MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2016-17

Petition No. 73/2015

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 2016-17 based on the ARR & Tariff Petition filed 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) and 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 5th Day of April, 2016)

1.1 This order is in response to the petition No. 73 of 2015 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 Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). This petition has been filed as per the requirements of 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, 2015 {RG-35 (II) of 2015) (hereinafter referred to as the Tariff Regulations or Regulations).

1.2 In accordance with the Tariff Regulations, the Distribution Licensees are required to file their respective petition(s)/proposal(s) for the determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2016-17 latest by 31st October, 2015. Vide letter dated 28th October, 2015, MPPMCL requested the Commission to extend the date of filing of the petition up to 15th December 2015 based on the grounds that the annual accounts and the revised capex plans of the Discoms were not finalized. MPPMCL 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 granted the extension up to 20th November 2015. MPPMCL again requested the Commission to extend the date of filing of the petition first by 15th December 2015 and later on by 23rd December 2015 as the annual accounts of the Discoms were not finalised. The Commission considered the requests and allowed the time extension up to 23rd December 2015.

1.3 MPPMCL and Distribution Licensees have jointly filed the petition (No.73/2015) on 21st December 2015. Gist of the petition is given below:

Table 1 : Snapshot of the petition for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Revenue from sale of power as per existing tariff	8071	9114	8121	25306
Aggregate Revenue Requirement	9713	10740	9835	30288
Revenue gap in Income and Expenditure for FY 2016-17	1642	1626	1714	4982

1.4 The Petitioners have proposed to bridge the aforementioned revenue gap partially through revision in the retail supply tariff for FY 2016-17 (Rs. 3791 Crore) and partially through sale of surplus power at better rate and through various operational efficiency measures being undertaken by the Petitioners (Rs. 1191 Crore). The Petitioners have further proposed to recover any remaining gap at the time of annual true-up.

1.5 The motion hearing was held by the Commission on 5th January 2016, wherein the Commission observed a number of deficiencies in the data/information furnished in the petition. The Commission admitted the petition vide daily order dated 07/01/2016 directed the Petitioners:

i. To furnish the reply on the data gaps,

ii. To publish the public notice in Hindi and English in the newspapers latest by January 08, 2016 for inviting objections /comments/suggestions from the stakeholders on the subject petition.

iii. English and Hindi version of the petition be kept ready for sale to stakeholders from January 08, 2016 positively at the offices mentioned in the public notice.

1.6 Public notices comprising the gist of the tariff applications and tariff proposals were published by East Discom, West Discom and Central Discom on January 08, 2016 in the Hindi and English newspapers. The stakeholders were requested to file their objections/comments/suggestions latest by January 29, 2016.

1.7 The Commission received 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.

Public Hearing

1.8 The Commission issued a public notice with regard to holding of the public hearings on February 6, 2016 published in various newspapers across the state inviting interested stakeholders to present their views on the petition during public hearings. The Commission held public hearings on the ARR/Tariff petition at, Indore, Bhopal and Jabalpur as per the schedule given below:

Table 2: Public hearings

Name of Discom	Venue of Public Hearing	Date
M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	February 12, 2016
M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	February 16, 2016

M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal	Auditorium, Academy of Administration, 1100 Quarters, Bhopal	February 19, 2016

1.9 The Commission has ensured transparency and public participation is followed meticulously at every stage. Adequate opportunity has been given to all stakeholders to file and present their objections/comments/suggestions in the matter. The Commission has taken due cognizance of all the objections received in the office of the Commission within stipulated time and also raised during the hearing. As per the provisions of the Electricity Act, 2003 and relevant regulations notified by the Commission in this regard, the Commission has finalised this order.

State Advisory Committee

1.10 The Commission convened a meeting of the State Advisory Committee (SAC) on 9th Feb, 2016 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 taken in cognizance by the Commission while determining the ARR and Tariff for the FY 2016-17.

1.11 All objections/comments/suggestions related to the petition received from the stake holders and also the issues raised by them during the hearings / meetings have been duly taken in cognizance while finalizing this order.

Distribution Losses

1.12 Distribution loss reduction trajectory specified in the Tariff Regulations for the period from FY 2016-17 to FY 2018-19 is given in the following table:

Table 3: Distribution loss reduction trajectory as per Regulations

Particulars	**FY 2016-17**	**FY 2017-18**	**FY 2018-19**
East Discom	**18%**	17%	16%
West Discom	**16%**	15.5%	15%
Central Discom	**19%**	18%	17%

1.13 The Commission has determined the ARR and tariffs for FY 2016-17 for the Discoms of the State on the basis of the distribution loss trajectory as specified in the Regulations.

Energy Accounting and Meterisation

1.14 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. There appears to be some progress with regard to feeder meterisation, while meterisation 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 quater end December, 2015 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	1639	4327	2433	5551	1696	4164
2	No. of feeders provided with energy audit metering.	1538	4002	2404	5334	1696	4164
3	No. of feeders where energy audit meters are lying defective	131	580	340	554	63	163
4	No. of feeders on which energy audit meters are yet to be provided	101	325	29	217	0	0

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

Particulars	Domestic Rural		
	Total no. of connections	No. of un- metered connections	Percentage (%) un- Metered
East Discom	2175830	327160	15.04%
West Discom	1787716	2190	0.12%
Central Discom	1180495	125555	10.64%
State Total	5144041	454905	8.84%

Table 6: Status of meterisation of un-metered agricultural DTRs

Particulars	Agricultural DTR		
	Total no. of Pre-dominant Agricultural DTRs	**No. of DTRs provided with meters**	**Percentage (%) of DTRs provided with meters**
East Discom	66934	5249	7.84%
West Discom	60620	21055	34.73%
Central Discom	113976	33893	29.74%
State Total	**241530**	**60197**	**24.92%**

1.15 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 got no incentive for energy saving by the consumers and it is also not possible to work out the real energy loss scenario. The Commission keeping in view of the fact that without the proper metering system in place it is not possible to assess the demand of the agriculture consumers, has, therefore, directed the Discoms to expedite feeder meterisation and DTR meterisation on priority basis. There is also a need to segregate technical and commercial losses.

Wheeling Charges and Cross Subsidy Surcharge

1.16 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

1.17 The Commission has determined the aggregate revenue requirement of the Discoms for FY 2016-17 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.

1.18 The Commission has passed the orders for true up of ARR for Discoms for FY 2005-06 (Rs. 365.83 Crore), FY 2012-13 (Rs. 1559.25 Crore), true-up of ARR for MPPTCL for FY 2013-14 (Rs. 281.43 Crore) and true-up of ARR for MPPGCL for FY 2012-13 ((-) Rs.103.55 Crore) and for FY 2013-14 ((-) Rs. 283.16 Crore) after the issuance of Retail Supply tariff order for FY 2015-16. This would result in an impact of Rs. 1819.80

Crore, which has been admitted in this retail order.

1.19 The ARR admitted for three Petitioners is given below in the table:

Table 7: ARR admitted by the Commission for FY 2016-17 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
Power Purchase admitted	6007.00	6632.22	5803.83	18443.05
Inter state transmission charges	456.00	580.00	441.00	1477.00
Intra state transmission charges including SLDC	673.16	870.56	708.64	2252.36
O&M Expenses	1247.07	1200.37	1113.96	3561.41
Depreciation	134.91	106.91	161.46	403.29
Interest & Finance Charges				
On Project Loans	225.28	84.86	284.20	594.34
On Working Capital Loans	74.92	0.00	31.96	106.88
On Consumer Security Deposit	40.32	90.11	61.87	192.30
Return on Equity	255.26	180.81	305.92	741.98
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Tax	0.00	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00	0.00
Total Expenses admitted	9115.91	9747.84	8914.85	27778.61
Other income+Non Tariff Income	251.99	206.26	212.25	670.49
Saving from operational efficiency measures	231.93	88.24	279.83	600.00
Net total Expenses	**8631.99**	**9453.35**	**8422.77**	**26508.11**
Impact of True-Up Amounts of Past Years				
Impact of True Up for Discoms for FY 2005-06	103.67	137.56	124.60	365.83
Impact of True up for MP Transco for FY 2013-14	91.14	103.16	87.13	281.43
Impact of True up for MP Genco for FY 2012-13	-33.85	-37.84	-31.86	-103.55
Impact of True up for MP Genco for FY 2013-14	-92.57	-103.46	-87.13	-283.16
Impact of True Up for Discoms for FY 2012-13	304.90	697.93	556.42	1559.25
Total True-up	373.29	797.35	649.16	1819.80
Total ARR	**9005.28**	**10250.70**	**9071.93**	**28327.91**

1.20 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 directives by the Hon'ble APTEL.

1.21 The Commission has made suitable provisions to fulfil the Renewable Purchase Obligations (RPO) in the ARR of the Discoms as per relevant Regulations. The Petitioners are required to fulfil their RPOs.

1.22 The Commission has determined the voltage wise cost of supply vis-a-vis the 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

1.23 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 April 13, 2016 to March 31, 2017, unless amended, extended or modified by an order of this Commission.

1.24 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 2016-17. The Commission directs Petitioners that this order be implemented along with directions given and conditions mentioned in the detailed order and in the schedules of 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 5TH APRIL, 2016 IN RESPECT OF PETITION NUMBER 73/2015

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 2016-17 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 2016-17 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 sale for FY 2016-17, category wise and slab wise actual data of the sale, number of consumers, connected/contract load, etc. of the preceding four years i.e FY 2011-12, FY 2012-13, FY 2013-14, FY 2014-15 and available data for FY 2015-16 (up to September 2015) have been used. The actual sale for FY 2014-15 has deviated significantly from the sales forecast submitted in ARR/tariff petition for FY 2015-16 and also as compared to sale admitted in tariff order for FY 2014-15. The Petitioners have further stated that the sale for FY 2015-16 was projected on the basis of actual data of FY 2013-14 and since actual data of FY 2014-15 is now available it is appropriate to revise the estimation of energy sale for FY 2015-16. Based on revised estimation for FY 2015-16, projections of sale for FY 2016-17 have been made. The Petitioners have further submitted that they have analysed the data for the Compound Annual Growth Rates (CAGRs) of each category and its subcategories in respect of urban and rural consumers, separately and thereafter, appropriate/reasonable growth rates have been assumed for prospective consumers/ sale forecasts. 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 has also considered in the sale forecast. Discoms have estimated that the sale would increase on account of implementation of RGGVY/DDUGJY, Feeder Separation Scheme and increase in supply hours in rural areas

3.2 It is submitted by the Petitioners 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 there are no unmetered domestic connections in urban area.

3.3 Details of the category wise sale as projected by the Petitioners, is given in the table below:

Table 8: Category wise sale projected by Petitioners (MU)

Particulars	**Projections For FY 2016-17**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LT				
LV-1: Domestic	4,294	3,858	4,039	12,192
LV-2: Non Domestic	848	911	901	2,660
LV-3.1: Public Water Works & Street Light	596	401	407	1,404
LV4: LT Industrial	363	584	301	1,247
LV 5.1: Agriculture Irrigation Pumps	4,877	8,079	4,940	17,896
LV-5.3 :Agriculture related Use	15	2	35	52
LT Sale (MU)	10,993	13,835	10,623	35,451
HV-1: Railway Traction	672	434	1,195	2,301

Particulars	**Projections For FY 2016-17**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
HV-2: Coal Mines	504	0	35	539
HV-3.1: Industrial	2,826	2,474	2,194	7,494
HV-3.2: Non-Industrial	242	375	419	1,036
HV-3.3: Shopping Mall	7	42	20*	69
HV-3.4: Power Intensive Industries	74	204	193#	471
HV-4: Seasonal	11	5	2	18
HV-5.1: Public Water Works and Irrigation	92	387	163	642
HV-5.3: Other Agricultural	16	6	7	30
HV-6: Bulk Residential Users	292	31	177	500
HV-7: Synchronization/ Start-up Power	0	1	0	1
HT Sale (MU)	4,736	3,959	4,406	13,101
Total LT + HT Sale (MU)	15,730	17,793	15,029	48,552

**Extracted from HV 3.2 Non-industrial*
#Extracted from HV3.1 Industrial

Commission's Analysis of Sale

3.4 The Commission has observed that in Table No. 1 of the petition, Central Discom has not indicated any sale against shopping mall and power intensive sub-categories. Scrutiny of the data furnished in this regard has revealed that the sale to aforesaid sub-categories has been included in the non-industrial and industrial sub-categories respectively. The Commission has appropriately corrected the projections of the sale of Central Discom among all subcategories of HV 3 category.

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 9: Category wise sale admitted by the Commission (MU)

Particulars	**Projections For FY 2016-17**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LV-1: Domestic	4,569	4458	4,639	13667
LV-2: Non Domestic	848	911	901	2,660
LV-3.1: Public Water Works & Street Light	596	401	407	1,404
LV4: LT Industrial	363	584	301	1,247
LV 5.1: Agriculture Irrigation Pumps	4,602	7479	4,340	16,421
LV-5.3 :Agriculture related Use	15	2	35	52
LT Sale (MU)	**10,993**	**13,835**	**10,623**	**35,451**
HV-1: Railway Traction	672	434	1,195	2,301
HV-2: Coal Mines	504	0	35	539
HV-3.1: Industrial	2,826	2,474	2,194	7,494
HV-3.2: Non-Industrial	242	375	419	1,036
HV-3.3: Shopping Mall	7	42	20	69
HV-3.4: Power Intensive Industries	74	204	193	471
HV-4: Seasonal	11	5	2	18
HV-5.1: Public Water Works and Irrigation	92	387	163	642
HV-5.3: Other Agricultural	16	6	7	30
HV-6: Bulk Residential Users	292	31	177	500
HV-7: Synchronization/ Start-up Power	0	1	0	1
HT Sale (MU)	**4,736**	**3,959**	**4,406**	**13,101**
Total LT + HT Sale (MU)	**15,730**	**17,793**	**15,029**	**48,552**

3.6 The Commission has directed 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 projected the requirement of 62442 MU for procurement of energy for projected sale of 48552 MU. The Petitioners have converted the annual projected sale into monthly sale using the sale profiles observed in the past years. It is submitted by the Petitioners that for computation of the intra-State transmission losses (MPPTCL system losses), the actual data has been taken from the MP-SLDC online portal for the period from November 2014 to October 2015 (52 weeks) and accordingly average 2.88% has been considered for the future period.

3.8 For Western Region, transmission losses of stations allocated to Madhya Pradesh have been considered and average loss level of 3.77% has been considered for FY 2015-16 and FY 2016-17. 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 2015-16 and FY 2016-17.

3.9 The Petitioners have projected energy requirement on the basis of the month wise grossing up of the projected distribution losses. Accordingly, energy requirement for FY 2016-17 has been shown in the Table below:

Table 10: Energy requirement for FY 2016-17 as proposed by Petitioners

Particulars	East Discom	Central Discom	West Discom	MP State
Total Units sold to LT category (MU)	10,993	10,623	13,835	35,451
Total Units sold to HT category (MU)	4,736	4,406	3,958	13,101
Total Units Sold by Discom (MU)	15,730	15,029	17,793	48,552
Distribution loss (%)	18.00%	19.00%	16.00%	17.67%
Distribution loss (MU)	3,484	3,546	3,604	10,635
Units Input at Distribution Interface (MU)	19,214	18,576	21,398	59,187
Transmission loss (%)	2.88%	2.88%	2.88%	2.88%
Transmission loss (MU)	569	550	633	1,752
Input at G-T interface (MU)	19,783	19,126	22,031	60,939
WR-PGCIL Losses	3.77%	3.77%	3.77%	3.77%
ER-PGCIL Losses	2.09%	2.09%	2.09%	2.09%
External Loss (MU)	489	472	542	1,503
Total Units Purchased (MU)	**20,271**	**19,598**	**22,573**	**62,442**

Assessment of Energy Availability by the Petitioners

3.10 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.

3.11 The Petitioners have submitted the projections of energy availability on the basis indicated in the following table:

Table 11: Energy availability Projections

Station	Basis
MPPGCL - Shri Singaji STPS Phase -1 (Unit 1)	PLF Taken at 60% since the actual PLF is observed to be less than 60% for the past two years
MPPGCL - Satpura TPS Extension (Unit 10 & 11)	PLF Taken at 60% since the actual PLF is observed to be less than 60% for the past three years
UMPP Sasan	PLF Taken at 80%
Jaiprakash Power, Nigri	PLF Taken at 80%
MB Power	PLF Taken at 80%
BLA Power	PLF Taken at 80%
Jhabua Power	PLF Taken at 80%
All other stations	PLF Taken at the average actual availability of the past 3 years

3.12 The Petitioners have requested to the Commission to reallocate all the power stations allocated to Discoms to MPPMCL in order to maintain equitable allocation of the power purchase cost among all the three Discoms. The Petitioners have also submitted that this would take care of the issues with respect to deviation settlement mechanism among the three Discoms at Intra-state level.

3.13 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 (WRPC) in letter no. WRPC/Comml-I/6/Alloc/2014/10874 dated 3 December, 2014 and for Eastern Region NTPC Kahalgaon 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21 February, 2007 have been considered for FY 2016-17.

3.14 Following table shows Discoms and MPPMCL allocated stations as well as the future capacity additions which are expected to become operational till end of FY 2016-17:

Table 12: Discoms and MPPMCL allocated stations

Sl.No	Name of Project	Region	Capacity (MW)	MP's Share (MW)	COD/ Expected COD	Projected Ex-Bus Availability for FY 2016-17 (MU)
1	WR – KSTPS	WR	2,100	479.48	Comm	3,534
2	WR - VSTPS-I	WR	1,260	441.5	Comm	2,714
3	WR - VSTPS-II	WR	1,000	316.71	Comm	2,111
4	WR - KAWAS GPP	WR	656	140	Comm	249
5	WR - GANDHAR GPP	WR	657	117	Comm	222
6	WR - KAKRAPAR APS	WR	440	111.4	Comm	777
7	WR - TARAPUR APS Unit 3 & 4	WR	1,080	231.83	Comm	1,598

Sl.No	Name of Project	Region	Capacity (MW)	MP's Share (MW)	COD/ Expected COD	Projected Ex-Bus Availability for FY 2016-17 (MU)
8	WR - VSTPS – III	WR	1,000	246.45	Comm	1732
9	WR - SIPAT –II	WR	1,000	188.48	Comm	1,302
10	ER- KAHALGAON STPS-II	ER	1,500	74.98	Comm	309
11	ER-DVC (MTPS,CTPS)	ER	1,000	400	Comm	2,096
12	AMARKANTAK EXT	State	210	210	Comm	1524
13	SATPURA TPS PH I, II &III	State	830	830	Comm	3760
14	SGTPS EXT	State	500	500	Comm	3445
15	SGTPS	State	840	840	Comm	4082
16	GANDHI SAGAR	State	115	57.5	Comm	159
17	RANAPRATAP SAGAR & JAWAHAR SAGAR	State	271	135.5	Comm	376
18	PENCH	State	160	106.67	Comm	263
19	RAJGHAT	State	45	22.5	Comm	33
20	BARGI	State	90	90	Comm	468
21	BIRISINGHPUR	State	20	20	Comm	33
22	BANSAGAR – I	State	315	315	Comm	1457
23	BAN SAGAR II	State	30	30	Comm	0
24	BAN SAGAR III	State	60	60	Comm	0
25	BAN SAGAR IV	State	20	20	Comm	105
26	MARIKHEDA	State	60	60	Comm	105
27	INDIRA SAGAR	State	1,000	1,000	Comm	3035
28	CAPTIVE	State	17	17	Comm	47
29	SARDAR SAROVAR	WR	1,450	826.50	Comm	2245
30	OMKARESHWAR	State	520	520	Comm	1296
31	UPPCL (RIHAND,MATATILA, RAJGHAT)	State	55	55	Comm	45
32	Others (mini micro)	State	29	29	Comm	42
33	NTPC Korba –III (Unit-7)	WR	500	77	Comm	553
34	NTPC Sipat Stage – 1 (3 Units)	WR	1,980	340	Comm	2,220
	MPPGCL - Satpura TPS Extension (Unit-10)	State	250	250	Comm	1,171
35	MPPGCL - Satpura TPS Extension (Unit-11)	State	250	250	Comm	1,171
36	MPPGCL - Shri Singaji STPS Phase -1 (unit-1)	State	600	600	Comm	2,917

Sl.No	Name of Project	Region	Capacity (MW)	MP's Share (MW)	COD/ Expected COD	Projected Ex-Bus Availability for FY 2016-17 (MU)
	MPPGCL - Shri Singaji STPS Phase -1 (unit-2)	State	600	600	Comm	2,917
	NTPC Mouda STPS, Stage -1 (Unit-1)	WR	500	93	Comm	0
37	NTPC Mouda STPS, Stage -1 (Unit-2)	WR	500	78	Comm	0
	NTPC Vindhyanchal MTPS, Stage – 4 (Units-1)	WR	500	143	Comm	922
38	NTPC Vindhyanchal MTPS, Stage – 4 (Units-2)	WR	500	128	Comm	922
	DVC DTPS (Unit-1)	ER	500	50	Comm	128
39	DVC DTPS (Unit-2)	ER	500	50	Comm	128
	UMPP Sasan (Unit-1)	WR	660	247	Comm	1,604
	UMPP Sasan (Unit-2)	WR	660	248	Comm	1,604
	UMPP Sasan (Unit-3 & 4)	WR	1,320	495	Comm	3,209
40	UMPP Sasan (Unit-5 & 6)	WR	1,320	495	Comm	3,209
41	Jaypee Bina Power (Unit 1 & 2)	State	500	350	Comm	2,322
	Jaiprakash Power, Nigri (Unit-1)	WR	660	248	Comm	1,608
42	Jaiprakash Power, Nigri (Unit-2)	WR	660	247	Comm	1,608
	MB Power Unit 1 (Unit-1)	WR	600	210	Comm	1,361
43	MB Power Unit 1 (Unit-2)	WR	600	210	Comm	1,361
	BLA Power (Unit-1)	State	45	16	Comm	49
44	BLA Power (Unit-2)	State	45	16	Comm	49
45	Jhabua Power (Unit-1)	WR	600	210	Comm	1,361
46	Lanco Amarkantak (Unit-1)	WR	300	300	Comm	1,992
47	NTPC Vindhyanchal MTPS, Stage 5 (Unit-1)	WR	500	128	Apr-16	762
48	NTPC Mouda STPS, Stage 2 (Unit- 1 & 2)	WR	1,320	206	Dec-16	
49	Renewable Energy - Solar	State	-	550	-	912
50	Renewable Energy - Other than Solar	State	-	1270	-	2382
51	**Total**					**77,606**

3.15 The Petitioners have submitted that they have requested Ministry of Power for surrender of power in respect of stations mentioned below:

Table 13: Stations requested for surrender by Petitioner

Station Name	Basis for Surrender of Power
NTPC Mouda Stage I(Unit 1 &Unit 2)	Owing to high variable costs of the station and reduced scheduling of the station, GoMP vide letter No. F-3/58/2012/13 dtd 10.09.2015 have requested Ministry of Power to de-allocate MP's share in the power station
ATPS Chachai-Ph 1 & 2	MPPGCL vide UO Note No. 775 dtd 16.09.2015 have intimated that no power would be scheduled from this station
NTPC Kawas	Owing to reduced drawal of the stations, MPPMCL has requested NTPC Limited vide letter No. 05-01/1620 dtd 08.09.2015 to terminate the PPA.
NTPC Gandhar	Owing to reduced drawal of the stations, MPPMCL has requested NTPC Limited vide letter No. 05-01/1620 dtd 08.09.2015 to terminate the PPA.

3.16 Further, the Petitioners have submitted that for the purpose of calculation they have considered partially backing down of the above stations except NTPC Mouda, STPS Stage 1 (Unit 1 & Unit 2), as during the actual scheduling of the power stations, NTPC Mouda STPS Stage 1 (Unit 1 & Unit 2) with a variable cost of Rs 4.36 per unit has never been scheduled during the whole year. Similarly, Sugen Torrent with a variable cost of Rs 6.65 per unit has also not been scheduled during the whole year. The Petitioners have not considered the availability as well as the fixed and variable costs of these stations for the purpose of computation of power purchase cost.

3.17 Petitioners have submitted that after fully meeting the requirement of the State and selling power on the power exchange, they still have to partially back-down plants so as to save on the variable costs being incurred. Petitioners have applied month-wise merit order dispatch principle on the basis of variable costs for FY 2016-17. They have also considered partial backing down of units/stations which are 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. The Petitioners have further submitted that they would address demand fluctuations and ensure that power procured from cheaper sources would be fully utilized and thus procurement of power from costlier sources would be avoided. The resultant benefit of reduced power procurement cost or sale at a higher rate, whichever the case maybe, is in turn being passed on to the consumers.

3.18 The following table shows the stations which are considered for partial back down:

Table 14: Stations which are considered for partial back down

Stations	Back down of Stations FY 2016-17 (MU)
SGTPS - Bir'pur – Extn	1,262
SGTPS - Bir'pur - PH 1 & 2	3,162
MPPGCL - Shri Singaji STPS Phase -1 Unit 1	1,808

Stations	Back down of Stations FY 2016-17 (MU)
MPPGCL - Shri Singaji STPS Phase -1 Unit 2	2,023
Jaypee Bina Power Unit 1	967
Jaypee Bina Power Unit 2	996
Jhabua Power	1,266
NTPC-Kawas	126
Total	**11,611**

3.19 The following table shows the overall station wise availability of all the stations after application of merit order dispatch and backing down for the period FY 2016-17 as submitted by the Petitioners:

Table 15: Total Availability of Energy submitted by the Petitioners (MU)

Category	FY 2016-17
Availability from all Stations allocated to MP Discoms and MPPMCL	77,606
Less: Availability from Stations partially backed down	11,611
Total	**65,995**

Management of Surplus Energy

3.20 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 2016-17. Currently, MPPMCL sells surplus power through Power Exchange (IEX) at a cost which is determined by the market.

3.21 The Petitioners have further submitted that the average IEX rate is Rs 2.47 per unit on the basis of the past three years' rates (Rs 2.55 per unit for FY 2012-13, Rs 2.38 per unit for FY 2013-14 and Rs 2.49 per unit for FY 2014-15). Hence, For the purpose of computation of revenue from surplus energy, the average rate has been considered as Rs 2.50 per unit.

3.22 The energy surplus for Discoms vis-à-vis overall energy availability and energy requirement as well as the details of revenue from sale of energy are shown in the table below. This revenue has been subtracted from the variable power purchase costs, while computing the total power purchase costs of the Discoms.

Table 16: Management of Surplus Energy with Discoms for the MYT period FY 2016-17

Particulars	Units	FY 2016-17
Ex-bus energy available	MU	65,995
Ex-bus energy required by Discoms	MU	62,442
Surplus Energy	MU	3,553
Additional surplus due to RPO obligation	MU	1,677

Particulars	Units	FY 2016-17
Management of Surplus energy		
Sale of total surplus energy via IEX	MU	5,230
Rate of Sale of Surplus Energy		
IEX	Rs. per unit	2.50
Revenue from Sale of Surplus Energy through IEX	Rs. Crore	1,308

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

3.23 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 November 2014 to October 2015 for Discom allocated stations and a few MPPMCL allocated stations.

3.24 The table below gives the details of the costs viz. fixed costs and variable costs for all the existing plants for determining the power purchase cost for FY 2016-17.

Table 17 : Fixed cost and Variable cost as filed for the Existing Stations for FY 2016-17

Station	Fixed Charges	Variable Charges
	(Rs. Crore)	(Rs./ kWh)
NTPC-Korba	183.93	1.08
NTPC-Vindyachal I	189.05	1.79
NTPC-Vindyachal II	141.76	1.74
NTPC-Vindyachal III	185.71	1.70
NTPC-Kawas	77.03	2.66
NTPC-Gandhar	74.91	1.94
KAPP	-	2.38
TAPS	-	2.86
NTPC - Sipat Stage II	169.34	1.41
NTPC - Kahalgaon 2	62.40	2.39
DVC (MTPS, CTPS)	364.29	2.23
ATPS - Chachai-Extn	217.77	1.31
STPS - Sarani-PH 1, 2 & 3	275.82	2.27
SGTPS - Bir'pur – Extn	413.91	2.53
SGTPS - Bir'pur - PH 1 & 2	392.41	3.00
CHPS-Gandhi Sagar	2.09	1.08
CHPS-RP Sagar & Jawahar Sagar	-	1.51
Pench THPS	10.74	0.50
Rajghat HPS	1.12	2.33
Bargi HPS	9.60	0.56
Birsingpur HPS	3.64	0.97
Banasgar Tons HPS	67.26	0.90
Banasgar Tons HPS-Bansagar IV (Jhinna)	5.62	1.09
Marhi Khera HPS	9.48	2.29
NHDC - Indira Sagar	550.15	0.40
Captive	-	2.22
Others(mini micro)	-	3.27
Sardar Sarovar	177.91	0.82

Station	Fixed Charges	Variable Charges
	(Rs. Crore)	(Rs./ kWh)
NTPC-Korba	183.93	1.08
NTPC-Vindyachal I	189.05	1.79
NTPC-Vindyachal II	141.76	1.74
NTPC-Vindyachal III	185.71	1.70
NTPC-Kawas	77.03	2.66
NTPC-Gandhar	74.91	1.94
KAPP	-	2.38
Omkareshwar HPS	426.29	0.35
UPPMCL(Rihand Matatila)	3.33	0.40

Details of Costs for existing and future capacities allocated to MPPMCL

3.25 For MPPMCL allocated stations, the Petitioners have considered cost as per the actual power purchase bills from November 2014 to October 2015. Details of the costs of MPPMCL allocated stations are mentioned in the table below:

Table 18 : **Fixed and Variable costs of MPPMCL allocated stations submitted by the Petitioners for FY 2016-17**

Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore) for FY'17	Remarks	Variable Charges (Rs./ kWh) for FY '17	Remarks
NTPC Korba -III	Unit 7	77.00	83.39	As per actual bills from Nov 14 to Oct 15	1.06	As per actual bills from Nov 14 to Oct 15
NTPC Sipat Stage – 1	Unit 3	340.00	326.75	As per actual bills from Nov 14 to Oct 15	1.38	As per actual bills from Nov 14 to Oct 15
MPPGCL - Satpura TPS Extension	Unit 10	250.00	256.15	As per MPERC order dated 08.10.2013	2.14	As per actual bills from Nov 14 to Oct 15
MPPGCL - Satpura TPS Extension	Unit 11	250.00	256.15	As per MPERC order dated 08.10.2013	1.99	As per actual bills from Nov 14 to Oct 15
MPPGCL - Shri Singaji STPS Phase -1	Unit 1	600.00	440.58	As per MPERC order dated 10.11.2014	2.54	As per actual bills from Nov 14 to Oct 15
MPPGCL - Shri Singaji STPS Phase -1	Unit 2	600.00	420.80	As per MPERC order dated 18.03.2015	2.54	As per actual bills from Nov 14 to Oct 15

Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore) for FY'17	Remarks	Variable Charges (Rs./ kWh) for FY '17	Remarks
NTPC Vindhyanchal MTPS, Stage - 4	Unit 1	143.00	161.21	As per actual bills from Nov 14 to Oct 15	1.74	As per actual bills from Nov 14 to Oct 15
NTPC Vindhyanchal MTPS, Stage – 4	Unit 2	128.00	161.21	Take as per unit no-1	1.74	Taken as per unit no.-1
DVC DTPS	Unit 1	50.00	44.81	As per actual bills from Nov 14 to Oct 15	2.06	As per actual bills from Nov 14 to Oct 15
DVC DTPS	Unit 2	50.00	44.81	Same As Unit no.-I	2.06	Same As Unit no.-I
UMPP Sasan	Unit 1	247.00	31.64	as per quoted tariff	1.15	as per quoted tariff
UMPP Sasan	Unit 2	248.00	31.76	as per quoted tariff	1.15	as per quoted tariff
UMPP Sasan	Unit 3 & 4	495.00	63.40	as per quoted tariff	1.15	as per quoted tariff
UMPP Sasan	Unit 5 & 6	495.00	63.40	as per quoted tariff	1.15	as per quoted tariff
Jaypee Bina Power	Unit 1	175.00	287.74	As per actual bills from Nov 14 to Oct 15	3.13	As per actual bills from Nov 14 to Oct 15
Jaypee Bina Power	Unit 2	175.00	287.74	As per actual bills from Nov 14 to Oct 15	3.13	As per actual bills from Nov 14 to Oct 15
Jaiprakash Power, Nigri	Unit 1	248.00	237.31	As per actual bills from Nov 14 to Oct 15	0.69	As per average of the actual bills from July 15 to Oct 15
Jaiprakash Power, Nigri	Unit 2	247.00	237.31	As per actual bills from Nov 14 to Oct 15	0.69	Taken as per unit 1
MB Power	Unit 1	210.00	246.36	As per MPERC order dated 29th July 2015	1.77	As per actual bills from Nov 14 to Oct 15
MB Power	Unit 2	210.00	246.36	As per MPERC order dated 29th July 2015	1.77	Taken equal to unit 1
BLA Power	Unit 1	16.00	21.77	As per actual bills from Nov	2.38	As per actual bills from Nov 14 to

Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore) for FY'17	Remarks	Variable Charges (Rs./ kWh) for FY '17	Remarks
				14 to Oct 15		Oct 15
BLA Power	Unit 2	16.00	21.77	As per actual bills from Nov 14 to Oct 15	2.38	Taken as per unit 1
Jhabua Power	Unit 1	210.00	246.36	Taken equal to MB power unit 1	3.13	Taken equal to Jp Bina unit 1
Lanco Amarkantak	Unit 1	300.00	310.17	As per actual bills from Nov 14 to Oct 15	1.82	As per actual bills from Nov 14 to Oct 15
NTPC Vindhyanchal MTPS, Stage - 5	Unit 1	128.00	144.30	Taken proportionately as per respective MW (i.e 128 MW /280 MW)	1.74	Taken equal to Vindhyachal Stage 4
Renewable Energy - Solar	NA	550	-	-	7.03	As per Weighted avg calculation
Renewable Energy - Other than Solar	NA	1270	-	-	5.58	As per Weighted avg calculation

RPO Cost

3.26 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 [ARG-33(I)(v) of 2015] vide notification dated October 02, 2015. As per Regulation 4.1 of this regulation, the minimum quantum of electricity is 1.25% for Solar and 6.50% for Non-Solar of the total energy requirement of the Petitioners for FY 2016-17.

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

Table 19: RPO for FY 2016-17

Renewable Purchase Obligation Computations		FY 2016-17
Solar	%	1.25%
Other than Solar	%	6.50%
Total	%	7.75%
Ex-bus renewable energy requirement to fulfill RPO (MU)		
Solar	MU	781
Other than Solar	MU	4,059

Renewable Purchase Obligation Computations		**FY 2016-17**
Total	MU	4,839
Energy Available from existing Renewable Sources		
Solar	MU	912
Other than Solar	MU	2,382
Total	MU	3,294
Shortfall		
Solar	MU	-
Other than Solar	MU	1,677
Total	MU	
Extra Surplus available after meeting RPO obligations	MU	1,677
IEX rate	Rs/unit	2.50
Additional revenue from sale of surplus due to RPO obligation	Rs Crore	419.21
Renewable Energy purchase Rates		
Solar	Rs./unit	5.05*
Other than Solar	Rs./unit	5.58
Additional Cost due to RPO Obligation		
Solar	Rs. Crore	-
Other than Solar	Rs. Crore	935.68
RE Power Purchase from new/other sources to fulfill RPO	**Rs. Crore**	**935.68**

**Petitioner in Table No. 32 has considered the wt. average purchase rate of solar as Rs. 7.03/kWh*

Assessment of Other Elements of Power Purchase Cost by the Petitioners

Inter State Transmission Charges associated with existing capacities:

3.28 The Petitioners have submitted that inter-state transmission charges consist of the charges for transmission system of WR and ER. The actual inter-state transmission charges for FY 2013-14 amounted to Rs 1,235 Crore and the actual interstate transmission charges for FY 2014-15 amounted to Rs 1,419 Crore. This shows an increase in inter-state transmission charges by 14.97%. However, only 2% has been considered for projecting the inter-state transmission charges for FY 2016-17.

3.29 The Petitioners have further submitted that the estimated inter-state transmission charges for FY 2016-17 amounts to Rs 1,477 Crore. These costs have been allocated to Discoms based on past trend of actual costs as shown in the table below:

Table 20: **PGCIL Costs: Inter-state transmission charges filed by Discoms**

Particulars	**PGCIL Costs (Rs Crore)**
East Discom	456
West Discom	441
Central Discom	580
Total	**1,477**

Intra - State Transmission Charges

3.30 The Petitioners have submitted that for 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.

3.31 Transmission 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.

3.32 Further, the Petitioners have submitted that SLDC charges for FY 2015-16 have been considered Rs. 9.70 Crore as per the Commission Order dated 31 March, 2015. For FY 2016-17, the annual SLDC charges have been computed based on the transmission capacity of Discoms and the rate for Long-term Open Access Customers of Rs. 6674.96/ MW as approved by MPERC in the SLDC tariff order for FY 2015-16.

3.33 Petitioners have also submitted that the Commission in its Order dated August 12, 2015 vide Order No.-26/2015 has allowed terminal benefits for FY 15-16 as Rs 1185.97 Crore.

3.34 Total intra-state transmission charges including SLDC charges and terminal benefits come out to be Rs. 2,315 Crore for FY 2015-16. For projecting intra-state transmission charges including SLDC charges and terminal benefits for FY 2016-17, a growth rate of 7% has been assumed on Rs 2315 Crore for FY 2015-16, which worked out to be Rs. 2476 Crore.

3.35 Further the Petitioners have allocated intra-state transmission charges including SLDC charges and terminal benefits for FY 2016-17 to three Discoms as per past trend as indicated in the table below:

Table 21: Intra-State Transmission Charges filed by Petitioners for FY 2016-17 (Rs. Crore)

Particulars	**FY 2016-17**
East Discom	740
West Discom	957
Central Discom	779
Total	**2,476**

MPPMCL Costs: Details and Discom wise Allocation

3.36 The Petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. 235.86 Crore for FY 2016-17 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 22: Expenses of MPPMCL as filed for FY 2016-17 (Rs Crore)

Particulars	Amount
Purchase of Power	1.00
Inter-State Transmission Charges	47.57
Depreciation Expenses	7.53
Interest and Finance Charges	29.16
Repairs and Maintenance Expenses	3.64
Employee Expenses	63.62
A&G Expenses	47.65
Other Expenses	-
MPPMCL Costs	200.17
Less: Other Income	436.03
Net MPPMCL costs	**(235.86)**

Table 23: **MPPMCL Costs allocated to Discoms (Rs Crore)**

Particulars	FY 2016-17
East Discom	(75.15)
West Discom	(83.69)
Central Discom	(77.03)
Total	**(235.86)**

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

Table 24: Total Power Purchase Cost as filed for FY 2016-17

Total Power Purchase Cost		**East Discom**	**West Discom**	**Central Discom**	**State**
A	Ex-bus Units to be Purchased (MU)	20,271	22,573	19,598	62,442
B	Fixed Cost (Rs. Crore)	2,826	1,447	2,733	8,689
C	Variable Cost (Rs. Crore)	3,672	5,782	3,550	11,321
D	MPPMCL costs (Rs. Crore)	(76.57)	(85)	(74)	(236)
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crore)	6,421	7,144	6,209	19,773
E/A	Rate of Power Purchase (Rs./kWh)	3.17	3.16	3.17	3.17
H	External Losses (MU)	489	542	472	1,503
I	Inter -State Transmission Cost (Rs. Crore)	456	580	441	1,477
J = (A-H)	Energy to be Purchased at State Periphery (MU)	19,783	22,031	19,126	60,939
K = (I + E)	Total Power Purchase Cost at State Boundary (Rs. Crore)	6,877	7,724	6,649	21,250

Total Power Purchase Cost		East Discom	West Discom	Central Discom	State
J/K	Rate of Power Purchase at State Boundary (Rs./kWh)	3.48	3.51	3.48	3.49
L	Intra State Transmission Cost – MPPTCL including SLDC (Rs. Crore)	740	957	779	2,476
M = (K+L)	Total Power Purchase Cost at Discom Interface (Rs. Crore)	7,617	8,680	7,429	23,726
N	Intra- State Transmission Loss (MU)	569	633	550	1,752
O = (K-N)	Energy to be Purchased at Discom Boundary (MU)	19,214	21,398	18,576	59,187
M/O	Rate of Power Purchase at Discom Boundary (Rs./kWh)	3.96	4.06	4.00	4.01

Commission's Analysis of Energy Balance and Power Purchase

Distribution Losses

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

Table 25: Loss targets as per Regulations (in %)

Discom	FY 2016-17	FY 2017-18	FY 2018-19
East Discom	**18%**	17%	16%
West Discom	**16%**	15.5%	15%
Central Discom	**19%**	18%	17%

3.39 The Commission has considered the distribution losses for FY 2016-17 as specified in the Tariff Regulations for projecting the energy requirement. It has been 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

3.40 To work out PGCIL system losses, the inter-State transmission losses have been considered separately for Eastern and Western Region generating stations. For Western Region generating stations, average transmission losses of 3.77% have been considered based on actual losses of past 52 weeks submitted by the Petitioners. Similarly these losses have been considered as 2.09% for Eastern Region generating stations.

3.41 The Commission has considered intra-State transmission losses at 2.88% for FY 2016-17 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 2016-17 is presented in the following table:

Table 26: Power purchase requirement as worked out by the Commission

Particular	East Discom	West Discom	Central Discom	State
Total Sales (MU)	15,730	17,793	15,029	48,552
Distribution loss (%)	**18.00%**	**16.00%**	**19.00%**	**17.60%**
Distribution loss (MU)	3,453	3,389	3,525	10,367
Input at T-D interface (MU)	19,182	21,182	18,555	58,920
Transmission loss (%)	**2.88%**	**2.88%**	**2.88%**	**2.88%**
Transmission loss (MU)	569	628	550	1,747
Input at G-T interface (MU)	19,751	21,811	19,105	60,667
PGCIL Losses %				
WR- PGCIL Losses %	3.77%	3.77%	3.77%	3.77%
ER- PGCIL Losses %	2.09%	2.09%	2.09%	2.09%
PGCIL Losses (MU)	495	546	478	1,519
Power Purchase Requirement (MU)	**20,246**	**22,357**	**19,584**	**62,186**

3.42 Vide notification no. 2211/F-3-13/2016/XIII dated 21st March, 2016, Energy Deptt. Govt. of Madhya Pradesh (GoMP) has allocated all existing and future generating capacities to MPPMCL for maintaining uniform tariff across the state. Accordingly, the Commission has considered all the generating capacities allocated to MPPMCL which are further distributed among the Discoms as per their requirement.

3.43 The table below presents the allocation of existing and future generation capacities to MPPMCL.

Table 27: Station wise capacity allocation to MPPMCL

MPPMCL Allocation for FY 2016-17				
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Allocation to State (%)**
1	WR – KSTPS	2,100	482	23%
2	WR - VSTPS-I	1,260	443	35%
3	WR - VSTPS-II	1,000	318	32%
4	WR - KAWAS GPP	656	140	21%
5	WR - GANDHAR GPP	657	117	18%
6	WR - KAKRAPAR APS	440	111	25%
7	WR - TARAPUR APS Unit 3 & 4	1,080	232	21%
8	WR - VSTPS – III	1,000	245	25%
9	WR - SIPAT –II	1,000	187	19%
10	ER- KAHALGAON STPS-II	1,500	74	5%

MPPMCL Allocation for FY 2016-17				
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Allocation to State (%)**
11	ER-DVC (MTPS,CTPS)	1,000	400	40%
12	AMARKANTAK COM	240	240	100%
13	AMARKANTAK EXT	210	210	100%
14	SATPURA TPS PH I & II &III	830	830	100%
15	SGTPS EXT	500	500	100%
16	SGTPS	840	840	100%
17	GANDHI SAGAR	115	58	50%
18	RANAPRATAP SAGAR & JAWAHAR SAGAR	271	136	50%
19	PENCH	160	107	67%
20	RAJGHAT	45	23	50%
21	BARGI	90	90	100%
22	BIRISINGHPUR	20	20	100%
23	BANSAGAR – I	315	315	100%
24	BAN SAGAR II	30	30	100%
25	BAN SAGAR III	60	60	100%
26	BAN SAGAR IV	20	20	100%
27	MARIKHEDA	60	60	100%
28	INDIRA SAGAR	1,015	1,015	100%
29	OTHERS (MINI MICRO)	29	29	100%
30	CAPTIVE	17	17	100%
31	SARDAR SAROVAR	1,450	827	57%
32	OMKARESHWAR	520	520	100%
33	RSEB (CHAMBAL,SATPURA)	0	0	
34	UPPCL (RIHAND,MATATILA,RAJGHAT)	55	55	100%
35	WR - SIPAT -I (3 Units)	1980	338	17%
36	WR-NTPC Korba – 7	500	76	15%
37	WR-Vindhyachal Mega Project, Stage 5-Unit-1	500	142	28%
38	Singaji Thermal Power Stations Phase I -Unit-1	600	600	100%
	Singaji Thermal Power Stations Phase I -Unit-2	600	600	100%
39	Satpura Thermal Power Stations Exten - Unit 10	250	250	100%
	Satpura Thermal Power Stations Exten - Unit 11	250	250	100%
40	WR- NTPC Mauda TPS- Unit-1	500	92	18%
	WR-NTPC Mauda TPS- Unit-2	500	92	18%
41	WR-Vindhyachal Mega Project, Stage 4-Unit-1	500	142	28%
	WR-Vindhyachal Mega Project, Stage 4-Unit-2	500	142	28%
42	ER-DVC Durgapur Steel TPS- Unit-	500	50	10%

MPPMCL Allocation for FY 2016-17				
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Allocation to State (%)**
	1			
	ER-DVC Durgapur Steel TPS- Unit-2	500	50	10%
43	WR-UMPP Sasan, Sidhi Unit-1	660	247	37%
	WR-UMPP Sasan, Sidhi Unit-2	660	248	38%
	WR-UMPP Sasan, Sidhi Unit 3& 4	1320	495	38%
	WR-UMPP Sasan, Sidhi Unit 5&6	1320	495	38%
44	Jaypee Bina Power, Unit-1	250	175	70%
	Jaypee Bina Power, Unit-2	250	175	70%
45	WR-Jaiprakash Power, Nigri- Unit-1	660	248	38%
	WR-Jaiprakash Power, Nigri- Unit-2	660	248	38%
46	WR-MB Power, Annupur	600	210	35%
	WR-MB Power, Annupur II	600	210	35%
47	BLA Power, Narsinghpur- Unit-1	45	16	35%
	BLA Power, Narsinghpur-Unit-2	45	16	35%
48	WR- Jhabua Power, Seoni	600	210	35%
49	WR-Lanco TPS, Amarkantak	300	300	100%
50	WR-NTPC Mauda TPS Stage 2-Unit-1&2	1320	206	16%
51	Renewable Energy Solar		550	
52	Renewable Energy Non Solar		1270	

3.44 In order to ascertain the energy availability individually from each station, the availability as filed by the Petitioners has 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 obtained the projections of energy availability from MP Power Generating Company Ltd (MPPGCL). Vide letter No.07-12/CS-MPPGCL/MPERC/Retail Supply Tariff/210 dated 10 February, 2016, MPPGCL furnished the details of energy availability. Accordingly, the Commission has considered the energy availability of MPPGCL thermal generating stations for FY 2016-17.

3.46 The Commission sought details from NHDC regarding their availability projections for FY 2016-17 in respect of Indira Sagar Power Station (ISPS) and Omkareshwar (OSP). NHDC has furnished the actual energy availability for FY 2014-15 and FY 2015-16 till December, 2015 vide letter No. NHDC/1/O&M/06/2016/284 dated 15 February, 2016.

3.47 The Commission sought details from NVDA regarding their availability projections for FY 2016-17 in respect of Sardar Sarovar Project (SSP). NVDA has furnished the actual energy availability for FY 2014-15 and FY 2015-16 till December, 2015 vide letter No. CE(P)/NVDA/2016/Ex-bus/119 dated 23 February, 2016.

3.48 The Commission has considered the average of actual energy availability during last three years i.e. from January, 2013 to December, 2015 for projecting the energy availability for FY 2016-17 for hydro generating stations of MPPGCL and Inter-State.

3.49 Energy availability of new generating stations has been projected based on the norms specified in the CERC (Terms and Conditions of Tariff) Regulations, 2014 and MPERC Generation Tariff Regulations on case to case basis.

3.50 Further, the Commission has considered the Petitioners' submission regarding surrender of power from NTPC Mouda Stage I (Unit 1&2) and ATPS Chachai-Ph 1&2. The Commission has not considered the availability from BLA Unit 1&2 and its cost, in view of the Commission's orders dated 22 May, 2015 and 25 July, 2015 in the matter of the petition No. 16/2014 and 36/2015, respectively. As regards Mouda Stage II, it has been noted by the Commission that this generating station would start functioning from December 2016. In this situation the Commission has not considered Mouda Stage II generating station for scheduling during FY 2016-17. Hence, at present the Commission has neither considered any availability nor any cost on account of these generating stations in this order. Further, the Commission has not considered the availability and the cost there on for the Sugen Torrent Generating Station as per the request made by the Petitioner on the basis of the fact that the same was never scheduled during the year. However issue of fixed cost if any, may be dealt appropriately at the time of True-up exercise.

3.51 Month wise details of projected availability for FY 2016-17 are indicated in the table below:

Table 28 : Month wise MUs projection for FY 2016-17

Sr. No.	Generating Stations	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
A. Central Generating Stations														
1	WR – KSTPS	290	300	290	300	300	290	300	290	300	300	271	300	3,534
2	WR - VSTPS-I	223	231	223	231	231	223	231	223	231	231	208	231	2,714
3	WR - VSTPS-II	173	179	173	179	179	173	179	173	179	179	162	179	2,111
4	WR - KAWAS GPP	0	0	0	0	0	20	21	20	21	21	19	0	123
5	WR - GANDHAR GPP	18	19	18	19	19	18	19	18	19	19	17	19	222
6	WR - KAKRAPAR APS	64	66	64	66	66	64	66	64	66	66	60	66	777
7	WR - TARAPUR APS Unit 3 & 4	131	136	131	136	136	131	136	131	136	136	123	136	1,598
8	WR - VSTPS – III	142	147	142	147	147	142	147	142	147	147	133	147	1,732
9	WR - SIPAT –II	107	111	107	111	111	107	111	107	111	111	100	111	1,302
10	ER-KAHALGAON STPS-II	25	26	25	26	26	25	26	25	26	26	24	26	309
11	ER-DVC (MTPS,CTPS)	172	178	172	178	178	172	178	172	178	178	161	178	2,096
	SUB TOTAL	1,347	1,392	1,347	1,392	1,392	1,368	1,413	1,368	1,413	1,413	1,277	1,392	16,517

Sr. No.	Generating Stations	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
	B. State Generating Stations													
I	THERMAL													
1	AMARKANTAK EXT	112	116	112	116	116	112	116	112	116	116	104	116	1,360
2	SATPURA TPS PH I & II &III	397	410	397	410	410	397	410	397	410	410	370	410	4,828
3	SGTPS EXT	313	323	313	323	323	19	323	313	323	323	303	323	3,520
4	SGTPS	412	425	412	225	327	412	425	412	425	425	399	425	4,720
	SUB TOTAL	1,233	1,273	1,233	1,073	1,175	940	1,273	1,233	1,273	1,273	1,177	1,273	14,428
II	HYDEL													
	INTERSTATE													
1	GANDHI SAGAR	3	6	8	5	21	5	6	15	28	28	21	16	162
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	28	20	22	22	23	38	46	38	39	50	28	22	376
3	PENCH	9	10	11	14	28	39	51	29	16	24	21	10	263
4	RAJGHAT	3	2	5	2	3	3	3	7	9	4	6	4	52
	SUB TOTAL	44	39	46	43	75	85	107	89	92	106	76	53	853
	FULL MP ALLOCATION													
1	BARGI	45	33	27	27	46	44	43	33	37	41	42	50	468
2	BIRISINGHPUR	0	0	0	4	8	5	4	6	3	0	3	1	35
3	BANSAGAR – I	135	135	130	94	135	133	127	91	90	113	122	152	1,457
4	BAN SAGAR II													
5	BAN SAGAR III													
6	BAN SAGAR IV	10	10	4	6	10	12	8	6	7	10	10	11	105
7	MARIKHEDA	5	3	0	6	24	9	19	12	11	8	4	6	109
	SUB TOTAL	196	180	163	137	223	203	201	150	148	172	180	221	2,173
	BILATERAL AND OTHERS													
1	INDIRA SAGAR	221	144	115	263	441	352	226	231	233	276	208	226	2,937
2	OTHERS (Mini Micro)	3	4	3	4	4	3	4	3	4	4	3	4	42
3	CAPTIVE	4	4	4	4	4	4	4	4	4	4	4	4	47
4	SARDAR SAROVAR	203	209	203	209	209	203	209	203	209	209	189	209	2,465
5	OMKARESHWAR	100	71	61	115	159	146	94	97	99	120	95	103	1,261
	SUB TOTAL	532	432	386	594	816	707	537	539	550	613	500	546	6,752
6	UPPCL (RIHAND, MATATILA,RAJ GHAT)	6	4	3	5	5	15	7	5	7	8	5	6	75
	SUB TOTAL	6	4	3	5	5	15	7	5	7	8	5	6	75
1	WR - SIPAT -I (3 Units)	182	189	182	189	189	182	189	182	189	189	170	189	2,220
2	WR-NTPC Korba - 7	45	47	45	47	47	45	47	45	47	47	42	47	553
3	WR-Vindhyachal Mega Project, Stage 5-Unit-1	87	90	87	90	90	87	90	87	90	90	81	90	1,055
4	Singaji Thermal Power Stations Phase I -Unit-1	259	268	259	268	268	259	268	259	268	268	242	268	3,154
	Singaji Thermal Power Stations Phase I -Unit-2	259	268	259	268	268	259	268	259	268	268	242	268	3,154
5	Satpura Thermal Power Stations Exten - Unit 10	108	112	108	112	112	108	112	108	112	112	101	112	1,314
	Satpura Thermal Power Stations Exten - Unit 11	108	112	108	112	112	108	112	108	112	112	101	112	1,314

Sr. No.	Generating Stations	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
6	WR-Vindhyachal Mega Project, Stage 4-Unit-1	87	90	87	90	90	87	90	87	90	90	81	90	1,058
	WR-Vindhyachal Mega Project, Stage 4-Unit-2	87	90	87	90	90	87	90	87	90	90	81	90	1,058
7	ER-DVC Durgapur Steel TPS- Unit-1	11	11	11	11	11	11	11	11	11	11	10	11	128
	ER-DVC Durgapur Steel TPS- Unit-2	11	11	11	11	11	11	11	11	11	11	10	11	128
8	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
	WR-UMPP Sasan, Sidhi Unit 5&6	303	313	303	313	313	303	313	303	313	313	283	313	3,686
9	Jaypee Bina Power, Unit-1	108	112	108	112	112	108	112	108	112	112	101	112	1,319
	Jaypee Bina Power, Unit-2	108	112	108	112	112	108	112	108	112	112	101	112	1,319
10	WR-Jaiprakash Power, Nigri-Unit-1	157	162	157	162	162	157	162	157	162	162	146	162	1,908
	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	132	136	132	136	136	132	136	132	136	136	123	136	1,603
	WR-MB Power, Annupur II	132	136	132	136	136	132	136	132	136	136	123	136	1,603
12	WR- Jhabua Power, Seoni	132	136	132	136	136	132	136	132	136	136	123	136	1,603
13	WR-Lanco TPS, Amarkantak	184	190	184	190	190	184	190	184	190	190	171	190	2,234
14	Renewable Energy Solar	64	66	64	66	66	64	66	64	66	66	60	66	777
15	Renewable Energy Non Solar	332	343	332	343	343	332	343	332	343	343	310	343	4,042
	SUB TOTAL	3,658	3,780	3,658	3,780	3,780	3,658	3,780	3,658	3,780	3,780	3,414	3,780	44,510
	Grand Total	**7,016**	**7,100**	**6,837**	**7,025**	**7,467**	**6,976**	**7,317**	**7,042**	**7,263**	**7,365**	**6,629**	**7,271**	**85,308**

3.52 The Commission has applied the principle of Merit Order Dispatch (MOD) on all generating stations for FY 2016-17 as shown in the table below:

Table 29 : MOD on allocated generating stations for FY 2016-17

Generating Stations	**Dispatch Type (Must Run=1, Others =0)**	**Energy charge (Paisa /kWh)**
WR - KAKRAPAR APS	1	231
WR - TARAPUR APS Unit 3 & 4	1	280
Renewable Energy Solar	1	0
Renewable Energy Non Solar	1	0
GANDHI SAGAR	0	0
PENCH	0	0

Generating Stations	Dispatch Type (Must Run=1, Others =0)	Energy charge (Paisa /kWh)
RAJGHAT	0	0
BARGI	0	0
BIRISINGHPUR	0	0
BANSAGAR - I	0	0
BAN SAGAR II	0	0
BAN SAGAR III	0	0
BAN SAGAR IV	0	0
MARIKHEDA	0	0
RANAPRATAP SAGAR & JAWAHAR SAGAR	0	0
INDIRA SAGAR	0	0
SARDAR SAROVAR	0	0
OMKARESHWAR	0	0
UPPCL (RIHAND,MATATILA,RAJGHAT)	0	40
WR-Jaiprakash Power, Nigri- Unit-1	0	48
WR-Jaiprakash Power, Nigri- Unit-2	0	48
WR-NTPC Korba - 7	0	106
WR - KSTPS	0	108
WR-UMPP Sasan, Sidhi Unit-1	0	115
WR-UMPP Sasan, Sidhi Unit-2	0	115
WR-UMPP Sasan, Sidhi Unit 3& 4	0	115
WR-UMPP Sasan, Sidhi Unit 5&6	0	115
WR-Vindhyachal Mega Project, Stage 5-Unit-1	0	121
AMARKANTAK EXT	0	131
WR - SIPAT -I (3 Units)	0	138
WR - SIPAT -II	0	141
WR-MB Power, Annupur	0	151
WR-MB Power, Annupur-II	0	151
WR - VSTPS - III	0	170
WR - VSTPS-II	0	174
WR-Vindhyachal Mega Project, Stage 4-Unit-1	0	174
WR-Vindhyachal Mega Project, Stage 4-Unit-2	0	174
WR - VSTPS-I	0	179
WR-Lanco TPS, Amarkantak	0	182
Satpura Thermal Power Stations Exten - Unit 10	0	190
Satpura Thermal Power Stations Exten - Unit 11	0	190

Generating Stations	Dispatch Type (Must Run=1, Others =0)	Energy charge (Paisa /kWh)
WR - GANDHAR GPP	0	194
ER-DVC Durgapur Steel TPS- Unit-1	0	206
ER-DVC Durgapur Steel TPS- Unit-2	0	206
CAPTIVE	0	222
ER-DVC (MTPS,CTPS)	0	223
SATPURA TPS PH II &III	0	227
ER- KAHALGAON STPS-II	0	232
SGTPS EXT	0	249
Singaji Thermal Power Stations Phase I -Unit-1	0	254
Singaji Thermal Power Stations Phase I -Unit-2	0	254
WR- Jhabua Power, Seoni	0	254
Jaypee Bina Power, Sagar Unit-2	0	255
WR - KAWAS GPP	0	266
SGTPS	0	297
Jaypee Bina Power, Sagar Unit-1	0	299
Others (Mini Micro	0	327

3.53 After applying MOD, it has been observed that the availability from some stations would remain unutilized by the Discoms. The Commission has directed the Petitioners to sale the surplus power through power exchanges, bilateral arrangements or through bidding, after meeting demand of their consumers.

Power Purchase Costs

Central Generating Stations (Thermal)

3.54 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 30: 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
4	WR - KAWAS GPP	CERC order dated: 01.08.2013, Petition No.25/GT/2013

Sr.No.	Name of Station	Fixed Cost order Reference
5	WR - GANDHAR GPP	CERC order dated: 11.09.2013, Petition No.23/GT/2013
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 Order dated 22.01.2016, SO206 Petition No.206/GT/2013 & 272/GT/2014
9	WR - SIPAT -I (3 Units)	CERC order dated: 22.08.2013, Petition No. 28/2011
10	NTPC Korba – VII	CERC Review order dated: 31.08.2015, Petition No. 208/GT/2014

3.55 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.

3.56 The Commission has considered variable cost as charged in actual bills raised by NTPC, MPPGCL and other generators to MPPMCL for the period November 2015 to October 2016 for FY 2016-17.

Central and State Generating Stations (Hydel)

3.57 The Commission has considered latest available tariff orders issued by appropriate Commissions for individual stations for determining the fixed cost of Hydel Stations.

Indira Sagar (NHDC)

3.58 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

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

Omkareshwar:

3.60 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

3.61 The Commission has considered quantum of 4819 MUs from Solar and Non-solar as per RPO. As regards rate of solar power, weighted average rate of Rs 7.03/ kWh has been considered for existing solar capacities. For Non-Solar, weighted average rate of

Rs 5.58/ kWh has been considered.

3.62 The Commission has notified MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulation, 2010 [ARG-33(I) (v) of 2015] on October 02, 2015. The Commission has considered procurement of power from renewable energy sources through PPA or short term market to ensure RPO compliance.

3.63 The relevant section of the Fifth amendement MPERC (Co-generation and generation of Electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 [ARG-33(I)(v) of 2015], 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 (%)*
2015-16	*1.00*	*6.00*	*7.00*
2016-17	***1.25***	***6.50***	***7.75***
2017-18	*1.50*	*7.00*	*8.50*
2018-19	*1.75*	*7.50*	*9.25*

."

3.64 For FY 2016-17, the minimum quantum of electricity is 1.25% for Solar and 6.50% for Non-Solar. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2016-17, as shown in the table below:

Table 31: Renewable energy requirement computed by the Commission (MU)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
RPO Solar	1.25%	1.25%	1.25%	1.25%
RPO Non Solar	6.50%	6.50%	6.50%	6.50%
Total	7.75%	7.75%	7.75%	7.75%
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	253	279	245	777
RPO Non Solar	1,316	1,453	1,273	4,042
Total (MU)	1,569	1,733	1,518	4,819

Energy available from existing Renewable Sources (MU)				
Solar	297	328	287	912
Non Solar	775	856	750	2,382
Total	1,072	1,184	1,037	3,294
Shortfall				
Solar	0	0	0	0
Non Solar	541	597	523	1,660
Total	**541**	**597**	**523**	**1,660**

3.65 The Commission has computed the cost of renewable energy power purchase to fulfil the RPO compliance as shown in the table below:

Table 32: RE power purchase cost admitted by the Commission

Particulars	East Discom	West Discom	Central Discom	State
Power Purchase Rate (Rs/kWh)				
Solar from existing sources	7.03	7.03	7.03	7.03
Non-Solar	5.58	5.58	5.58	5.58
A- RE Power Purchase Cost from existing sources (Rs Crore)				
Solar	178	196	172	546
Non-Solar	433	478	419	1,330
Sub-Total	611	674	591	1,876
B- RE Power Purchase Cost from new/ other sources to fulfill RPO(Rs Crore)				
Solar	0	0	0	0
Non-Solar	302	333	292	926
Sub-Total	302	333	292	926
Total (A+B)	**912**	**1,007**	**882**	**2,802**

Captive Generation

3.66 Discoms have filed total availability of 47 MU from captive power plants during FY 2016-17. The Commission has admitted availability of 47 MU from Captive sources. Supply of power from captive power plants has been considered @ Rs. 2.22/ kWh for FY 2016-17. 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 has directed the 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.

New/ Other Generating Station

3.67 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.

3.68 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 2016-17 from the Central and State sector:

Table 33: Basis of Fixed and Variable charges for new/other generating stations

Sr. No.	Generating Stations	Fixed Cost M.P Share (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
1	WR - SIPAT -I (3 Units)	292.47	CERC order dated: 22.08.2013, Petition No. 28/2011 from date of COD to 31.03.2014	138	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
2	NTPC Korba – 7	81.63	CERC order dated: 31.08.2015, Petition No. 208/GT/2013 from date of COD to 31.03.2014	106	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
3	Singaji Thermal Power Stations Phase I -Unit-1	483.11	As per MPERC order dated 10.11.2014	254	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
	Singaji Thermal Power Stations Phase I -Unit-2	466.12	As per MPERC order dated 18.03.2015	254	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
4	Satpura Thermal Power Stations Exten - Unit 10	250.22	As per MPERC order dated 07.01.2016 in Petition No. 13 of 2015	190	As per MPERC order dated 07.01.2016 in Petition No. 13 of 2015
	Satpura Thermal Power Stations Exten - Unit 11	250.22	As per MPERC order dated 07.01.2016 in Petition No. 13 of 2015	190	As per MPERC order dated 07.01.2016 in Petition No. 13 of 2015
5	Vindhyachal Mega Project, Stage 4-Unit-1	235.18	CERC order dated 02.09.2015 in Petition No. 70/GT/2013	174	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
	Vindhyachal Mega Project, Stage 4-Unit-2	235.18	CERC order dated 02.09.2015 in Petition No. 70/GT/2013	174	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
6	DVC Durgapur Steel TPS- Unit-1	65.22	CERC order dated 20.04.2015 in Petition No. 66/GT/2012	206	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
	DVC Durgapur Steel TPS- Unit-2	65.22	CERC order dated 20.04.2015 in Petition No. 66/GT/2012	206	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15

Sr. No.	Generating Stations	Fixed Cost M.P Share (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
7	UMPP Sasan, Sidhi Unit-1	31.27	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit-2	31.39	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit 3& 4	62.66	As per quoted Tariff	115	As per quoted Tariff
	UMPP Sasan, Sidhi Unit 5&6	62.66	As per quoted Tariff	115	As per quoted Tariff
8	Jaypee Bina Power, Unit-1	246.61	MPERC order dated 26.11.2014 in Petition No. 40 of 2012	299	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
	Jaypee Bina Power, Unit-2	246.61	MPERC order dated 26.11.2014 in Petition No. 40 of 2012	255	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
9	Jaiprakash Power, Nigri- Unit-1	313.17	MPERC order dated 26.09.2014 in Petition No. 3 of 2014	48	MPERC order dated 28.01.2016 in Petition No. 49 of 2015
	Jaiprakash Power, Nigri- Unit-2	313.17	MPERC order dated 26.09.2014 in Petition No. 3 of 2014	48	MPERC order dated 28.01.2016 in Petition No. 49 of 2015
10	WR-MB Power, Annupur, Unit 1	213.96	MPERC order dated 29.06.2015 in Petition No. 31 of 2015	151	MPERC order dated 29.06.2015 in Petition No. 31 of 2015
	WR-MB Power, Annupur, Unit 2	213.96	MPERC order dated 29.06.2015 in Petition No. 31 of 2015	151	MPERC order dated 29.06.2015 in Petition No. 31 of 2015
11	M/s Jhabua Power, Seoni	205.32	As per Singaji Thermal Power Stations	254	As per Singaji Thermal Power Stations
12	Lanco TPS, Amarkantak	323.14	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15	182	As per actual bills submitted by the Petitioners from Nov 14 to Oct 15
13	Renewable Energy Solar	546.46		703	As filed
14	Renewable Energy Non Solar	2,255.50		558	As filed

M.P Power Generating Stations

3.69 Fixed costs of the MPPGCL Stations have been considered in accordance with the

Generation MYT order for the control period FY 2013-14 to FY 2015-16 being latest available order. Further, the Commission has appropriately considered the quantum and cost of the concessional energy provided to the State while working out the power purchase cost. Accordingly, allocation of fixed costs of all generating stations amongst Discoms is given in the following table:

Table 34 : Allocation of total fixed costs of all generating stations 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
Renewable Energy Solar	177.91	196.46	172.09	546.46
Renewable Energy Non Solar	734.32	810.88	710.30	2,255.50
GANDHI SAGAR	4.47	4.94	4.32	13.73
PENCH	11.48	12.68	11.10	35.26
RAJGHAT	5.10	5.63	4.93	15.66
BARGI	6.77	7.48	6.55	20.80
BIRISINGHPUR	1.43	1.58	1.38	4.38
BANSAGAR – I	69.28	76.50	67.01	212.79
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	7.04	7.78	6.81	21.64
MARIKHEDA	12.26	13.54	11.86	37.66
RANAPRATAP SAGAR & JAWAHAR SAGAR	12.27	13.54	11.86	37.67
INDIRA SAGAR	199.93	220.78	193.39	614.10
SARDAR SAROVAR	132.03	145.80	127.71	405.54
OMKARESHWAR	144.05	159.07	139.33	442.45
UPPCL (RIHAND,MATATILA,RAJGHAT)	0.42	0.47	0.41	1.30
WR-Jaiprakash Power, Nigri- Unit-1	101.96	112.59	98.62	313.17
WR-Jaiprakash Power, Nigri- Unit-2	101.96	112.59	98.62	313.17
WR-NTPC Korba - 7	26.58	29.35	25.71	81.63
WR - KSTPS	57.13	63.09	55.26	175.48
WR-UMPP Sasan, Sidhi Unit-1	10.18	11.24	9.85	31.27
WR-UMPP Sasan, Sidhi Unit-2	10.22	11.29	9.89	31.39
WR-UMPP Sasan, Sidhi Unit 3& 4	20.40	22.53	19.73	62.66

Particulars	Fixed Cost (Rs. Crore)			
	East	West	Central	State
WR-UMPP Sasan, Sidhi Unit 5&6	20.40	22.53	19.73	62.66
WR-Vindhyachal Mega Project, Stage 5-Unit-1	76.39	84.35	73.89	234.62
AMARKANTAK EXT	57.40	63.38	55.52	176.30
WR - SIPAT -I (3 Units)	95.22	105.15	92.10	292.47
WR - SIPAT -II	51.34	56.69	49.66	157.69
WR-MB Power, Annupur	69.66	76.92	67.38	213.96
WR-MB Power, Annupur-II	69.66	76.92	67.38	213.96
WR - VSTPS - III	59.23	65.41	57.29	181.93
WR - VSTPS-II	42.23	46.64	40.85	129.72
WR-Vindhyachal Mega Project, Stage 4-Unit-1	76.57	84.55	74.06	235.18
WR-Vindhyachal Mega Project, Stage 4-Unit-2	76.57	84.55	74.06	235.18
WR - VSTPS-I	52.22	57.66	50.51	160.40
WR-Lanco TPS, Amarkantak	105.20	116.17	101.76	323.14
Satpura Thermal Power Stations Exten - Unit 10	81.47	89.96	78.80	250.22
Satpura Thermal Power Stations Exten - Unit 11	81.47	89.96	78.80	250.22
WR - GANDHAR GPP	7.02	7.76	6.79	21.58
ER-DVC Durgapur Steel TPS- Unit-1	21.23	23.45	20.54	65.22
ER-DVC Durgapur Steel TPS- Unit-2	21.23	23.45	20.54	65.22
CAPTIVE	0.00	0.00	0.00	0.00
ER-DVC (MTPS,CTPS)	73.06	80.68	70.67	224.41
SATPURA TPS PH II &III	90.05	99.44	87.10	276.59
ER- KAHALGAON STPS-II	11.29	12.46	10.92	34.66
SGTPS EXT	128.79	142.22	124.58	395.60
Singaji Thermal Power Stations Phase I -Unit-1	157.28	173.68	152.14	483.11
Singaji Thermal Power Stations Phase I -Unit-2	151.75	167.58	146.79	466.12
WR- Jhabua Power, Seoni	66.85	73.82	64.66	205.32
Jaypee Bina Power, Unit-2	80.29	88.66	77.66	246.61
WR - KAWAS GPP	3.07	3.39	2.97	9.42
SGTPS	114.81	126.78	111.05	352.64
Jaypee Bina Power, Unit-1	80.29	88.66	77.66	246.61
Others (Mini Micro	0.00	0.00	0.00	0.00

Particulars	Fixed Cost (Rs. Crore)			
	East	West	Central	State
Total	**3,869.21**	**4,272.62**	**3,742.63**	**11,884.46**

Variable Cost

3.70 Variable costs computed on the basis of scheduled energy, is shown below in the table:

Table 35: Station wise admitted variable cost of scheduled energy

Particulars	Variable Cost (Rs. Crore)			
	East	West	Central	State
WR - KAKRAPAR APS	58.40	64.49	56.49	179.39
WR - TARAPUR APS Unit 3 & 4	145.66	160.84	140.89	447.40
Renewable Energy Solar	0.00	0.00	0.00	0.00
Renewable Energy Non Solar	0.00	0.00	0.00	0.00
GANDHI SAGAR	0.00	0.00	0.00	0.00
PENCH	0.00	0.00	0.00	0.00
RAJGHAT	0.00	0.00	0.00	0.00
BARGI	0.00	0.00	0.00	0.00
BIRISINGHPUR	0.00	0.00	0.00	0.00
BANSAGAR - I	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
MARIKHEDA	0.00	0.00	0.00	0.00
RANAPRATAP SAGAR & JAWAHAR SAGAR	0.00	0.00	0.00	0.00
INDIRA SAGAR	0.00	0.00	0.00	0.00
SARDAR SAROVAR	0.00	0.00	0.00	0.00
OMKARESHWAR	0.00	0.00	0.00	0.00
UPPCL (RIHAND,MATATILA,RAJGHAT)	0.00	0.00	0.00	0.00
WR-Jaiprakash Power, Nigri- Unit-1	29.88	32.99	28.90	91.77
WR-Jaiprakash Power, Nigri- Unit-2	29.88	32.99	28.90	91.77
WR-NTPC Korba - 7	19.08	21.07	18.46	58.61
WR - KSTPS	124.27	137.22	120.20	381.69
WR-UMPP Sasan, Sidhi Unit-1	68.80	75.97	66.55	211.32
WR-UMPP Sasan, Sidhi Unit-2	69.08	76.28	66.82	212.18
WR-UMPP Sasan, Sidhi Unit 3& 4	137.88	152.25	133.37	423.49

Particulars	**Variable Cost (Rs. Crore)**			
	East	**West**	**Central**	**State**
WR-UMPP Sasan, Sidhi Unit 5&6	137.88	152.25	133.37	423.49
WR-Vindhyachal Mega Project, Stage 5-Unit-1	41.53	45.86	40.17	127.55
AMARKANTAK EXT	58.00	64.05	56.11	178.16
WR - SIPAT -I (3 Units)	99.41	109.77	96.16	305.34
WR - SIPAT -II	59.55	65.76	57.60	182.92
WR-MB Power, Annupur	78.86	87.08	76.28	242.23
WR-MB Power, Annupur-II	78.86	87.08	76.28	242.23
WR - VSTPS - III	95.83	105.83	92.70	294.36
WR - VSTPS-II	119.56	132.02	115.65	367.23
WR-Vindhyachal Mega Project, Stage 4-Unit-1	59.91	66.16	57.95	184.01
WR-Vindhyachal Mega Project, Stage 4-Unit-2	59.91	66.16	57.95	184.01
WR - VSTPS-I	138.60	153.05	134.07	425.72
WR-Lanco TPS, Amarkantak	107.83	119.07	104.30	331.20
Satpura Thermal Power Stations Exten - Unit 10	60.63	66.96	58.65	186.24
Satpura Thermal Power Stations Exten - Unit 11	60.63	66.96	58.65	186.24
WR - GANDHAR GPP	9.93	10.97	9.61	30.51
ER-DVC Durgapur Steel TPS- Unit-1	5.71	6.31	5.52	17.54
ER-DVC Durgapur Steel TPS- Unit-2	5.71	6.31	5.52	17.54
CAPTIVE	2.26	2.50	2.19	6.96
ER-DVC (MTPS,CTPS)	96.12	106.14	92.98	295.24
SATPURA TPS PH II &III	125.24	138.30	121.14	384.68
ER- KAHALGAON STPS-II	5.70	6.29	5.51	17.50
SGTPS EXT	76.25	84.20	73.76	234.21
Singaji Thermal Power Stations Phase I -Unit-1	50.61	55.89	48.96	155.46
Total	**2,317.47**	**2,559.09**	**2,241.65**	**7,118.21**

3.71 After allowing long term purchases from MPPMCL allocated generating stations as per merit order principle, it has been observed that there is a surplus of 23,122 MU.

3.72 The Commission after analyzing the previous years IEX/PXIL data has considered the rate of Rs.2.50 per unit for sale of surplus power through IEX/ PXIL/bilateral arrangements/bidding. As sale of surplus energy has been considered at Rs 2.50 /kWh, stations having variable rate more than Rs 2.50 /kWh are to be backed-down. Accordingly, quantum of surplus energy from stations having variable rate below Rs 2.50 /kWh are 8,300 MU.

3.73 Details of saving in power purchase cost through sale of surplus power has been shown in the table below:

Table 36 : Details of saving in power purchase cost through sale of Surplus energy

SL No	Particulars	Reference	Admitted
1	Total energy availability (MU)	A	85,308
2	Total energy requirement of Discoms (MU)	B	62,186
3	Total Surplus energy available (MU)	C=A-B	23,122
5	Surplus energy available at variable rate below Rs 2.50 (Mus)	D	8,300
6	Variable cost of surplus energy having variable rate below Rs 2.50 (Rs Crore)	E	1,876
7	Per unit cost of sale of surplus power (Rs/kWh)	F	2.50
8	Revenue from sale of surplus power (Rs Crore)	G=D*F	2,074.93
9	**Total saving in power purchase cost from sale of surplus energy(Rs Crore)**	**H=G-E**	**198.57**

3.74 Discom-wise distribution of total saving in fixed cost from surplus energy is shown in the table below:

Table 37 : Discom-wise details of saving in power purchase cost from sale of Surplus energy (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Saving in fixed cost from surplus energy	64.65	71.39	62.53	198.57

Inter-State and Inter-Regional Transmission Charges

3.75 PGCIL charges consist of charges to be paid for transmission system of Western Region and Eastern Region. The Commission has reviewed inter-state transmission charges as per the actual bills available for FY 2013-14, FY 2014-15, estimated for FY 2015-16 and FY 2016-17 and the claims filed by the Petitioners. The Commission has observed that the Petitioners have considered 2% increase for projecting the inter-state transmission charges for FY 2015-16 and FY 2016-17. Further the Commission has considered the same percentage increase of about 2% over the actual amount of Rs 1419 Crore for FY 2014-15 for working out inter-state charges for FY 2015-16 and FY 2016-17. The inter-state transmission charges worked out for FY 2016-17 are Rs 1477 Crore as projected by the Petitioners. 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 38: PGCIL charges admitted for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Inter-State Transmission charges	456.00	580.00	441.00	1,477.00

Intra-state Transmission Charges

3.76 The Petitioners have projected the intra-state transmission charges (including SLDC charges) of Rs 1128 Crore for FY 2015-16 and escalated the same by 7% to arrive at the figure of Rs 1207 Crore for FY 2016-17. The Commission has considered intra-state transmission charges (excluding of SLDC and terminal benefit charges) of Rs 1197 Crore as projected by the Petitioners for FY 2016-17.

3.77 As regard SLDC charges, the Commission has approved the annual revenue requirement of Rs. 8.24 Crore towards levy and collection of SLDC charges for FY 2016-17 in petition No. 68 of 2015.

3.78 As regards terminal benefits, the Commission finds it appropriate to consider Rs 1047.09 Crore projected by MP Transco in its tariff petition for FY 2016-17.

3.79 Accordingly, intra–state transmission charges for FY 2016-17 including SLDC charges and terminal benefits have been admitted as given in the table below:

Table 39 : MPPTCL charges including SLDC charges and terminal benefits admitted for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total for State
MPPTCL charges including SLDC charges and terminal benefits	673	871	709	2,252

3.80 The Commission has allowed the terminal benefits and pension expenses for FY 2016-17 on provisional basis on “pay as you go” principle payable to MP Transco to the extent of Rs.1047.09 Crore. This is based on the MPPTCL tariff petition for FY 2016-17. 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.

MPPMCL Cost

3.81 The Petitioners have filed Rs. (235.86) Crore as MPPMCL expenses for FY 2016-17.

3.82 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. Further, the Commission has admitted expenses of Rs. 75 Crore towards O&M expenses only as admitted in the Retail Supply Tariff Order for FY 2015-16 dated 17 April, 2015 and Rs. 436.03 Crore as other income. Net MPPMCL cost admitted in this order is Rs. (-) 361.05 Crore. The expenses related to power purchase, if any, incurred by MPPMCL would be appropriately considered at the time of truing up for FY 2016-17, after prudence check. Further, the Commission directs MPPMCL to file petition for determination of trading margin with appropriate Commission.

Total power purchase cost

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

Table 40 : Total power purchase cost admitted for FY 2016-17 (Rs Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
Total Fixed Cost	3,869.21	4,272.62	3,742.63	11,884.46
Variable Charges for dispatched energy(Rs Crore)	2,317.47	2,559.09	2,241.65	7,118.21
Total Power Purchase cost (Rs Crore)	6,186.67	6,831.71	5,984.28	19,002.66
less: Saving in power purchase cost from Sale of Surplus Power (Rs Crore)	64.65	71.39	62.53	198.57
MPPMCL Cost (Rs Crore)	-115.03	-128.10	-117.91	-361.05
Total Power Purchase cost (Rs Crore)	6,007.00	6,632.22	5,803.83	18,443.05
PGCIL Charges (Rs Crore)	456.00	580.00	441.00	1,477.00
MPPTCL Charges (Rs Crore)	673.16	870.56	708.64	2,252.36
Grand Total (Rs Crore)	**7,136.16**	**8,082.78**	**6,953.47**	**22,172.41**

Pooled Power Purchase Cost

3.84 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."

3.85 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 41 : Pooled Power Purchase cost for FY 2016-17

Particulars	**FY 2016-17**
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	57,366.82
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	16,200.71
Pooled Power Purchase Cost (Rs/kWh)	**2.82**

Network Cost
Capital Expenditure Plans/ Capitalization of Assets

Petitioner's submissions
Investments

3.86 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 has also been 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.

3.87 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 reduced significantly in the recent years but not up to the normative loss levels.

3.88 Details of Discom wise capital investment plans under various schemes for FY 2016-17 as filed are indicated below:

Table 42 : Capital Investment plan for FY 2016-17 (Rs. Crore)

Distribution Company	Amount
East Discom	1723.53
West Discom	1370.41
Central Discom	1476.90
Total for the State	**4570.84**

Capitalization and CWIP

3.89 Discom wise capitalization plan and the status of capital works in progress (CWIP) as filed by the Petitioners for FY 2016-17 are indicated below:

Table 43 : Discom wise year wise capitalization and bifurcation of CWIP (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Opening Balance of CWIP	835	2,192	943
Fresh Investment during the year	1,724	1,477	1,370
Investment capitalised	1,363	835	1,265
Closing Balance of CWIP	**1,196**	**2,834**	**1,049**

Commission's Analysis on Asset Capitalization

3.90 The Commission has directed the Discoms to obtain appropriate approval for their capital expenditure as per Regulation 10.3 of MPERC (The Conditions of Distribution License for Distribution Licensee (including Deemed Licensee)), Regulations 2004. The Discoms shall submit a detailed capital investment plan, financing plan and physical targets indicating physical and financial achievement against various schemes for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering etc.

3.91 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 would commence during the tariff period but would be completed within or beyond the tariff period.

3.92 The Petitioners have indicated the capital investment plan for FY 2016-17 as shown in the table below:

Table 44: Capital Investment indicated by Discoms for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Capital Investment Plan	1723.53	1370.41	1476.90

3.93 The asset addition by the Discoms as per audited accounts for FY 2013-14 and FY 2014-15 are given in the Table below:

Table 45 : Asset capitalization during FY 2013-14 and FY 2014-15 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2013-14	1072.52	466.33	1136.35
FY 2014-15	692.89	580.61	1164.71

3.94 For considering the asset addition for the Discoms, generally the Commission has considered the average asset addition of the Discoms during the past years. Accordingly, the Commission has worked-out the average asset addition during last two years i.e., FY 2013-14 and FY 2014-15, which comes out to be Rs 882.71 Crore, Rs 523.47 Crore and Rs 1150.53 Crore, respectively, for East, West and Central Discoms. Further, the Commission has observed that the Petitioners have projected Rs 835.05 Crore, Rs 466.13 Crore and Rs 1158.51 Crore for East, West and Central Discoms, respectively for FY 2015-16. As the asset addition projected for FY 2015-16 by East and West Discoms is less than the average asset addition worked out by the Commission, the Commission has considered the projections as envisaged by East and West Discoms. While for Central Discom the Commission has observed that the average asset addition during the past years as worked by the Commission is less than the projections given for FY 2015-16 by the Central Discom. Therefore, the Commission has appropriately considered the average asset addition for FY 2015-16 for Central Discom. For FY 2016-17, the Commission has considered the average of three years i.e., FY 2013-14, FY 2014-15 and FY 2015-16, as shown in the table below:

Table 46: Asset capitalization admitted for FY 2015-16 and FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2015-16	835.05	466.13	1150.53
FY 2016-17	866.82	504.36	1150.53

Operations and Maintenance Expenses

Petitioners submission

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

Employee Expenses

3.96 The Petitioners have submitted that employee costs have been calculated as per the provisions of the Tariff Regulations. Petitioners have made following assumptions for calculation of Employee costs:

a) For the calculation of the Dearness allowance (DA), basic pay has been taken at the same level as notified in the MPERC regulations. For computation of DA, a 6% increase has been considered for every six months for all three Discoms (every year in January and July). Based on this, the DA as a percentage of Basic Salary (approved by MPERC) is shown in the table below:

Particulars	FY '17	FY '18	FY '19
DA as percentage of Basic for first quarter - Apr to June	125%	137%	149%
DA as percentage of Basic for 2nd and 3rd quarter - July to Dec	131%	143%	155%
DA as percentage of Basic for 4th quarter - Jan to March	137%	149%	161%

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

c) Leave Encashment and Provident Fund (PF)/Cash Financial Assistance (CFA)/Group Term Insurance Scheme (GTIS)/ New Pension Scheme (NPS):

- MPPTCL is providing fund to Discoms, only to meet out Terminal Benefits liability of Gratuity, Pension and Commutation of pension.
- Other than these components, Discoms make payment of Leave Encashment and PF/CFA/GTIS/NPS. Hence, expenses incurred on account of Leave Encashment and PF/CFA/GTIS/NPS have been claimed separately in addition to the terminal benefits costs claimed as part of Intra-State Transmission Charges in the total Power Purchase Costs of Discoms.

d) The employee cost arising due to the eligibility of 3rd higher pay scale under assured career progression scheme cannot be ascertained at this stage. Hence expenditure on this account is not being considered in this petition. However, the same shall be accounted for in true-up petition.

3.97 Accordingly, employee expenses have been claimed as Rs 927 Crore, Rs 950 Crore and Rs 883 Crore by East, West and Central Discoms respectively.

A&G Expenses

3.98 Petitioners have claimed the A&G expenses as per the provision of the Regulation 34.1 of the Tariff Regulations as Rs 173 Crore, Rs 141 Crore and Rs 98 Crore for East, West and Central Discoms respectively. 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

3.99 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. 159 Crore, Rs. 123 Crore, and Rs. 178 Crore for East, West and Central Discoms, respectively for FY 2016-17.

3.100 Summary of claims of the Petitioners in respect of O&M Expenses is shown in the table below:

Table 47: O&M expenses claimed for FY 2016-17 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Employee Cost (including arrears, DA and others)	927	950	883
A&G Expenses	172	141	98
R&M expenses	159	123	178
MPERC Fees	1	1	1
Total O&M expenses	1,259	1,214	1,159

Commission's Analysis on O&M Expenses

3.101 Tariff Regulations specify normative O&M Expenses for the Discoms. These expenses comprise employee expenses; repair and maintenance (R&M) cost abvnd administrative and general (A&G) expenses. The amount of employee expenses and A&G expenses for FY 2016-17 have been specified in the Regulations. R&M expenses are specified as 2.3% of opening GFA for the FY 2016-17.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.

3.102 The Commission shall allow the terminal benefits and pension expenses for the FY 2016-17 on provisional basis under the transmission charges. Therefore, no separate provisions under O&M expenses of Discoms are warranted.

3.103 The Commission has considered it appropriate to allow DA @ 125% for April to June and @ 131% for July 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 2016-17 as specified in the Tariff Regulations, subject to true up.

3.104 The Commission has admitted the PF/NPS liability for the employees being recruited after 2005 as proposed by the Petitioners.

3.105 The Commission has admitted employee expenses as shown in the table below:

Table 48: Employee Expenses as admitted for FY 2016-17 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**Total**
Employee expenses				
Basic Salary	498.58	521.89	464.91	1485.37
DA	385.00	403.00	359.00	1147.00
leave encashment in lieu of retirees	19.00	13.00	10.00	42.00
NPS/PF	18.00	10.00	6.00	34.00
Total Employee expense	**920.58**	**947.89**	**839.91**	**2708.37**

3.106 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 49: A&G Expenses as admitted for FY 2016-17 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**Total**
A&G expenses	168.00	129.00	96.00	393.00
MPERC fees	0.50	0.50	0.50	1.50
Total A&G expenses	**168.50**	**129.50**	**96.50**	**394.50**

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

Table 50: R&M Expenses as admitted for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Opening GFA as on 1st April, 2015	6034.34	4881.06	6569.46	17484.86
Asset addition considered during FY 2015-16	835.05	466.13	1150.53	2451.71
Opening GFA as on 1st April, 2016	6869.39	5347.19	7719.99	19,936.57
% as R&M of opening GFA as specified in Tariff Regulations	2.30%	2.30%	2.30%	2.30%
Total R&M	**158.00**	**122.98**	**177.56**	**458.54**

3.1 Total O&M expenses admitted by the Commission for FY 2016-17, have been summarized in the table below:

Table 51: O&M Expenses as admitted for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Employee Expenses	920.58	947.89	839.91	2708.37
A&G Expenses	168.50	129.50	96.50	394.50
R&M Expenses	158.00	122.99	177.56	458.54
Total O&M expenses	**1,247.07**	**1,200.37**	**1,113.96**	**3,561.41**

Depreciation

Petitioners submissions

3.108 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 2016-17 is shown in Table below:

Table 52: Depreciation claimed by Petitioners (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Land under Lease	0	0	0
Building	2	3	3
Hydraulic Works	0	0	1
Other Civil Works	0	0	0
Plant and Machinery	78	85	136
Line Cable Networks etc.	173	111	202
Vehicles	0	0	0
Furniture and fixtures	0	0	0
Office Equipments	4	2	12
Assets not belonging to board/RGGVY	25	30	0
Intangible Assets	0	2	24
Total	**283**	**234**	**378**

Commission's Analysis of Depreciation

3.109 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, 2016. 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.

3.110 In case of existing projects, the Tariff Regulations specify that the balance depreciable value as on 1st April, 2016 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2015 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 %.

3.111 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.

3.112 For computing the depreciation, the Commission has considered the closing GFA of true-up order for FY 2012-13 as opening GFA for FY 2013-14. Asset addition for FY 2015-16 and FY 2016-17 has been considered as admitted in previous section of "Network Cost". Consumer contribution, grants and subsidies towards the cost of capital assets during respective years have been reduced from GFA for arriving at net GFA for FY 2016-17. Consumer contribution, grants and subsidies during FY 2015-16 and FY 2016-17 have been considered same as an average of FY 2013-14 and FY 2014-15. Net GFA has been considered for allowing depreciation for FY 2016-17 on the basis of opening GFA for FY 2016-17 plus half of average addition during FY 2016-17 after netting of the consumer contribution.

3.113 The Commission has considered the depreciation rates i.e. 2.44%, 2.81%, and 2.44%

3.114 for East, West and Central Discoms for FY 2016-17, as considered in the tariff order for FY 2015-16. However, the Commission clarifies that the difference in depreciation amount as admitted by the Commission in this tariff order and the depreciation worked out on the basis of audited accounts for FY 2016-17 shall be duly considered at the time of truing up of the ARR for FY 2016-17 subject to scrutiny of Asset Register.

3.115 The depreciation admitted for FY 2016-17 is given in the following table:

Table 53: Depreciation admitted (Rs. Crore)

Particular	East Discom	West Discom	Central Discom
Opening GFA as on 1st April, 2013 (Closing from True-up Order for FY 2012-13)	**3,310.46**	**2,929.48**	**3,451.90**
Add: Addition during FY 2013-14	1,072.52	447.79	1,136.36
Less: Consumer Contribution in FY 2013-14	114.88	240.96	214.18
Opening GFA as on 1st April, 2014	**4,268.10**	**3,136.31**	**4374.08**
Add: Addition during FY 2014-15	692.89	566.19	1164.71
Less: Consumer Contribution in FY 2014-15	350.92	248.81	278.07
Opening GFA as on 1st April, 2015	**4,610.06**	**3453.69**	**5260.72**
Add: Addition during FY 2015-16	835.05	466.13	1150.53
Less: Consumer Contribution in FY 2015-16	232.90	244.89	246.13
Opening GFA as on 1st April, 2016	**5212.21**	**3674.94**	**6165.12**
Add: Addition during FY 2016-17	866.82	504.36	1150.53
Less: Consumer Contribution in FY 2015-16	232.90	244.89	246.13
Closing GFA as on 31st March 2017	**5846.13**	**3934.41**	**7069.53**
Average of GFA for FY 2016-17	**5529.17**	**3804.67**	**6617.33**
Rate of Depreciation	**2.44%**	**2.81%**	**2.44%**
Depreciation	**134.91**	**106.91**	**161.46**

Interest and Finance Charges

Petitioners submissions

3.116 The Petitioners have submitted that Regulation 31 of Tariff Regulations provides for the method of calculation of interest and finance charges on loan capital. The methodology adopted by the Commission in the tariff order for FY 2015-16 has been adopted for projecting the interest and finance charges on project loans for FY 2016-17.

East Discom

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

Table 54: Interest cost claimed (Rs. Crore)

Particulars	**Amount**
Opening balance of GFA identified as funded through debt	1,793.03
Addition to GFA during the year	1,362.80
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	603.49
Net addition to GFA during the year	759.31
30% of addition to net GFA considered as funded through equity	227.79
Balance addition to net GFA during the year funded through debts	531.51
Debt Repayment due during the year (equal to the depreciation claim)	283.08
Closing balance of GFA identified as funded through debt	2,041.46
Average of loan balances	1917.24
Weighted average rate of interest % on all loans	**10%**
Total interest on project loans	**183.54**
Finance charge	13.06
Total Interest on Project loans & Finance Charge	**196.60**

West Discom

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

Table 55: Interest cost claimed (Rs. Crore)

Particulars	**Amount**
Opening balance of GFA identified as funded through debt	1173.83
Addition to GFA during the year	658.70
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	0.00*
Net addition to GFA during the year	658.70
30% of addition to net GFA considered as funded through equity	197.61
Balance addition to net GFA during the year funded through debts	461.09
Debt Repayment due during the year (equal to the depreciation claim)	233.54
Closing balance of GFA identified as funded through debt	1,525.04
Average of loan balances	1,349.44
Weighted average rate of interest % on all loans	**8%**
Total interest on project loans	**102.90**
Finance charge	9.77
Total Interest on Project loans & Finance Charge	**112.67**

**West Discom in its format of Petition has submitted consumer contribution/grants during FY 2016-17 as Rs 567.27 Crore*

Central Discom

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

Table 56: Interest cost claimed (Rs. Crore)

Particulars	**Amount**
Opening balance of GFA identified as funded through debt	2,715.86
Addition to GFA during the year	1,264.59
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	0.00*
Net addition to GFA during the year	1264.59
30% of addition to net GFA considered as funded through equity	379.38
Balance addition to net GFA during the year funded through debts	885.21
Debt Repayment due during the year (equal to the depreciation claim)	378.40
Closing balance of GFA identified as funded through debt	3222.67
Weighted average rate of interest % on all loans	**9%**
Total interest on project loans	**289.05**
Finance charge	33.33
Total Interest on Project loans & Finance Charge	**322.37**

**Central Discom in its Format 2e of Petition has submitted consumer contribution/ grants during FY 2016-17 as Rs 860.49 Crore*

Commission's Analysis of Interest and Finance Charges

3.120 In Table 51 of the petition, the Commission has observed that West and Central Discoms have not filed any consumer contribution/ grants, while in Format 2e attached with the petition Rs 567.27 Crore and Rs 860.49 Crore have been filed respectively.

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

3.122 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.

3.123 The Commission has worked out the interest cost for FY 2016-17 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 2013-14 and FY 2014-15 to project for FY 2015-16 and FY 2016-17.

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 2015-16 and FY 2016-17 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 East and West Discom for FY 2016-17, while for Central Discom projected finance cost seems to be on higher side, therefore, as per actual considered from audited accounts for FY 2014-15 submitted by Central Discom.

3.124 Interest and finance charges admitted for FY 2016-17 are as under:

Table 57: Interest and Finance Charges admitted for FY 2016-17 (Rs. Crore)

Particular	**East Discom**	**West Discom**	**Central Discom**
FY 2013-14			
Debt identified with GFA as on 1st April, 2013	1,051.80	703.52	1,139.05
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	670.35	144.78	645.52
Debt repayment	92.46	85.22	95.48

Particular	**East Discom**	**West Discom**	**Central Discom**
Debt identified with GFA as on 31st March, 2014	1,629.69	763.07	1,689.09
FY 2014-15			
Debt identified with GFA as on 1st April, 2014	1,629.69	763.07	1,689.09
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	239.38	222.17	620.65
Debt repayment	108.31	92.59	117.54
Debt identified with GFA as on 31st March, 2015	1,760.76	892.65	2,192.19
FY 2015-16			
Debt identified with GFA as on 1st April, 2015	1,760.76	892.65	2,192.19
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	421.50	154.87	633.09
Debt repayment	119.83	100.16	139.40
Debt identified with GFA as on 31st March, 2015	2,062.43	947.37	2,685.88
FY 2016-17			
Debt identified with GFA as on 1st April, 2015	2,062.43	947.37	2,685.88
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	443.74	181.63	633.09
Debt repayment	134.91	106.91	161.46
Closing debt associated with GFA	2,371.26	1022.08	3,157.51
Average debt	2,216.84	984.72	2,921.70
Weighted average rate of interest on all loans as per Petitioner	**9.57%**	**7.63%**	**8.97%**
Interest on Project Loans	**212.22**	**75.09**	**262.05**
Other Finance cost	13.06	9.77	22.15
Interest cost admitted on project loans	**225.28**	**84.86**	**284.20**

Interest on Working Capital

Petitioners submission

3.125 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 10% for the calculation of the interest on the working capital.

3.126 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 58: Interest on Working Capital as filed for 2016-17 (Rs Crore)

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	For Wheeling Activity			
1	1/6th of annual requirement of inventory for previous year	10.86	7.13	10.40
2	O&M expenses			
2.1	R&M expenses	157.75	122.92	177.74
2.2	A&G expense	173.05	141.37	98.29
2.3	Employee expenses	926.92	949.94	883.25
2.4	Total of O&M expenses	1257.73	1,214.24	1,159.29
2.5	1/12th of total	104.81	101.19	96.61
3	Receivables			
3.2	Annual Revenue from wheeling charges	0.00	2.88	0.00
3.3	Receivables equivalent to 2 months average billing of wheeling charges	0.00	0.48	0.00
4	Total Working capital (1+2.5+3.3)	115.67	108.79	107.01
5	Rate of Interest	10.0%	10.00%	10.00%
6	Interest on Working capital	11.57	10.88	10.70
	For Retail Sale activity			
	Particular			
1	1/6th of annual requirement of inventory for previous year	0.57	1.78	0.55
2	Receivables			
2.1	Annual Revenue from Tariff and charges	8071.03	9247.92	8,121.28
2.2	Receivables equivalent to 2 months average billing	1345.17	1541.32	1,353.55
3	Power Purchase expenses	7617.47	7143.62	7,428.56
3.1	1/12th of power purchase expenses	634.79	595.30	619.05
4	Consumer Security Deposit	520.24	1162.74	798.34
5	Total Working capital (1+2.2-3.1-4)	190.72	-214.94	(63.29)
6	Rate of Interest	10%	10.00%	10.00%
7	Interest on Working capital	19.07	-21.49	(6.33)
	Total Interest on Working Capital from Wheeling Activity	11.57	10.88	10.70
	Total Interest on Working Capital from Retail Activities	19.07	-21.49	(6.33)
	Net Interest on Working Capital	**30.64**	**0.00**	**4.37**

Commission's Analysis of Interest on Working Capital

3.127 The Petitioners have wrongly worked out the requirement of working capital and interest thereon by considering the transmission charges in the power purchase cost and also revenue at existing tariff. The Commission has appropriately made the correction and worked out the interest on working capital.

3.128 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 Advance Rate as on 1st April of the relevant year.

3.129 The Commission has considered Gross block at the start of FY 2016-17 as Rs 6917.05 Crore, Rs. 5404.53 Crore and Rs. 7719.99 Crore for East, West and Central Discom, respectively. One percent of this value pro-rated to two months would work out to Rs. 11.53 Crore, Rs. 9.01 Crore, and Rs. 12.87 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.

3.130 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 2012-13, 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.

3.131 Tariff Regulations allow working capital interest to the Discoms at the rate equal to the State Bank of India (SBI) Advance Rate as on 1st of April of the relevant year. The SBI Advance Rate presently stands at 14.05%. Accordingly, the normative interest rate for working capital loans to Discoms would be limited to 14.05%. The interest on working capital admitted by the Commission for wheeling and retail sale activity combined together is shown in the table below:

Table 59: Interest on Working Capital admitted by the Commission (Rs. Crore)

For wheeling activity					
		Months	**East Discom**	**West Discom**	**Central Discom**
A)	1/6th of annual requirement of inventory for previous year	2	9.16	7.13	10.29
B)	O&M expenses				
	R&M expenses				
	Employee expenses				

For wheeling activity					
		Months	**East Discom**	**West Discom**	**Central Discom**
	A&G Expenses				
B) i)	Total of O&M expenses		1,247.07	1,200.37	1,113.96
B) ii)	1/12th of total		103.92	100.03	92.83
C)	Receivables				
C) i)	Annual Revenue from wheeling charges		0.00	2.88	0.00
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	2	0.00	0.48	0.00
D)	Total Working capital		113.08	107.64	103.12
	(A), B) ii), C) ii))				
E)	Rate of Interest *		14.05%	14.05%	14.05%
F)	**Interest on Working capital**		**15.89**	**15.12**	**14.49**
For Retail Sale activity					
A)	1/6th of annual requirement of inventory for previous year	2	2.29	1.78	2.57
B)	Receivables				
B) i)	Annual Revenue from Tariff and charges		8,631.99	9,453.35	8,422.77
B) ii)	Receivables equivalent to 2 months average billing		1,438.67	1,575.56	1,403.80
C)	Power Purchase expenses		6,007.00	6,632.22	5,803.83
C) i)	1/12th of power purchase expenses		500.58	552.69	483.65
D	Consuner Security Deposit		520.24	1,162.74	798.34
E)	Total Working capital (A+B ii) - C i) - D)		420.13	-138.09	124.38
F)	Rate of Interest *		14.05%	14.05%	14.05%
G)	**Interest on Working capital**		**59.03**	**-19.40**	**17.47**
	Summary				
	For wheeling activity		15.89	15.12	14.49
	For Retail Sale activity		59.03	-19.40	17.47
	Total Interest on working Capital		74.92	-4.28	31.96
	Total Interest on working Capital admitted		**74.92**	**0.00**	**31.96**

Interest on Consumer Security Deposit

Petitioners submissions

3.132 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 60: Interest on Consumer Security Deposit as per Regulations for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Interest on Consumer Security Deposit	47	105	72

Commission's Analysis of Consumer Security Deposit

3.133 The Commission has computed the interest on consumer security deposit as per the norms of the Tariff Regulations at RBI latest Bank Rate of 7.75% and admitted the same as shown in the table below:

Table 61: Interest on Consumer Security Deposit (CSD) admitted for FY 2016-17 (Rs. Crore)

Particular	East	West	Central
Interest on Consumer Security Deposit	40.32	90.11	61.87

Return on Equity

Petitioners submissions

3.134 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 62: Return on Equity for 2016-17 (Rs. Crore)

Sr. No.	Particulars	East Discom	West Discom	Central Discom
A	Gross Fixed Assets at the beginning of year (net of consumer contributions)	5,391.29	5344.44	7,727.95
A1	Opening balance of GFA identified as funded through equity	1,617.39	1,342.05	2,318.38
A2	Opening balance of GFA identified as funded through debt	3,773.90	1,173.83	5,409.56
B	Proposed capitalization of assets as per the investment plan (net of consumer contribution)	759.31	658.70	1,264.59
B1	Proportion of capitalized assets funded out of equity, internal reserves	227.79	197.61	860.49
B2	Balance Proportion of capitalized assets funded out of	531.51	461.09	404.10

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	project loans (B - B1)			
C1	Normative additional equity (30% of B)	227.79	0.00	379.38
C2	Normative additional debt (70% of B)	531.51	0.00	885.21
D1	Excess / shortfall of additional equity over normative (B1-C1)	0.00	197.61	481.11
D2	Excess / shortfall of additional debt over normative (B2-C2)	0.00	461.09	-481.11
E	Equity eligible for Return (A1+(C1/2)) or (A1+(B1/2)), whichever is lower	1,950.84	1,467.35	2,508.07
Return on Equity (16% on E)		312.13	234.78	401.29

Commission's Analysis of Return on Equity

3.135 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 2016-17. 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 2016-17 is tabulated below.

Table 63: Return on Equity admitted for FY 2016-17 (Rs. Crore)

Particular	East Discom	West Discom	Central Discom
FY 2013-14			
Total Equity identified with GFA as on 31st March, 2013 (Closing equity from True-up Order for FY 2012-13)	929.75	867.48	962.36
30% of addition to net GFA considered as funded through equity net of consumer contribution	287.29	62.05	276.65
Total Equity identified with GFA as on 31st March, 2014	1217.05	929.53	1239.01
FY 2014-15			
30% of addition to net GFA considered as funded through equity net of consumer contribution	102.59	95.21	265.99
Total Equity identified with GFA as on 31st March, 2015	1319.64	1024.74	1505.00
FY 2015-16			
30% of addition to net GFA considered as funded through equity net of consumer contribution	180.64	66.37	271.32
Total Equity identified with GFA as on 31st March, 2016	1500.28	1091.11	1776.32
FY 2016-17			

Particular	**East Discom**	**West Discom**	**Central Discom**
30% of addition to net GFA considered as funded through equity net of consumer contribution	190.18	77.84	271.32
Total Equity identified with GFA as on 31st March, 2017	**1690.46**	**1168.95**	**2047.65**
Average Equity	**1595.37**	**1130.03**	**1911.99**
RoE @16% of FY 2016-17	**255.26**	**180.81**	**305.92**

Other items of ARR

3.136 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

3.137 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 have requested that the Commission would allow 1% of revenue as bad debts as per Tariff Regulations.

Table 64: Bad and Doubtful Debts for FY 2016-17 as per Regulations (Rs Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Bad and Doubtful Debts	81	91	81

Commission's Analysis on Bad and Doubtful debts

3.138 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.

3.139 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.

3.140 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 is therefore, not inclined to admit expenses against such waivers by the Discoms so that the regular paying consumers are not loaded with this burden.

3.141 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

3.142 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.

3.143 Table below indicates the details of other income filed by Discoms for FY 2016-17:-

Table 65: Other Income (Rs Crore)

Particulars	East Discom	West Discom	Central Discom
Income from Investment, Fixed & Call Deposits	6	18	26
Interest on loans and Advances to staff	0	0	0
Interest on Advances to Suppliers / Contractors	2	5	9
Income/Fee/Collection against staff welfare activities	0	0	0
Miscellaneous receipts	88	26	152
Misc. charges from consumers	54	47	0
Deferred Income (Consumer Contribution)	101		1
Wheeling charges	0	3	3
Income from Trading other than Power (i.e. sale of scrape, tender form)	23	21	1
Meter rent/Others	0	13	0
Total	**275**	**134**	**192**

Commission's Analysis on Other Income

3.144 The actual other income received as per audited accounts for the previous years are shown in the table below:

Table 66: Total actual other income as per audited accounts (Rs Crore)

Discoms	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
East Discom	139.51	162.45	152.02	141.17
West Discom	196.79	289.67	252.28	214.23
Central Discom	293.94	231.20	378.43	159.63
Total	630.24	683.32	782.73	515.03

3.145 Based on the above actual other income received as per audited accounts for FY 2011-12 to FY 2014-15, 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 2016-17 as tabulated below:

Table 67: Other Income admitted for FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Other Income	251.99	206.26	212.25	670.49

Saving from various operational efficiency Measures

Petitioners submission

3.146 The Petitioners submitted that small portion of the gap amounting Rs 1191 Crore has been left uncovered, which is proposed to be bridged through sale of surplus power at a better rate, efficiency improvements and cost reduction. The Petitioners have proposed sale of surplus energy at the prevailing IEX rates and in case these rates improve during the ensuing years, they would increase their revenue from sale of surplus power by better rates and increased sale. Further, the Petitioners submitted that they are currently taking several initiatives to reduce their costs and bring efficiency into the system, thereby not burdening the consumers. The uncovered gap would challenge them to find innovative ways to reduce the costs. The Petitioners have further proposed to recover any remaining gap at the time of annual true-up.

Commission's Analysis

3.147 The Commission is not in agreement with the Petitioners claim to bridge proposed unrecovered gap of Rs 1191 Crore through sale of surplus power at a better rate, efficiency improvements and cost reduction. The Petitioners have not demonstrated any such achievements in the past e.g., the loss reduction trajectory specified by the Commission. The Commission has therefore directed the Petitioners to work-out a concrete plan and methodology with quantitative analysis for proposed saving of Rs. 1191 Crore envisaged from various operational efficiency measures and submit the same to the Commission. However, presently the Commission has considered a moderate saving of Rs 600 Crore from various operational efficiency measures and may consider the amount of Rs. 1191 Crore on filing of aforesaid plan for proposed saving. The Petitioners are also required to maintain a separate account for the saving achieved through operational efficiency measures so as to quantify their accomplishment in this regard at the time of true up exercise for consideration of the Commission.

3.148 The ARR as admitted for FY 2016-17 is presented in following table:

Table 68: Aggregate Revenue Requirement (ARR) as admitted (Rs Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
Power Purchase admitted	6007.00	6632.22	5803.83	18443.05
Inter state transmission charges	456.00	580.00	441.00	1477.00
Intra state transmission charges including SLDC	673.16	870.56	708.64	2252.36
O&M Expenses	1247.07	1200.37	1113.96	3561.41
Depreciation	134.91	106.91	161.46	403.29
Interest & Finance Charges				
On Project Loans	225.28	84.86	284.20	594.34
On Working Capital Loans	74.92	0.00	31.96	106.88
On Consumer Security Deposit	40.32	90.11	61.87	192.30
Return on Equity	255.26	180.81	305.92	741.98
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Tax	0.00	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00	0.00
Total Expenses admitted	9115.91	9747.84	8914.85	27778.61
Other income+Non Tariff Income	251.99	206.26	212.25	670.49
Saving from operational efficiency measures	231.93	88.24	279.83	600.00
Net total Expenses	**8631.99**	**9453.35**	**8422.77**	**26508.11**
Impact of True-Up Amounts of Past Years				
Impact of True Up for Discoms for FY 2005-06	103.67	137.56	124.60	365.83
Impact of True up for MP Transco for FY 2013-14	91.14	103.16	87.13	281.43
Impact of True up for MP Genco for FY 2012-13	-33.85	-37.84	-31.86	-103.55
Impact of True up for MP Genco for FY 2013-14	-92.57	-103.46	-87.13	-283.16
Impact of True Up for Discoms for FY 2012-13	304.90	697.93	556.42	1559.25
Total True-up	373.29	797.35	649.16	1819.80

Particulars	East Discom	West Discom	Central Discom	State
Total ARR	**9005.28**	**10250.70**	**9071.93**	**28327.91**

Segregation of admitted ARR between Wheeling and Retail Sale activities

3.149 Tariff Regulations provide that the Discoms should file their ARR 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.

3.150 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.

3.151 The Commission has considered a moderate saving of Rs 600 Crore from various operational efficiency measures and allocated the same in equal propotion between the power purchase cost and retail activities.

3.152 The Commission allocates the fixed costs related to wheeling and retail sale activities 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
(e) Less: Saving from Operational efficiency measures

Aggregate Revenue Requirement (ARR) admitted by the Commission for FY 2016-17

3.153 On the basis of above, the ARR for FY 2016-17 for all the three Discoms is admitted as under:

Table 69: Total ARR as admitted (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**Total**
Power Purchase Cost including MPPMCL cost	6007.00	6632.22	5803.83	18443.05
PGCIL charges	456.00	580.00	441.00	1477.00
Transco Charges (MP TRANSCO) including Terminal Benefits	673.16	870.56	708.64	2252.36
Less: Saving from Operational efficiency measures	115.97	44.12	139.92	300.00
(A) Sub Total- Power Purchase Cost	**7020.19**	**8038.67**	**6813.56**	**21872.41**
Wheeling Activity				
O&M cost	1247.07	1200.37	1113.96	3561.41
Depreciation	134.91	106.91	161.46	403.29
Interest on Project Loans	225.28	84.86	284.20	594.34
Return on Equity	255.26	180.81	305.92	741.98
Interest on Working Capital – Wheeling	15.89	15.12	14.49	45.50
(B) Sub Total- Wheeling ARR for FY 2016-17 as approved	**1878.41**	**1588.07**	**1880.03**	**5346.51**
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	40.32	90.11	61.87	192.30
Interest on Working Capital – Retail	59.03	-19.40	17.47	61.38
Less: Other Income - Retail & Wheeling	251.99	206.26	212.25	670.49
Less: Saving from Operational efficiency measures	115.97	44.12	139.92	300.00
(C) Sub Total- Retail ARR for FY 2016-17 as approved	**-266.60**	**-173.39**	**-270.82**	**-710.81**

Particulars	East Discom	West Discom	Central Discom	Total
Total ARR for FY 2016-17	**8631.99**	**9453.35**	**8422.77**	**26508.11**

Revenue from revised tariffs

3.154 The consumer category wise revenue at admitted tariff for FY 2016-17 is presented in the table below:

Table 70: Revenue from revised tariffs in FY 2016-17 (Rs. Crore)

Customer Categories	East Discom		West Discom		Central Discom		State	
	Sales (MU)	**Revenue (Crore)**	**Sales (MU)**	**Revenue (Crore)**	**Sales (MU)**	**Revenue (Crore)**	**Sales (MU)**	**Revenue (Crore)**
LV: Categories								
LV-1: Domestic Consumers	4569	2438	4458	2479	4639	2686	13667	7602
LV-2: Non Domestic	848	648	911	726	901	712	2660	2086
LV-3.1: Public Water Works	384	185	241	129	280	140	906	454
LV-3.2: Street light	212	110	160	92	127	68	498	270
LV-4: Industrial	363	265	584	428	301	217	1247	910
LV-5.1 Agriculture	4602	2083	7479	3556	4340	2152	16421	7791
LV-5.2 Other than agriculture use	15	7	2	1	35	16	52	24
HV: Categories								
HV-1: Railway Traction	672	442	434	302	1195	813	2301	1557
HV-2: Coal Mines	504	378	0	0	35	30	539	408
HV-3.1: Industrial	2826	1967	2474	1848	2194	1579	7494	5393
HV-3.2: Non-Industrial	242	190	375	292	419	332	1036	814
HV-3.3: Shopping mall	7	5	42	32	20	17	69	54
HV-3.4: Power Intensive Industries	74	49	204	133	193	116	471	298
HV-4: Seasonal and Non Seasonal	11	7	5	5	2	1	18	14
HV-5.1: Irrigation, PWW and other than Agriculture	108	61	394	209	170	92	671	362
HV-6: Bulk Residential Users	292	170	31	18	177	102	500	291
HV-7: Synchronization/ Start-up Power	0	0	1	0	0	0	1	1
Total	**15730**	**9005**	**17793**	**10251**	**15029**	**9072**	**48552**	**28328**

Gap / surplus at revised tariffs:

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

Table 71: Final ARR and revenue from existing tariffs (Rs Crore)

Particulars	East Discom	West Discom	Central Discom	State
Total ARR for FY 2016-17 (A)	**8631.99**	**9453.35**	**8422.77**	**26508.11**
Impact of True Up for Discoms for FY 2005-06	103.67	137.56	124.60	365.83
Impact of True up for MP Transco for FY 2013-14	91.14	103.16	87.13	281.43
Impact of True up for MP Genco for FY 2012-13	-33.85	-37.84	-31.86	-103.55
Impact of True up for MP Genco for FY 2013-14	-92.57	-103.46	-87.13	-283.16
Impact of True Up for Discoms for FY 2012-13	304.90	697.93	556.42	1559.25
Total True-up (B)	**373.29**	**797.35**	**649.16**	**1819.80**
Total ARR for FY 2016-17 (A+B=C)	**9005.28**	**10250.70**	**9071.93**	**28327.91**
Revenue at existing Tariffs (D)	8,313.11	9,440.52	8,381.00	26,134.63
Uncovered Gap/Surplus (D-C=E)	**-692.17**	**-810.18**	**-690.93**	**-2,193.28**
Revenue at Proposed Tariffs (F)	9,005.28	10,250.70	9,071.93	28,327.91
Uncovered Gap/Surplus (F-C=G)	**0.00**	**0.00**	**0.00**	**0.00**

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 2016-17, the expenditure towards wheeling activity for all the Discoms is Rs. 5346.51 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 72 : Identification of asset value

Voltage level of Lines	East Discom (ckt-kms)	West Discom (ckt-kms)	Central Discom (ckt-kms)	Cumulative length of lines (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crs.)
33KV	17,179.00	15,707.35	17,289.26	50,175.61	13.10	6,571.42
Below 33 KV						
(a) 11 KV	1,20,830.00	1,15,550.26	1,22,502.96	3,58,883.22	10.01	35,934.98
(b) LT	1,17,554.00	1,60,843.70	1,22,266.36	4,00,664.06	4.47	17,913.05
Sub-Total	2,38,384.00	2,76,393.96	2,44,769.32	7,59,547.28		53,848.03
Total	**2,55,563.00**	**2,92,101.31**	**2,62,058.58**	**8,09,722.89**		**60,419.45**

Table 73 : Total Cost of transformer voltage level

Transformer Voltage Level	East Discom	West Discom	Central Discom	Cumulative capacity (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11KV Transformer	7,549.30	10,952.08	10,362.60	28863.98	36.62	10569.59
11/0.4KV Transformer	7,882.14	13,818.81	14,328.91	36029.86	2.73 per 100 KVA	9836.15
Total	**15,431.44**	**24,770.89**	**24,691.51**	**64893.84**		**20405.74**

4.7 Data for length of lines and transformation capacity expected to be added during FY 2016-17 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 74 : 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	6571.42	10569.59	17141.01
Below 33 KV	53848.03	9836.15	63684.18

Voltage level	Cost of Lines (Rs. Crore)	Cost of Transformation (Rs. Crore)	Total Cost (Rs. Crore)
Total	**60419.45**	**20405.74**	**80825.19**

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

Table 75 : 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	17141.01	21.21%	5346.51	1133.86
Below 33 KV	63684.18	78.79%		4212.65
	80825.19	**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 76 : Allocation of wheeling cost over distribution system users

	Particulars	Rs in Crore
A	Wheeling Cost at 33 kV	1133.86
B	Sales at 33 kV(MU)	5805.21
C	Total Sales (MU) {excluding sales at 132 kV}	42020.07
D	Proportion of 33 kV sales to total sales (%)	13.82%
	Cost allocation	
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D)**	**156.65**

4.12 Based on this allocation and considering the consumption at 33 kV, the wheeling charges in Rupees per unit are determined as follows :

Table 77 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs./unit)
EHT	-	-	-
33 kV	156.65	5805.21	0.27

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 notified by GOI on dated 28 January, 2016 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+ R]

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying regulatory assets.

Above formula may not work for all distribution licensees, particularly for those having power deficit, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.

Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.

Provided further that the Appropriate Commission, in consultation with the Appropriate Government, shall exempt levy of cross subsidy charge on the Railways, as defined in Indian Railways Act, 1989 being a deemed licensee, on electricity purchased for its own consumption.

8.5.4 The additional surcharge for obligation to supply as per section 42(4) of the Act should become applicable only if it is conclusively demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.

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 Accordingly, the cost of supply to the consumer may be computed on the basis of the weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation.

4.17 The weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation works out as below :

Table 78 : weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

Generating Stations	Requirement (MU)	Total cost (Rs. Crore)	Wt. Average rate of power purchase (Rs./unit)
Dispatched	62,186.26	19,002.66	3.06

4.18 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 79 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	5.25%
33 kV (only 33 kV system)	5.83%

4.19 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 2016-17 are worked out as under:-

Table 80 : Transmission Charges

Particulars	Rs. Crore
PGCIL Charges	1,477.00
MPPTCL Charges	2,252.36
Total Charges	**3,729.36**
Units to be handled by MPPTCL	62,186.26
Transmission Charges(Rs per unit)	0.60

4.20 Finally, the term in the Tariff Policy formula 'T', Average Tariff for each category is derived from their expected revenue for FY 2016-17.

4.21 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.

4.22 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 2016-17 is given in the table below ("category wise average tariff"). However, Cross-Subsidy surcharge shall not exceed 20% of the average tariff applicable to the category of the consumers seeking open access. In case where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.

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

Table 81 : Scenario wise cost (Rs. per unit)

Scenario	Wt. Average rate of power purchase (Rs./unit)	Cost of Power grossed up for distribution losses (5.83%)	Cost of Power grossed up for transmission losses (5.25%)	Transmission charges (Rs. per unit)	Wheeling charges (Rs. per unit)	Total Charges [C/(1-L/100)+D+R]
1	3.06	3.24	3.42	0.60	0.27	4.29
2	3.06		3.23	0.60		3.82
3	3.06		3.23	0.60		3.82
4	3.06	3.24	3.42		0.27	3.69

Table 82 : Category wise average tariff (Rs. per unit)

Category of HT/EHT consumers	Average Tariff 'T'
HV- 1 : Railway Traction	6.76
HV- 2 : Coal Mines	7.57
HV- 3.1 : Industrial	7.20
HV- 3.2 : Non-Industrial	7.86
HV-3.3: Shopping Malls	7.77
HV-3.4: Power Intensive Industries	6.33
HV-4 : Seasonal	7.43
HV- 5.1 : Public Water Works	5.39

Category of HT/EHT consumers	Average Tariff 'T'
HV- 5.2 : Other than Irrigation	4.68
HV- 6 :Bulk Residential Users	5.82
HV-7: Start-up power for generators connected to the grid	6.75

Note: Cross-Subsidy surcharge shall not exceed 20% of the average tariff applicable to the category of the consumers seeking open access

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 83: 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 84: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	%	%	%
Jan., 16	W.R.	3.83%	3.00%	17.64%
	E.R.	2.09%		
Feb., 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%		
April, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
May, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
June, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
July, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
August, 16	W.R.	3.77%	2.88%	17.60%

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	%	%	%
	E.R.	2.09%		
September, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
October, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
November, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
December, 16	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
January, 17	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
February, 17	W.R.	3.77%	2.88%	17.60%
	E.R.	2.09%		
March, 17	W.R.	3.77%	2.88%	17.60%
	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 2016-17 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 Petitioners' respective websites. 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 by January 08, 2016 and the last date of submission was January 29, 2016. 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 2016-17 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 85 : Numbers of objections received

Sr. No.	Name of Discom	Number of suggestions/ objections received on ARR & Tariff Proposal for FY 2016-17
1.	West Discom, Indore	69
2.	Central Discom, Bhopal	32
3.	East Discom, Jabalpur	35
	Total	**136**

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

Table 86 : Public hearings held:

Sr. No.	Name of Distribution Company	Venue of Public Hearing	Date
1	M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur (East Discom)	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	February 12, 2016
2	M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore (West Discom)	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	February 16, 2016
3	M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal (Central Discom)	Auditorium, Academy of Administration, 1100 Quarters, Bhopal	February 19, 2016

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 welcomed to the proposed change in general terms and conditions of tariff that are proposed in favor of consumers and requested the Commission to consider the same.

6.5 Some of the respondents expressed their concern over poor progress of meterisation so far achieved by the Discoms specifically in case of domestic and agricultural connections in rural areas. They opined that one of major cause of high distribution & commercial losses across the Discoms is lack of meterisation of un-metered connections for domestic and agriculture categories. With regard to management of surplus power available in the State, majority of the objectors suggested that the Discoms need to explore alternative mechanisms to deal with the issue of surplus power in a prudent manner. Some objectors requested that the Commission may determine tariff in such a way that surplus power is consumed within the state such as introducing night tariff or by providing higher rebate in off peak hours. Some of the objectors suggested that costly power purchase agreements be abandoned to avoid the burden of fixed cost which leads to tariff hike. They also suggested that the principle of merit order dispatch should be scrupulously followed by the Petitioners.

6.6 As part of the tariff exercise, a meeting of the State Advisory Committee (SAC) was convened on 09.02.2016 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 appropriately considered.

6.7 While a number of suggestions/ objections and comments have been received and given due consideration by the Commission, only salient objections received related to the tariff petition 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 the following paragraphs. Some of the issues raised by the objectors do not relate to tariff and ARR, hence not considered.

6.8 West Discom has forwarded an order passed by Hon'ble High Court of Madhya Pradesh, bench at Indore in the matter of Writ Petition No. 1498/2015 wherein Hon'ble High Court directed MPERC to hear the Petitioner and decide the objection while considering the proposal of West Discom for revision of tariff for the year FY 2016-17. The Commission heard the Petitioner during the public hearing held at Indore on 16 March, 2016 and has thus complied with the directions of Hon'ble High Court in the matter.

ISSUE No. 1: Regarding Time of Day (ToD) incentive/surcharge

Issues raised by objectors

- To increase the TOD off peak rebate from 15% to the range of 20-30% to attract more industries.

- To increase the off-peak load period from 10 PM- 6 AM to 10 PM - 8 AM.

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. Moreover, in the current ARR and Tariff petition for FY 2016-17, the Discoms have done away with peak load surcharge and a rebate of 15% has been proposed to encourage the consumers to draw electricity during off-peak. Hence, allowing more than 15% has no rationale and hence cannot be accepted.

Commission's views

Off-peak period rebate has been increased from 15% to 20% in this order. The Commission has accepted the proposal of the Petitioners with regard to not levying any peak period surcharge, keeping in view surplus power in the state.

ISSUE No. 2: Introducing Night Tariff for Power Intensive Industries

Issue raised by objectors

- To introduce the night tariff for power intensive industries and for those who want to run the unit in night hours only.
- If the night tariff is made applicable from 10 PM to 10 AM (12 hours); the fixed charges may be kept 50% of fixed charges applicable for power intensive consumer category.

Response from Discoms

Discom submitted that the suggestion is not acceptable in view of the fact that in ToD tariff the rebate for consumption during off-peak hours is already in place, however the Commission may take suitable view on the matter.

Commission's views

Commission has considered the matter and is of the opinion that presently there is no need to introduce night tariff.

ISSUE No. 3: Permitting use of 10% of domestic sanctioned load for non-domestic purpose.

Issue raised by objectors

- Objector welcomed the Discoms' proposal regarding the permission to use 10% of connected load /contract demand for temporary usages by LT consumers provided at para 12.1.5 of petition.
- They suggested that 10% of the sanctioned load should be allowed to use for "professional activities" in respect of domestic category also. This provision existed up to Tariff order 2008-09.

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:

In the matter of allowing 10% of the sanctioned load to use for "professional activities", the Commission is of the view that this issue was raised during previous tariff determination exercises as well. The Commission does not find any justification for the provision sought by the objector. However, the petioner's submission for allowing 10% of connected load /contract demand for temporary usages by LT domestic consumers has been considered in this tariff order.

ISSUE NO. 4: 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 also opposed merging of 0-50 and 51-100 unit slabs as 0-100 slab as it will impact more to 0-50 unit slab consumer. They also requested to consider paying capacity of consumer while determining tariff.

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. These changes have been brought out only after due study and well within the purview of Electricity Act, 2003 and also in compliance of the tariff regulations. Licensees also submitted that to make lifeline consumption slab broader from 0-50 units to 0-100 units and also to make the tariff structure simpler, this change in tariff structure is proposed. Discom further submitted that this also prevent the consumers who used to consume more than 50 units in a month from going into higher slab. The tariff has been accordingly designed to reduce the tariff impact on consumers who consume less than 50 units per month.

Commission's views

Keeping in view, the concerns of various stakeholders, the Commission does not think it appropriate to merge 0-50 unit slab with 51-100 units slab at this juncture.

***ISSUE NO. 5:* Abolition of minimum consumption charges**

Issue raised by objectors

It is suggested to abolish the provision of tariff minimum charges, & recovery of fixed charges to be made through demand charges.

Response from Discoms

Discoms have submitted that the fixed charges paid by the Discom to the generators for procurement of power is much higher than the fixed charges recovered by the Discoms from the consumers. Hence in order to avoid any tariff shock via such recovery of fixed charges, tariff minimum is required.

Commission's views

The Commission has retained the existing tariff structure.

ISSUE NO.6: Power factor incentives/penalty for HT & LT consumers

Issue raised by objectors

- For HT consumers it is suggested that incentive be provided for power factor at above 90% while penalty is to be charged at below 80% in place of below 90%. It is further suggested that the power factor incentives to be allowed maximum up to 10% in placeof existing 7%.

- For LT consumer it is suggested that power factor incentives be provided at above 80% in place of above 85%.

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.

Discom also submitted that HT consumers consume a bulk power from the system, thus should draw the power from the system at power factor of 90%, failing to attain so it attracts a penalty based on status of low power factor. The penalty so imposed should not attract any limit because in case it is limited it will badly hamper the interest of Discom, on the plea of same power to be consuming energy consumption may be higher one and discom has to update the system to feed such higher consumption at low power factor. Discom further submitted that views expressed by the objector are not justified.

Commission's views

The Commission has retained the existing provisions.

ISSUE NO. 7: 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 admitted expenses for FY 2016-17 towards yearly cash out go for Pension and Terminal Benefits in the ARR.

ISSUE NO. 8: Regarding modification in Load factor formula and incentive.

Issue raised by objectors:

- The representatives from HT industries suggested for applying the load factor calculation formula as was adopted by the Commission in the tariff order FY 2010-11 to calculate load factor (%). In old formulae applicable in FY 2010-11, the incentive was to improve power factor but in case of existing LF formula the LF reduces as PF improves.

- It is suggested to change load factor incentive criteria above 50% in place of existing 75% as maintaining load factor above 50% is a very tough target for industries.

Response from Discom

- The LF calculation formula as provided in Tariff Order for FY 2010-11 and FY 2011-12 unduly benefits such consumers whose maximum recorded demand is less than the contracted/billing demand. Such consumers get double benefit i.e. by way of PF incentive and by way of reduction in energy charges for the energy corresponding to more than

50% LF. This anomaly was rectified in the tariff order for FY 2013-14. Further, it is expected from the consumers to utilize their equipments at optimum level within grid discipline. Therefore, existing formula for calculating the load factor based on contracted demand and PF is reasonable and logical.

- The effective tariff reduces if the LF increases. Incentive proposed is quite reasonable and fair. Moreover incentive as such is the prerogative of the Licensee to promote its business and create goodwill amongst the consumer and general public and may not be construed as a matter of right.

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. 9: Fuel Cost Adjustment (FCA)

Issue raised by objectors:

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.
Discoms submitted that FCA is in line with the APTEL order in the judgment in OP NO. 1 of 2011 dated 11.11.2011 and MPERC regulation (tariff for supply and wheeling…), 2009. Discoms further submitted that Commission in Tariff Order for FY 2013-14 states " 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 bills issued to the consumer and shall be treated as part of energy charge".

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 it is levied as per the provisions elucidated in the relevant section of this order. The suggestions are therefore not found acceptable.

ISSUE NO. 10: Abolition of slab tariff of load factor below 50% and above 50% in HT category

Issue raised by objectors:

To abolish the slab i.e. below 50% and above 50% and to restore to single slab for HT category.

Response from Discom

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 those having high load factor.Moreover the state is surplus in energy and consumers may avail benefit of lower rates by consuming more.

ISSUE NO. 11: Separate tariff category

Issue raised by objectors:

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

- Separate tariff category for Govt run primary & middle Schools preferably at domestic tariff

- Separate tariff for Captive Power Plant (CPP)

- Separate HT tariff category for agricultural & allied activities similar to LV 5 (Agriculture & allied activities) in place of current HV 5.2 (other than agriculture use)

- Separate tariff for co-generation in HT industries.

Response from Discoms

- Discoms submitted that as the applicability of state run primary & secondary schools of urban & rural areas fall under LV 2.1 (Non domestic tariff) categories, hence it would not be appropriate to create a new category for these schools.

- Discoms submitted that the issue regarding start-up/auxiliary power should be dealt as per the CPP regulation and it should not be part of retail supply tariff order.

- Discoms submitted that creating new category falls under the purview of the Commission.

- Discoms submitted that new tariff category is not required.

Commission's views

The Commission has stipulated the existing tariff structure after considering all aspects including the nature of load and relevant factors. The Commission finds no merit in the submission of the objectors. With regard to creating a separate category for CPP, there is a provision in the Regulations for Captive Power Plants for the tariff at which these plants are to be billed.

ISSUE NO. 12: Separate tariff category for Municipal Solid Waste (MSW)

Issue raised by objectors:

Representative from waste management company has requested to consider a new category for compost plant/ solid waste management plants for municipality/ urban local bodies at agricultural/ concessional tariff for the MSW project.

Response from Discoms

Discoms submitted that in the present ARR and Tariff petition for FY 2016-17 they have tried to minimize the number of categories so that it would be easier to the consumers as well as other stakeholders to understand the tariff structure. Discoms believe that introduction of yet another tariff category regarding MSW projects would make the tariff structure cumbersome and difficult to understand.

Commission's views

This issue shall be delt separately in the process of determination of tariff for procurement of power for MSW based power projects.

ISSUE NO. 13: Hostels to be covered under Domestic category

Issue raised by objectors:

Objector submitted that as rooms in hostels are rented for domestic use to students, hostels should fall under domestic category instead of non-domestic category. It is further requested for providing subsidy on tariff as students are getting incentives and subsidy in every government scheme.

Response from Discoms

Providing hostel to needy students by private parties/individuals is a business activity. Therefore, this activity is covered under non-domestic category. Further subsidy is purview of Government.

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. 14: 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 Discoms

The Discoms have proposed similar energy charges in rural & urban areas. However, differential tariff has been considered in rural and urban areas as far as fixed charges are concern keeping in view the paying capacity of consumers in such areas.

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. 15: Proportionate increase in tariff for Shopping Mall category

Issue raised by objectors

Objector submitted to restructure the shopping mall HT/LT tariff in such a way so as to reduce the gap between the rates at which the shopping mall buy i.e. HT tariff and the rates at which the shopping mall sell power i.e. LT tariff. Objector further suggested to proportionate increase in tariff.

Response from Discoms

Discom submitted that in tariff petition, the HV shopping mall category is proposed to be merged with HV Non-industrial category. Discom further submitted that Commission will take a suitable view on the same.

Commission's views

The Commission has appropriately considered the same in tariff schedule.

ISSUE NO. 16: Introduction of kVAh billing

Issue raised by objectors

One of the objectors suggested introducing kVAh billing for purpose of simplification of billing, dispensing away power factor incentive and for the purpose of system strengthening.

Response from Discoms

Discoms submitted that in the current scenario, the Discoms are technically equipped to make billing on kWh basis. Further, they are scrutinising the implications for the implementation of kVAh billing, practical problems and acceptance of such technology.

Commission's views

The Commission has directed the Petitioners to carry out impact assessment study on transition from KWh billing to KVAh billing.

ISSUE NO. 17: Proposal to limit sanction load/ connected load under LT connections to 75 kW/ 100 HP

Issue raised by objectors:

Discoms proposal to limit the sanctioned load/connected load to 75kW/100 HP for LT connections may not to be considered as it would increase the financial burden on LT industrial consumers towards cost of installation of HT connections.

Response from Discoms

Discoms submitted that they have to bear distribution losses in supplying electricity to large consumers having high load at LT voltage. Therefore, they have proposed to bring down the ceiling of maximum load at LT voltage in order to reduce the losses and improve their operational performance.

Commission's views

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

ISSUE NO. 18: Additional charge for Excess Demand

Issue raised by objectors:

Objectors suggested to consider excess demand up to 140% of contract demand at normal rates and beyond 140% at 110% of normal charges.

Response from Discoms

Discoms submitted that Discoms are operating under the strict regime of availability based tariff and UI charges and it is expected that similar discipline may be observed by the consumers. Observance of such discipline itself would lead to reduction in the effective tariffs and overall costs to the consumers and licensee alike. Further, the discom allows excess demand with regard to the available network and load. Commission in tariff order dated 17th April, 2015 has mentioned, "*The Consumer shall be charged for demand recorded in excess of 105% of contract demand (termed as excess demand)".* Accordingly, the Petitioners have not proposed any changes. Moreover, the Discoms in the current ARR and tariff petition have removed the additional energy charges for excess demand by HT consumers.

Commission's views

The Commission has appropriately considered the suggestions.

ISSUE NO. 19: Energy charge for Excess Demand in LT connections

Issue raised by objectors:

Objectors submitted that as per the terms and conditions for LT tariff, 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 while this condition has been proposed to remove in HT tariff terms and condition (at para 12.1.13 of tariff petition). The objectors requested to remove this condition in respect of LT connections as well. It is further stated that there was no provision till the tariff order 2008-09 for billing of energy charges on corresponding units of excess demand.

Response from Discoms

Discom submitted that Commission may take a view on this matter.

Commission's views

The Commission has noted the submissions of the objectors in this regard and has appropriately dealt with the issue in the section on "Retail Tariff Design" of the tariff order.

ISSUE NO. 20: To allow mini/micro/small hydro plants for drawl of power for synchronization at HV-7 tariff

Issue raised by objectors:

Objectors requested to allow mini/micro/small hydro plants for drawl of power for synchronization at HV-7 tariff as they have to take a separate connection at seasonal tariff to power during non-operational period.

Response from Discoms

Discom submitted that Commission may take a suitable view on this matter.

Commission's views

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

ISSUE NO. 21: Increase in monthly consumption slab in LV-2.2 (Non-domestic) tariff category

Issue raised by objectors:

Objectors suggested to increase the monthly consumption unit from existing 50 units to 100 units under tariff category LV 2.2 due to the fact that in shops and commercial showroom monthly consumption varies throughout the year and in some months the consumption exceeds from the threshold limit of 50 units for which consumer has to pay higher tariff. It is further suggested that tariff for annual consumption be determined in place of monthly consumption rate.

Response from Discoms

Discoms submitted that if the proposal would be accepted and allowing the slab to have monthly consumption up to 100 unit per month, then the tariff of slab having consumption more than 100 unit is to be increased which is not lawful. Discom further submitted that it is suitable to keep the existing slab.

Commission's views

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

ISSUE NO. 22: Concessional tariff for temporary connection for religious function

Issue raised by objectors:

Objectors suggested to consider temporary connections for religious functions at concessional rate.

Response from Discoms

Discoms submitted that Commission may take a suitable view on same.

Commission's views

The Commission has already made provisions for temporary connections for religious functions in the tariff schedules and no change is deemed appropriate to be considered at this juncture.

ISSUE NO. 23: Modification in definition of proposed Billing Demand is opposed

Issue raised by objectors:

- Objectors suggested to disallow the modification proposed by Petitioners in tariff proposal in respect of definition of billing demand. The definition of billing demand as provided in retail supply tariff order for FY 2015-16 may be continued by retaining the sentence "excluding the demand availed through open access".

- Objectors suggested that billing demand should be based on contract demand with Discoms for power drawn from the Discoms and not on the total power drawn from Discoms plus power drawn through open access. For this purpose, a separate category of partial open access consumers to be made.

Response from Discoms

Discoms submitted that as per MPERC Open access regulation the consumer can avail supply through open access within the contract demand. In view of this provision it would be appropriate to levy the fixed charges for consumer to the extent of contract demand. Therefore, in line with the provision of this regulation the licensee has proposed the change in the definition of billing demand as adjusted in the Tariff Order FY 2015-16.

Commission's views

The Commission retained the existing provisions.

ISSUE NO. 24: Demand based tariff for all Non-Domestic Consumers

Issue raised by objectors:

The demand based tariff may be provided to non–domestic category, similar to LT industrial tariff category for contract demand up to 150 HP as this will help the consumers from harassment of cases under section 126/135 of EA 2003. Objector also requested to provide 30% rebate in demand and energy charges to small consumers.

Response from Discoms

Discoms submitted that to make tariff structure simpler and also to bring all consumers up to contract demand of 20 kW under sanctioned load based tariff, this step has been taken.

Commission's views

The Commission has appropriately considered the same in tariff schedule.

ISSUE NO. 25: Modification in definition of Authorized Load in respect of Domestic Tariff category (LV-1)

Issue raised by objectors:

Objectors suggested to modify the existing definition of authorized load by considering every 75 units of consumption per month or part thereof shall be considered equal to 0.5kW of authorized load. Example: if consumption during the month is more than 75 Units and less than 113 units, then the authorized load will be taken 0.5 kW. In case the consumption is more than 112 units then the authorized load will be taken as 1kW" because Discom is considering 76 units as 1 kW instead of considering it as 0.5 kW, and suggested Commission to give direction to Discom to make billing software according to the new condition.

Response from Discoms

In case of domestic consumers, fixed charge is based on the authorized load of the consumers. The reason for consideration of authorized load for billing purpose in case of domestic connection is already provided in the M.P. Electricity Supply Code. The arrangement of authorized load will provide relief to the domestic consumers who find it irksome to have their domestic premises frequently inspected by the licensee's staff to verify the connected load.

Applicability of fixed charge based on authorized load of consumers having consumption of more than 100 units / month has been proposed in the tariff. It is true that for marginal consumption of even 1 unit in excess of 150 units, the fixed charge will increase by Rs. 75/80/85. In any tariff design such impact is attributed to the marginal consumption and is unavoidable. However, 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 charge separately.

Commission's views

The Commission has made no changes in the existing provisions.

ISSUE NO. 26: Category Change to power intensive industry

Issue raised by objectors:

- Representative from Iron & steel re-rollers association of MP requested to consider small rolling mills industry at par with mini steel plants (MSP), MSP with rolling mills/ sponge iron plants and power intensive tariff be provided.

Response from Discoms

- No specific comments are provided by the Petitioners.

Commission's views

The Commission has made no changes in the existing provisions.

ISSUE NO. 27: Pre-paid Tariff

Issue raised by objectors:

Objectors requested for new tariff head for pre-paid consumers under LV 1.2 (Domestic) & 2.1 (Non-Domestic) up to 10 kW load wherein, (a) energy charges are to be as per proposed tariff, and (b) monthly fixed charges shall be based on sanctioned load.

Response from Discoms

Discoms submitted that in ARR petition for FY 2016-17 for encouraging the prepaid consumers they have proposed "a rebate of 5 paise per unit for all energy consumed on monthly basis and such consumer opting for prepaid meter shall not be required to make any security deposit for the energy charge. With respect to objector's contention on the change in the tariff structure regarding prepaid meters, Commission may take a suitable view.

Commission's views

The Commission has made provisions for prepaid meters in LV domestic and nondomestic category as well. Adding a separate category at this moment is not considered appropriate by the Commission.

ISSUE NO. 28: Rationalization of 11kV HT Industrial tariff (HV-3.1)

Issue raised by objectors:

Representatives from industrial associations suggested to rationalize the tariff structure for 11kV consumers under HV 3.1 (both for consumption up to & in excess of Load factor of 50%) to make this tariffs reasonable and at par with average revenue realization of HT industrial consumer category. These initiatives would further encourage LT consumers to switch to 11kV HT connection.

Response from Discoms

Discoms submitted that they have proposed the tariff across different categories in order to align the consumer tariff with average cost of supply as per the directives given in National tariff Policy, 2006.

Commission's views

The Commission has retained the existing tariff structure.

ISSUE NO. 29: Rebate to Telecom infra structure

Issue raised by objectors:

Objector requested Commission to withdraw rebate of 15 paisa per unit to telecom infrastructure as proposed by Discoms, as the telecom companies are charging same rate in urban as well as rural areas. Further, providing rebate to them will increase tariff.

Response from Discom

Discoms appreciated the suggestion and requested Commission to take it in view.

Commission's views

The Commission has appropriately considered the same in tariff schedule.

ISSUE NO. 30: Scope of HV 6.2 Bulk Residential Use tariff category

Issue raised by objectors:

Objector requested Commission to extend the scope of HV 6.2 Bulk Residential Use tariff category to include apartments/ colonies/ townships etc. This tariff category may also be made applicable for supply to individual domestic user and old age houses and rescue houses etc. run by charitable trusts.

Response from Discoms

Discoms appreciated the suggestion and requested Commission to take a view in the matter.

Commission's views

The Commission has retained the existing provisions in HV 6.2 Bulk Residential Use tariff, in line with ministry of power notification No. S.O. 798(E) dated 9th June, 2005.

ISSUE NO. 31: Rebate in Cold storage tariff

Issue raised by objectors

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

Response from Discoms

Discoms replied that cold storages are being operated on commercial basis and are charging the cost of service provided by them to their customers; hence the category need not be changed.

Commission's views

The Commission has made no changes in the existing provisions.

ISSUE NO. 32: Modification in Clause 6c (Additional charges for excess connected load or excess demand) general terms & condition of LT tariff of Retail Supply tariff order FY15-16.

Issue raised by objectors

Most of the objectors have suggested that the condition given on page no. 168-169 of Retail supply tariff order FY15-16 under clause 6(c) should be modified and the text "or under any other law" should be deleted. The aforesaid text creates many problems and the Discom's officers prepare the case under section 126/135 of the Electricity Act 2003 while the provisions of billing of excess load as well as connected load etc are already given in the tariff order. This will help to minimize the corruption and harassment of consumers.

Response from Discoms

No specific reply has been furnished by Petitioner.

Commission's views

The Commission has made no changes in the existing provisions.

ISSUE NO. 33: Power purchase figures are not factual

Issue raised by one of objectors

- The Petitioner has furnished the false and assumptive figures in regard to power purchase cost with intent to seek tariff hike for FY16-17 which is not justifiable. It is therefore requested that figures shown in tariff petition for FY16-17 should not be relied upon & tariff hike proposal of the petitioner should not be considered.
- Account figures should be scrutinized by independent agency.
- Proposal for power purchase claim & details of expenses sought by petitioner be presented in the format & order suggested by him in his submission so as to comprehend by all the consumers.
- In regard to represent power purchase cost & unit generated, the petitioner should be directed to use unified unit such as Rs Crore & Crore units respectively in tariff petition.
- In case of short fall of generation more than 10% of generation capacity, punitive order in terms of financial penalty be issued against the responsible officers. A similar action to be taken if, distribution loss level reported more than 10%.
- An audit to be carried out through independent agency for Generation, Trading and Distribution business operation.
- Tariff hike proposal for public water works in respect of HV-5 & LV-3 category to extent of 19.97% & 19.66% is opposed in view of the fact that proposed tariff hike is unaffordable by Indore Nagar Nigam & also contrary to the GoI's flagship program of Clean India & Smart City.

Response from Discoms

The figures produced by the objector in support of his arguments are not correct. Estimated power purchase cost & expenses presented in the petition are in accordance with the provisions of Tariff regulations & based on actual figures while distribution loss level is considered in accordance with Distribution loss trajectory specified in Regulations.

Commission's views

- Power purchase cost has been appropriately considered as per provisions of tariff regulations and considering the CERC and MPERC orders issued for respective generating stations and power purchase bills of previous years.
- The accounts of the Distribution companies are audited by the CAG. The Commission while truing up the Annual revenue requirement of Distribution companies considers the same. Besides the Commission hires the services of consultant for independent scrutinising & analysis of data of tariff petition submitted by the Distribution licensees.
- The Commission in its tariff regulations has specified the standardized formats for submission of data/information by the petitioner which also include power purchase details & expenses claimed.
- The Commission has specified normative benchmark in its regulations for each Generating stations based on past performance and guided by Regulations of Central Commission. Similarly the distribution loss trajectory for each Discoms is specified by the Commission for control period & accordingly energy requirement of each Discoms is considered.
- As stated above, the accounts of the Distribution, transmission & Generating companies is audited by the CAG and same is considered by the Commission during True up of ARR of the these companies .

While determining the tariff of said consumer category, the Commission is guided by the provisions of tariff policy and accordingly it has made sincere efforts to maintain the cross subsidy level within +/-20% of average cost of supply as far as possible.

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 2016-17 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, Tariff Policy 2016 and relevant Regulations.

Commission's Approach to Tariff Determination

7.2 As per the advice of GoMP vide letter no. 2510/2016/13 dated 1st April, 2016, uniform retail supply tariffs for each consumer category in all the three Discoms shall be continued for FY 2016-17.

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 The Commission directed Discoms to determine the voltage wise cost of supply in compliance to 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. In this regard, Petitioners have submitted that aforesaid judgement of the Hon'ble Appellate Tribunal for Electricity (APTEL) has been challenged in the Hon'ble Supreme Court of India. However, as per directive of the Commission, Petitioners 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 33 kV and 11 kV (inclusive of LT) categories only.

(ii) Sales as admitted by the Commission for above 33 kV and 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 2016-17.

(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, 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 87: 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	6,532	5,805	36,215	48,552
Loss%	%	5.25%	5.83%	16.65%	21.23%
Energy input submitted	MU	6,895	6,514	49,034	62,442
Energy input admitted	MU	6,878	6,483	48,826	62,186
Energy lost (Technical up to 33kV voltage & 11 kV + LT technical and commercial)	MU	345	678	12,611	13,634
Commercial loss assumed as 50% of 11kV and LT overall losses	MU			6,305	6,305
Balance 50% commercial losses for all voltage in proportion to sales	MU	848	754	4,703	6,305
Net Energy loss admitted	MU	1,193	1,432	11,009	13,634
Net energy input 3	MU	7,726	7,237	47,224	62,186
Power Purchase Costs - allocated based on voltage-wise losses	Rs. Crore	2,585	2,381	17,206	22,172
Other costs - allocated based on voltage-wise sales	Rs. Crore	797	657	4,152	5,606
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	95	78	497	670
Less: Saving from Operational Efficiency measures	Rs. Crore	118	53	429	600
Recoveries of Past	Rs. Crore	224	228	1,368	1,820
Total Costs (ARR requirement)	Rs. Crore	3,393	3,134	21,800	28,328
VCoS	**Rs. /unit**	**5.19**	**5.40**	**6.02**	**5.83**

7.9 Consumer category wise approximate cross-subsidy worked out based on voltage wise cost of supply for FY 2016-17 is shown in the table below:

Table 88: Cross-subsidy based on voltage wise cost of supply for FY 2016-17 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	6.02	5.56	92%

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV-2: Non Domestic	6.02	7.84	130%
LV-3.1: Public Water Works	6.02	5.01	83%
LV-3.2: Street light	6.02	5.43	90%
LV-4: Industrial	6.02	7.29	121%
LV-5. Agriculture	6.02	4.74	79%
LV			
HV-1: Railway Traction	5.19	6.76	130%
HV-2: Coal Mines	5.32	7.57	142%
HV-3.1: Industrial	5.33	7.20	135%
HV-3.2: Non-Industrial	5.59	7.86	141%
HV-3.3	5.32	7.77	146%
HV-3.4	5.32	6.33	119%
HV-4	5.49	7.43	135%
HV-5.1: Irrigation, PWW and other than Agriculture	5.34	5.39	101%
HV-6: Bulk Residential Users	5.46	5.82	106%
HV-7: Start-up Power to Generators	5.35	6.75	126%
HV			
Total	**5.83**	**5.83**	**100%**

7.10 While determining the tariffs for FY 2016-17, 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 2016-17 works out to Rs.5.83 per unit as against Rs. 5.29 per unit for FY 2015-16. The table below shows the cost coverage on account of tariff for FY 2016-17 as compared to the cost coverage as determined by the Commission in the tariff order for FY 2015-16:

Table 89: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2015-16 (as per tariff order)	FY 2016-17 (achieved as per this tariff order)
LV categories		
Domestic	97%	95%
Non-domestic	136%	134%
Public water works & Street Light	92%	88%

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2015-16 (as per tariff order)	**FY 2016-17 (achieved as per this tariff order)**
Industrial	125%	125%
Agriculture	81%	81%
HV categories		
Railways	121%	116%
Coal Mines	134%	130%
Industrial	125%	123%
Non-industrial	137%	135%
Irrigation, PWW and Other than agriculture	95%	92%
Bulk residential users	100%	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.

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 2016-17. These changes are mentioned in following paragraphs:

i). **Permission to use 10% of Sanctioned load for temporary usage by domestic consumers (LV-1):** In case of temporary requirement, 10% of sanctioned load to be used for temporary purpose from the existing metered permanent domestic connection on the same tariff applicable for permanent connection.

ii). **Modification in applicability of LV 2.1 Non Domestic category:** The Commission has included “Schools” in the applicability of LV 2.1 Non-domestic category.

iii). **Modification in tariff structure for LV 2.1 and LV 2.2 Non Domestic category:** The Commission has made mandatory demand based tariff for contract demand above 10kW and has removed optional demand based tariff (only for contract demand above 10kW and up to 20 kW) to make the tariff structure simpler.

iv). **Modification in rebate to prepaid consumers for Domestic and Non Domestic categories:** In case of prepaid consumers, a rebate of 5 paise per unit is made applicable on the basic energy charges 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.

v). **Removal of additional charge for energy on account of excess connected load or excess demand in LT and HT tariff categories:** No extra charges are applicable on the energy charges due to the excess connected load or excess demand in case of LT and HT tariff categories. In case of fixed charges for excess connected load/ demand for LT and HT tariff categories above 105% and upto 125% of sanctioned load/contract demand shall be charged at 1.3 times the normal rate of fixed charges. Further fixed charges for excess connected load/ demand exceeds the 125% of sanctioned load/contract demand shall be charged at 2 times the normal rate of fixed charges.

vi). For **advance payment** made before commencement of consumption period for which bill is prepared, a rebate of 5 paise per unit 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.

vii). **Rebate on energy charges for incremental load factor for HV 3.1 tariff category consumers:**

Rebate for existing HT connections: A rebate of 10% in energy charges is applicable for HV 3.1 tariff category for incremental monthly consumption w.r.t consumption of previous years same month.

Rebate for new HT connections: A rebate of Rs 1 per unit or 20% whichever is less is applicable in energy charges for new HV 3.1 tariff category connection for the consumption recorded. Provided these connections are given to green field projects and no rebate is applicable for new connections obtain by virtue of change in ownership in existing connection.

viii). **Change in TOD Surcharge and Rebate:** The Commission has taken cognizance of the surplus power situation in the State and has withdrawn the evening peak load surcharge. The off peak load rebate has been increased to 20% from 15%.

A8: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2015-16

The response submitted by Discoms on the directives issued by the Commission in the Retail Supply tariff order for FY 2015-16 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. The Discoms have been directed to prepare and implement appropriate loss reduction strategies and schemes with a focus on prevention of theft of electricity.

Discoms' response:

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

a) System strengthening works / Augmentation of distribution capacity:

Distribution losses are going down consistently year on year, but the company is yet to achieve the normative loss level as specified by the Commission. The company is implementing various measures to achieve the targets. It is envisaged to minimize the technical losses by efficiently strengthening the system / augmenting the system capacity. Following addition in distribution system has been made till Oct'.2015

Sr. no.	Particulars	Unit	As on Mar'14	Added during FY 2014-15	As on Mar'15	Added during FY 2015-16 (Upto Oct-15) (Over all)
1	33/11KV S/s	No.	947	17	964	10
2	Power Transformer	No.	1597	97	1694	33
3	PTR Capacity	MVA	6776.65	716.35	7493	346.5
4	33KV Line	Km	16045	770	16815	404
5	11KV Line	Km	105542	7788	113330	3814
6	LT Line	Km	113005	2549	115554	1020
7	DTR	No	132001	11279	143280	4171
8	DTR Capacity	MVA	7045.55	457.05	7502.60	157.49

System strengthening in its area has been covered against ADB loan No. 3066. The provision and progress is as under:

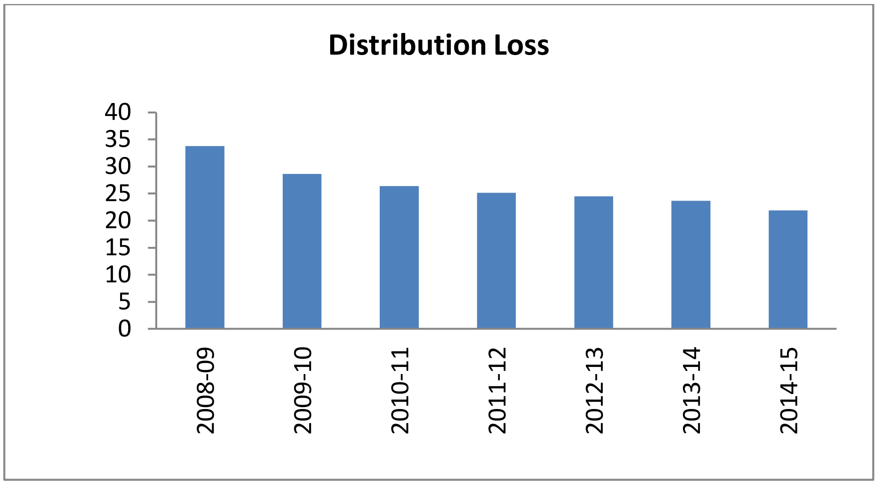
Particulars	**Unit**	**Provision**	**Achievement during FY 14-15**	**Achievement during FY 15-16 up to Nov'15**	**Total achievement up to Nov'15**
33kV Line	Ckt Km	1366	128.28	328.26	456.54
New 33/11kV Sub-Station.	No.	30	-	5	5
11kV Line	Ckt Km	193	1.3	46.24	47.54

It is expected that the whole work of ADB scheme will be completed in FY 2015-16

b) Implementation of Non-RAPDRP Schemes:

In order to bring down the Distribution losses various works under Non-RAPDRP scheme 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-10 to 14.70% in the month of Mar-15. In Phase-II of the scheme 27 towns were selected. Average loss level of these towns has reduced from 53.26% to 16.27% in the month of Mar-15. In Phase-III of the scheme 35 towns were 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 18.65% as on Mar-15. Further, in Phase IV of the scheme 35 towns have been selected with the estimated cost of Rs 49.58 Crore. The average loss levels of these towns have reduced from 50% to 21.47% as on Mar-15. Besides this, similar work in 98 Gram Panchayats (Rural DC Head Quarters) was also carried out with an estimated cost of Rs.27.57 Crore.

West Discom's: Discom submitted that they are sincerely striving for reducing the line losses and bringing it within the line loss trajectory as notified by GoMP/ Commission. Discom submitted that it is only due to the sincere efforts made by it the line losses are showing the declining trend over the years. Further, Discom submitted that the reduction in loss levels achieved by it over the past years is as follows:



Discom submitted that due to increase in supply hours and adverse ground realities, it is facing difficulties in achieving 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 2015 to October 2015 are given as below:-

Connections checked	No of cases of irregularities/theft detected during the year			Total amount billed(Rs in lacs)			Total amount realized(Rs in lacs)		
	Direct Theft	Malpractice	Total	Direct Theft	Malpractice	Total	Direct Theft	Malpractice	Total
72893	13589	5796	19385	3482.44	1952.33	5434.77	3038.62	3755.11	6793.73

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.

Feeder separation works are completed in the following districts namely,

- Indore
- Burhanpur
- Alirajpur
- Ratlam
- Neemuch
- Mandsaur and
- Ujjain

- Jhabua

Works in Shajapur, Dewas, Dhar, Barwani, Khandwa and Khargone districts are under execution. The likely date for completion of remaining work is January 2016. Discom has also launched various schemes for system strengthening under GoMP, TSP, SCSP, Feeder bifurcation, new irrigation pumps, ADB third, RGGVY(11th and 12th Plan), IPDS and DDUGJY.

Sr. no	Particulars	FY 2014-15		
		At the Start of year	Additions during the year	At the end of year
1	Length of lines (ckt-km)			
	- 33kV	13,942	454	14,396
	- 11kV	95,603	5242	100,845
	- LT	147,621	2551	150,172
	Total	257,166	8,247	265,413
2	Number of 33/11kV substations	1,140	20	1,160
3	No. of Power Transformers	2,027	64	2,091
	Total MVA capacity of power transformers	8,703	663	9,366
4	Number of Distribution Transformers	146,768	16707	163,475
	Total MVA capacity of Distribution Transformer	**10,984**	**691**	**11,675**

Central Discom: Discom submitted the details of achievement in loss level as compared to the previous financial year 2014-15 for the period from April to July are as under:-

Month	2014-15	2015-16
	Loss %	Loss %
April	29.00	26.76
May	29.77	29.06
June	25.03	20.19
July	23.59	21.88

Moreover, vigilance unit of Discom is conducting regular raids to check the theft/pilferage of energy. The progress from Apr.15 to Oct.15 is as under:-

Progress of Vigilance checking during 01-04-15 to 31-10-15												
No. of Connection Checked	No. of Irregularities detected			Amount billed (Rs.in Lacs)			Amount realised (Rs.in Lacs)					
	Theft	Mal Practice	Total	Theft	Mal Practice	Total	Theft		Mal Practice		Total	
							No.	Amt.	No.	Amt.	No.	Amt.
1	2	3	4	5	6	7	8	9	10	11	12	13
88108	19305	11067	30372	3925.80	2350.73	6276.53	8074	1300.26	6574	1145.46	14648	2445.72

Commission's observations/ directions:
The Commission has noted the submission of Discoms. The Commission directs that a time bound programme be drawn up by the petitioner for segregation of technical and commercial losses through energy audit and further strategise efforts for curbing of distribution losses effectively. The petitioner is directed to furnish their phase wise segregation plan along with methodology within 3 months.

8.2 Meterization of unmetered connections

Commission's Directives:

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.

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 unmetered domestic connections of urban area. As far as rural area is concerned, during FY 2013-14 total 3,49,845 and during FY 2014-15 total 1,68,828 meters have been provided on rural unmetered domestic connections. Thus, unmetered DLF connections of rural area have reduced from 9,41,085 as on March, 2013 to 3,55,209 as on Mar-15. Further during FY 2015-16 up to Sept, 2015 total 20106 meters have been provided on unmetered DLF connections, thus at the end of Sept, 2015 total 3,35,103 unmetered DLF connections are remaining. Discom planned to provide meters on unmetered connections up to Sept., 2016.

c) Meterisation of Agricultural DTRs:- The Company as on Sept., 2015 is having 66219 agricultural predominant DTRs out of which 5156 DTRs have been provided with DTR meters. Further meterisation of 20,000 DTRs is being taken up in FY 2015-16. The meterisation of agricultural DTRs is not covered under any scheme. If additional fund is provided to the company under supplementary DDUGJY Scheme, then the same shall be taken up accordingly.

West Discom: Discom submitted that it is expediting feeder meterisation and DTR meterisation. The progress is submitted as shown in the table below:.

Feeder Existing 33 KV (From	Percentage of total	Feeder Existing 11 KV	Percentage of total

EHV)*					
Total	**Metered**	**%**	**Total**	**Metered**	**%**
719	719	100	5292	5040	95.24

Out of total 168,995 distribution transformers 43,119 has been metered till Sep., 2015. Discom submitted that it has made a meterisation plan of agriculturally predominant DTRs which has shear dependency on availability of funds. The company is trying to arrange funds for the meterization work on priority basis. The Company is preparing Detailed Project Report for obtaining financial assistance from other financial Institutions.

The company has prepared circle wise month wise target and is planning to achieve 100% meterisation by the end of Dec, 2015. The Company is facing challenges in meterisation especially in Jhabua circle. The MP report on Human Development Index reports that Jhabua district has one of the lowest HDI. The rural poverty level of Jhabua is very high and population mix of Jhabua has large no. of Scheduled Tribes and daily laborers, which are living in small Majra-Tolas. These Majra-Tolas frequently changes their location. For the said reasons Jhabua has the least meterisation in respect of domestic connections. However, the Company has made concrete plan for the circle and has set the target to achieve 100% meterisation till June 2016 by way of procuring meter at the earliest.

Meterization of domestic connections in rural area is being carried at faster pace and only 2.85% consumers are left Un-Metered till September 2015.

Central Discom: The status of meterisation is as under:-

S.No.	**Category**	**Total No.as on Oct.15**	**No. of unmetered connections as on Oct.15**
1	Domestic rural consumers	11,87,790	1,40,445
2	Feeder meter 33/11 KV (point)	5892	439
3	DTR meter (Agricultural predominant)	1,13,980	81,536

The detailed plan for meterisation is given below:-

Region-wise feeder meterisation

Region	**Unmetered Feeder (Points) as on 30.06.15**	**Plan for Meterization**								
		Aug-15	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**	**Jan-16**	**Feb-16**	**Mar-16**	**Total**
Bhopal	33 KV - 69	9	9	9	9	9	8	8	8	69
	11 KV – 157	20	20	20	20	20	19	19	19	157
Gwalior	33 KV - 53	7	7	7	7	7	7	7	6	55

Region	**Unmetered Feeder (Points) as on 30.06.15**	**Plan for Meterization**								
		Aug-15	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**	**Jan-16**	**Feb-16**	**Mar-16**	**Total**
	11 KV – 189	25	25	25	24	24	24	24	24	195
MPMKVVCL	**33 KV - 122**	**16**	**16**	**16**	**16**	**16**	**14**	**14**	**14**	**122**
	11 KV - 346	**45**	**45**	**45**	**44**	**44**	**43**	**43**	**37**	**346**

Region-wise unmetered rural DLF meterisation

Region	**Balance Unmetered DLF conn. as on 30.06.15**	**Plan for Meterization**								
		Aug-15	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**	**Jan-16**	**Feb-16**	**Mar-16**	**Total**
Bhopal	116241	14500	14500	14500	14500	14500	14500	14500	14741	116241
Gwalior	41947	5200	5200	5200	5200	5200	5200	5200	5547	41947
MPMKVVCL	**158188**	**19700**	**19700**	**19700**	**19700**	**19700**	**19700**	**19700**	**20288**	**158188**

Region-wise Agri Predominant DTR Meterisation

Region	**Balance Unmetered as on 30.06.15**	**Plan for Meterization**												
		Aug-15	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**	**Jan-16**	**Feb-16**	**Mar-16**	**Apr-16**	**May-16**	**Jun-16**	**Jul-16**	**Aug-16**
Bhopal	35660	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780	1780
Gwalior	45571	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280
MPMKVVCL	**81231**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**

Region	**Balance Unmetered as on 30.06.15**	**Plan for Meterization**							
		Sep-16	**Oct-16**	**Nov-16**	**Dec-16**	**Jan-17**	**Feb-17**	**Mar-17**	**Total**
Bhopal	35660	1780	1780	1780	1780	1780	1780	1840	**35660**
Gwalior	45571	2280	2280	2280	2280	2280	2280	2251	**45571**
MPMKVVCL	**81231**	**4060**	**4060**	**4060**	**4060**	**4060**	**4060**	**4091**	**81231**

Commission's observations/ directions:

The Discoms has submitted following timeline to achieve 100% meterisation targets

Particulars	Timeline to achieve target of 100% meterisation reported by Discoms		
	East Discom	**West Discom**	**Central Doscom**
100% feeder meterisation of 11 KV	Already achived the target	Already achived the target	By March' 2016
100% feeder meterisation of 33 kV	Already achived the target	No definite time line is provided	By March' 2016
100% meterisation of Rural unmetered domestic connections	By Sept'16	By June'16	By March' 2016
100% meterisation of pre-dominant Agricultural DTRs	No definite time line is provided	No definite time line is provided	By March'17

The Commission has noted that all the Discoms have submitted their definite timeframe to achieve 100% meterisation target in respect of feeder metersiation & rural unmetered domestic connections. The Commision expects that Discoms shall adhere to the timelines without any further slippage.

The Commission however regrets to note that East and West Discoms have not furnished any definite time frame due to paucity of finances in respect of 100% meterisation of pre-dominant Agricultural DTRs although the Commission has been repeatedly directing the Discoms to step up meterisation of agriculture pre-dominant distribution transformers.The agricultural supply in various areas remained un-metered and as such it became difficult to compute accurately the loss reduction level in the utility. The provisions in section 55 of the Act mandating metered supply within a stipulated timeframe and hence can not be put on hold for indefinite time period. The Commission direct East & West Discom to complete the 100% meterisation target of pre-dominant Agricultural DTRs by March 2017 without any slippage .

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 (Crore)**	**T&D losses (%)**
2012-13	857.63	26.02
2013-14	1016.47	23.68
2014-15	806.58	21.69

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. Loss Reduction schemes have helped in considerably reducing the loss levels. The petitioner has considerably saved in power purchase cost due to lower distribution loss levels as discussed in perivious directive of Distribution losses.

The below table depicts the progress made by petitioner in implementing capex plan. The year wise total progress (Financial) made by the Discom is submitted as shown in the table below:

MPPKVVCL, Indore							
Year wise Impact assessment of Capital Expenditure Plan Fy-2011-12 to 2015-16(Financial Progress)							
S No	**Scheme**	**Year wise Achievement up to Aug' 2015**					
		2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**Total**
1	System Strengthening Scheme					Upto Aug 15	
i	GoMP (N)	23.35	82.12	279.05	152.07	63.56	600.15
ii	Schedule Cast Sub Plan (SCSP)	28.85	35.79	37.52	36.33	12.50	150.99
iii	Tribal Sub Plan (TSP)	17.96	25.49	47.83	53.90	16.37	161.55
2	Feeder Separation	309.87	693.48	138.56	73.47	18.42	1233.80
6	New Pump Connections	39.26	127.11	71.34	109.98	55.51	403.20
7	ADB	139.59	122.69	35.73	49.07	5.73	352.81
8	RGGVY	93.08	80.73	74.66	100.84	66.57	415.88
9	RAPDRP Part-A & Part-B	70.40	138.30	97.30	106.87	24.40	437.27
10	Simhanstha 2016	3.09	2.00	2.78	4.37	6.76	19.00
	Total (Crore)	**725.45**	**1307.71**	**784.77**	**686.90**	**269.81**	**3774.65**

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

Commission's observations/ directions:
The Commission observed that benefits accrued are not in proportion to capex done by the Licensees. The Commision directs the Discoms to furnish scheme wise status on physical & financial benefits accrued from capex implementation against the target envisaged henceforth.

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

Central Discom: Discom submitted the progress for the year 2014-15 and 2015-16 (upto Oct.15) and targets for the year 2016-17 is as under:-

Year Wise Status of Physical and Financial Progress of Discom

Particulars	**Contract Price**				**11 KV line**				**11kv bay with VCB**			
	FSP	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**	**FSP**	**RGGVY**	**ADB**	**Total**
	Rs. In Crore				**Km**				**No**			
FY-14-15	143	34	44	221	1685	944	171	2800	54	0	0	54
FY-15-16 (as on Oct-15)	85	42	12	140	947	713	0	1660	42	0	0	42

Particulars	DTR's				Cabling				Connection served			
	FSP	RGGVY	ADB	Total	FSP	RGGVY	ADB	Total	FSP	RGGVY	ADB	Total
	No				Km				No			No
Fy-14-15	2940	657	2951	6548	1164	313	250	1727	50781	37973	5824	94578
Fy-15-16 (as on Oct-15)	2133	1412	472	4017	1199	297	0	1496	56361	13100	2660	72121

Target for the year 2016-17

S.N	Particulars	Unit	Target for 2016-17
1	Financial in Crore	Rs.in Crore	280.00
2	11 kv Feeder	No	468
3	11 kv Add.Bay	No	150
4	11 kv Line	Km	3000
5	New DTR	No	6000
6	LT Cabling	Km	3500
7	Connection Served	No	100000
a	NSC	No	50000
b	Renovation of service connection	No	50000

Commission's observations/ directions:

The Commission observed that the West Discom has made significient progress while East & Central Discom are lagging behind. The Commission directs East & Central Discoms to complete the remaining works under these schemes expeditiously.

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

Commission's Directives:

The Commission directed that the practice of providing tariff cards should be continued for Tariff Order of FY 2015-16.

Discoms' response:

East Discom: Discom had arranged to print tariff cards for tariff order FY 2015-16 for different categories of the consumers and the same were provided to the consumers.

West Discom: Information related to tariff for FY 2015-16 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 has noted the submissions of Discoms and directs that the practice of providing tariff cards should be continued.

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. In addition the Discoms are directed to submit replies to objectors in the language English/ Hindi in which objections are filed.

Discoms' response:

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

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

Central Discom: Hindi version of the ARR/Tariff proposals petition is being submitted subsequent to filing of petition in English. The Discom will also make sure to submit replies to the objectors in the language English/Hindi in which objections are filed.

Commission's observations/ directions: Subsequent to the filing of the ARR/Tariff Petition in English, Discoms have submitted its Hindi version which was made available 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 extracted from two different billing systems i.e. RMS and CC&B softwares as billing of most of the R-APDRP towns has been switched over to CC&B from RMS. The RMS billing system is de-centralized and therefore data has to be collected from 28 servers at 28 locations and compiled to make it presentable to the Commission. Both the software cells have been requested to provide the desired information, which require huge time to retrieve the information in RMS and consolidate it. Therefore, the requisite information in respect of LT consumers shall be submitted separately in due course.

West Discom: Discom submitted that it has complied with the Commission’s directives in respect of HT consumers. This year the Discom is trying to include LT consumers too in this ambit through rolling out CCNB software at strategic locations.

Central Discom: Discom submitted that it will comply with the directives of the Commission.

Commission’s observations/ directions: Discoms are directed to submit details of rebates/incentives/ surcharge for HT and LT consumers in their next ARR/ tariff proposal.

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 that it is preparing its accounts as per Schedule III of the Companies Act 2013 and as per the Accounting Standards notified by the Companies (Accounting Standard) Rules 2006. Further it is submitted that from FY 2014-15 onwards, as per provision of Companies Act 2013, consolidated accounts is required to prepared by every holding company. For this purpose MP Power Management Company after due discussion with all Discoms prescribed the accounting policies, which are to be followed by all three companies. Discom submitted that it has prepared its accounts as per the common accounting policy prescribed by the MPPMCL.

Central Discom: Central Discom submitted that it has prepared its accounts as per the common accounting policy prescribed by the MPPMCL.

Commission’s observations/ directions: The Commission has noted the submission of Discoms.

8.9 Mandatory demand based tariff for all Non-domestic LV consumers having load in excess of 25 HP

Commission's Directives:

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

Discoms' response:

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

West Discom: It is submitted that directives issued are 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 has noted the submission of Discoms.

8.10 Assessment of consumption for billing to consumers:

Commission's Directives:
The Commission directed 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 field offices have been directed to ensure assessment for billing only as per the provisions given in Supply Code, and the tariff order.

West Discom: Discom submitted that they are strictly adhering to the directive, and unless the meter is found defective/ dysfunctional/ tampered or an evidence of theft of energy in the premises is established, no consumer is billed on assessment basis.

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.

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

Commission's directions:
The Commission directed the Petitioners to carry out detailed technical studies of the Distribution network required for computing voltage-wise losses cost of supply.

Discoms' response:

East Discom: Discom submitted that the energy audit section of company is working out 33kV system losses and 11kV & LT system losses. No specific study has been performed yet but the company is exploring possibilities for computing the voltage wise losses.

West Discom: Discom submitted that they are pursuing technical studies in this regard.

Central Discom: Discom submitted that initiatives are being taken to carry out technical studies of distribution network required for computing voltage wise losses.

Commission's observations/ directions:
The Commission is not convinced with the submissions of Discoms and directs them to carry out a detailed technical study on voltage-wise losses on Distribution network and furnish report within three months.

Fresh directives:

8.12 Impact assessment study for switching from KWh billing to KVAh billing.

Commission's directions:
The Commission directs the Petitioners to carry out impact assessment study on transition from KWh billing to KVAh billing and submit report within six months.

8.13 Impact assessment of billing of tariff minimum consumption.

Commission's directions:
The Commission directs the Petitioners to carry out impact assessment of billing of tariff minimum consumption for each category of previous two years and submit report within six months.

8.14 Segregation of Technical and Commercial losses:

Commission's directions:
The Commission directs the Petitioners to carry out detailed study of the Distribution system and submit a report on segregated technical and commercial loss level of Discoms within six months.

8.15 Trading Margin petition:

Commission's directions:
The Commission has directed MPPMCL to file the petition for determination of Trading Margin with appropriate Commission.

8.16 Approval for Capital expenditure Plan:

Commission's directions:
The Commission has directed the Discoms to obtain appropriate approval for their capital expenditure plan as per Regulation 10.3 of MPERC (The Conditions of Distribution License for Distribution Licensee (including Deemed Licensee)), 2004.

8.17 Operational efficiency measures considered to bridge the gap:

Commission's directions:
The Commission noted that the Petitioners have proposed to bridge the revenue gap through various operational efficiency measures therefore the Commission directs the Petitioners to work-out a concrete plan and methodology with quantitative analysis and submit the same to the Commission within three months.

8.18 Separate record of increase in consumer-wise sales:

Commission's directions:
The Commission has considered the request of the Petitioners with regard to provide certain incentives/rebates in order to maximize the sales in view of surplus availibilty of power in the State. The Commission therefore directs the Petitioners to keep a separate record of increase in consumer-wise sales and submit the same to the Commission with in six months.

Annexure-1 (List of Objectors)

List of objectors of East Discom - FY 2016-17

Sl. No.	Name & Designation	Address of the objector
1	1. Shri Alok Aggarwal, 2. Shri Akshay Hunka, 3. Shri Devendra Mishra. 4. Shri Pradip Napit, 5. Shri Ranji Morya, 6. Shri Pratish, 7. Shri Vinayak & Others	Aam Aadmi Party, Madhya Pradesh, Bhopal
2	Shri D R Jeswani	M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur 482010
3	Shri Akhil Mishra & Shri Navneet Jain	M/s. Lordganj Vyapari Sangh, 26, S.P. Market, Lordganj, Jabalpur
4	Shri Shankar Nagdeo, Vice President	M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur 482 002
5	Shri Sourabh Jain, Sansthapak Sadasya	M/s. Hindu Seva Parishad, 2022 Gupteshwar Road, Ratan Nagar, Jabalpur 482002
6	Shri Vinay Kumar Singh Parihar, General Secretary	Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008
7	Shri K.K. Aggarwal, Divisional President	Bharat Krishak Samaj, Shri Shantilal Shah Kisan Karyalaya, Gangotri Apartment, Gol Bazar, Jabalpur
8	Shri Rajnarayan Bhardwaj	Bharat Krishak Samaj, Jabalpur, Plot No. 453, Sanjivni Nagar, Gada, Patel Aata Chakki Ke Samne, Jabalpur
9	Shri Ravidatt Singh, Pradesh Mahamantri & Shri Omnarayan Singh	Sirmour Road, Near Khutehi Block Office, Panchvati Petrol Pump, Sirmour Road, Rewa

Sl. No.	Name & Designation	Address of the objector
10	Shri Manish Singh	M/s. Prism Cement Ltd. Vill. Mankahari, P.O. Bhathi, Distt. Satna 485111
11		M/s. Dhanlaxmi Solvex Pvt. Ltd., Kareli, 201, Bansi Plaza, 581, M.G. Road, Indore 452 001
12	Shri Ambarish Srivastava	M/s. Mahan Aluminum, Hindalco Industries Ltd., NH-75-E, Singrauli, Sidhi Road, P.O. Bargawan, Singrauli 486 886
13	Shri Rohit Kumar	M/s. Mittal Processors, Antriksh Bhawan, 22, KG Marg, New Delhi
14		M/s. Ramnik Power & Alloys (P) Ltd. C/o. M/s. A.P.Trivedi Sons, Main Road, Balaghat
15	Shri Laxmi Narayan Aggarwal	Dali Baba Road, Near Yes Bank, Satna
16	Shri Ashok Jain, Former Addl. Chief Engineer, MPSEB	Vijay Nagar, Jabalpur
17	Shri Arun Kumar Srivastava	H No. 756, Agrawal Colony, Garha Road, Jabalpur
18	Shri Birendra Kishore Verma	H. No. 9, Brij Mohan Nagar, Opp Supatal Talab, Nagpur Road, Jabalpur
19	Shri Shitendra Shrivastava,	H No. 10, Shubh Parihar, Sharda Chowk, Jabalpur
20	Shri Vikash Razak	H. No. 600, Vehicle Madai, Sector 1, VFJ state, Jabalpur
21	Shri Rajendra Aggarwal	1995/A, Gyan Vihar Colony, Narmada Road, Jabalpur 408068
22	Shri C.L. Swarnakar, C.E. (Retd.)	M.P. State Electricity Board, Near Rachana Medical Stores, Nehanagar, Makroniya, Sagar
23	Shri Deepak Mahadev Patel	
24		Sales.Mothersons@rediffmail.com
25	Shri Devdas Khandelwal, Advocate	950, Napier Town, Jabalpur

Sl. No.	Name & Designation	Address of the objector
26	Shri Rakesh Soni, Advocate	204, Vidi Bhawan District Highcourt, Jabalpur
27	Shri Shiv Kumar Shrivastava	Mohalla Camp Station Road, Post Umaria - 484661
28	Shri Gopal krishnan S	Dosti Vihar, Thane West, Mumbai, gopalakrishnan.power@gmail.com
29	Shri Ramesh Patel, Chairman	Bhartiya Kisan Union, Jabalpur
30	Shri Prakash Pandey	Jagruk Nagrik Manch. Sihora
31	Shri Jasveen Gujral, Corporator (Parshad)	Rani Laxmibail Ward No. 66, Member-Appeal Committee, Nagar Palik Nigam, Jabalpur
32	Shri Narayan Choudhary	Nunsar, Patan, Jabalpur
33	Shri Ravi Gupta	M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur 482 002
34	Shri Thakur Virendra Singh	635, New Ramnagar Hanuman Chowk, Amkhera Thana, Adhartal, Jabalpur
35	Smt. Sushila Vishnu Chaurasia	Nagar Palika Parisad, Sihora

List of objectors of West Discom - FY 2016-17

Sl. No.	Name & Designation	Address of the objector
1	Shri Manish Singh, Commissioner	Indore Municipal Corporation, Indore
2	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.)
3	Shri Mahesh Mittal, Chairman	M/s. All India Manufacturers Organisation, Industrial Estate, Pologround, Indore 452 015
4	Shri M.C. Rawat, Secretary	The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
5	Dr. Gautam Kothari	M/s. Electricity Consumer Society, C/o. All India Manufacturers Organisation, Industrial Estate,

Sl. No.	Name & Designation	Address of the objector
		Pologround, Indore 452 015
6	Dr. Gautam Kothari	M/s. Pithampur Audyogik Sangthan, 231, Saket Nagar, Indore 452018
7	Shri Satish Verma	M/s. All India Consumer Protection Organisation, 5, Dat Gali Rasmadal, Dhar 454001
8	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
9	Shri Om Dhoot	M/s. Association of Industries Madhya Pradesh, Udyog Bhawan, Pologround, Industrial Estate, Indore
10	Shri Kailash Chandra Khandelwal	M/s. M.P. Cotton Processors and Traders Association, C/o. Vikash Cott Fiber Pvt. Ltd. Verla Road, Sendhwa, Distt. Barwani 451666
11	Shri Kailash Chand Khandelwal	M/s. Sendhwa Cotton Association, C/o Vikas Cot Fiber Pvt. Ltd., Verla Road Sendhwa, Distt. Barwani 451666
12	Shri Manjeet Singh Chawla	M/s. Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
13	Shri Sushil Sharma	Vidyut Mandal Karmchari Union, 197, K Sector A, Scheme No. 71, Gumasta Nagar Main Road, Indore
14	Shri Anil Goyal	M/s. Agrawal Parishad, 18, Vaibhav Chamber, 1st Floor, 7/1, Ushaganj, Indore 452 001
15	Shri Harishankar Suryavanshi	M/s. Indore Electric Contractor Association, 236, Sector B, Slice 2, Scheme No. 78, Near Ujala Electric, Indore
16	Shri Hansumukh Jain Gandhi, President	M/s. M.P. Cold Storage Association, 211, Devdhar Complex, Chawani, Indore-452001.
17	Mohd. M. Aslam	City District Congress Committee, Dewas, 88, Rani Bag, Ujjain Road, Dewas 455001
18	Shri Alok Aggarwal	Aam Aadmi Party, Madhya Pradesh, Bhopal
19	Shri S.M. Jain, Director	M/s. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
20	Shri Pawan Singhania, Director	M/s. Rathi Iron & Steel Industries Ltd. 103, Laxmi Tower, 576, M.G. Road, Indore
21	Shri Vimal Todi	M/s. Bharti Ignot Pvt. Ltd., 103, Laxmi Tower, 1st Floor, 576, M.G. Road, Indore
22	Shri Sandeep Jain, Director	M/s. Jaideep Ispat & Alloys Pvt. Ltd. M/s. Jaideep Ispat & Alloys Pvt. Ltd. Unit-II, M/s. Jaideep Ispat & Alloys Pvt. Ltd. (CCD) 103, Laxmi Tower, 576, M.G. Road, Indore 452001

Sl. No.	Name & Designation	Address of the objector
23	Shri Pankaj Bansal	M/s. Shivangi Rolling Mills Pvt. Ltd. 305-306 3rd Floor, Airen Heights, Bnear Pakiza, A.B. Road, Indore
24	Shri R.D. Kirtani MD	M/s. Gajra Differential Gears Limited, Lohar Pipaliya, Kshipra, Dewas
25		M/s. Kasyap Sweetners Limited, Chetanya Gram, Badnawar, Dist. Dhar (MP) – 454 660.
26		M/s. Venkatesh Industries, Niwali Road, Sendhwa, Distt. Barwani
27		M/s. Diveel Cotton Industires, Khetia, Khetia, Pansemal Road, Distt. Barwani
28	Shri Kishore Tayal	M/s. Navin Ginning Factory, Verla Road, Sendhwa, Distt. Barwani
29		M/s. Harman Cotex, Village Sanghvi, Bistan Road, Khargone
30		M/s. Mahesh Ginning Pvt. Ltd., Pratap Ganj Behind Mangal Bhawan, A.B. Road, Sendhwa, Distt. Barwani
31		M/s. Vikash Cott Fiber Pvt. Ltd. Verla Road, Sendhwa, Distt. Barwani 451666
32	Shri Gopal,	M/s. Tirupati Fibers, Village Khedi Bujurg, Julwania Road, Khargone
33		M/s. Sancheti Cotex, Khetia, Distt. Barwani
34	Shri Prakash Patidar	M/s. Jai Kisan Udhyog, Village Bhilgaon, Tahsil. Kasarawad, Distt. Khargone
35	Shri Pankaj M. Kataria,	M/s. Kataria Wires Pvt. Ltd. 304, Jhabua Tower Block No. W-43rd Floor, R.N. Tagore Marg, Indore
36		M/s. Dhanlaxmi Solvex Pvt. Ltd. Shajapur, 201, Bansi Plaza, 581, M.G. Road, Indore 452 001
37		M/s. Dhanlaxmi Solvex Pvt. Ltd. Dewas, 201, Bansi Plaza, 581, M.G. Road, Indore 452 001
38	Shri Satish Sood	M/s. Oasis Distillries Limited, H No. 102, B-2 Metro Towers, Vijay Nagar, Indore
39	Shri Hemant Kataria	M/s. D.P. Wires Pvt. Ltd., 23-26, Kataria Complex, MR11, Dewas Naka, Indore 452 001
40	Shri Arvind Kataria	M/s. Kataria Plastic Pvt. Ltd., 23-26, Kataria Complex, MR11, Dewas Naka, Indore 452 001

Sl. No.	Name & Designation	Address of the objector
41		M/s. Pooja Soya Industries Pvt. Ltd., 201, Bansi Plaza, 581, M.G. Road, Indore 452 001
42		M/s. Mittal Corp Ltd. Corp Office Street No. 1, Plot No. 16/1, New Palasia, Indore 452 001, Plot No. 159, Sector-III, Industrial Area, Pithampur
43		M/s. Mittal Corp Ltd. (UnitNo.2) Head Office Abhay Prashal, Race Course Road, Indore 452003 Plot No. 164-C, Sector-III, Industrial Area, Pithampur
44		M/s. MCL Global Steel Pvt. Ltd., 22/2, Yeshwant Niwas Road, Near Rani Sati Gate, Indore Plot No. 164-A&B, Sector-III, Industrial Area, Pithampur
45	Shri Arun Kataria	M/s. Kaxtaria Industries Pvt. Ltd., 34-38 & 44 Industrial Area, Ratlam 457 001
46	Shri Dinesh Dangi	M/s. Iron & steel re-rollers Association of M.P., Indore 452007
47		M/s. Sunil Oil Mill, Vill. Semlia, A.B. Road, Teh. Sendhwa, Onkarial Goyal Ram Katora, Nalepar, A.B. Road, Sendhwa, Distt. Barwani
48	Shri K Shiv Kumar	M/s. Grasim Industries Ltd. (Chemical Div.) Birlagram, Nagda 456 331
49	Shri Ankit Bansal	M/s. Laxminiwas Export Pvt. Ltd. Palda Audhyogik Kendra, Indore
50	Shri Antim Jindal	M/s. Jai Mahakal Oil Mill, Village Sirlay, Indore Road, Tahsil. Barwaha, Distt. Khargone
51	Shri Rohit Kumar	M/s. Mittal Processors, Antriksh Bhawan, 22, KG Marg, New Delhi
52		M/s. Sardar Ispat Pvt. Ltd. Tejper Bridge, A.B. Road, Rajendra Nagar, Indore
53	Shri Kishore Deepak Kodwani	Vikas Mitra Drishti, Pushpdip Apartment, 14, Sarvodaya Nagar, Sapna Sangeeta Road, Indore 452 001
54	Shri R S Goyal	51, Pradesh Nagar, Nemawar Road, Indore 452 001
55	Shri R C Somani	67 CH Scheme No. 74 C, Vijaynagar Indore 452010
56	Shri Jagdish Chauhan	S/O Shri ganeshramji chouhan, Vill. Surjani, Teh. Sitamau, Distt. Mandsaur
57	Shri Praveen Omkar Joshi, Retired O.A Grade-II	MP Paschim Kshetra Vidyut Vitaran Co. Ltd, Indore Region
58	Shri Mahesh Varun	M/s. Mahesh Electricals, Sanjay Chowk, Mahakal Marg, Ujjain

Sl. No.	Name & Designation	Address of the objector
59	Shri Rajkumar Temare	Shri Bharat Ghiya, Shri Kuldeep Rathore, Shri Rajesh Surve, Shri Sourabh Maheshwari, Indore
60	Shri Deepak Mahadev Patel	
61		Sales Mothersons@radiffmail.com
62	Shri Gopalkrishnan S	Dosti Vihar, Thane West, Mumbai, gopalakrishnan.power@gmail.com
63	Shri Rajpal Bhargava	M/s. Maa Narmada Aadivasi Samaj Sewa Sangthan, 71/8, Saikripa, Jeens Home, Ranjeet Chowk, Barwan, Distt. Barwani
64	Shri Rajendra Chattar	Shri Chaitanya Kumar Kasyap Hon'ble MLA Ratlam City & Others
65	Shri Sanjay Aggarwal	Mhow
66	Mr. Hazi Saleem Ahemed	Indore
67	Shri Kishore Deepak Kodwani	
68	Shri L C Gupta	M/s. M.P. Cottonseed Crushers Association, 14, Station Road, Barwaha (MP)
69	Shri Anil Kumar Chhapariya	292/6, Kala Baug, Airtel Tower Compound, Burhanpur

List of objectors of Central Discom - FY 2016-17

Sl No.	Name & Designation	Name and Address of the objector
1	1. Shri Alok Agrawal, Sanyojak, 2. Shri Akshay Hunkal, Sachiv, 3. Shri Devendra Mishra. 4, Shri Pradip Napit, 5 Shri Ranji Morya, 6 Shri Pratish, 6 Shri Vinayak & Others	Aam Aadmi Party, Madhya Pradesh, Bhopal
2	Ms. Dipti Gaur Mukarji, Commissioner	Rajya Siksha Kendra, Pustak Bhawan, B Wing, Arera Hils, Bhopal 462 011
3	Shri Yogesh Goel	M/s. Govindpura Industries Association, Association Complex, Industrial Area, Govindpura, Bhopal 462 023

Sl No.	Name & Designation	Name and Address of the objector
4	Shri Vipin Kumar Jain	M/s. M.P. Small Scale Industries Organisation, E-2/30, Mahavir Nagr, Arera Colony, 462 016
5	Dr. Praveen Agrawal	M/s. Madhya Pradesh Chamber of Commerce & Industry, Chember Bhawan, Sanatan Dharm Mandir Marg, Gwalior 474009
6	Shri Ajay Gaur	Rastriya Jagran Manch, Madhya Pradesh, 7-8, Medical Hospital Road, Shahid Nagar, Bhopal 462 001
7	Shri Suhas Virani	M/s. Bhopal Hostel Owner's Association, C/o. Virsons Hostel, B-93, Kasturba Nagr, Bhopal 462 023
8	Shri C.B. Malpani	M/s. Mandideep Industries Association, Plot No. 85A, Sector A, Industrial Area, Mandideep Distt. Raisen 462 046
9	Shri Deepak Aggarwal	M/s. A2Z, Green Waste Management Limited, A2Z Infrastructure Ltd. Plot No. B-38, Cosmos Building, Sector-32, Near Jharsa Chowk, Gurgaon
10	Shri Kamlesh Gupta	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 462046
11	Shri S. Pal, Director	M/s. Vardhman Textile Ltd. A1-A6, Industrial Area-II, Mandideep Distt. Raisen
12		M/s. Dhanlaxmi Solvex Pvt. Ltd., Harda, 201, Bansi Plaza, 581, M.G. Road, Indore 452 001
13	Shri Mahesh Chandra Modi	M/s. Modi Cold Store, Morena
14	Shri K.N. Mathur, Advisor	M/s. HEG Ltd., Mandideep (Near Bhopal), Distt.Raisen - 462046
15	Shri Rohit Kumar	M/s. Mittal Processors, Antriksh Bhawan, 22, KG Marg, New Delhi
16	Shri Shrichand Lalwani	M/s. Aata Chakki Welfare Society, 35, Main Market, Jahagirawad, Bhopal
17	Mohd. Shazid Israr	M.M. Convent Higher Secondary School, Fiza Colony, Nariyal Kheda, Bhopal
18	Shri Vipin C Sharma	131, IInd Floor, Tripta Complex, MP Nagar, Bhopal 462011

Sl No.	Name & Designation	Name and Address of the objector
19	Shri Gopal Krishnan	M/s. D B Malls Pvt. Ltd. Block 1A, 5th Floor, D B Corporate Park, Arera Hills, Bhopal 462011
20	Shri S.K. Tiwari,	Dr. Raha Gali, Ekta Chowk, Hoshangabad
21	Shri Sukhdev Panse, Ex. MLA	Multai Distt. Betul, Office Indira Gandhi Ward, Multai, Distt. Betul
22	Shri Laxmi Vallabh Shrivastava & Others	Ward No.7, Shiv Gir Mandir Marg, Datia
23	Shri Deepak Mahadev Patel	
24		Sales Mothersons@radiffmail.com
25	Shri Gopal krishnan S	Dosti Vihar, Thane West, Mumbai, gopalakrishnan.power@gmail.com
26	Shri B.L. Jaunbar	EWS-108, Sector H, Ayodhya Nagar, Bhopal 462041
27	Shri U.C. Dafal	E-2, 1320 Arera Colony, Bhopal
28	Shri Jaikishan Chandel	Multai
29	Shri Suneel Bhargava	Bhopal
30	Shri S.K. Jain	
31	Shri Abhinav Sharma	
32	Shri Shyam Verma	Govindpura Industrial Area

TARIFF

SCHEDULES

Annexure-2 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2016-17

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	365	45 per connection	30 per connection
51 to 100 units	435	80 per connection	55 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	560	90for each 0.5 kW of authorised load	70 for each 0.5 kW of authorised load
Above 300 units	610	95 for each 0.5 kW of authorised load	90 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).	790	370 for each one kW of sanctioned or connected or recorded load, whichever is the highest	285 for each one kW of sanctioned or connected or recorded load, whichever is the highest

Temporary/ DTR meter connection	**Energy Charge (paise per unit) Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Temporary connection for social/ marriage purposes and religious functions.	790	60 for each 1 kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	45 for each 1 kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.
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 @ 510 per unit	90 per connection
Un-metered connection in rural areas	75 units @ 400 per unit	45 per connection

Minimum charges: No minimum charges are applicable to this category of consumers

Specific Terms and Conditions for LV-1 category:

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 5 paise per unit is applicable on the basic energy charges, 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.

e) In case of temporary requirement, 10% of sanctioned load is allowed to be used from the existing metered permanent domestic connection on the same tariff applicable for permanent connection.

Tariff Schedule – LV-2

NON-DOMESTIC:

LV 2.1

Applicability:

This tariff is applicable for light, fan and power to Schools / 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 10 kW)	575	110 per kW	80 per kW
Mandatory demand based tariff for contract demand above 10 kW	575	210 per kW or 168 per kVA of billing demand	150 per kW or 120 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)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
On all units if monthly consumption is not more than 50 units	600	60 per kW	40 per kW
On all units in case monthly consumption exceeds 50 units	695	105 per kW	80 per kW
Mandatory demand based tariff for Contract demand above 10 kW	600	220 per kW or 176 per kVA of billing demand	150 per kW or 120 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	800	200 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	150 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	800 (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/-)	75 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	55 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	500		
Three Phase	700		
Dental X-ray machine	100		

* 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 10 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: 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 5 paise per unit is applicable on the basic energy charges, 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	450	215	No Minimum Charges
Municipality/ Nagar Panchayat	450	200	
Gram Panchayat	450	90	
Temporary supply	1.3 times the applicable tariff		
LV 3.2 Street light			
Municipal Corporation/ Cantonment board	465	320	No Minimum Charges
Municipality/ Nagar Panchayat	455	300	
Gram Panchayat	455	75	

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/112kW)	270 per kW or 216 per kVA of billing demand	160 per kW or 128 per kVA of billing demand	605
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..

(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 2016-17 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. per HP)	Energy charges (paise per unit)
LV- 5.1			
a) (i)	First 300 units per month	30	390
(ii)	Above 300 units up to 750 units in the month		460
(iii)	Rest of the units in the month		485
b)	Temporary connections	30	507
c)	DTR metered group consumers	Nil	355
LV-5.2			
a) (i)	First 300 units per month	30	390
(ii)	Above 300 units up to 750 units in the month		460
(iii)	Rest of the units in the month		485
b)	Temporary connections	30	507

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV-5.3			
a)	Up to 25 HP in urban areas	75 per HP	450
b)	Up to 25 HP in rural areas	45 per HP	430
c)	Demand based tariff (Contract demand and connected load up to 100 HP) in urban areas	200 per kW or 160 per kVA of billing demand	540
d)	Demand based tariff (Contract demand and connected load up to 100 HP) in rural areas	100 per kW or 80 per kVA of billing demand	540

LV-5.4	Agriculture flat rate tariff exclusive of subsidy*.	Charges payable by the consumer in Rs per HP (for period of 6 months) from April to September	Charges payable by the consumer in Rs per HP (for period of 6 months) from October to March
a)	Three phase- urban	700	700
b)	Three phase- rural	700	700
c)	Single phase urban	700	700
d)	Single phase rural	700	700

*****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) at the following rates: -

      i. **Energy charges for Excess Load**: No extra charges are applicable on the energy charges due to the excess demand or excess connected load **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 125% 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 125% of contract demand**: In addition to Fixed Charges in 1 above, recorded demand over and above 25 % 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) at the following rates:-

i. **Energy charges for Excess Load**: No extra charges are applicable on the energy charges due to the excess demand or excess connected load

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 125% 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 125% of sanctioned load: In addition to Fixed Charges in 1 above, connected load found over and above 25 % 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 5 paise per unit 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 112kW / 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 112kW / 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 2016-17

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	310	570

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	600	620	560
	33 kV supply	610	610	540
	132 kV supply	620	600	520
	220 kV supply	630	570	510

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	300	620	555
	33 kV supply	470	610	510
	132 kV supply	560	570	485
	220/400 kV supply	590	545	465
3.2	**Non-Industrial**			
	11 kV supply	280	650	585
	33 kV supply	400	640	565
	132 kV supply	510	590	510
3.3	**Shopping Malls**			
	11 kV supply	240	650	590
	33 kV supply	355	630	565
	132 kV supply	500	570	510
3.4	**Power intensive industries***			
	33 kV supply	490	460	460
	132 kV supply	600	440	440
	220 kV supply	640	425	425

*****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:

(g) **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.

(h) **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.

(i) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

(j) **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.

(k) **Rebate for existing HT connections:** A rebate of 10% in energy charges is applicable for HV 3.1 tariff category for incremental monthly consumption w.r.t consumption of previous years same month.

(l) **Rebate for new HT connections:** A rebate of Rs 1/Unit or 20% whichever is less is applicable in energy charges is applicable for new HV 3.1 tariff category connection for the consumption recorded. Provided these connections are given to green field projects and no rebate is applicable for new connections obtain by virtue of change in ownership in existing connection.

(m) **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.

(n) 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	310	580	520
33 kV supply	340	570	500
During Off-Season			
11 kV supply	Rs. 310 on 10% of contract demand or actual recorded demand during the season, whichever is higher	696 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 340 on 10% of contract demand or actual recorded demand during the season, whichever is higher	684 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 2016-17 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	225	490
	33 kV supply	245	465
	132 kV supply	270	440
5.2	**Other than agricultural use**		
	11 kV supply	235	505
	33 kV supply	250	480
	132 kV supply	280	460

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	270	545	490
	33 kV supply	290	520	470
	132 kV supply	315	490	440
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	175	550	490
	33 kV supply	175	535	475
	132 kV supply	180	505	455

Specific Terms and Conditions:

(o) **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.

(p) **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.

(q) 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.

(r) 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	675

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 or 90% of the contract demand, whichever is higher. In case power is availed through open access, the billing demand for the month shall be the actual maximum kVA demand during the month excluding the demand availed through open access for the period for which open access is availed or 90% of the contract demand, whichever is higher, subject to clause 3.4 of the M.P.Electricity Supply Code, 2013.

Note: 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)	Normal rate of Energy Charge

Sr. No.	Peak / Off-peak Period	Surcharge / Rebate on energy charges on energy consumed during the corresponding period
2.	Off peak load period (10 PM to 6 AM next day)	20 % 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 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**: No extra charges are applicable on the energy charges due to the excess demand or excess connected load.

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 125% 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 125% of contract demand**: In addition to fixed charges in 1 above, recorded demand over and above 25 % 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 125 kVA i.e. for 20 kVA at 1.3 times the normal tariff.

c) Above 125 kVA up to 140 kVA i.e. for 15 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 125% of contract demand- Excess Demand over and above 105 % of the contract demand—at the rate of Rs. 341 per kVA

(b) When the recorded maximum demand exceeds 125% of contract demand: - In addition to fixed charges in (a) above, recorded demand over and above 25 % of the contract demand shall be charged—at the rate of Rs. 465 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:

sanctioned demand for temporary connection

B= -- x total consumption

Deemed contract demand or actual demand

recorded whichever is higher.

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.
