge (Rs.)**
Un-metered connection in urban areas	100 units @ 470 per unit	85 per connection
Un-metered connection in rural areas	75 units @ 375 per unit	40 per connection

Minimum charges: No minimum charges are applicable to this category of consumers

<u>Specific Terms and Conditions for LV-1 category:</u>

a) The Energy Charges corresponding to consumption recorded in DTR meter shall be equally divided amongst all consumers connected to that DTR for the purpose of billing. The Distribution Licensee will obtain consent of such consumers for billing as per above procedure.

b) In case Energy Charges for actual consumption are less than minimum charges, minimum charges shall be billed towards energy charges. All other charges, as applicable, shall also be billed.

c) Other terms and conditions shall be as specified under General Terms and Conditions for Low Tension Tariff.

d) In case of prepaid consumers, a rebate of 1.00% is applicable on the basic energy and fixed charges on monthly basis and all other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit for the energy charge.

Tariff Schedule – LV-2

NON-DOMESTIC:
LV 2.1

Applicability:
This tariff is applicable for light, fan and power to Educational Institutions including workshops and laboratories of Engineering Colleges / Polytechnics/ITIs (which are registered with /affiliated/ recognized by the relevant Govt. body or university), Hostels for students or working women or sports persons (run either by Govt. or individuals)

Tariff:
Tariff shall be as given in the following table:

Sub category	**Energy Charge (paise/unit) Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Sanctioned load based tariff (only for connected load up to 20 kW)	540	100 per kW	70 per kW
Optional -Demand based Tariff (Only for contract demand above 10 kW and up to 20 kW)	540	200 per kW or 160 per kVA of billing demand	140 per kW or 112 per kVA of billing demand
Mandatory demand based tariff for contract demand above 20 kW	540	200 per kW or 160 per kVA of billing demand	140 per kW or 112 per kVA of billing demand

LV 2.2
Applicability:
This tariff is applicable for light, fan and power to Railways (for purposes other than traction and supply to Railway Colonies/water supply), Shops/showrooms, Parlors, All Offices, Hospitals and medical care facilities including Primary Health Centers, clinics, nursing homes belonging to either Govt. or public or private organisations, public buildings, guest houses, Circuit Houses, Government Rest Houses, X-ray plant, recognized Small Scale Service Institutions, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, professional's chambers (like Advocates, Chartered Accountants, Consultants, Doctors etc.), bottling plants, marriage gardens, marriage houses, advertisement services, advertisement boards/ hoardings, training or coaching institutes, petrol pumps and service stations, tailoring shops, laundries, gymnasiums, health clubs, telecom towers for mobile

communication and any other establishment (except those which are covered in LV 2.1), who is required to pay Commercial tax/service tax/value added tax (VAT)/entertainment tax/luxury tax under any Central/State Acts.

Tariff:

Tariff shall be as given in the following table:

Sub category	**Energy Charge (paise/unit)**	**Monthly Fixed Charge (Rs.)**	
	Urban/ Rural areas	**Urban areas**	**Rural areas**
On all units if monthly consumption is not more than 50 units	575	55 per kW	35 per kW
On all units in case monthly consumption exceeds 50 units	650	95 per kW	70 per kW
Optional demand based Tariff (only for contract demand above 10 kW and up to 20 kW)	555	210 per kW or 168 per kVA of billing demand	140 per kW or 112 per kVA of billing demand
Mandatory demand based tariff for Contract demand above 20 kW	555	210 per kW or 168 per kVA of billing demand	140 per kW or 112 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	775	150 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	115 per kW or part thereof of sanctioned or connected or recorded load whichever is the highest

Sub category	**Energy Charge (paise/unit)** **Urban/ Rural areas**	**Fixed Charges (Rs.)**	
		Urban areas	**Rural areas**
Temporary connection for marriage purposes at marriage gardens or marriage halls or any other premises covered under LV 2.1 and 2.2 categories	775 (Minimum consumption charges shall be billed @ 6 Units per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part there of subject to a minimum of Rs.500/-)	65 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof	45 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof
For X-Ray plant	Additional Fixed Charge (Rs. per machine per month)		
Single Phase	475		
Three Phase	685		
Dental X-ray machine	75		

* In case permission for organizing Mela is granted by Competent Authorities of the Government of Madhya Pradesh.

<u>**Specific Terms and Conditions for LV-2 category:**</u>

a) **Minimum consumption:** The consumer shall guarantee a minimum annual consumption of 360 units per kW or part thereof in urban areas and 180 units per kW or part thereof in rural areas of **sanctioned load or contract demand (in case of demand based charges) .** However, the load of X-Ray unit shall be excluded while considering the load of the consumer for calculation of minimum consumption. The method of billing minimum consumption shall be as given in General Terms and Conditions of Low Tension tariff.

b) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions of Low Tension tariff.

c) **Rebate in Energy Charges for connection of Telecom Infra Structure situated in rural areas**: In order to give impetus to proliferation of telecommunication services in the rural areas in the State, a rebate of paisa 15 per unit in energy charges shall be given to the connections of mobile communication towers situated in rural areas.

d) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

e) For LV-2.1 and LV-2.2: Any consumer having contract demand of 10 kW or more and up to 20 kW may opt for demand based Tariff, however, for the consumers having contract demand in excess of 20 kW demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.

f) In case of prepaid consumers, a rebate of 1.00% is applicable on the basic energy and fixed charges on monthly basis and all other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit for the energy charge.

Tariff Schedule – LV-3

PUBLIC WATER WORKS AND STREET LIGHTS

Applicability:

The tariff **LV-3.1** is applicable for Public Utility Water Supply Schemes, Sewage Treatment Plants, Sewage Pumping Installations run by P.H.E. Department or Local Bodies or Gram Panchayats or any other organization authorised by the Government to supply/ maintain public water works / sewerage installations and shall also be applicable to electric crematorium maintained by local bodies/trusts.

Note: Private water supply scheme, water supply schemes run by institutions for their own use/employees/townships etc. shall not fall in this category. These shall be billed under the appropriate tariff category to which such institution belongs. In case water supply is being used for two or more different purposes then entire consumption shall be billed for purpose for which the tariff is higher.

The tariff **LV-3.2** is applicable to traffic signals and lighting of public streets or public places including parks, town halls, monuments and its institutions, museums, public toilets, public libraries, reading rooms run by the Government or Local Bodies, and Sulabh Shochalaya**.**

Tariff:

Category of consumers/area of applicability	Energy Charge (paise per unit)	Monthly Fixed Charge (Rs. per kW)	Minimum Charges (Rs)
LV 3.1 Public Water Works			
Municipal Corporation/ Cantonment board	405	190	No Minimum Charges
Municipality/ Nagar Panchayat	405	170	
Gram Panchayat	405	75	
Temporary supply	1.3 times the applicable tariff		
LV 3.2 Street light			
Municipal Corporation/ Cantonment board	415	290	No Minimum Charges
Municipality/ Nagar Panchayat	410	270	
Gram Panchayat	410	65	

Specific Terms and Conditions for LV-3 category:

(a) Incentives for adopting Demand Side Management:

An **incentive** equal to 5 % of Energy Charges shall be given on installation and use of energy saving devices (such as ISI energy efficient motors for pump sets and programmable on-off/ dimmer switch with automation for street lights). **Incentive** will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Such incentive will be admissible from the month following the month in which energy saving devices are put to use and are verified by a person authorized by the Distribution Licensee. This incentive will continue to be allowed till such time these energy saving devices remain in service. The Distribution Licensee is required to arrange wide publicity of above incentive.

(b) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

Tariff Schedule – LV-4

LT INDUSTRIAL

Applicability:

Tariff **LV-4** is applicable to light, fan and power for operating equipment used by printing press and any other industrial establishments and workshops (where any processing or manufacturing takes place including tyre re-treading). These tariffs are also applicable to cold storage, gur (jaggery) making machines, flour mills, Masala Chakkies, hullers, khandsari units, ginning and pressing units, sugar cane crushers (including sugar cane juicing machine), power looms, dal mills, besan mills, and ice factories and any other manufacturing or processing units (excluding bottling plant) producing/processing food items or processing agriculture produce for preservation/increasing its shelf life and Dairy units (where milk is processed to produce other end products of milk other than chilling, pasteurization etc.)

Tariff:

	Category of consumers	**Monthly Fixed Charge (Rs.)**		**Energy Charge (paise per unit) – Urban / Rural Area**
		Urban Areas	**Rural Areas**	
4.1	**Non seasonal consumers**			
4.1 a	Demand based tariff***** (Contract demand up to 150 HP)	260 per kW or 208 per kVA of billing demand	145 per kW or 116 per kVA of billing demand	570
4.1 b	Temporary connection	1.3 times of the applicable tariff		

***In case of consumers having contract demand up to 25 HP, the energy charges and fixed charges shall be billed at a rate 30% less than the charges shown in above table for tariff category 4.1a.**

4.2 Seasonal Consumers (period of season shall not exceed 180 days continuously). If the declared season or off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.				
4.2 a	**During season**	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers
4.2 b	**During Off - season**	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more	120 % of normal tariff as for Non-seasonal consumers

Terms and Conditions:

(a) The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovolt ampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month.

(b) Demand based tariff is mandatory for all the LT industrial consumers and the licensee shall provide Tri vector/ Bi vector Meter capable of recording Demand in kVA/ kW, kWh, kVAh and Time of Use consumption within two months. For consumers presently covered under the connected load LT industrial tariff category, licensee shall execute the agreement based on the contract demand declared by such consumers within two months. Till declaration of contract demand by the consumers and execution of the agreement, the billing to such consumers shall be made treating their sanctioned load as the contract demand.

(c) **Minimum Consumption:** Shall be as per following:

- **i.** **For LT Industries in rural areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 240 units per HP or part thereof of contract demand irrespective of whether any energy is consumed or not during the year.
- **ii.** **For LT Industries in urban areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 420 units per HP or part thereof of contract demand irrespective of whether any energy is consumed or not during the year.
- **iii.** The consumer shall be billed monthly minimum 20 units per HP per month in rural area and 35 units per HP per month in urban area in case the actual consumption is less than above specified units.
- **iv.** Method of billing of minimum consumption shall be as given in the General Terms and Conditions of Low Tension tariff.

Additional Charge for Excess Demand: Shall be billed as given in the General Terms and Conditions of Low Tension Tariff.

(d) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

(e) Other Terms and conditions for **seasonal consumers**:

- **i.** The consumer has to declare months of season and off season for the financial year 2015-16 within 60 days of issue of tariff order and inform the same to the Distribution Licensee. If the consumer has already declared the period of season and off-season during this financial year prior to issue of this order, same shall be taken into cognizance for the purpose and accepted by the Distribution Licensee.

ii. The seasonal period once declared by the consumer cannot be changed during the financial year.

iii. This tariff is not applicable to composite units having seasonal and other category of loads.

iv. The consumer will be required to restrict his monthly off season consumption to 15% of the highest of average monthly consumption during the preceding three seasons. In case this limit is exceeded in any off season month, the consumer will be billed under Non seasonal tariff for the whole financial year as per the tariff in force.

v. The consumer will be required to restrict his maximum demand during off season up to 30 % of the contract demand. In case the maximum demand recorded in any month of the declared off season exceeds this limit, the consumer will be billed under Non seasonal tariff for the whole financial year as per the tariff in force.

Tariff Schedule – LV - 5

AGRICULTURE AND ALLIED ACTIVITIES

Applicability:

The tariff **LV-5.1** shall apply to connections for agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines and irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle.

The tariff **LV-5.2** shall apply to connections for nurseries, farms growing flowers/ plants/ saplings/ fruits, mushroom and grasslands.

The tariff **LV-5.3** shall apply to connections for fisheries ponds, aquaculture, sericulture, hatcheries, poultry farms, cattle breeding farms and those dairy units only where extraction of milk and its processing such as chilling, pasteurization etc. is done.

The tariff **LV- 5.4** shall apply to connections for permanent agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines and irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle to whom flat rate tariff is applicable.

Tariff:

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV- 5.1			
a) (i)	First 300 units per month	25	355
(ii)	Above 300 units up to 750 units in the month	25	420
(iii)	Rest of the units in the month	25	450
b)	Temporary connections	25	462
c)	DTR metered group consumers	Nil	325
LV-5.2			
a) (i)	First 300 units per month	25	355
(ii)	Above 300 units up to 750 units in the month	25	420
(iii)	Rest of the units in the month	25	450
b)	Temporary connections	25	462

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV-5.3			
a)	Up to 25 HP in urban areas	65 per HP	410
b)	Up to 25 HP in rural areas	35 per HP	400
c)	Demand based tariff (Contract demand and connected load up to 100 HP) in urban areas	180 per kW or 144 per kVA of billing demand	500
d)	Demand based tariff (Contract demand and connected load up to 100 HP) in rural areas	85 per kW or 68 per kVA of billing demand	500

LV-5.4	Agriculture flat rate tariff exclusive of subsidy*.	Rate payable by the consumer in Rs per HP per month for months of April to September	Rate payable by the consumer in Rs per HP per month for the months of October to March
a)	Three phase- urban	100	100
b)	Three phase- rural	100	100
c)	Single phase urban	100	100
d)	Single phase rural	100	100

*****see para 1.2 of terms and conditions

Terms and Conditions:

1.1 **Billing of consumers under tariff schedule LV 5.1:** Billing to the consumers covered under tariff schedule LV 5.1 shall be done on a monthly basis based on the consumption recorded in the meter. Unmetered temporary connection under this schedule shall be billed on the basis of assessment of consumption provided under condition 1.3 (iii) of this schedule.

1.2 **Billing of consumers under tariff schedule LV 5.4:**

Rates payable by the consumer under tariff schedule LV 5.4 are exclusive of subsidy. The bill for the consumer covered under the tariff schedule LV 5.4 shall be calculated at the rates specified under the tariff schedule LV 5.1 based on norms for assessment of units per HP specified under condition 1.3 of this schedule. The consumer shall be required to pay at the rates specified under tariff schedule LV 5.4 and the balance amount of the bill shall be paid by the State Govt. as advance subsidy to the Distribution licensee.

1.3 **Basis of energy audit and accounting for categories LV 5.1 and LV 5.4**:

i) For energy audit and accounting purposes, actual billed consumption of metered consumers covered under tariff schedule LV 5.1 and LV 5.4 shall be considered.

ii) For unmetered agriculture consumers under LV 5.4 category, assessed consumption shall be as per following norms:

Particulars	**No. of units per HP of sanctioned load per month**			
	Urban Area		**Rural Area**	
Type of Pump Motor	**April to Sept**	**Oct to March**	**April to Sept**	**Oct to March**
Three Phase	**90**	**170**	**80**	**170**
Single Phase	**90**	**180**	**90**	**180**

iii) For unmetered temporary agriculture consumers under LV 5.1 category, assessed consumption shall be as per following norms:

Particulars	**No. of units per HP of sanctioned load per month**	
Type of Pump Motor	**Urban Area**	**Rural Area**
Three Phase	**220**	**195**
Single Phase	**230**	**205**

1.4 Agricultural consumers opting for temporary supply shall have to pay the charges in advance for three months including those who request to avail connection for one month only subject to replenishment from time to time for extended period and adjustment as per final bill after disconnection. Regarding temporary connection for the purpose of threshing the crops, temporary connection for a period of one month can be served at the end of Rabi and Kharif seasons only with payment of one month's charges in advance.

1.5 Following **incentive*** shall be given to the metered agricultural consumers on installation of energy saving devices –

S. No.	Particulars of Energy Saving Devices	Rate of rebate
1.	ISI / BEE star labeled motors for pump sets	15 paise per unit
2.	ISI / BEE star labeled motors for pump sets and use of frictionless PVC pipes and foot valve	30 paise per unit
3.	ISI / BEE star labeled motors for pump sets and use of frictionless PVC pipes and foot valves along with installation of shunt capacitor of appropriate rating	45 paise per unit

* Incentive shall be allowed on the consumer's contribution part of the normal tariff (full tariff minus amount of Govt. subsidy per unit, if any) for installation of energy saving devices under demand side management. This incentive will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Incentive will be admissible from the month following the month in which Energy Saving Devices are put to use and its verification by a person authorized by the Distribution Licensee. The Distribution Licensee is required to arrange wide publicity to above incentive in rural areas. The licensee is required to place quarterly information regarding incentives provided on its web site.

1.6 **Minimum consumption**

(i) **For Metered agricultural consumers (LV-5.1 and LV-5.2):** The consumer shall guarantee a minimum consumption of 30 units per HP or part thereof of connected load per month for the months from April to September and 90 units per HP or part thereof of connected load per month for the months from October to March irrespective of whether any energy is consumed or not during the month.

(ii) **For other than agricultural use (LV-5.3) :**

a) The consumer will guarantee a minimum annual consumption (kWh) based on 180 units/HP or part thereof of contract demand in notified rural areas and

360 units/HP or part thereof of contract demand in urban areas irrespective of whether any energy is consumed or not during the year.

b) The consumer shall be billed monthly minimum 15 units per HP per month in rural area and 30 units per HP per month in urban area in case the actual consumption is less than monthly minimum consumption (kWh).

c) **Method of billing of minimum consumption** shall be as given in the General Terms and Conditions of Low Tension Tariff.

1.7 **Additional Charge for Excess Demand:** Shall be billed as given in the General Terms and Conditions of Low Tension Tariff.

1.8 **Delayed payment surcharge** in case of agriculture consumers on LV - 5.4 flat rate tariff shall be levied @ of Rs 1 every month for each block or part thereof of arrears of Rs.100/-. For other sub categories of this Tariff Schedule, the delayed payment surcharge shall be billed as specified under General Terms and Conditions of Low Tension Tariff.

1.9 **Specific conditions for DTR metered consumers:**

a. All the consumers connected to the DTR shall pay the energy charges for the units worked out based on their actual connected load.

b. The Distribution Licensee will obtain consent of such connected consumers for billing as per procedure specified in (a) above.

1.10 One CFL/ LED lamp up to 40W is permitted at or near the pump in the power circuit.

1.11 The use of three phase agriculture pump by installing external device during the period when the supply is available on single phase, shall be treated as illegal extraction of energy and action as per prevailing rules and Regulations shall be taken against the defaulting consumer.

1.12 Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

GENERAL TERMS AND CONDITIONS OF LOW TENSION TARIFF

1. **Rural Areas** mean those areas notified by the GoMP vide notification no. 2010/F13 /05/13/2006 dated 25th March 2006 as may be amended from time to time. **Urban areas** mean all areas other than those notified by the GoMP as Rural Areas.

2. Rounding off: All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.

3. Billing Demand: In case of demand based tariff, the billing demand for the month shall be the actual maximum kVA demand of the consumer during the month or 90% of the contract demand, whichever is higher. The billing demand shall be rounded off to the nearest integer number i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

4. Fixed charges billing: Unless specified otherwise, fractional load for the purposes of billing of fixed charges shall be rounded off to nearest integer i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored. However for loads less than one kW/HP, it shall be treated as one kW/HP.

5. **<u>Method of billing of minimum consumption:</u>**

    A. **For metered agricultural consumers and other than agricultural consumers horticulture activity - LV 5.1 and LV 5.2**: The consumer shall be billed minimum monthly consumption (kWh) specified for his category for the month in which his actual consumption is less than prescribed minimum consumption.

    B. **For other consumers where applicable** :

    a. The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.

    b. During the month in which actual cumulative consumption equals or is greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year and only actual recorded consumption shall be billed.

    c. Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

6. **Additional Charge for Excess connected load or Excess Demand:** Shall be billed as per following procedure:

   a) **For demand based tariff:** The consumers availing supply at demand based tariff shall restrict their actual maximum demand within the contract demand. However, in case the actual maximum demand recorded in any month exceeds 105% of the contract demand, the tariff in this schedule shall apply to the extent of 105 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 105% of contract demand (termed as Excess Demand) and consumption corresponding thereto at the following rates:-

      i. **Energy charges for Excess Demand**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds the 105% of the contract demand.

      Example: If a consumer having a contract demand of 50 kVA records a maximum demand of 60 kVA, the billing of energy charges for excess demand of (60 kVA-52.5 kVA)= 7.5 kVA shall be = (total consumption recorded during the month* 7.5 kVA/maximum recorded demand)*1.3* energy charge unit rate.

      ii. **Fixed Charges for Excess Demand:** These charges shall be billed as per following:

         1. **Fixed Charges for Excess Demand when the recorded maximum demand is up to 115% of the contract demand**: Fixed Charges for Excess

Demand over and above the 105 % of contract demand shall be charged at 1.3 times the normal rate of Fixed Charges.

2. **Fixed Charges for Excess Demand when the recorded maximum demand exceeds 115% of contract demand**: In addition to Fixed Charges in 1 above, recorded demand over and above 15 % of the contract demand shall be charged at 2 times the normal rate of Fixed Charges.

b) For connected load based tariff: The consumers availing supply at connected load based tariff shall restrict their actual connected load within the sanctioned load. However, in case the actual connected load in any month exceeds 105% of the sanctioned load, the tariff in this schedule shall apply to the extent of 105 % of the sanctioned load only. The consumer shall be charged for the connected load found in excess of 105% of the sanctioned load (termed as Excess Load) and consumption corresponding thereto at the following rates:-

i. **Energy charges for Excess Load**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess load in case the connected load found at the consumer's premises exceeds the 105% of the sanctioned load for the entire period for which such use of excess load has taken place and if, however, the period during which such use of excess load has taken place cannot be ascertained, such period shall be limited to a period of twelve months immediately preceding the date of inspection.

Example: If a consumer having a sanctioned load of 100 kW and connected load is found of 107 kW, the billing of energy charges for excess load of (107 kW- 105 kW)= 2 kW shall be = (total consumption recorded during the month* 2kW kVA/connected load found)*1.3* energy charge unit rate.

ii. **Fixed Charges for Excess load:** These charges shall be billed as per following, for the period for which the use of excess load is determined in condition i) above:

1. **Fixed Charges for Excess load when the connected load is found up to 115% of the sanctioned load**: Fixed Charges for Excess load over and above the 105 % of sanctioned load shall be charged at 1.3 times the normal rate of Fixed Charges.

2. **Fixed Charges for Excess load when the connected load exceeds 115% of sanctioned load**: In addition to Fixed Charges in 1 above, connected load found over and above 15 % of the sanctioned load shall be charged at 2 times the normal rate of Fixed Charges.

c) The above billing for Excess connected Load or Excess Demand, applicable to consumers is without prejudice to the Distribution Licensee's right to ask for revision of agreement and other such rights that are provided under the Regulations notified by the Commission or under any other law.

The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovoltampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month..

7. Other Terms and Conditions:

(a) For **advance payment** made before commencement of consumption period for which bill is prepared, a rebate of 1 % per month on the amount (excluding security deposit) which remains with the Distribution Licensee at the end of calendar month shall be credited to the account of the consumer after adjusting any amount payable to the Distribution Licensee.

(b) **Incentive for prompt payment**: An incentive for prompt payment @0.25% of the bill amount (excluding arrears, security deposit, meter rent and Government levies viz. Electricity Duty and Cess etc.) shall be given in case the payment is made at least 7 days in advance of the due date of payment where the current month billing amount is equal to or greater than Rs. One Lakh. The consumers in arrears shall not be entitled for this incentive.

(c) The Sanctioned Load or Connected Load or Contract Demand should not exceed 112.5 kW / 150 HP except where a higher limit is specified or the category is exempted from the ceiling on connected load. If the consumer exceeds his connected load or contract demand beyond this ceiling on more than two occasions in two billing months during the tariff period, the Distribution Licensee may insist on the consumer to avail HT supply.

(d) Metering Charges shall be billed as per schedule of Metering and Other Charges as prescribed in MPERC (Recovery of Expenses and other Charges for providing Electric Line or Plant used for the purpose of giving supply), Regulations (Revision-I), 2009. Part of a month will be reckoned as full month for purpose of billing.

(e) In case the cheque presented by the consumer is dishonoured, without prejudice to Distribution Licensee's rights to take recourse to such other action as may be available under the relevant law, a service charge of Rs. 200 per cheque shall be levied in addition to delayed payment surcharge

(f) Other charges as stated in Schedule of Miscellaneous Charges shall also be applicable.

(g) **Welding Surcharge** is applicable to installations with welding transformers, where the connected load of welding transformers exceeds 25% of the total connected load and where suitable capacitors of prescribed capacity have not been installed to ensure power factor of not less than 0.8 (80%) lagging. Welding Surcharge of 75 (seventy five) paisa per unit shall be levied for the consumption of the entire installation during the month. However, no welding surcharge shall be levied when recorded power factor is 0.8 or more.

(h) For purposes of computing the connected load in kW of the welding transformers, a power factor of 0.6 (60%) shall be applied to the maximum current or kVA rating of such welding transformers.

(i) Existing LT power consumer shall ensure that LT capacitor of proper rating is provided. In this regard, the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time may be referred for guidance. It shall be the responsibility of the consumer to ensure that overall average power factor during any month is not less than 0.8 (80%) failing which the consumer shall be liable to pay low power factor surcharge on the entire billed amount against energy charges during the month at the rates given below:

1. **For the consumer whose meter is capable of recording average power factor**:

    a. Surcharge @ 1 % of energy charges for every 1% fall in power factor below 80% up to 75 %.

    b. Surcharge of 5% plus 1.25% of energy charges for every 1% fall in power factor below 75% up to 70%.

    The maximum limit of surcharge will be 10 % of the energy charges billed during the month.

2. **For LT consumer having meter not capable of recording average power factor**: The consumer shall ensure that LT capacitors of proper rating are provided and are in good working condition. In this regard, the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time may be referred for guidance. In case of failure to meet the above criteria, the consumer would be levied a low power factor surcharge of 10% on the entire billed amount against energy charges during the month and would be continued to be billed till such time the consumer meets the above criteria .

(j) Levy of welding / power factor surcharge as indicated hereinabove shall be without prejudice to the rights of the Licensee to disconnect the consumer's installation, if steps are not taken to improve the power factor by installing suitable shunt capacitors.

(k) Load Factor incentive: Following slabs of incentive shall be allowed for consumers billed under demand based tariff:

Load factor	Concession in energy charges
For load factor above 25% and up to 30 % load factor on contract demand	12 paise per unit concession on the normal energy charges for all energy consumption over and above 25% load factor during the billing month
For load factor above 30% and up to 40 % load factor on contract demand	In addition to load factor concession available up to 30% load factor , concession at the rate of 24 paise per unit on the normal energy charges for all energy consumption over and above 30 % load factor during the billing month
For load factor above 40% load factor on contract demand	In addition to load factor concession available up to 40% load factor, concession at the rate of 36 paise per unit on the normal energy charges for all energy consumption over and above 40% load factor during the billing month

The **load factor** shall be calculated as per the following formula:

$$\text{Load factor (\%)} = \frac{\text{Monthly consumption X 100}}{\text{No. of hours in the billing month X Demand X PF}}$$

i. Monthly consumption shall be units (kWh) consumed in the month excluding those received from sources other than Licensee.

ii. No. of Hours in billing month shall exclude period of scheduled outages in hours.

iii. Demand shall be maximum demand recorded or contract demand whichever is higher.

iv. Power factor shall be 0.8 or actual monthly power factor whichever is higher

Note: The Load Factor (%) shall be rounded off to the nearest lower integer. The billing month shall be the period in number of days between the two consecutive dates of meter readings taken for the purpose of billing to the consumer for the period under consideration as a month.

(l) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final.

(m) The tariff does not include any tax, cess or duty, etc. on electrical energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall also be payable by the consumer in addition to the tariff charges and applicable miscellaneous charges.

(n) **Delayed payment Surcharge for all categories:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date subject to a minimum of Rs.5/- per month for total outstanding bill amount up to Rs. 500/- and Rs 10/ per month for amount of bill more than Rs.500/. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be levied for the period after supply to the consumer is permanently disconnected. This provision shall not be applicable to that category where the levy of delayed payment surcharge has been prescribed separately.

(o) In case of conversion of LT connection into HT connection, it is mandatory on the part of both the consumer and the licensee to get the HT agreement executed before availing supply at HT.

(p) **Power Factor Incentive:**

If the average monthly power factor of the consumer is equal to or more than 85%, incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 85% up to 86%	0.5
Above 86% up to 87%	1.0
Above 87% up to 88%	1.5
Above 88% up to 89%	2.0
Above 89% up to 90%	2.5
Above 90% up to 91%	3.0
Above 91% up to 92%	3.5
Above 92% up to 93%	4.0
Above 93% up to 94%	4.5
Above 94% up to 95%	5.0
Above 95% up to 96%	6.0
Above 96% up to 97%	7.0
Above 97% up to 98%	8.0
Above 98% up to 99%	9.0
Above 99%	10.0

For this purpose, the “average monthly power factor” is defined as the ratio in percentage of total kilowatthours to the total kilovoltampere hours recorded during the month.

(q) Use of mix loads in one connection: Unless otherwise permitted specifically in the tariff category, the consumer requesting for use of mix loads for different purposes shall be billed for the purpose for which the tariff is higher.

(r) Consumers in the notified Industrial Growth Centres area receiving supply under urban discipline shall be billed urban tariff.

(s) No change in the tariff or the tariff structure including minimum charges for any category of consumer is permitted except with prior written permission from the Commission. Any action taken without such written permission of the Commission shall be treated as null and void and shall also be liable for action under relevant provisions of the Electricity Act, 2003.

(t) All conditions prescribed herein shall be applicable to the consumer notwithstanding if any contrary provisions exist in the agreement entered into by the consumer with the licensee.

8. Additional conditions for Temporary Supply at LT:

(a) Temporary supply cannot be demanded by a prospective/ existing consumer as a matter of right but will normally be arranged by the Distribution Licensee when a requisition giving due notice is made. The temporary additional supply to an existing consumer also shall be treated as a separate service and charged subject to following conditions. However service under Tatkal Scheme shall be made available within 24 hours according to the charges specified in the order of the Commission regarding Schedule of Miscellaneous Charges.

(b) Fixed Charge and Energy Charge for temporary supply shall be billed at **1.3** times the normal charges as applicable to relevant category if not specified otherwise specifically.

(c) Estimated bill amount is payable in advance before serving the temporary connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given to consumers for this advance payment.

(d) The Sanctioned load or connected load shall not exceed 112.5 kW / 150 HP.

(e) The month for the purpose of billing of charges for temporary supply shall mean 30 days from the date of connection. Any period less than 30 days shall be treated as full month for the purpose of billing.

(f) Connection and disconnection charges and other miscellaneous charges shall be paid separately as may be specified in the Schedule of Miscellaneous Charges.

(g) Load factor concession shall not be allowed on the consumption for temporary connection.

(h) Power factor incentive/penalty shall be applicable at the same rate as applicable for permanent connection.

Annexure-3 (Tariff Schedules for High Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2015-16

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS

Table of Contents

Tariff Schedule- HV-1

RAILWAY TRACTION:

Applicability:

This Tariff shall apply to the Railways for Traction loads only.

Tariff:

S. No.	Category of consumer	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)
1	Railway Traction on 132 kV / 220 kV	280	540

Specific Terms and Conditions:

(a) In order to give impetus to electrification of Railway network in the State, a rebate of 10% in energy charges for new Railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which agreements for availing supply from licensee are finalized during FY 2015-16. The rebate provided in earlier orders shall remain in force at the rate and for the duration as mentioned in those tariff orders.

(b) The dedicated feeder maintenance charges shall not be applicable.

(c) Guaranteed Annual Minimum Consumption shall be 1500 units (kWh) per kVA of Contract Demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(d) Power Factor Penalty:

i. If the average monthly power factor of the consumer falls below 90 percent, penalty will be levied at the rate of one percent of total energy charges for the month for each one percent fall in the average monthly power factor below 90 percent. **For determination of power factor, lag only logic shall be used and no power factor penalty shall be levied if leading power factor is recorded.**

ii. If the average monthly power factor of the consumer falls below 85 percent, the consumer shall be levied a penalty of 5% (five percent) plus @ 2% (two percent) for each one percent fall in his average monthly power factor below 85 percent, on the total amount of bill under the head of "Energy Charge".

This penalty shall be subject to the condition that overall penalty on account of low power factor does not exceed 35%.

iii. For this purpose, the "average monthly power factor" is defined as the ratio expressed in percentage of total kilowatthours recorded to the total kilovoltampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

iv. Notwithstanding what has been stated above, if the average power factor of a new connection of the consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:

- This period of six months shall be reckoned from the month in which the average power factor was found for the first time to be less than 90%.
- In all cases, the consumer will be billed penal charges for low power factor, but in case the consumer maintains the average power factor in subsequent three months (thus in all four months) to not less than 90%, the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.
- The facility, as mentioned herein, shall be available not more than once to new consumer whose average power factor is less than 90% at any time during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as by any other consumer.

(e) Emergency feed extension: Provided that if as a result of the emergency in the traction substation or in the transmission line supplying load or part thereof is transferred to an adjacent traction substation, the M.D. for the month for that adjacent traction substation shall be as the average of M.D. for previous three months during which no emergency had occurred.

(f) Other terms and conditions shall be as mentioned in the General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 2

COAL MINES:

Applicability:

This Tariff shall apply to the Coal Mines for power, ventilation, lights, fans, coolers, etc. which shall mean and include all energy consumed for coal mines and lighting in the offices, stores, canteen, compound lighting etc. and the consumption for residential use therein.

Tariff:

S. No.	Sub category	Monthly Fixed Charge (Rs./kVA of billing demand per month)	Energy Charge for consumption up to 50% load factor (paise / unit)	Energy Charge for consumption in excess of 50% load factor (paise / unit)
	Coal Mines			
	11 kV supply	560	580	520
	33 kV supply	570	570	500
	132 kV supply	580	555	490
	220 kV supply	590	540	480

Specific Terms and Conditions:

a. **Guaranteed Minimum Consumption** shall be on the following basis :

Supply Voltage	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
For supply at 220 / 132 kV	1620
For supply at 33 / 11 kV	1200

Note: The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

b. **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff.

c. **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

d. Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 3

INDUSTRIAL, NON-INDUSTRIAL AND SHOPPING MALLS

Applicability:

The **tariff HV-3.1(Industrial)** shall apply to all HT industrial consumers including mines (other than coal mines) for power, light and fan etc. which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting, common and ancillary facilities such as Banks, General purpose shops, Water supply, Sewage pumps, Police Stations etc. in the premises of the industrial units and Dairy units where milk is processed (other than chilling, pasteurization etc.) to produce other end products of milk.

The **tariff HV-3.2 (Non Industrial)** shall apply to establishments like Railway Stations, Offices, Hotels, Hospitals, Institutions etc. (excluding group of consumers) having mixed load for power, light and fan etc. which shall mean and include all energy consumed for lighting in the offices, stores, canteen, compound lighting etc. This shall also cover all other categories of consumers, defined in LT non-domestic category subject to the condition that the HT consumer shall not redistribute/sub-let the energy in any way to other person.

The **tariff HV-3.3 (Shopping malls)** shall apply to establishments of shopping malls having group of non-industrial consumers subject to the specific terms and conditions specified in (e) of this schedule.

Shopping Mall shall be a multi-storeyed shopping centre in an urban area having a system of enclosed walkways with collection of independent retail stores, services and parking areas constructed and maintained by a management firm/ developer as a unit.

The **tariff HV-3.4 (Power intensive industries)** shall apply to Mini Steel Plants (MSP), MSP with rolling mills/ sponge iron plants in the same premises, electro chemical/ electro thermal industry, Ferro alloy industry which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting etc.

Tariff:

S. No.	Sub-Category of consumer	Monthly Fixed Charge (Rs./kVA of billing demand per month)	Energy Charge for consumption up to 50% load factor (paise / unit)	Energy Charge for consumption in excess of 50% load factor (paise / unit)
3.1	**Industrial**			
	11 kV supply	280	575	520
	33 kV supply	435	565	470
	132 kV supply	525	525	455
	220/400 kV supply	560	505	435
3.2	**Non-Industrial**			
	11 kV supply	250	605	545
	33 kV supply	370	590	530
	132 kV supply	475	540	485
3.3	**Shopping Malls**			
	11 kV supply	230	615	540
	33 kV supply	340	595	525
	132 kV supply	450	540	485
3.4	**Power intensive industries***			
	33 kV supply	470	430	430
	132 kV supply	570	410	410
	220 kV supply	610	400	400

*****Category HV 3.4 shall not be entitled to load factor incentive. Further energy charges for this category shall be same for entire consumption irrespective of load factor.

Specific Terms and Conditions:

(a) **Guaranteed Minimum Consumption** for all the above categories shall be on following basis :

Supply Voltage	Sub- category	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
For supply at 220/132 kV	Rolling Mills	1200
	Educational institutions	720
	Others	1800
For supply at 33 / 11 kV	Educational institutions	600
	Contract demand up to 100 kVA	600
	Others	1200

Note: The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff. However consumers under category HV 3.4 shall not be entitled to load factor incentive.

(c) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

(d) **Rebate for supply through feeders feeding supply to predominantly to rural areas** : HT consumers of this category receiving supply through rural feeders shall be entitled to 5 % rebate on Fixed Charges and 20 % reduction in Minimum Consumption (kWh) as specified above for respective voltage levels.

(e) **Additional specific terms and conditions for shopping mall**

(i) Individual end user shall not be levied a rate which is exceeding non-domestic-commercial tariff (LV 2.2) in case of LT connection and HT non-industrial tariff (HV 3.2) in case of HT connection, as determined by the Commission.

(ii) All end-users shall enter into a tripartite agreement with the Management Firm /developer of the shopping mall and the licensee for availing supply of electricity in the shopping mall in order to get the benefit of the tariff under this category.

(f) Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 4

SEASONAL:-

Applicability:

This tariff shall be applicable to such seasonal industries / consumers requiring energy for the production purposes for maximum continuous one hundred eighty days and for a minimum period of three months. **If the declared season/off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.**
The licensee shall allow this tariff to any industry having seasonal use only.

This tariff shall also be applicable to mini/micro and small hydel plants to meet the essential requirement of power to maintain the plants without any ceiling as to the period for which supply shall be taken.

Tariff:

Category of consumers	**Monthly Fixed Charge (Rs./kVA of billing demand per month)**	**Energy Charge for consumption up to 50% load factor (paise / unit)**	**Energy Charge for consumption in excess of 50% load factor (paise / unit)**
During Season			
11 kV supply	290	550	495
33 kV supply	320	540	480
During Off-Season			
11 kV supply	Rs. 290 on 10% of contract demand or actual recorded demand during the season, whichever is higher	654 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 320 on 10% of contract demand or actual recorded demand during the season, whichever is higher	642 i.e. 120% of seasonal Energy Charge	Not applicable

Specific Terms and Conditions:

a) **Guaranteed Annual Minimum Consumption** shall be 900 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff

b) **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff.

c) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

d) The consumer has to declare months of season and off season for the tariff year 2015-16 within 60 days of issue of tariff order and inform the same to the licensee. If the consumer has already informed the Licensee of his season/off-season months during this financial year prior to issue of this order, same shall be accepted and shall be valid for this tariff order.

e) The seasonal period once declared by the consumer cannot be changed during the year.

f) This tariff schedule is not applicable to composite units having seasonal and other category loads.

g) The consumer will be required to restrict his monthly off season consumption to 15% of highest of the average monthly consumption of the preceding three seasons. In case this limit is exceeded in any off season month, the consumer will be billed under HV-3.1 Industrial Schedule for the whole tariff year.

h) The consumer will be required to restrict his maximum demand during off season to 30 % of the contract demand. In case the maximum demand recorded in any month during the declared off- season exceeds this limit, the consumer will be billed under HV-3.1 Industrial Schedule for the whole year.

i) Other terms and conditions shall be as per the General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 5

IRRIGATION, PUBLIC WATER WORKS AND OTHER THAN AGRICULTURAL

Applicability:

The Tariff Category HV-5.1 shall apply to supply of power to lift irrigation schemes, group irrigation, Public Utility Water Supply schemes, sewage treatment plants /sewage pumping plants and for energy used in lighting pump house.
Note: Private water supply scheme, water supply schemes run by institutions for their own use/employees/townships etc. will not fall in this category but billed under the appropriate tariff category to which such institution belongs. In case water supply is being used for two or more different purposes then the highest tariff shall be applicable.

The tariff category HV-5.2 shall apply to supply of power to other than agriculture pump connections i.e. the connection for hatcheries, fisheries ponds, poultry farms, cattle breeding farms, grasslands, vegetables/ fruits/ floriculture/ mushroom growing units etc. and dairy (for those dairy units where only extraction of milk and its processing such as chilling, pasteurization etc. is done). However, in units where milk is processed to produce other end products of milk, billing shall be done under HV-3.1 (Industrial) category.

Tariff:

No.	Sub-Category	Monthly Fixed Charge (Rs. / kVA of billing demand per month)	Energy Charge (paise per unit)
5.1	**Public Water Works, Group Irrigation and Lift Irrigation Schemes**		
	11 kV supply	195	445
	33 kV supply	215	420
	132 kV supply	240	400
5.2	**Other than agricultural use**		
	11 kV supply	210	455
	33 kV supply	230	435
	132 kV supply	250	420

Specific Terms and Conditions:

(a) **Guaranteed Annual Minimum Consumption** shall be 720 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

(c) **Incentive for adopting Demand Side Management**

An **incentive** equal to 5 % energy charges shall be given on installation and use of energy saving devices (such as ISI energy efficient motors for pump sets). **Incentive** will only be admissible if full bill is paid within due dates failing which all consumed units will be charged at normal rates as the case may be. Such incentive will be admissible from the month following the month in which energy saving devices are put to use and its verification by a person authorized by the licensee. The incentive will continue to be allowed till such time these energy saving devices remain in service. The Distribution Licensee is required to arrange wide publicity for above incentive. The Distribution Licensee is required to place quarterly information regarding incentives provided on its web site.

(d) Other terms and conditions shall be per the General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 6

BULK RESIDENTIAL USERS

Applicability:

The tariff category **HV-6.1** is applicable for supply to industrial or any other township (e.g. that of University or academic institutions, hospitals, MES and Border villages etc.) for domestic purpose only such as lighting, fans, heating etc. provided that the connected load for essential common facilities such as Non-domestic supply in residential area, street lighting shall be within the limits specified hereunder:-

(i) Water supply and Sewage pumping, Hospital - **No limit**

(ii) Non-domestic/Commercial and other General purpose put together - **20 % of total connected load.**

The tariff category **HV-6.2** is applicable for supply to Registered Cooperative Group Housing Societies as per the Ministry of Power's notification no. S.O.798 (E) dated 9th June, 2005 and also to other Registered Group Housing Societies and individual domestic user**.** The Terms and Conditions to this category of consumers shall be applicable as per relevant provisions of the Madhya Pradesh Electricity Supply Code, 2013 as amended from time to time.

Tariff:

S. No.	Category of consumers	Monthly Fixed Charge (Rs. / kVA of billing demand per month	Energy Charge for consumption up to 50% load factor (paise / unit)	Energy Charge for consumption in excess of 50% load factor (paise / unit)
1	**For Tariff Sub-Category 6.1**			
	11 kV supply	230	505	455
	33 kV supply	250	480	430
	132 kV supply	265	460	415
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	155	505	460
	33 kV supply	160	495	450
	132 kV supply	165	480	430

Specific Terms and Conditions:

(a) **Guaranteed Annual Minimum Consumption** shall be 780 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff.

(c) All individual end-users shall enter into a tripartite agreement with the Management of the Group Housing Society and the licensee for availing supply of electricity in the Society in order to get the benefit of the tariff under this category. The individual end user shall not be levied a rate exceeding the tariff applicable to the corresponding LT category.

(d) Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

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Tariff Schedule – HV - 7

SYNCHRONIZATION AND START UP POWER FOR GENERATORS CONNECTED TO THE GRID

Applicability:

This Tariff shall apply to those generators who are already connected to the grid but who are not consumers of the Distribution Licensee and seek to avail power for synchronization with the grid or for start-up.

Tariff for all voltages:

Category	Energy Charge (Paise/unit)
Generators for Start up power or synchronization with Grid	625

Terms and Conditions:

(a) The supply for synchronization with the grid or for start-up power shall not exceed 15% of the capacity of unit of highest rating in the Power Plant.

(b) The condition for minimum consumption shall not be applicable to the generators including CPP. Billing shall be done for energy recorded on each occasion of availing supply.

(c) The supply shall not be allowed to the CPP for production purpose for which they may avail stand-by support under the relevant Regulations.

(d) The synchronization with the grid or the start-up power shall only be made available after commissioning of plant and in the event of outages for annual planned maintenance, other maintenance, forced outages of generating units or also in the event of separation of generator from grid.

(e) The synchronization with the grid, power shall be provided for a maximum period of 2 hours on each occasion. This time limit shall not be applicable to start up activity

(f) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization with the grid or for start-up power incorporating the above terms and conditions.

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GENERAL TERMS AND CONDITIONS OF HIGH TENSION TARIFF

The following terms and conditions shall be applicable to all HT consumer categories subject to Specific Terms and Conditions for that category as mentioned in the Tariff Schedule of respective category:

1.1 The contract demand shall be expressed in whole number only.

1.2 Character of Service: The character of service shall be as per the Madhya Pradesh Electricity Supply Code, 2013 as amended from time to time.

1.3 Point of Supply:

(a) The power will be supplied to the consumer ordinarily at a single point for the entire premises.

(b) In case of Railway Traction, the supply at each sub-station shall be separately metered and charged.

(c) In case of coal mines, the power will be supplied ordinarily at a single point for the entire premises. The power may, however, be supplied, on the request of the consumer, at more than one point subject to technical feasibility. In such cases, metering and billing will be done for each point of supply separately.

1.4 **Determination of Demand:** The **maximum demand** of the supply in each month shall be four times the largest number of kilovolt ampere hours delivered at the point of supply during any continuous 15 minutes during the month as per sliding window principle of measurement of demand.

1.5 **Billing demand:** The billing demand for the month shall be the actual maximum kVA demand of the consumer during the month excluding the demand availed through open access or 90% of the contract demand, whichever is higher. The billing demand shall be rounded off to the nearest integer number i.e. the fraction of 0.5 or above will be rounded off to next integer figure and the fraction of less than 0.5 shall be ignored.

1.6 **Tariff minimum consumption shall be billed** as follows :

1) The consumer shall be billed for guaranteed annual minimum consumption (kWh) based on number of units per kVA of contract demand specified for his category, irrespective of whether any energy is consumed or not during the year.

2) The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.

3) During the month in which actual cumulative consumption equals or greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year.

4) Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption * (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

1.7 **Rounding off:** All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.

Incentive/ Rebate / penalties

1.8 **Power Factor Incentive**

Power factor incentive shall be payable as follows:

Power Factor	**Percentage incentive payable on billed energy charges**
Above 95% and up to 96%	1.0 (one percent)
Above 96% and up to 97%	2.0 (two percent)
Above 97% and up to 98%	3.0 (three percent)
Above 98 % up to 99%	5.0 (five percent)
Above 99 %	7.0 (seven percent)

1.9 **Load factor calculation and load factor incentive**

1) The **Load Factor** shall be calculated as per the following formula:

$$\text{Load Factor (\%)} = \frac{\text{Monthly consumption X 100}}{\text{No. of hours in the billing month X Demand X PF}}$$

i. Monthly consumption shall be units (kWh) consumed in the month excluding those received from sources other than Licensee.

ii. No. of Hours in billing month shall exclude period of scheduled outages in hours.

iii. Demand shall be maximum demand recorded or contract demand whichever is higher.

iv. Power factor shall be 0.9 or actual monthly power factor whichever is higher

Note: The load factor (%) shall be rounded off to the nearest lower integer. In case the consumer is getting power through open access, units set off from other sources, the net energy (after deducting units set off from other sources, from the consumed units) billed to consumer shall only be taken for the purpose of working out load factor. The billing month shall be the period in number of days between the two consecutive dates of meter readings taken for the purpose of billing to the consumer.

2) **Load Factor (LF) incentive** shall be calculated as per following scheme and shall be given to those categories of consumers where it is specified:

LF Range	Incentive	Computation of % incentive on energy charge (LF=x %)
LF <= 75%	No Incentive	= 0.00
LF > 75%	Incentive of 0.10 % for every 1% increase in LF above 75% on the energy charges for incremental consumption above 75% load factor	= (x-75)*0.10

Example,

- Consumer having 72% load factor would not be getting any incentive on energy charges
- Consumer having 82% load factor will get incentive of [0.10 * (82-75) %] = 0.7% on energy charges for incremental consumption above 75% load factor.

Note: For working out **incremental consumption**, consumption corresponding to 75 % load factor shall be deducted from total consumption. The above load factor incentive shall apply only to energy charges corresponding to such incremental consumption for which separate rates have been specified.

1.10 For **advance payment** made before commencement of consumption period for which bill is prepared, an incentive of 1 % per month on the amount which remains with the licensee at the end of calendar month (excluding security deposit) shall be credited to the account of the consumer after adjusting any amount payable to the licensee.

1.11 An incentive for prompt payment @0.25% of bill amount (excluding arrears, security deposit, meter rent and Government levies viz. Electricity Duty and Cess) shall be given in case the payment is made at least 7 days in advance of the due date of payment where the current month billing amount is equal to or greater than Rs. One Lakh. The consumers in arrears shall not be entitled for this incentive.

1.12 **Time of Day (ToD) Surcharge / Rebate:** This scheme is applicable to the categories of consumers where it is specified. This is applicable for different periods of the day i.e. normal period, peak load and off-peak load period. The surcharge / rebate on energy charges according to the period of consumption shall be as per following table:

Sr. No.	Peak / Off-peak Period	Surcharge / Rebate on energy charges on energy consumed during the corresponding period
1.	Evening peak load period (6 PM to 10 PM)	5 % of Normal rate of Energy Charge as Surcharge
2.	Off peak load period (10 PM to 6 AM next day)	15 % of Normal rate of Energy Charge as Rebate

Note: Fixed charges shall always be billed at normal rates i.e. ToD Surcharge / Rebate shall not be applied on Fixed Charges

1.13 **Power Factor Penalty (For consumers other than Railway Traction HV-1)**

(i) If the average monthly power factor of the consumer falls below 90 percent, the consumer shall be levied a penalty @ 1% (one percent), for each one percent fall in his average monthly power factor below 90 percent, on total amount of bill under the head of "Energy Charges".

(ii) If the average monthly power factor of the consumer falls below 85 percent, the consumer shall be levied a penalty of 5% (five percent) plus @ 2% (two percent) for each one percent fall in his average monthly power factor below 85 percent. , on the total amount of bill under the head of "Energy Charges". This penalty shall be subject to the condition that overall penalty on account of low power factor does not exceed 35%.

(iii) Should the average monthly power factor fall below 70%, the Distribution Licensee reserves the right to disconnect the consumer's installation till steps are taken to improve the same to the satisfaction of the Distribution Licensee. This is, however, without prejudice to the levy of penalty charges for low power factor in the event of supply not being disconnected.

(iv) For this purpose, the "average monthly power factor" is defined as the ratio expressed in percentage of total kilowatthours to the total kilovoltampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

(v) Notwithstanding what has been stated above, if the average monthly power factor of a new consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:

a) This period of six months shall be reckoned from the month following the month in which the average power factor was found for the first time to be less than 90%.

b) In all cases, the consumer will be billed the penal charges for low power factor, but in case the consumer maintains the average monthly power factor in subsequent three months (thus in all four months) to not less than 90%, the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.

c) The facility, as mentioned herein, shall be available not more than once to new consumer whose average monthly power factor is less than 90% in any month during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as applicable to any other consumer.

1.14 **Additional Charges for Excess Demand**

i. The consumer shall at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds 105% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 105% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 105% of contract demand on energy charges and fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand. The excess demand so computed, if any, in any month shall be charged at the following rates from all consumers except Railway Traction.

ii. **Energy charges for excess demand**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds 105% of the contract demand.

Example: If a consumer having a contract demand of 200 kVA records a maximum demand of 250 kVA, the billing of energy charges for excess demand of (250 kVA- 210 kVA)= 40 kVA shall be = (total consumption recorded during the month* 40 kVA/maximum recorded demand)*1.3* energy charge unit rate.

iii. **Fixed charges for Excess Demand: -** These charges shall be billed as per following:

1. **Fixed charges for Excess Demand when the recorded maximum demand is up to 115% of the contract demand:** Fixed charges for Excess Demand over and above the 105 % of contract demand shall be charged at 1.3 times the normal fixed charges.

2. **Fixed charges for Excess Demand when the recorded maximum demand exceeds 115% of contract demand**: In addition to fixed charges in 1 above, recorded demand over and above 15 % of the contract demand shall be charged at 2 times the normal fixed charges.

   Example for fixed charges billing for excess demand: If the contract demand of a consumer is 100 kVA and the maximum demand recorded in the billing month is 140 kVA, the consumer shall be billed towards fixed charges as under:-

   a) Up to 105 kVA at normal tariff.

   b) Above 105 kVA up to 115 kVA i.e. for 10 kVA at 1.3 times the normal tariff.

   c) Above 115 kVA up to 140 kVA i.e. for 25 kVA at 2 times the normal tariff.

iv. In case of **Railway Traction** the excess demand so computed as per above, if any, in any month shall be charged at the following rates:

   (a) When the recorded maximum demand is up to 115% of contract demand- Excess Demand over and above 105 % of the contract demand—at the rate of Rs. 308 per kVA

   (b) When the recorded maximum demand exceeds 115% of contract demand: - In addition to fixed charges in (a) above, recorded demand over and above 15 % of the contract demand shall be charged—at the rate of Rs. 420 per kVA

While doing so, other provisions of electricity tariff (such as tariff minimum charge etc.) will also be applicable on aforesaid excess demand.

v. The excess demand computed in any month will be charged along with the monthly bill and shall be payable by the consumer.

vi. The billing of excess demand at higher tariff is without prejudice to the Licensee’s right to discontinue the supply in accordance with the provisions contained in the Madhya Pradesh Electricity Supply Code, 2013.

1.15 **Delayed Payment Surcharge:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be applicable after supply to the consumer is permanently disconnected.

1.16 **Service Charge for Dishonoured Cheques:** In case the cheque(s) presented by the consumer are dishonoured, a service charge at the rate of Rs. 1000/- per cheque shall be levied in addition to delayed payment surcharge as per rules. This is without prejudice to the Distribution Licensee's rights to take action in accordance with any other applicable law.

1.17 **Temporary supply at HT:** The character of temporary supply shall be as defined in the M.P. Electricity Supply Code, 2013. If any consumer requires temporary supply it shall be treated as a separate service and charged subject to the following conditions:

(a) Fixed Charges and Energy Charges shall be charged at 1.3 times the normal tariff. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the monthly fixed charges. Month shall be considered as the number of total days in that calendar month.

(b) The consumer shall guarantee minimum consumption (kWh) as applicable to the permanent consumers on pro-rata basis based on number of days as detailed below:

$$\text{Minimum consumption for additional supply for temporary period} = \frac{\text{Annual minimum consumption as applicable to permanent supply X No. of days of temporary connection}}{\text{No. of days in the year}}$$

(c) The billing demand shall be the demand requisitioned by the consumer or the highest monthly maximum demand during the period of supply commencing from the month of connection ending with the billing month, whichever is higher. For example:

Month	Recorded Maximum Demand (kVA)	Billing Demand (kVA)
April	100	100
May	90	100
June	80	100
July	110	110
August	100	110
September	80	110
October	90	110
November	92	110

December	95	110
January	120	120
February	90	120
March	80	120

(d) The consumer shall pay the estimated charges in advance, before serving the Temporary Connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given on such advance payment.

(e) The consumer shall pay rental for the metering system.

(f) Connection and Disconnection Charges shall also be paid.

(g) In case of existing HT consumer, the temporary connection may be given through existing permanent HT connection on following methodology of assessment:

i. Fixed Charges shall be charged at 1.3 times the normal tariff

ii. Deemed contract demand (DCD) = CD for permanent connection + sanctioned demand for temporary connection.

iii. Billing demand and fixed charges for the month shall be worked out in the following manner :

1. When recorded MD in the month is found to be less than deemed CD for the month, fixed charges for the month shall be sum of fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charge at normal tariff on highest of **a** or **b**,

   where **a** is Recorded MD minus temporary sanctioned demand and **b** is 90% CD of permanent connection.

2. When recorded MD in the month is found to be equal to deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent connection + fixed charges at temporary tariff on 100% temporary sanctioned demand.

3. When recorded MD in the month is found to be in excess of deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent connection + fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charges on 100% excess demand over and above deemed CD at 1.5 times of temporary tariff.

4. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the

monthly fixed charges. Month shall be considered as the number of total days in that calendar month.

iv. The consumption corresponding to Permanent connection i.e. (A) during the month shall be billed in the following manner:

$$A = \frac{\text{Contract demand (Permanent)}}{\text{Deemed contract demand or actual demand whichever is higher}} \times \text{Total consumption}$$

v. The consumption corresponding to temporary sanctioned demand during the month i.e. (B) shall be billed at 1.3 times the normal energy charges and shall be billed in the following manner:

$$B = \frac{\text{sanctioned demand for temporary connection}}{\text{Deemed contract demand or actual demand recorded whichever is higher.}} \times \text{total consumption}$$

vi. Consumption during the month corresponding to excess demand i.e. (C), if any, shall be calculated in the following manner:

C= total recorded consumption minus (consumption corresponding to permanent connection i.e. A + consumption corresponding to temporary sanctioned demand i.e. B)

vii. The demand recorded in excess of deemed contract demand shall be treated as Excess Demand. For billing purposes such Excess demand, if any, in any month shall be treated as pertaining to temporary connection load and shall be charged at 1.5 times the normal fixed charges and energy charges of temporary connection. Additional charges for excess demand recorded during the period of temporary connection shall be calculated as given below :

Fixed charges for excess demand = fixed charges per kVA for temporary connection * excess demand* 1.5 (one and half)

Energy charges for consumption corresponding to excess demand = energy charges per unit for temporary connection * 1.5(one and half)*(consumption corresponding to excess demand i.e. C)

(h) Load factor incentive shall not be allowed on the consumption for temporary connection.

(i) Power factor incentives/penalties and the condition for Time of Day Surcharge/ rebate shall be applicable at the same rate as for permanent connection.

Other Terms and Conditions for permanent connections:

1.18 The existing 11 kV consumer with contract demand exceeding 300 kVA who want to continue to avail supply at 11 kV at his request, shall be required to pay additional charge at 5 % on the total amount of Fixed Charges and, Energy Charges billed in the month.

1.19 The existing 33 kV consumer with contract demand exceeding 10,000 kVA who want to continue to avail supply at 33 kV at his request, shall be required to pay additional charge at 3% on the total amount of Fixed Charges and Energy Charges billed in the month.

1.20 The existing 132 kV consumer with contract demand exceeding 50,000 kVA who want to continue to avail supply at 132 kV at his request, shall be required to pay additional charge at 2% on the total amount of Fixed Charges and Energy Charges billed in the month.

1.21 Metering Charges shall be billed as per schedule of Metering and Other Charges as prescribed in MPERC (Recovery of Expenses and other Charges for providing Electric Line or Plant used for the purpose of giving Supply), Regulations (Revision-I), 2009 as amended from time to time. Part of a month will be reckoned as full month for purpose of billing.

1.22 The tariff does not include any tax or duty, etc. on electrical energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall be payable by the consumer in addition to the tariff charges.

1.23 In case any dispute arises regarding interpretation of this tariff order and/or applicability of this tariff, the decision of the Commission will be final and binding.

1.24 No changes in the tariff or the tariff structure including minimum charges for any category of consumer are permitted except with prior written permission of the Commission. Any order without such written permission of the Commission will be treated as null and void and also shall be liable for action under relevant provisions of the Electricity Act, 2003.

1.25 In case a consumer, at his request, avails supply at a voltage higher than the standard supply voltage as specified under relevant category, he shall be billed at the rates applicable for actually availed supply voltage and no extra charges shall be levied on account of higher voltage.

1.26 All consumers to whom fixed charges are applicable are required to pay fixed charges in each month irrespective of whether any energy is consumed or not.

1.27 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.
