MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2014-15

Petition No. 04/2014

PRESENT:

Rakesh Sahni, Chairman
A. B. Bajpai, Member
Alok Gupta, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2014-15 based on the ARR & Tariff Application made by the Distribution Licensees namely Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (East Discom), Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (West Discom), Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (Central Discom), and Madhya Pradesh Power Management Company Limited (MPPMCL).

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A1: ORDER

(Passed on this 24th Day of May, 2014)

1.1 This Order is in response to the petition No. 04 of 2014 jointly filed by Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited, Jabalpur, Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited, Indore and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited, Bhopal (hereinafter individually referred to as East Discom, West Discom and Central Discom respectively and collectively referred to as Discoms or Distribution Licensees or Licensees or the petitioners), and Madhya Pradesh Power Management Company Limited, Jabalpur (hereinafter referred as the MPPMCL or collectively with Discoms referred to as the petitioners) before the Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). This petition has been filed as per the requirements of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2012 {RG-35 (I) of 2012) (hereinafter referred to as the Tariff Regulations or Regulations).

1.2 In accordance with the Tariff Regulations, the Distribution Licensees were required to file their respective petition(s)/proposal(s) for the determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2014-15 latest by 31st October, 2013. Vide letter dated 28th October, 2013, the MPPMCL requested the Commission to extend the date of filing of the petition up to 30th November 2013. MPPMCL stated that the Discoms require more time to finalise their ARR for FY 2014-15 as their accounts were recently finalized and the revised Capex plan was also being worked out. It further stated that the Discoms were collating the commercial data with regard to sales, number of consumers, etc. and also working for the projection of expenses for the control period. The Commission accepted the request. Meanwhile, taking cognizance of the judgement pronounced by the Hon'ble Appellate Tribunal for Electricity (APTEL) in the matter of appeal nos. 102, 103 and 112 of 2010 and appeal no. 52 of 2012, the Commission directed the Discoms to submit the ARR/ Tariff proposal including the data / information for determination of voltage wise average cost of supply vis-a-vis cross subsidy percentage of consumer categories on that particular voltage. In response, MPPMCL requested further time extension for filing the petition up to 21st December 2013. Subsequently it again requested time extension for filing the petition up to 21st January 2014 stating that since the Discoms were collecting and collating data of voltage wise assets they required more time to finalise their ARR for FY 2014-15. The Commission accepted the request. The petition (No. 04/2014) was jointly filed on 21st January, 2014 by East Discom, West Discom, Central Discom and MPPMCL for determination of their ARR and Retail Supply Tariff for FY 2014-15.

1.3 A motion hearing on the petition was held on 5th February, 2014. During the hearing, representatives on behalf of the petitioners submitted salient features of the petition. The Commission admitted the petition vide Order dated 5th February, 2014 and issued the following directives:

i. The information/justification/data desired vide Order dated 5th February, 2014, be filed latest by 20th February, 2014 giving supporting details/documents wherever required.

ii. To publish the public notice in Hindi and English in the newspapers latest by 13th February, 2014 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 13th February, 2014 positively at the offices mentioned in the public notice.

1.4 Public notices comprising the gist of the tariff applications and tariff proposals were published by East Discom, West Discom and Central Discom on 13th February, 2014 in the Hindi and English newspapers. The stakeholders were requested to file their objections/comments/suggestions latest by 7th March, 2014.

1.5 The Commission has received written objections from various stake holders. Details of objections received and analysis thereof are given in the chapter 'A6: Public Objections and Comments on petition' of this order.

1.6 Gist of the petition is given below:

Table 1 : Snapshot of the petition for FY 2014-15 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Revenue from sale of power	6712.91	8091.57	7106.96
Aggregate Revenue Requirement	7112.73	8586.37	7479.39
Revenue gap in Income and Expenditure for FY 2014-15	-399.82	-494.80	-372.43

1.7 During the scrutiny of the petition, some deficiencies were observed with regard to the information relating to sales, power purchase and other ARR items. The Commission directed the petitioners to submit the relevant data and information by 20th February, 2014 vide Order dated 5th February, 2014. The MPPMCL requested the Commission to extend the date of submission of the response to the queries on the ARR petition and Retail Tariff proposal to 26th February, 2014 as the Discoms were collecting necessary information, vide letter dated 20th February, 2014. The petitioners submitted the response vide letter dated 25th February, 2014.

1.8 Revenue gap of Rs. 399.82 Crore, Rs. 494.80 Crore, and Rs. 372.43 Crore has been projected for East Discom, West Discom and Central Discom respectively. It has been clarified in the petition that the revenue gap does not include the true-up costs of the previous years and past liability on account of contribution towards terminal benefit trust funds. The petitioners have proposed no hike in tariff for FY 2014-15 and have, therefore, proposed to maintain the average tariff as admitted by the Commission in the retail supply tariff order for FY 2013-14. Petitioners have submitted that they will further improve their operational efficiency by way of reduction in technical and commercial losses as a result of the various capital investments undertaken in recent years. MPPMCL will make every effort for efficient management of surplus energy so as to recover maximum revenue through competitive sale rates. The petitioners have stated that even after all such possible efforts, if any revenue gap remains, the same is proposed to be recovered through the annual true-up of ARR of the Discoms. The additional estimated revenue on account of efficient management of surplus energy submitted by the petitioner is tabulated as under:

Table 2: Projected revenue earning due to sale of surplus energy by the petitioners

Particulars	Unit	FY2014-15
Ex-bus energy available	MU	74,536.00
Ex-bus energy required by Discoms	MU	59,138.00
Surplus Energy	MU	**15,395.00**
Management of Surplus energy		
Sale of surplus energy via IEX	MU	7,698.00
Sale of surplus energy via Bidding route	MU	7,698.00
Rate of Sale of Surplus Energy		
IEX	Rs. per unit	3.50
Bidding Route	Rs. per unit	4.50
Revenue from Sale of Surplus Energy		
IEX	Rs. Crore	2,694.19
Bidding Route	Rs. Crore	3,463.96
Total	**Rs. Crore**	**6,158.15**

1.9 In the meantime, in view of the General Elections 2014, in its 39th meeting held on 18th January, 2014, the Forum of Regulators (FOR) had decided to refer the matter of issuance of tariff orders by SERCs during the currency of the Model Code of Conduct to the Election Commission of India. Chairman CERC wrote D.O. letter to the Chief Election Commissioner in this regard. In response, vide letter dated 17.2.2014, Secretariat of the Election Commission of India stated that once the Model Code of Conduct is imposed for the Lok Sabha Elections, it shall be applicable to the Electricity Regulatory Commissions as has been done during the last Lok Sabha Elections in 2009. Later, subsequent to the filing of ARR and retail supply tariff petition by the Distribution Companies and MPPMCL, the Model Code of Conduct for Lok Sabha Elections, 2014 was enforced on 5th March, 2014. In view of the aforementioned correspondence of 17.2.2014, the Commission decided to put on hold the exercise of conducting public hearings and determination of retail supply tariff. The Commission referred the matter to the Election Commission in this regard vide letter dated 11th March, 2014 informing them that in view of the directives of the Election Commission, an order to extend the extant tariff till the new tariff is determined was being issued. The Commission issued the said order on 25.03.2014. Subsequently, the Commission received a copy of the letter dated 29.03.2014 of the Election Commission of India through office of Chief Electoral Officer M.P. In this letter it was stated that the Election Commission had no objection to the continuance of the process required for the decision on the power tariff. However, tariff award shall be made only on completion of polling in the relevant State. Accordingly, the Commission decided to resume the process, had held public hearings. This situation has, however, delayed the issue of distribution and retail supply tariff order for FY 2014-15.

1.10 A meeting was convened by the Commission with the Principal Secretary (Energy), GoMP, MDs and concerned officers of the Discoms and MPPMCL on 23rd April, 2014. Various relevant issues related to this petition were discussed with focus on increasing the sale and improving operational efficiency. Clarifications were sought on various items of the petition.

State Advisory Committee

1.11 The Commission convened a meeting of the State Advisory Committee (SAC) on 30th April, 2014 for seeking advice on the petition. The SAC members provided several valuable suggestions which have been duly considered by the Commission while determining the ARR and Tariff for the FY 2014-15.

Public Hearing

1.12 The Commission issued a public notice on 22nd April, 2014 in various newspapers across the state inviting interested stakeholders to present their views on the petition during public hearings.

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

Table 3: Public hearings

Sr. No.	Name of Discom	Venue of Public Hearing	Date
1	M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore	Santosh Sabhagrah, Charak Hospital Campus, Rani Sati Gate, Near temple, Yashwant Niwas Road, Indore	6th May, 2014
2	M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur,	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	9th May, 2014
3	M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal	Court Room, M.P Electricity Regulatory Commission, 5th Floor, Metro Plaza, Bittan Market, Bhopal	12th May, 2014

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

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

Distribution Losses

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

Table 4: Distribution loss reduction trajectory as per Regulations

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

Energy Accounting and Meterisation

1.17 The Commission had emphasized the importance of energy accounting and meterisation 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 to take action to curb losses. The Commission has noted that the achievements of Discoms in this regard have not been satisfactory. While there appears to be some progress with regard to feeder meterisation, that of agricultural DTRs and individual un-metered domestic connections remains neglected. The status as per periodic reports submitted by Discoms with regard to meterisation of un-metered rural domestic connections, agricultural predominant DTRs and HT feeders up to December 31, 2013 is as given below:

Table 5: Status of feeder meterisation

Sr. No.	Particulars	Central Discom		West Discom		East Discom	
		33kV feeders	11kV feeders	33kV feeders	11kV feeders	33kV feeders	11kV feeders
1	Total No. of energy Audit points	1,397	3,601	2,339	4,710	1,549	3,571
2	No. of feeders which are provided with energy audit metering.	1,260	3,001	2,339	3,391	1,549	3,571
3	No. of feeders where energy audit meters are lying defective	113	192	332	932	88	225
4	No. of feeders on which energy audit meters are yet to be provided	137	600	Nil	821	Nil	Nil

Table 6: Status of meterisation of un-metered rural domestic consumers/agricultural DTRs

Discom	Domestic Rural			Agricultural DTR		
	Total no. of connections	No. of un-metered connections	Percentage (%) un-Metered	Total no. of Pre-dominant Agricultural DTRs	No. of DTRs provided with meters	Percentage (%) of DTRs provided with meters
East	1,943,807	851,974	43.83%	64,804	1,144	1.77%
West	1,600,047	221,623	13.85%	79,812	18,947	23.74%
Central	1,106,511	307,478	27.79%	91,626	15,886	17.34%
State Total	**4,650,365**	**1,381,075**	**29.70%**	**236,242**	**35,977**	**15.23%**

1.18 The Commission is aware of the fact that there are issues with regard to providing meters on a very large number of individual agricultural consumers. The Commission had been repeatedly directing the Discoms to step up meterisation of agriculture predominant distribution transformers. Meterisation of un-metered HT feeders and individual domestic connections was also directed to be taken up on priority. The Commission had directed the Discoms to complete the work of 100% meterisation by end of March, 2014 in the previous tariff order. Subsequently on request of East Discom, the Commission had permitted it to complete 100% meterisation of un-metered connections under rural domestic category by end of March,2015. This was allowed on account of huge number of connections pending for meterisation and other relevant factors. Reports for FY 2013-14 are yet to be received. The Commission expects that the Discoms would have complied with the directions.

1.19 The Commission would like to make it clear that directive for meterisation of agricultural predominant DTRs is an interim arrangement till meters on all individual agricultural connections are provided . The Commission is of the firm view that all consumers should be metered individually. The present regime of billing on benchmark consumption to either domestic or agriculture consumers has no incentive for energy saving by the consumers and it is also not possible to work out the real energy audit scenario.

Wheeling Charges and Cross Subsidy Surcharge

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

Aggregate Revenue Requirement of Discoms

1.21 The Commission has determined the aggregate revenue requirement of the Discoms for FY 2014-15. The tariff (energy charges and fixed charges) for different consumer categories have been kept same as for FY 2013-14. Revenue income from the tariff has been equivalent to the ARR determined for the Discoms. ARR determined takes into account the true-up of ARR for Discoms for FY 2008-09 and MPPTCL ARR true up for FY 2011-12.

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

Table 7: ARR admitted by the Commission for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central	Total
Power Purchase Cost including MPPMCL cost	4,177.09	5,286.20	5,027.06	14,490.35
PGCIL charges	339.42	431.56	327.86	1,098.84
Transco Charges (MP TRANSCO) including Terminal Benefits	520.06	671.40	545.70	1,737.16
O&M cost	1,008.37	926.46	892.43	2,827.26
Depreciation	104.23	98.73	113.93	316.89
Interest on Project Loans	154.53	140.63	171.29	466.46
Return on Equity	194.89	166.84	212.41	574.14
Interest on Working Capital	0.00	0.00	35.64	35.64
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	38.34	79.60	65.86	183.80

Particulars	East	West	Central	Total
Less: Other Income - Retail & Wheeling	157.36	289.03	244.52	690.91
ARR for FY 2014-15	**6,381.58**	**7,514.40**	**7,149.66**	**21,045.63**
Gap of True-up of FY 2008-09	273.01	480.04	-93.84	659.21
Transmission true up FY 2011-12	100.64	128.86	107.21	336.70
Total ARR for FY 2014-15	**6,755.24**	**8,123.29**	**7,163.02**	**22,041.54**
Revenue	6,755.24	8,123.29	7,163.02	22,041.54
Uncovered Gap/Surplus	**0.00**	**0.00**	**0.00**	**0.00**

1.23 The Commission has determined the ARR and tariffs for FY 2014-15 for the Discoms of the State on the basis of the distribution loss trajectory as specified in the Regulations.

1.24 The Commission has passed the following ARR true-up Orders in case of Discoms and Transmission Company after the issuance of Retail Supply Tariff Order for FY 2013-14. This would result in an impact of Rs. 995.91 Crore. Discoms have been allowed to recover these costs from ARR for FY 2014-15.

Table 8: Impact of true up/ final orders on ARR for FY 2014-15 (Rs. Crore)

Sr. No.	Particulars	Impact
1	**True up ARR of Discoms for FY 2008-09**	659.21
4	**Transmission ARR true up FY 2011-12**	336.70
5	**Total impact**	**995.91**

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

1.26 The Commission has accepted the revision in the norms for assessment of consumption in case of unmetered connections based on the proposals of the petitioners, as has been explained in detail in the relevant section of this order. Yet, in view of the inadequate progress by the licensees in regard to energy accounting and meterisation the Commission would want to be satisfied beyond doubt that commercial losses are not being wrongly accounted under the subsidised categories of consumers. The Commission therefore, would like to advise Government of Madhya Pradesh under section 86(2) of the Electricity Act, 2003 that an audit be undertaken in the earliest possible timeframe to ascertain factual consumption against accounts of unmetered connections.

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

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

Implementation of the Order

1.29 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 1st June, 2014 to 31st March, 2015, unless amended, extended or modified by an Order of this Commission.

1.30 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 2014-15. The Commission directs petitioners that this Order be implemented along with directions given and conditions mentioned in the detailed Order and schedules attached to this order. It is further ordered that the licensees are permitted to issue bills to the consumers in accordance with the provisions of this Tariff Order and applicable Regulations.

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

A2: DETAILED REASONS AND GROUNDS ATTACHED WITH RETAIL SUPPLY TARIFF ORDER ISSUED BY THE MPERC ON 24TH MAY, 2014 IN RESPECT OF PETITION NUMBER 04/2014

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

Shri P.K. Singh, Chief Engineer (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 2014-15 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 2014-15 OF MADHYA PRADESH POORV, PASCHIM AND MADHYA KSHETRA VIDYUT VITARAN COMPANIES LIMITED (EAST, WEST AND CENTRAL DISCOMS)/

Sales forecast as projected by the Petitioners

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

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

3.3 In case of agricultural category, Discoms have projected consumption of permanent unmetered agricultural consumers for FY 2014-15 on the basis of the proposed benchmark of 1500 units/HP/annum for rural areas against the existing 1200 units/HP/annum. No change has been proposed for permanent unmetered agricultural consumers in urban area and the existing benchmark of 1560 units per HP per annum has been considered to project the sale. For temporary agriculture consumers, unmetered consumption has been considered as 220 units/HP/month for urban areas and 195 units/HP/month for rural areas as against the existing benchmarks of 175 units/HP/month and 155 units/HP/month. Discoms have submitted that the consumption benchmarks for rural areas have been proposed to be revised due to increase in supply hours to 10 hours under Atal Jyoti Abhiyaan as compared to 8 hours prevalent in the past years i.e. an increase by 25%.

3.4 Details of projected sale for FY 2014-15 for LT and HT categories is given below:

Table 9: Sales projections by Discoms (MU)

Particulars	East Discom	West Discom	Central Discom	Total for State
LT Sale	**10,044.42**	**12,975.45**	**10,716.91**	**33,736.78**
HT Sale	**3,826.04**	**4,061.83**	**3,876.54**	**11,764.41**
Total Sale	**13,870.46**	**17,037.28**	**14,593.45**	**45,501.19**

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

Table 10: Category wise sale projected by Discoms (MU)

Particulars	Projections For FY 2014-15			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LT				
LV-1: Domestic	4,610.29	3,997.00	4,358.79	12,966.08
LV-2: Non Domestic	795.98	827.83	883.08	2,506.89
LV-3: Public Water Works and Street Light	473.52	349.07	432.50	1,255.09
LV4: LT Industrial	312.91	579.58	359.19	1,251.68
LV 5.1: Irrigation Pumps for Agriculture	3,835.01	7,219.62	4,679.05	15,733.68
LV-5.2 : Agriculture related use	16.71	2.35	4.30	23.36
LT Sale (MU)	**10,044.42**	**12,975.45**	**10,716.91**	**33,736.78**
HT				
HV-1: Railway Traction	637.32	592.71	978.45	2,208.48
HV-2: Coal Mines	496.08	-	34.73	530.81
HV-3.1: Industrial	1,880.59	2,847.03	2,092.78	6,820.40
HV-3.2: Non-Industrial	253.34	314.92	385.17	953.43
HV-4: Seasonal	7.80	7.44	2.05	17.29
HV-5.1: Public Water Works, Irrigation	77.32	283.35	186.65	547.32
HV-5.2: Other than Agricultural	18.76	8.80	6.34	33.90
HV-6: Bulk Residential Users	454.83	7.58	190.37	652.78
HV-7: Bulk Supply to Exemptees	0.00	0.00	0.00	0.00
HT Sale (MU)	**3,826.04**	**4,061.83**	**3,876.54**	**11,764.41**
Total LT + HT Sale (MU)	**13,870.46**	**17,037.28**	**14,593.45**	**45,501.19**

Commission's Analysis of Sale

3.6 Discoms have estimated that the sales would increase on account of implementation of RGGVY, Feeder Separation Scheme, and increase in supply hours in rural areas. Discoms have stated that they have increased hours of supply of electricity to every household in the state starting FY 2013-14 aimed at accelerating socio-economic development, particularly in the rural areas.

3.7 A meeting with MDs of the Discoms and MPPMCL was held on April 23, 2014, wherein Discoms briefed status of the progress on various ongoing and proposed activities. The Commission has also taken note of the clarifications/additional information provided by Discoms. Discoms were emphatic in their submission that rural supply hours have increased substantially and they are providing 24 hours supply to all areas of the state and 10 hours on separated agriculture feeders . Discoms have also supported their contention of increase in sale projections particularly in the domestic category of consumers. They were categorical in their stand that they will be actually achieving the sales projections made in the petition for various consumer categories in view of the fact that a number of schemes are under execution resulting in increase in number of consumers and also due to increase in supply hours.

3.8 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. Accordingly, the Commission considers it prudent to accept the sales as filed and expects that the Discoms would endeavour to achieve their sales projections. The Commission has admitted the quantum of sales as filed; it expects the Discoms to achieve their sales projections. The Commission has also accepted the proposed revision in norms of assessment for unmetered categories. The basis for considering revision in benchmarks for unmetered categories of consumers is explained in the subsequent paragraphs.

3.9 The Commission is conscious of the fact that the power supply scenario in the state has improved considerably. The power shortages have been mitigated by adequate addition of generation resources. Consequentially, supply hours have increased substantially.

3.10 Benchmarks for assessment of consumption for unmetered agricultural connections were introduced in the tariff Order for FY 2005-06. The Commission directed the Discoms to provide at least 6 hours of three phase supply for six days a week for irrigation pumps under schedule LV 5.1. The Commission provided the benchmarks of billing @ 100 units/hp/month for unmetered permanent agricultural connections and @130 units/hp/month for unmetered temporary agricultural connections on the basis of 6 hours three phase supply for six days a week. The benchmarks subsequently were revised for urban and rural area in the tariff order for FY 2007-08. The permanent connections benchmark for urban area was 130 units/hp/month and for rural it was 100 units/hp/month. The benchmark for temporary urban unmetered connection was 150 units/hp/month and for rural it was 130 units/hp/month. Subsequently the concept of seasonal and non-seasonal assessment benchmarks was introduced. Overall yearly consumption per hp for un-metered permanent connections was however kept at same level i.e. 1200 units/hp/annum for rural and 1560 units/ hp/ annum for urban and has been continuing so far since FY 2007-08.

3.11 The Commission is of the opinion that there is a strong case for revision in these benchmarks on account of changes in power supply scenario in the intervening period. The Discoms have demonstrated increase in supply hours in recent years. A number of Capex schemes, involving substantial expenditure, are under execution at various stages of completion. Completion of these schemes is expected to further improve the situation. The existing benchmarks are based on the assumption of 6 hours three phase supply for six days of the week. The supply hours now being contemplated are 10 hours on a daily basis for agriculture connections. The Commission has also taken cognizance of the submissions made by the petitioners with regard to data of agricultural consumption based on DTR meters. Therefore, it would not be prudent to disregard the factual situation to ensure that the sales of Discoms do not get affected adversely. The Commission, therefore, has accepted the proposal of the Discoms for revision in the benchmarks for assessment of agricultural consumption for unmetered connections. In view of the foregoing reasons, the Commission has also considered revision in benchmark of billing to unmetered domestic connections in rural areas to 75 units per month per connection.

3.12 The Commission further directs the petitioners that they should not unduly restrict supply to any category of consumers during the tariff period. In the event that the actual requirement of supply of power is in excess of the quantum admitted by the Commission for sale or power procurement projections in this tariff order or due to paucity of generation from the sources identified in this order, the petitioners shall take immediate steps to arrange the supply of required power from all available sources. The petitioners shall have to make all possible efforts to provide adequate supply at all times to all consumers of the state. However, the petitioners while procuring such power shall ensure compliance with the requirements of the relevant Regulations and guidelines.

Energy Balance and Power Purchase as Proposed by the Petitioners

3.13 The petitioners claim that they have considered available information from the key sector participants for computation of power purchase cost for the purpose of arriving at their revenue requirement. The petitioners have requested the Commission to take due cognizance of this fact while computing their allowable power purchase cost.

3.14 The petitioners have projected the power purchase cost on the basis of fixed and variable costs as per the tariff orders as well as expected future costs projected by the MPPMCL or MP Genco. The fuel cost escalation as per the CERC Order on inflation index and various other costs such as taxes, incentive, MOPA charges, Electricity Duty, Cess etc. as per the bills raised by NTPC for previous financial years have also been taken into account.

3.15 The petitioners have considered the percentage allocation of capacity (weighted average of 29.94% to East Discom, 38.65% to West Discom and 31.41% to Central Discom) as per the Government of Madhya Pradesh Notification dated March 19, 2013 for FY 2014-15 including 200 MW specific power share allocation to East Discom from Central Generating stations for Bundelkhand region . East, West and Central Discoms have submitted the details related to the following items pertaining to power purchase cost for the above weighted average of Discom allocations:

- Monthly energy available from all sources
- Annual fixed charge and energy charge payable to generators
- Estimated payment to generators on account of incentives, income tax, duties, etc.
- Estimated inter-state transmission charges payable.

3.16 The requirement for procurement of energy for projected sale of 45501 MU as filed by the three Discoms is 59138 MU. Discom-wise break-up is shown in the table below:

Table 11: Energy balance for FY 2014-15 as proposed by Discoms

Particulars	East	West	Central
Sale to LT category (MU)	**10,044.42**	**12,975.45**	**10,716.91**
Sale to HT category (MU)	**3,826.04**	**4,061.83**	**3,876.54**
Total Sale (MU)	**13,870.46**	**17,037.28**	**14,593.45**
Distribution losses (%)	20.00%	18.00%	21.00%
Input at Distribution Interface (MU)	17369	20955	18492
Transmission loss (%)	3.00%	3.00%	3.00%
Input at G-T interface (MU)	17906	21603	19064
External Loss (MU)	191	213	160
Total Power Purchase Quantum (MU)	**18097**	**21816**	**19224**

3.17 The petitioners have converted the annual projected sales into monthly sales using the sales profiles observed in the past years. It is submitted that for computation of the intra-State transmission losses (MPPTCL losses), the actual data has been taken from the MP-SLDC online portal for the past 12 months (52 weeks) and accordingly average 3.00% has been considered for the future period.

3.18 The petitioners have submitted that the inter-State transmission losses have been computed separately for Eastern Region (ER) and Western Region (WR) stations. For WR, past data of 52 weeks from December 24, 2012 till December 29, 2013 as available on the POSOCO/NLDC website has been considered and an average loss level of 2.28% has been considered for FY 2014-15. In case of ER, transmission losses of stations allocated to Madhya Pradesh have been considered and average loss level of 2.50% has been considered for FY 2014-15.

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

Table 12: Monthly loss percentage as filed

Sr. No.	Month	FY 2014-15		
		East Discom	West Discom	Central Discom
1	April	20.44%	21.23%	20.92%
2	May	19.83%	21.85%	20.13%
3	June	15.81%	15.40%	19.54%
4	July	17.76%	7.20%	19.38%
5	August	20.39%	5.44%	20.98%
6	September	20.32%	9.54%	20.93%
7	October	21.79%	25.60%	22.19%
8	November	21.26%	27.42%	22.42%
9	December	21.87%	21.67%	21.98%
10	January	21.33%	23.48%	22.63%
11	February	17.78%	19.80%	21.06%
12	March	21.43%	17.38%	19.83%
13	**Average losses for the year as filed (Arithmetic average)**	**20.00%**	**18.00%**	**21.00%**
14	**As specified in Regulations**	**20.00%**	**18.00%**	**21.00%**

Assessment of Energy Availability by the Petitioners

3.20 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.

3.21 The petitioners have submitted that future projections for Central Generating Stations (CGS) allocated to Madhya Pradesh have been done on the basis of average availability of the past three years. Further, for projecting the availability from the Central Sector Stations, the latest allocation made by Western Regional Power Committee in their letter no. WRPC/Comml-I/6/Alloc/2013/2061 dated 29 November, 2013 has been considered for FY 2014-15.

3.22 Following table shows the existing MPPMCL allocated stations as well as the future capacity additions which are expected to become operational till end of FY 2014-15:

Table 13: Capacity Addition Plan filed FY 2014-15

Sl No.	Name of Project	Unit	Region	Capacity (MW)	MP's Share (MW)	Expected COD
1	NTPC Korba –VII	Unit 7	WR	500.00	77.00	
2	MPPGCL - Satpura TPS Extension	Unit 11	State	250.00	250.00	Apr-14
	MPPGCL - Shri Singaji STPS Phase -1	Unit 1	State	600.00	600.00	Mar-14
3		Unit 2	State	600.00	600.00	Oct-14
	NTPC Mauda STPS, Stage -1	Unit 2	WR	500.00	78.00	Mar-14
4	NTPC Vindhyachal MTPS, Stage – 4	Unit 2	WR	500.00	128.00	Mar-14
5	UMPP Sasan	Unit 2	State	660.00	248.00	Mar-14
		Unit 3 & 4	State	1,320.00	495.00	Jun-14
		Unit 5 & 6	State	1,320.00	495.00	Dec-14
6	Jaiprakash Power, Nigri	Unit 1	State	660.00	248.00	May-14
		Unit 2	State	660.00	247.00	Sep-14
7	MB Power	Unit 1	State	600.00	210.00	Jun-14
8	BLA Power	Unit 2	State	45.00	16.00	Jun-14
9	Jhabua Power	Unit 1	State	600.00	210.00	Sep-14
10	NTPC Barh STPS, Stage-2	Unit 1	WR	660.00	26.00	Jun-14
		Unit 2	WR	660.00	27.00	Dec-14
11	NTPC Barh STPS, Stage-1	Unit 1	WR	660.00	74.00	Jun-14
		Unit 2	WR	660.00	75.00	Dec-14
12	Torrent Power GPP	Unit 2	State	382.50	35.00	Mar-14
13	Essar Power	Unit 1	State	1,200.00	150.00	Oct-14

3.23 Vide letter dated March 28, 2014, the petitioners have informed that there is revision in scheduled COD of Jaiprakash Power, Nigri Unit-1 from May 2014 to June 2014 and MB Power, Unit-1 from June 2014 to September 2014. They have further submitted that energy availability from new stations has also been considered from the expected month of commissioning in FY 2014-15 as per the data projected by the State Planning Cell. The availability forecast is based on the number of days in the months of operation in any year.

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

Table 14: Energy availability ex-bus as filed by petitioners for FY 2014-15 (MU)

Generating Stations	FY 2014-15
CGS	
NTPC-Korba	3,523
NTPC-Vindyachal I	3,206
NTPC-Vindyachal II	2,336
NTPC-Vindyachal III	1,902
NTPC-Kawas	618
NTPC-Gandhar	536
KAPP	757
TAPS	1,501
NTPC – Farakka	0
NTPC – Talcher	0
NTPC – Kahalgaon	0
NTPC - Sipat Stage II	1223
NTPC - Kahalgaon 2	335
Bilateral and Joint Venture Stations	
NHDC - Indira Sagar	2,643
Sardar Sarovar	1,970
Omkareshwar HPS	1,249
DVC (MTPS, CTPS)	2514
MP Genco Stations	
ATPS - Chachai-PH 1&2	1,230
STPS - Sarani-PH 1, 2 & 3	4,366
SGTPS - Bir'pur - PH 1 & 2	4,749
SGTPS - Bir'pur – Extn	3,397
ATPS - Chachai-Extn	1,365
CHPS-Gandhi Sagar	188
CHPS-RP Sagar & Jawahar Sagar	323
Pench THPS	207
Banasgar Tons HPS	1219
Banasgar Tons HPS-Bansagar IV (Jhinna)	66
Birsingpur HPS	45
Bargi HPS	500
Rajghat HPS	45
Marhi Khera HPS	76
Other	

RSEB (Chambal,Satpura)		0.00
UPPCL (Rihand,Matatila,Rajghat)		150
Others 1 (Wind & CPP)		103
Total		**42341**
Allocated to MPPMCL		
NTPC Korba – VII		581
IPP Torrent		341
NTPC Sipat Stage – 1	Unit 1	2,230
Satpura TPP Extension, Betul (Share = 100%)	Unit 10	1,603
	Unit 11	1,402
Singaji TPP Phase -1, Khandwa (Share = 100%)	Unit 1	3,804
	Unit 2	1,472
NTPC Mauda STPS, Satge -1, Nagpur (NTPC)	Unit 1	607
	Unit 2	485
Vindhyachal Mega Project, Stage - 4, Sidhi (NTPC)	Unit 1	935
	Unit 2	812
DVC Durgapur Steel TPS	Unit 1	318
	Unit 2	318
UMPP Sasan, Sidhi	Unit 1	1,651
	Unit 2	1,572
	Unit 3 & 4	2,320
	Unit 5 & 6	652
JP Bina Power, Sagar	Unit 1	1,122
	Unit 2	1122
Jaiprakash Power, Nigri	Unit 1	1,299
	Unit 2	741
MB Power, Anuppur	Unit 1	984
	Unit 2	0
BLA Power, Narsinghpur	Unit 1	99
	Unit 2	70
Jhabua Power, Seoni	Unit 1	630
Lanco TPS, Amarkantak	Unit 1	1,945
NTPC Barh STPS, Stage-2	Unit 1	119
	Unit 2	35
NTPC Barh STPS, Stage-1	Unit 1	340
	Unit 2	97
	Unit 3	0
NTPC Vindyachal MTPS, Stage-5		0
Torrent Power GPP		17
Concessional Energy-ESSAR Power		201

ESSAR Power	448
Renewable Energy (Wind, Solar, Bio etc.)	489
Renewable Energy (Wind, Solar, Bio etc.)	1,337
TOTAL	**32196**
Grand Total	**74537**

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

- Capacity allocation of Central Generating Stations to the Madhya Pradesh as per Western Region Power Committee's (WRPC) letter no. WRPC/Comml-I/6/Alloc./2013/2061 dated November 29, 2013.
- Existing capacities allocated to the state and future capacities proposed to be commissioned.
- Capacity allocation of individual stations to the three Discoms based on the GoMP Gazette notification.

Management of Surplus Energy

3.26 The petitioners have submitted that in the State, a capacity addition of around 3,000 MW is planned over the next two years till FY 2015-16. Apart from MPPGCL allocated stations, this capacity addition plan includes the Power Purchase Agreements with various generating stations entered into by MPPMCL after analysis of the long term energy requirements of the State.

3.27 The petitioners have submitted that for FY 2014-15, the Discoms have applied Merit order dispatch (MoD) for all available capacities i.e. energy from generating stations is scheduled in order of total per unit power purchase costs. After application of MoD, Discoms have adopted the following approach in management of surplus available energy, if any:

1. Half of the surplus energy is proposed to be sold at IEX by MPPMCL at Rs. 3.50 per unit.
2. Remaining surplus energy is proposed to be sold via the Bidding Route by MPPMCL at an expected rate of Rs. 4.50 per unit.

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

Table 15: Management of surplus energy with DISCOMs for FY 2014-15

Particulars	Unit	FY2014-15
Ex-bus energy available	MU	74,536.00
Ex-bus energy required by Discoms	MU	59,138.00
Surplus Energy	MU	**15,395.00**
Management of Surplus energy		
Sale of surplus energy via IEX	MU	7,698.00
Sale of surplus energy via Bidding route	MU	7,698.00
Rate of Sale of Surplus Energy		
IEX	Rs. per unit	3.50
Bidding Route	Rs. per unit	4.50
Revenue from Sale of Surplus Energy		
IEX	Rs. Crore	2,694.19
Bidding Route	Rs. Crore	3,463.96
Total	**Rs. Crore**	**6,158.15**

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

3.29 The Discoms have stated that fixed costs of MP Genco stations for FY 2014-15 have been kept as the same level as admitted by the Commission in the Tariff order for FY 2013-14.

3.30 Fixed costs of Central Generation Stations have been considered as per Tariff orders issued by the Central Electricity Regulatory Commission for respective generating stations till FY 2013-14 and actual fixed charges paid for FY 2012-13. The petitioners further submitted that maximum of the two have been assumed for FY 2013-14 and kept at same level for FY 2014-15. Details of generating stations and reference of orders issued are given below:

Table 16: CERC Tariff orders for Central Sector Stations

Station	Petition No.	CERC Order reference
NTPC-Korba	264 of 2009	October, 2012
NTPC-Vindhyachal Stage – I	227 of 2009	July, 2011
NTPC-Vindhyachal Stage – II	258 of 2009	December, 2011
NTPC-Vindhyachal Stage – III	260 of 2009	May, 2012

Station	Petition No.	CERC Order reference
NTPC-Kawas	285 of 2009	December, 11
NTPC-Gandhar	226 of 2009	December, 11
NHDC-Indira Sagar	154 of 2010	June, 2012
Sardar Sarovar	55 of 2012	October, 2012
Omkareshwar HPS	248/GT/2012	May, 2013
NTPC-Sipat Stage – II	316 of 2009	January, 2012
NTPC-Kahalgaon Stage- II	11/GT/2012	February, 2013
DVC (MTPS,CTPS)	42/GT/2011	Oct, 2012

3.31 Variable costs (including Fuel Price Adjustment) for MP Genco and Central Generating Stations have been considered from the bills for FY 2012-13, which have been escalated at inflation rate of 6.14% yearly for FY 2013-14 and further for FY 2014-15.

3.32 Fuel Price Adjustment (FPA) and other variable charges have been taken from bills of FY 2012-13 and have been escalated in the same manner as that of variable cost per unit. Since, these costs are typically paid at the end of financial year and as the data for FY 2013-14 is not available, aforementioned costs of FY 2012-13 have been considered as the base.

3.33 The table below provides the details of the costs viz. fixed costs and variable costs for all the existing plants for determining the power purchase cost for FY 2014-15.

Table 17 : Fixed cost and Variable cost as filed for the Existing Stations for FY 2014-15

Station	Fixed Charges (Rs. Crore)	Total Variable (Rs. /kWh)
NTPC-Korba	194.00	1.00
NTPC-Vindyachal I	210.00	1.58
NTPC-Vindyachal II	184.00	1.48
NTPC-Vindyachal III	212.00	1.50
NTPC-Kawas	96.99	2.42
NTPC-Gandhar	101.00	2.31
KAPP	-	2.37
TAPS	-	2.85
NHDC - Indira Sagar	554.53	0.28
Sardar Sarovar	203.41	1.12
Omkareshwar HPS	419.26	0.27

Station	Fixed Charges (Rs. Crore)	Total Variable (Rs. /kWh)
ATPS - Chachai-PH 1&2	112.62	1.43
STPS - Sarani-PH 1, 2 & 3	383.92	1.72
SGTPS - Bir'pur - PH 1 & 2	424.82	2.80
CHPS-Gandhi Sagar	7.60	0.60
CHPS-RP Sagar & Jawahar Sagar	-	1.51
Pench THPS	17.73	0.36
Banasgar Tons HPS	170.53	0.86
Banasgar Tons HPS-Silpara	-	-
Banasgar Tons HPS-Devloned	-	-
Banasgar Tons HPS-Bansagar IV (Jhinna)	14.45	0.84
Birsingpur HPS	6.75	1.03
Bargi HPS	18.68	0.14
Rajghat HPS	6.91	1.40
Marhi Khera HPS	34.37	1.41
Others 1 (Wind Captive)	-	2.50
RSEB (Chambal,Satpura)	-	5.13
UPPCL (Rihand,Matatila,Rajghat)	-	-
Others 2	-	-
NTPC - Sipat Stage II	167.00	1.28
NTPC - Kahalgaon II	63.51	1.98
DVC (MTPS, CTPS)	434.00	2.28
SGTPS - Bir'pur – Extn	423.81	2.53
ATPS - Chachai-Extn	204.47	1.16

Details of Costs for existing and future capacities allocated to MPPMCL

3.34 For MPPMCL allocated stations, including existing and future capacities, the petitioners have considered cost estimates as per the actual power purchase bills for FY 2012-13, available CERC orders and various existing Power Purchase Agreements. 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 2014-15**

Sr. No.	Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore) for FY 2014-15	Remarks	Variable Charges for FY2014-15 (Rs. /kWh)	Remarks
1	NTPC Korba –VII	Unit 7	77.00	86.58	As per actual Power Purchase bills for FY'13	0.96	As per actual Power Purchase bills for FY'13
2	IPP Torrent	Unit 1	100.00	87.84		3.36	
3	NTPC Sipat Stage - 1	3 units	340.40	239.94		1.40	
4	MPPGCL - Satpura TPS Extension	Unit 10	250.00	309.41	As per MPERC tariff order dated 8-10-2013	1.78	As per MPERC tariff order dated 8-10-2013
5		Unit 11	250.00	283.63		1.78	
6	MPPGCL - Shri Singaji STPS Phase -1	Unit 1	600.00	515.64	As per MW cost of SGTPS-Bir'pur Extn	2.46	As per information provided by MPPGCL
7		Unit 2	600.00	214.73		2.46	
8	NTPC Mauda STPS, Stage -1	Unit 1	92.71	117.30	As per CERC tariff order dated 5-4-2013	2.99	As per CERC tariff order dated 5-4-2013
9		Unit 2	78.00	100.21		2.99	
10	NTPC Vindhyachal MTPS, Stage - 4	Unit 1	142.71	75.37	As per CERC tariff order dated 5-4-2013	1.32	As per CERC tariff order dated 5-4-2013
11		Unit 2	128.00	67.61		1.32	
12	DVC DTPS	Unit 1	50.00	21.13	As per actual Power Purchase bills for FY'13	2.90	As per actual Power Purchase bills for FY'13
13		Unit 2	50.00	21.13		2.90	
14	UMPP Sasan	Unit 1	247.00	-	No fixed charges for the station	0.70	The rates for the MYT period have been assumed as per the Quoted Tariff.
15		Unit 2	248.00	-		0.70	
16		Unit 3 & 4	495.00	-		0.70	
17		Unit 5 & 6	495.00	-		0.70	
18	Jaypee Bina Power	Unit 1	175.00	114.16	As per actual Power Purchase bills for FY'13	3.51	As per actual Power Purchase bills for FY'13
19		Unit 2	175.00	114.16		3.51	
20	Jaiprakash Power, Nigri	Unit 1	248.00	132.12	As per the rate of DVC DTPS	2.90	As per the rate of DVC DTPS
21		Unit 2	247.00	75.44		2.90	

Sr. No.	Name of Project	Unit	MP Share (MW)	Fixed Charges (Rs. Crore) for FY 2014-15	Remarks	Variable Charges for FY2014-	Remarks
22	MB Power	Unit 1	210.00	100.13	As per the rate of Jaypee Bina Power	3.51	As per the rate of Jaypee Bina Power
23		Unit 2	210.00	-		-	
24	BLA Power	Unit 1	16.00	18.69	As per actual Power Purchase bills for FY'13	2.28	As per actual Power Purchase bills for FY'13
25		Unit 2	16.00	18.69		2.28	
26	Jhabua Power	Unit 1	210.00	64.14	As per the rate of Jaypee Bina Power	3.51	As per the rate of Jaypee Bina Power
27	Lanco Amarkantak	Unit 1	300.00	109.02	As per actual Power Purchase bills for FY'13	1.56	As per actual Power Purchase bills for FY'13
28	NTPC Barh STPS, Stage-2	Unit 1	26.00	25.05	As per the rate of NTPC Mauda Stage 1	2.99	As per the rate of NTPC Mauda Stage 1
29		Unit 2	27.00	8.67		2.99	
30	NTPC Barh STPS, Stage-1	Unit 1	74.00	71.31		2.99	
31		Unit 2	75.00	24.09		2.99	
32		Unit 3	75.00	-		2.99	
33	NTPC Vindhyachal MTPS, Stage - 5	Unit 1	128.00	-		-	
34	Torrent Power GPP	Unit 2	35.00	42.59	As per CERC tariff order dated 29-5-2013	3.99	As per CERC tariff order dated 29-5-2013
35	Concessional Energy from Essar Power	Unit 1	30.00	-	No fixed charges for the station	2.90	As per the rate of DVC DTPS
36	Essar Power	Unit 1	150.00	-	No fixed charges for the station	2.71	As per PPA signed with Essar Power
37	Renewable Energy		255.25 MW (Solar) and 493.70 MW (Other than Solar)	-	No fixed charges for the station	8.05 (Solar) and 3.89 (Other than Solar)	Taken same as the average total charges per unit rate paid in FY13 as per actual bills.

3.35 In their additional submission amongst various other items related to power purchase, the petitioners made the following submissions:

a) The petitioners have submitted revised figures of fixed charges and variable charges of MPPGCL - Shri Singaji STPS Phase -1. Fixed charges have been revised to Rs 771.40 Crore and Rs 321.42 Crore for Unit-1 and Unit-2 respectively. Variable charges have been revised to Rs 1.68/kWh for both Unit-1 and Unit-2.

b) The petitioners have submitted revised figures of fixed charges and variable charges of Jaypee Bina power. Fixed charges have been revised to Rs 237 Crore and Rs 233 Crore for Unit-1 and Unit-2 respectively. Variable charges have been revised to Rs 2.85/kWh and Rs 2.36 for Unit-1 and Unit-2 respectively.

c) The petitioners have submitted revised figures of fixed charges and variable charges of Jaiprakash Power, Nigri. Fixed charges have been revised to Rs 268 Crore and Rs 145 Crore for Unit-1 and Unit-2 respectively. Variable charge has been revised to Rs 1.28/kWh for both Unit-1 and Unit-2.

d) The petitioners have submitted revised figures of fixed charges and variable charges of MB Power. Fixed charges have been revised to Rs 203.18 Crore and Variable charge has been revised to Rs 1.69/kWh.

e) The petitioners have submitted revised figures of fixed charges and variable charges of Jhabua Power. Fixed charges have been revised to Rs 135.45 Crore and Variable charge has been revised to Rs 1.69/kWh.

Assessment of Other Elements of Power Purchase Cost by the petitioners

Inter State Transmission Charges associated with existing capacities:

3.36 The petitioners have submitted that the inter-State transmission Charge (PGCIL cost) consists of charges to be paid for transmission system of Western Region and Eastern Region. In response to the specific query raised by the Commission on the methodology adopted for projecting the transmission charges, the petitioners have submitted that for working out projection of inter-State transmission charges, CAGR has been assumed of actual transmission charges for FY 2012-13 and FY 2013-14 and approximated to arrive at a projected cost for FY 2014-15. The petitioners have submitted that these costs have been allocated to Discoms in ratio of the power proposed to be procured by each Discom from Central Sector Stations as tabulated below:

Table 19: PGCIL Costs: Inter-State transmission charges filed by Discoms

Particulars	Allocation (%)	PGCIL Costs (Rs Crore)
East Discom	30.89%	339.42
West Discom	39.27%	431.56
Central Discom	29.84%	327.86
Total	**100%**	**1098.84**

Intra - State Transmission Charges

3.37 The petitioners have submitted that for the purpose of calculation of intra-state transmission costs, 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. Petitioners have further requested to take into account the Terminal Benefit Liabilities amount as claimed by MPPTCL in its petition no. 06/2013 against the amount admitted by the Commission. The petitioners have submitted various components considered by Discoms as a part of total intra-state transmission charges as follows.

3.38 Fixed cost for FY 2014-15 as admitted by the Commission vide MYT order for MP Transmission Company dated April 2, 2013 have been considered.

3.39 SLDC charges of Rs. 8.03 Crore as admitted by the Commission vide order dated April 10, 2013 have been considered for FY 2013-14. For FY 2014-15 the annual SLDC charges have been computed based on the transmission capacity of Discoms and the rate for Long-term access customers has been considered as Rs. 7633.81/ MW as admitted by the Commission in the SLDC tariff order.

3.40 It is further submitted by the petitioners that the total transmission charges of Rs. 1737.16 Crore have been allocated to three Discoms as per the weighted average of capacity of allocation of stations to the Discoms as indicated in the table below:

Table 20: Intra-State Transmission Charges filed by petitioners for FY 2014-15 (Rs. Crore)

Particulars	FY 2014-15
East Discom	520.06
West Discom	671.40
Central Discom	545.70
Total	**1737.16**

MPPMCL Costs: Details and Discom wise Allocation

3.41 The petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. 58.68 Crore for FY 2014-15 and allocated the same to three Discoms based on the average capacity allocation of existing stations. The petitioners requested to admit expenses and include the same as a power purchase cost. Details of the expenses and costs allocated to Discoms are mentioned in the table below:

Table 21: Expenses of MPPMCL as filed for FY 2014-15 (Rs Crore)

Particulars	FY 2014-15
Purchase of Power	27.88
Inter-State Transmission Charges	115.96
Depreciation Expenses	1.94
Interest and Finance Charges	60.87
Repairs and Maintenance Expenses	1.12
Employee Expenses	54.64
A&G Expenses	19.71
Other Expenses	39.61
Total	321.73
Less:	
Income	263.05
Net Expenses	**58.68**

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

Particulars	FY 2014-15
East Discom	17.57
West Discom	22.68
Central Discom	18.43
Total	**58.68**

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

Table 23: Total Power Purchase Cost as filed for FY 2014-15

Total Power Purchase Cost		East Discom	West Discom	Central Discom	State
A	Ex-bus Units to be Purchased (MU)	18,097	21,816	19,224	59,138
B	Fixed Cost (Rs. Crore)	1,405.09	1,845.64	1,415.63	4,666.36
C	Variable Cost (Rs. Crore)	3,088.13	3,775.20	3,355.71	10,219.04
D	MPPMCL costs (Rs. Crore)	17.57	22.68	18.43	58.68
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crore)	4,510.78	5,643.51	4,789.78	14,944.08

E/A	**Rate of Power Purchase (Rs./kWh)**	**2.49**	**2.59**	**2.49**	**2.53**
H	External Losses (MU)	191	213	161	565
I	Inter -State Transmission Cost (Rs. Crore)	339.42	431.56	327.86	1,098.84
J = (A-H)	Energy to be Purchased at State Periphery (MU)	17,906	21,603	19,064	58,573
K = (I + E)	Total Power Purchase Cost at State Boundary (Rs. Crore)	4,850.20	6,075.07	5,117.64	16,042.91
J/K	**Rate of Power Purchase at State Boundary (Rs./kWh)**	**2.71**	**2.81**	**2.68**	**2.74**
L	Intra State Transmission Cost – MPPTCL including SLDC (Rs. Crore)	520.06	671.40	545.70	1,737
M = (K+L)	Total Power Purchase Cost at Discom Interface (Rs. Crore)	5,370.26	6,746.47	5,663.34	17,780.07
N	Intra- State Transmission Loss (MU)	537	648	572	1,757
O = (K-N)	Energy to be Purchased at Discom Boundary (MU)	17,368.62	20,955.32	18,492.02	56,815.96
O/M	**Rate of Power Purchase at Discom Boundary (Rs./kWh)**	**3.09**	**3.22**	**3.06**	**3.13**

Commission's Analysis of Energy Balance and Power Purchase

Distribution Losses

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

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

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

3.44 The Commission has considered the distribution losses for FY 2014-15 as specified in the Tariff Regulations for projecting the energy requirement. It is observed that the petitioners have taken arithmetical averages of month wise losses to calculate yearly loss levels while calculating month wise power input. This is not in consonance with the annual loss trajectory as specified in the Tariff Regulations. The Commission has considered annual sale grossed up by annual level of prescribed loss levels as per the calculations shown in subsequent paragraphs/ tables.

External (PGCIL) Losses

3.45 The inter-State transmission losses have been computed separately for Eastern and Western Region stations. For Western Region average transmission losses of 2.28% have been considered based on actual losses of past 52 weeks (24th December, 2012 to 29th December, 2013). Similarly these losses have been considered as 2.50% for Eastern Region.

3.46 The Commission has considered intra-State transmission losses at 3.00% for FY 2014-15 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 2014-15 is presented in the following table:

Table 25: Power purchase requirement as worked out

Particular	State	East Discom	West Discom	Central Discom
Total Sales (MU)	45,501.19	13,870.46	17,037.28	14,593.45
Distribution loss (%)	**19.59%**	**20.00%**	**18.00%**	**21.00%**
Distribution loss (MU)	11,086.78	3,467.62	3,739.89	3,879.27
Input at T-D interface (MU)	56,587.97	17,338.08	20,777.17	18,472.72
Transmission loss (%)	**3.00%**	**3.00%**	**3.00%**	**3.00%**
Transmission loss (MU)	1,750.14	536.23	642.59	571.32
Input at G-T interface (MU)	58,338.11	17,874.30	21,419.76	19,044.04
PGCIL Losses %				
WR- PGCIL Losses %	2.28%	2.28%	2.28%	2.28%
ER- PGCIL Losses %	2.50%	2.50%	2.50%	2.50%
PGCIL Losses (MU)	720.32	239.25	261.34	219.73
Power Purchase Requirement (MU)	**59,058.43**	**18,113.55**	**21,681.10**	**19,263.77**

3.47 Energy Deptt. Govt. of Madhya Pradesh (GoMP) vide notification no. 2260-F-3-24-2009-xiii dated March 19, 2013, had revised the existing generating capacity allocation to the three Discoms for maintaining uniform tariff across the state. This notification is still in force. The GoMP vide letter no.F-5-15/2011/13 dated 22nd May,2014 advised to the Commission to maintain uniform retail tariff across the state for same category of consumers of all the three Discoms. Accordingly, the Commission in this tariff order has considered the existing generating capacity allocation to the three Discoms as per notification and has also apportioned the capacities/ costs of stations allocated to MPPMCL further to Discoms for maintaining uniform tariff across the state.

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

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

Discom wise Allocation for FY 2014-15										
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Specific Allocation to Bundelkhand Region (MW)**	**Allocation to state(excluding specific allocation) (MW)**	**Discom wise Allocation (in % excluding specific allocation)**			
A.	**Central Generating Stations**					**East**	**West**	**Central**	**Total**
1	WR – KSTPS	2,100.00	479.48	52.63	426.85	32%	37%	31%	100%
2	WR - VSTPS-I	1,260.00	441.50	32.26	409.24	31%	32%	37%	100%
3	WR - VSTPS-II	1,000.00	316.71	25.47	291.24	30%	35%	35%	100%
4	WR - KAWAS GPP	656.20	140.00	0.00	140.00	35%	40%	25%	100%
5	WR - GANDHAR GPP	657.39	117.00	0.00	117.00	32%	38%	30%	100%
6	WR - KAKRAPAR APS	440.00	111.40	11.21	100.19	25%	40%	35%	100%
7	WR - TARAPUR APS Unit 3 & 4	1,080.00	233.78	27.50	206.28	25%	40%	35%	100%
8	WR - VSTPS – III	1,000.00	246.45	25.47	220.98	25%	40%	35%	100%
9	WR - SIPAT –II	1,000.00	188.48	25.47	163.01	30%	40%	30%	100%
10	ER- KAHALGAON STPS-II	1,500.00	74.98	0.00	74.98	27%	53%	20%	100%
11	ER-DVC (MTPS,CTPS)	1,000.00	400.00	0.00	400.00	33%	53%	14%	100%
	SUB TOTAL	**11,693.59**	**2,749.78**	**200.01**	**2,549.77**				
B. State Generating Stations									
I	**THERMAL**								
1	AMARKANTAK COM	240.00	240.00	0.00	240.00	27%	33%	40%	100%
2	AMARKANTAK EXT	210.00	210.00	0.00	210.00	27%	33%	40%	100%
3	SATPURA TPS PH I & II &III	1,080.00	980.00	0.00	980.00	29%	32%	39%	100%
4	SGTPS EXT	500.00	500.00	0.00	500.00	28%	32%	40%	100%
5	SGTPS	840.00	840.00	0.00	840.00	28%	32%	40%	100%
	SUB TOTAL	**2,870.00**	**2,770.00**	**0.00**	**2,770.00**				
II	**HYDEL**								
	INTERSTATE								
1	GANDHI SAGAR	115.00	57.50	0.00	57.50	23%	27%	50%	100%
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	271.00	135.50	0.00	135.50	20%	30%	50%	100%

Discom wise Allocation for FY 2014-15									
SL No	**Generating Stations**	**Installed Capacity (MW)**	**Allocation to State (MW)**	**Specific Allocation to Bundelkhand Region**	**Allocation to state(excluding specific allocation)**	**Discom wise Allocation (in % excluding specific allocation)**			
3	PENCH	160.00	106.67	0.00	106.67	20%	40%	40%	100%
4	RAJGHAT	45.00	22.50	0.00	22.50	20%	40%	40%	100%
	SUB TOTAL	591.00	322.17	0.00	322.17				
FULL MP ALLOCATION									
1	BARGI	100.00	100.00	0.00	100.00	25%	50%	25%	100%
2	BIRISINGHPUR	20.00	20.00	0.00	20.00	30%	50%	20%	100%
3	BANSAGAR – I	315.00	315.00	0.00	315.00	30%	40%	30%	100%
4	BAN SAGAR II	30.00	30.00	0.00	30.00	30%	40%	30%	100%
5	BAN SAGAR III	60.00	60.00	0.00	60.00	30%	40%	30%	100%
6	BAN SAGAR IV	20.00	20.00	0.00	20.00	30%	40%	30%	100%
7	MARIKHEDA	60.00	60.00	0.00	60.00	30%	50%	20%	100%
	SUB TOTAL	**605.00**	**605.00**	**0.00**	**605.00**				
BILATERAL AND OTHERS									
1	INDIRA SAGAR	1,015.00	1,015.00	0.00	1,015.00	22%	53%	25%	100%
2	NCE- WIND GENERATION	0.00	0.00	0.00	0.00	30%	40%	30%	100%
3	CAPTIVE	63.00	63.00	0.00	63.00	29%	41%	30%	100%
4	SARDAR SAROVAR	1,450.00	826.50	0.00	826.50	32%	43%	25%	100%
5	OMKARESHWAR	520.00	520.00	0.00	520.00	30%	45%	25%	100%
	SUB TOTAL	**3,048.00**	**2,424.50**	**0.00**	**2,424.50**				
6	RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00	-	-	-	-
7	UPPCL (RIHAND,MATATILA, RAJGHAT)	55.00	55.00	0.00	55.00	29%	38%	33%	100%
	SUB TOTAL	**3,103.00**	**55.00**	**0.00**	**55.00**				
	GRAND TOTAL	**21,910.59**	**8,926.45**	**200.01**	**8,726.44**				

3.49 The petitioners have submitted details of the generating stations assigned to the MPPMCL including the details of stations that got commissioned in the past and expected to be commissioned in FY 2014-15. Details of generating stations allocated to MPPMCL are given in the table below:-

Table 27: Generating Stations allocated to MPPMCL for FY 2014-15

Sr. No.	Particulars	Allocation to MPPMCL (MW)
1	SIPAT -I (3 Units)	340
2	NTPC Korba – 7	77
3	IPP Torrent	100
4	Singaji Thermal Power Stations Phase I -Unit-1	600
	Singaji Thermal Power Stations Phase I -Unit-2	600
5	Satpura Thermal Power Stations Exten - Unit 10	250
	Satpura Thermal Power Stations Exten - Unit 11	250
6	NTPC Mauda TPS- Unit-1	93
	NTPC Mauda TPS- Unit-2	78
7	Vindhyachal Mega Project, Stage 4-Unit-1	143
	Vindhyachal Mega Project, Stage 4-Unit-2	128
8	DVC Durgapur Steel TPS- Unit-1	50
	DVC Durgapur Steel TPS- Unit-2	50
9	UMPP Sasan, Sidhi Unit-1	247
	UMPP Sasan, Sidhi Unit-2	248
	UMPP Sasan, Sidhi Unit 3& 4	495
	UMPP Sasan, Sidhi Unit 5&6	495
10	Jaypee Bina Power, Sagar Unit-1	175
	Jaypee Bina Power, Sagar Unit-2	175
11	Jaiprakash Power, Nigri- Unit-1	248
	Jaiprakash Power, Nigri- Unit-2	247
12	MB Power, Annupur	210
13	BLA Power, Narsinghpur- Unit-1	16
	BLA Power, Narsinghpur-Unit-2	16
14	Jhabua Power, Seoni	210
15	Lanco TPS, Amarkantak	300
16	NTPC Barh STPS- Stage 2- Unit-1	26
	NTPC Barh STPS- Stage 2- Unit-2	27
	NTPC Barh STPS- Stage 1 Unit-1	74
	NTPC Barh STPS- Stage 1 Unit-2	75

Sr. No.	Particulars	Allocation to MPPMCL (MW)
17	Torrent Power GPP	35
18	Concessional Energy from Essar Power	30
19	Essar Power	150
20	Renewable Energy Solar	255
21	Renewable Energy Non Solar	494
	Total	**7007**

3.50 In order to ascertain the availability of the energy 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.

3.51 The Commission has considered the average of actual energy generation of the generating stations allocated to the state for projecting the energy availability of existing Central Generating Stations based on the Regional Energy Accounts published by the Western Regional Power Committee (WRPC) and Eastern Regional Power Committee (ERPC) available for the period December 2010 till December 2013.

3.52 The Commission observed that the energy availability projected for FY 2014-15 by the petitioners for M.P Genco Stations and new generating stations allocated to MPPMCL is less when compared with past actual availability. In this regard, vide letter no 325 dated February 26, 2014, the Commission directed the M.P Genco to submit their projections of energy availability for M.P Genco stations for FY 2014-15. In response, MP Genco submitted their projections of energy availability for FY 2014-15 vide letter no 344 dated March 12, 2014. Accordingly the Commission has considered the energy availability as submitted by M.P Genco for FY 2014-15.

3.53 The Commission sought details from NHDC regarding their availability projections for FY 2014-15 in respect of Indira Sagar Power Station (ISPS) and Omkareshwar (OSP) . Vide letter no. 534 dated March 7, 2014, NHDC has submitted the actual energy availability for FY 2011-12, FY 2012-13, FY 2013-14 till December,13 and projections for FY 2014-15.

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

3.55 Energy availability of new generating stations allocated to MPPMCL has been projected based on the norms specified in the CERC (Terms and Conditions of Tariff)

Regulations, 2009 and MPERC Generation Tariff Regulations on case to case basis.

3.56 Month wise details of projected availability for FY 2014-15 are indicated in the table below:

Table 28 : Month wise MUs projection for FY 2014-15

Sr. No.	Generating Stations	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Total
1 Allocated to Discom														
A. Central Generating Stations														
1	WR – KSTPS	308	318	255	265	297	308	318	308	297	297	289	265	3,523
2	WR - VSTPS-I	244	253	244	286	286	244	253	277	286	286	260	286	3,206
3	WR - VSTPS-II	198	205	198	205	131	198	205	198	205	205	185	205	2,336
4	WR - KAWAS GPP	47	48	53	55	55	47	49	47	55	55	50	55	618
5	WR - GANDHAR GPP	47	48	47	48	41	35	41	47	48	48	44	41	536
6	WR - KAKRAPAR APS	42	68	66	68	68	66	68	66	68	68	38	68	757
7	WR - TARAPUR APS Unit 3 & 4	131	88	84	135	135	131	135	131	135	135	123	135	1,501
8	WR - VSTPS – III	161	167	161	107	167	161	167	161	167	167	151	167	1,902
9	WR - SIPAT –II	104	107	104	69	107	104	107	104	107	107	97	107	1,223
10	ER - FARAKKA STPS	0	0	0	0	0	0	0	0	0	0	0	0	0
11	ER-KAHALGAON STPS-II	28	28	28	28	28	28	28	28	28	28	26	28	335
12	ER - KAHALGAON STPS	0	0	0	0	0	0	0	0	0	0	0	0	0
13	ER - TALCHER STPS	0	0	0	0	0	0	0	0	0	0	0	0	0
14	ER-DVC (MTPS,CTPS)	207	213	207	213	213	207	213	207	213	213	193	213	2,514
	SUB TOTAL	**1,516**	**1,543**	**1,447**	**1,480**	**1,529**	**1,529**	**1,584**	**1,574**	**1,610**	**1,610**	**1,456**	**1,571**	**18,450**
B. State Generating Stations														
I	THERMAL													
1	AMARKANTAK COM	105	108	105	97	97	94	103	105	108	108	98	108	1,236
2	AMARKANTAK EXT	127	132	127	0	126	122	133	129	133	133	120	133	1,416
3	SATPURA TPS PH I & II &III	388	401	388	280	155	286	401	398	411	411	371	411	4,303
4	SGTPS EXT	315	326	315	311	0	301	329	319	329	329	297	329	3,500
5	SGTPS	415	428	415	297	332	288	428	423	437	437	395	437	4,731
	SUB TOTAL	**1,350**	**1,395**	**1,350**	**985**	**709**	**1,091**	**1,395**	**1,372**	**1,418**	**1,418**	**1,281**	**1,418**	**15,185**
II	HYDEL													
C- INTERSTATE														
1	GANDHI SAGAR	8	8	4	4	8	12	21	27	25	17	12	8	155

Sr. No.	Generating Stations	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Total
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	1	1	2	2	10	10	26	69	68	67	49	48	354
3	PENCH	17	13	4	4	26	30	43	30	30	30	26	17	272
4	RAJGHAT	1	1	1	2	2	7	7	7	5	3	2	2	43
	SUB TOTAL	**28**	**24**	**12**	**13**	**47**	**60**	**97**	**133**	**128**	**116**	**90**	**76**	**823**
D- FULL MP ALLOCATION														
1	BARGI	21	19	12	24	52	56	56	56	52	47	38	38	470
2	BIRISINGHPUR	0	0	2	2	4	8	8	4	4	4	0	0	37
3	BANSAGAR - I	84	105	110	130	147	193	195	165	148	143	121	130	1,671
4	BAN SAGAR II	0	0	0	0	0	0	0	0	0	0	0	0	0
5	BAN SAGAR III	0	0	0	0	0	0	0	0	0	0	0	0	0
6	BAN SAGAR IV	5	4	5	5	6	10	13	13	13	12	10	10	106
7	MARIKHEDA	0	4	0	6	13	22	28	18	18	9	9	7	135
	SUB TOTAL	**109**	**132**	**129**	**166**	**222**	**290**	**300**	**257**	**235**	**215**	**177**	**185**	**2,419**
E- BILATERAL AND OTHERS														
1	INDIRA SAGAR	181	178	184	329	544	623	308	245	214	203	147	183	3,339
2	NCE- WIND GENERATION	0	0	0	0	0	0	0	0	0	0	0	0	0
3	CAPTIVE	9	9	9	9	9	9	9	9	9	9	9	9	103
4	SARDAR SAROVAR	125	154	183	259	441	507	228	149	112	143	89	113	2,505
5	OMKARESHWAR	88	90	101	159	235	261	138	112	100	96	72	89	1,541
	SUB TOTAL	**403**	**431**	**477**	**755**	**1,229**	**1,399**	**683**	**514**	**436**	**450**	**317**	**394**	**7,487**
6	RSEB (CHAMBAL,SATPURA)													
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	8	8	9	9	26	29	14	12	10	10	8	8	150
	SUB TOTAL	**8**	**8**	**9**	**9**	**26**	**29**	**14**	**12**	**10**	**10**	**8**	**8**	150
	GRAND TOTAL	**3,414**	**3,534**	**3,424**	**3,408**	**3,762**	**4,398**	**4,074**	**3,864**	**3,837**	**3,819**	**3,329**	**3,652**	**44,515**
2. Allocated to MPPMCL														
1	WR - SIPAT -I (3 Units)	187	193	187	193	147	187	193	187	193	193	175	193	2,230
2	WR-NTPC Korba – 7	51	52	14	52	52	51	52	51	52	52	48	52	581
3	WR-IPP Torrent	28	29	28	29	29	28	29	28	29	29	26	29	341
4	Singaji Thermal Power Stations Phase I -Unit-1	278	287	283	364	364	353	364	353	364	364	329	364	4,068
	Singaji Thermal Power Stations Phase I -Unit-2	0	0	0	0	0	0	406	393	406	406	367	406	2,383
5	Satpura Thermal Power Stations Exten - Unit 10	130	134	130	134	134	130	134	130	134	134	121	134	1,577

Sr. No.	Generating Stations	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Total
	Satpura Thermal Power Stations Exten - Unit 11	150	156	150	156	156	150	156	150	156	156	140	156	1,831
	WR- NTPC Mauda TPS-Unit-1	50	52	50	52	52	50	52	50	52	52	47	52	607
6	WR-NTPC Mauda TPS-Unit-2	48	49	48	49	49	48	49	48	49	49	45	49	581
	WR-Vindhyachal Mega Project, Stage 4-Unit-1	77	79	77	79	79	77	79	77	79	79	72	79	935
7	WR-Vindhyachal Mega Project, Stage 4-Unit-2	78	81	78	81	81	78	81	78	81	81	73	81	953
	ER-DVC Durgapur Steel TPS- Unit-1	26	27	26	27	27	26	27	26	27	27	24	27	318
8	ER-DVC Durgapur Steel TPS- Unit-2	26	27	26	27	27	26	27	26	27	27	24	27	318
	WR-UMPP Sasan, Sidhi Unit-1	152	157	152	157	157	152	157	152	157	157	142	157	1,847
	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	0	0	303	313	313	303	313	303	313	313	283	313	3,070
9	WR-UMPP Sasan, Sidhi Unit 5&6	0	0	0	0	0	0	0	0	313	313	283	313	1,222
	Jaypee Bina Power, Sagar Unit-1	92	95	92	95	95	92	95	92	95	95	86	95	1,122
10	Jaypee Bina Power, Sagar Unit-2	92	95	92	95	95	92	95	92	95	95	86	95	1,122
	WR-Jaiprakash Power, Nigri-Unit-1	0	0	152	157	157	152	157	152	157	157	142	157	1,538
11	WR-Jaiprakash Power, Nigri-Unit-2	0	0	0	0	0	151	156	151	156	156	141	156	1,068
12	WR-MB Power, Annupur	0	0	0	0	0	129	133	129	133	133	120	133	908
13	BLA Power, Narsinghpur-Unit-1	10	10	10	10	10	10	10	10	10	10	9	10	117
14	BLA Power, Narsinghpur-Unit-2	0	0	10	10	10	10	10	10	10	10	9	10	98
15	WR- Jhabua Power, Seoni	0	0	0	0	0	129	133	129	133	133	120	133	908
16	WR-Lanco TPS, Amarkantak	160	165	160	165	165	160	165	160	165	165	149	165	1,945
	WR-NTPC Barh STPS- Stage 2-Unit-1	0	0	16	16	16	16	16	16	16	16	15	16	161
	WR-NTPC Barh STPS- Stage 2-Unit-2	0	0	0	0	0	0	0	0	17	17	15	17	67
17	WR-NTPC Barh STPS- Stage 1 Unit-1	0	0	45	47	47	45	47	45	47	47	42	47	459

Sr. No.	Generating Stations	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Total
	WR-NTPC Barh STPS- Stage 1 Unit-2	0	0	0	0	0	0	0	0	47	47	43	47	185
18	WR-Torrent Power GPP	0	0	0	0	0	0	0	0	0	0	0	22	22
19	WR-Concessional Energy from Essar Power	16	17	16	17	17	16	17	16	17	17	15	17	201
20	WR-Essar Power	0	0	0	0	0	0	95	92	95	95	86	95	557
21	Renewable Energy Solar	40	42	40	42	42	40	42	40	42	42	38	42	489
22	Renewable Energy Non Solar	80	113	117	113	117	117	113	117	113	117	117	105	1,337
	SUB TOTAL	**1,924**	**2,017**	**2,454**	**2,638**	**2,595**	**2,968**	**3,560**	**3,453**	**3,938**	**3,941**	**3,572**	**3,952**	**37,012**
	Grand Total	**5,338**	**5,551**	**5,878**	**6,046**	**6,356**	**7,367**	**7,635**	**7,317**	**7,775**	**7,760**	**6,901**	**7,604**	**81,527**

3.57 Firm energy availability from the long term sources works out to 44515 MU. Energy availability from the sources allocated to MPPMCL is of the order of 37012 MU, which is considered as infirm availability. The firm energy availability has been allocated amongst the Discoms as per Energy Deptt. GoMP's letter no. 2254/13/13/02 Bhopal dated March 19, 2013. Subsequently, the infirm availability on the basis of balance requirement of the Discoms has been allocated. Accordingly, details of month wise Discom wise requirement and the estimated availability are given below:

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

FY 2014-15 (Projections)													
Power Purchase Requirement – Ex Generating Bus(MU)													
Particulars	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Total**
East Discom	1,268	1,267	1,267	1,450	1,448	1,444	1,446	1,813	1,631	1,814	1,633	1,632	18,114
West Discom	1,518	1,736	1,736	1,735	1,731	1,727	1,731	1,952	1,953	1,953	1,956	1,954	21,681
Central Discom	1,347	1,541	1,541	1,543	1,542	1,536	1,538	1,734	1,929	1,929	1,542	1,541	19,264
Total for State	**4,133**	**4,544**	**4,544**	**4,728**	**4,721**	**4,707**	**4,715**	**5,500**	**5,513**	**5,696**	**5,131**	**5,127**	**59,058**
Availability from all Sources – Ex Generating Bus (MUs)													
Requirement to be met from Long term sources	**3,414**	**3,534**	**3,424**	**3,408**	**3,762**	**4,398**	**4,074**	**3,864**	**3,837**	**3,819**	**3,329**	**3,652**	**44,515**
Balance Requirement after Long Term	718	1,010	1,120	1,320	960	308	641	1,636	1,676	1,877	1,803	1,475	14,544
MPPMCL sources As Available	1,924	2,017	2,454	2,638	2,595	2,968	3,560	3,453	3,938	3,941	3,572	3,952	37,012
Requirement to be met from MPPMCL sources	718	1,010	1,120	1,320	960	308	641	1,636	1,676	1,877	1,803	1,475	14,544
Surplus After Long Term and MPPMCL	1,205	1,007	1,334	1,318	1,635	2,660	2,920	1,817	2,262	2,064	1,769	2,478	22,468
Total Availability	**5,338**	**5,551**	**5,878**	**6,046**	**6,356**	**7,367**	**7,635**	**7,317**	**7,775**	**7,760**	**6,901**	**7,604**	**81,527**

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

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

Sl No.	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Allocation to State %	Discom wise Allocation (in MW including specific allocation to Bundelkhand)			
A. Central Generating Stations					**East**	**West**	**Central**	**Total**
1	WR - KSTPS	2,100.00	479.48	23%	189.22	157.93	132.32	479.48
2	WR - VSTPS-I	1,260.00	441.50	35%	159.12	130.96	151.42	441.50
3	WR - VSTPS-II	1,000.00	316.71	32%	112.84	101.93	101.93	316.71
4	WR - KAWAS GPP	656.20	140.00	21%	49.00	56.00	35.00	140.00
5	WR - GANDHAR GPP	657.39	117.00	18%	37.44	44.46	35.10	117.00
6	WR - KAKRAPAR APS	440.00	111.40	25%	36.26	40.08	35.07	111.40
7	WR - TARAPUR APS Unit 3 & 4	1,080.00	233.78	22%	79.07	82.51	72.20	233.78
8	WR - VSTPS - III	1,000.00	246.45	25%	80.72	88.39	77.34	246.45
9	WR - SIPAT -II	1,000.00	188.48	19%	74.37	65.20	48.90	188.48
10	ER- KAHALGAON STPS-II	1,500.00	74.98	5%	20.24	39.74	15.00	74.98
11	ER-DVC (MTPS,CTPS)	1,000.00	400.00	40%	132.00	212.00	56.00	400.00
	SUB TOTAL	**11,693.59**	**2,749.78**	**18%**	**970.29**	**1,019.21**	**760.28**	**2,749.78**
B. State Generating Stations								
I	**THERMAL**							
1	AMARKANTAK COM	240.00	240.00	100%	64.80	79.20	96.00	240.00
2	AMARKANTAK EXT	210.00	210.00	100%	56.70	69.30	84.00	210.00
3	SATPURA TPS PH I & II &III	1,080.00	980.00	91%	284.20	313.60	382.20	980.00
4	SGTPS EXT	500.00	500.00	100%	140.00	160.00	200.00	500.00
5	SGTPS	840.00	840.00	100%	235.20	268.80	336.00	840.00
	SUB TOTAL	**2,870.00**	**2,770.00**	**97%**	**780.90**	**890.90**	**1,098.20**	**2,770.00**
II	**HYDEL**							
	INTERSTATE							
1	GANDHI SAGAR	115.00	57.50	50%	13.23	15.53	28.75	57.50
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	271.00	135.50	50%	27.10	40.65	67.75	135.50
3	PENCH	160.00	106.67	67%	21.33	42.67	42.67	106.67

Sl No.	Generating Stations	Installed Capacity (MW)	Allocation to State (MW)	Allocation to State %	Discom wise Allocation (in MW including specific allocation to Bundelkhand)			
4	RAJGHAT	45.00	22.50	50%	4.50	9.00	9.00	22.50
	SUB TOTAL	**591.00**	**322.17**	**55%**	**66.16**	**107.84**	**148.17**	**322.17**
FULL MP ALLOCATION								
1	BARGI	100.00	100.00	100%	25.00	50.00	25.00	100.00
2	BIRISINGHPUR	20.00	20.00	100%	6.00	10.00	4.00	20.00
3	BANSAGAR - I	315.00	315.00	100%	94.50	126.00	94.50	315.00
4	BAN SAGAR II	30.00	30.00	100%	9.00	12.00	9.00	30.00
5	BAN SAGAR III	60.00	60.00	100%	18.00	24.00	18.00	60.00
6	BAN SAGAR IV	20.00	20.00	100%	6.00	8.00	6.00	20.00
7	MARIKHEDA	60.00	60.00	100%	18.00	30.00	12.00	60.00
	SUB TOTAL	**605.00**	**605.00**	**100%**	**176.50**	**260.00**	**168.50**	**605.00**
BILATERAL AND OTHERS								
1	INDIRA SAGAR	1,015.00	1,015.00	100%	223.30	537.95	253.75	1,015.00
2	NCE- WIND GENERATION	0.00	0.00		0.00	0.00	0.00	0.00
3	CAPTIVE	63.00	63.00	0%	18.90	25.20	18.90	63.00
4	SARDAR SAROVAR	1,450.00	826.50	57%	264.48	355.40	206.63	826.50
5	OMKARESHWAR	520.00	520.00	100%	156.00	234.00	130.00	520.00
	SUB TOTAL	**3,048.00**	**2,424.50**	**0%**	**662.68**	**1,152.55**	**609.28**	**2,424.50**
6	RSEB (CHAMBAL,SATPURA)	0.00	0.00	0%	0.00	0.00	0.00	0.00
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	55.00	55.00		15.88	21.03	18.09	55.00
	SUB TOTAL	**3,103.00**	**55.00**	**2%**	**15.88**	**21.03**	**18.09**	**55.00**
	GRAND TOTAL	**21,910.59**	**8,926.45**		**2,672.41**	**3,451.53**	**2,802.52**	**8,926.45**

3.59 The station wise ex-bus availability and the availability at the state periphery after considering PGCIL system losses for WR and ER stations for FY 2014-15 is shown in the Table below:

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

Sr. No.	Generating Stations	Availability (Ex-Bus)			Availability (Ex-state Periphery)		
		East	West	Central	East	West	Central
A. Central Generating Stations							
1	WR – KSTPS	1,390.26	1,160.38	972.21	1,358.56	1,133.93	950.05
2	WR - VSTPS-I	1,155.36	950.84	1,099.41	1,129.02	929.16	1,074.34
3	WR - VSTPS-II	832.27	751.82	751.82	813.30	734.68	734.68
4	WR - KAWAS GPP	216.26	247.15	154.47	211.33	241.52	150.95

Sr. No.	Generating Stations	Availability (Ex-Bus)			Availability (Ex-state Periphery)		
		East	West	Central	East	West	Central
5	WR - GANDHAR GPP	171.47	203.63	160.76	167.57	198.98	157.09
6	WR - KAKRAPAR APS	246.52	272.48	238.42	240.90	266.27	232.99
7	WR - TARAPUR APS Unit 3 & 4	507.74	529.85	463.61	496.17	517.76	453.04
8	WR - VSTPS – III	622.90	682.15	596.88	608.70	666.60	583.27
9	WR - SIPAT –II	482.53	423.04	317.28	471.52	413.39	310.04
10	ER - FARAKKA STPS	0.00	0.00	0.00	0.00	0.00	0.00
11	ER- KAHALGAON STPS-II	90.44	177.52	66.99	88.18	173.08	65.32
12	ER - KAHALGAON STPS	0.00	0.00	0.00	0.00	0.00	0.00
13	ER - TALCHER STPS	0.00	0.00	0.00	0.00	0.00	0.00
14	ER-DVC (MTPS,CTPS)	829.50	1,332.22	351.91	808.76	1,298.92	343.11
	SUB TOTAL	**6,545.25**	**6,731.09**	**5,173.77**	**6,394.00**	**6,574.30**	**5,054.89**
B. State Generating Stations							
I	THERMAL						
1	AMARKANTAK COM	333.81	407.99	494.53	333.81	407.99	494.53
2	AMARKANTAK EXT	382.19	467.12	566.21	382.19	467.12	566.21
3	SATPURA TPS PH I & II &III	1,247.73	1,376.81	1,677.99	1,247.73	1,376.81	1,677.99
4	SGTPS EXT	980.01	1,120.01	1,400.02	980.01	1,120.01	1,400.02
5	SGTPS	1,324.56	1,513.79	1,892.23	1,324.56	1,513.79	1,892.23
	SUB TOTAL	4,268.30	4,885.72	6,030.97	4,268.30	4,885.72	6,030.97
II	HYDEL	0.00	0.00	0.00	0.00	0.00	0.00
	INTERSTATE	0.00	0.00	0.00	0.00	0.00	0.00
1	GANDHI SAGAR	35.66	41.86	77.53	35.66	41.86	77.53
2	RANAPRATAP SAGAR & JAWAHAR SAGAR	70.74	106.11	176.85	70.74	106.11	176.85
3	PENCH	54.32	108.64	108.64	54.32	108.64	108.64
4	RAJGHAT	8.60	17.20	17.20	8.60	17.20	17.20
	SUB TOTAL	**169.32**	**273.81**	**380.21**	**169.32**	**273.81**	**380.21**
FULL MP ALLOCATION							
1	BARGI	117.54	235.08	117.54	117.54	235.08	117.54
2	BIRISINGHPUR	11.06	18.44	7.38	11.06	18.44	7.38
3	BANSAGAR – I	501.27	668.36	501.27	501.27	668.36	501.27
4	BAN SAGAR II	0.00	0.00	0.00	0.00	0.00	0.00
5	BAN SAGAR III	0.00	0.00	0.00	0.00	0.00	0.00
6	BAN SAGAR IV	31.86	42.48	31.86	31.86	42.48	31.86
7	MARIKHEDA	40.39	67.31	26.92	40.39	67.31	26.92
	SUB TOTAL	**702.12**	**1,031.67**	**684.97**	**702.12**	**1,031.67**	**684.97**
BILATERAL AND OTHERS							
1	INDIRA SAGAR	734.53	1,769.54	834.69	734.53	1,769.54	834.69
2	NCE- WIND GENERATION	0.00	0.00	0.00	0.00	0.00	0.00

Sr. No.	Generating Stations	Availability (Ex-Bus)			Availability (Ex-state Periphery)		
		East	West	Central	East	West	Central
3	CAPTIVE	30.90	41.20	30.90	30.90	41.20	30.90
4	SARDAR SAROVAR	801.58	1,077.12	626.23	801.58	1,077.12	626.23
5	OMKARESHWAR	462.21	693.31	385.17	462.21	693.31	385.17
	SUB TOTAL	2,029.21	3,581.17	1,877.00	2,029.21	3,581.17	1,877.00
6	RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00	0.00	0.00
7	UPPCL (RIHAND,MATATILA,RAJGHAT)	43.31	57.37	49.34	42.32	56.06	48.22
	SUB TOTAL	**43.31**	**57.37**	**49.34**	**42.32**	**56.06**	**48.22**
GRAND TOTAL		**13,757.52**	**16,560.82**	**14,196.25**	**13,605.28**	**16,402.72**	**14,076.25**

3.60 The Commission has applied merit order dispatch principle month-wise on the basis of the variable costs of the generating stations. Following table depicts merit order amongst the stations.

Table 32 : Merit order

Generating Stations	Dispatch Type (Must Run=1, Others =0)	Variable charge (paise/unit)
WR - KAKRAPAR APS	1	231
WR - TARAPUR APS Unit 3 & 4	1	280
GANDHI SAGAR	0	0
RANAPRATAP SAGAR & JAWAHAR SAGAR	0	0
PENCH	0	0
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
INDIRA SAGAR	0	0
SARDAR SAROVAR	0	0
OMKARESHWAR	0	0
UPPCL (RIHAND,MATATILA,RAJGHAT)	0	8
WR – KSTPS	0	96
WR - VSTPS - III	0	133
WR - VSTPS-II	0	144

Generating Stations	Dispatch Type (Must Run=1, Others =0)	Variable charge (paise/unit)
WR - VSTPS-I	0	145
AMARKANTAK COM	0	155
WR - SIPAT –II	0	159
AMARKANTAK EXT	0	162
SATPURA TPS PH I & II &III	0	200
ER- KAHALGAON STPS-II	0	210
ER-DVC (MTPS,CTPS)	0	217
WR - GANDHAR GPP	0	234
WR - KAWAS GPP	0	238
CAPTIVE	0	245
SGTPS EXT	0	269
SGTPS	0	270
RSEB (CHAMBAL,SATPURA)	0	419

3.61 Total station-wise availability after application of the merit order dispatch principle on monthly availability is given in the table below

Table 33 : Station wise availability based on MOD (MU)

Generating Stations	Ex-bus Energy Availability			
	East	West	Central	State
WR - KAKRAPAR APS	246.52	272.48	238.42	757.43
WR - TARAPUR APS Unit 3 & 4	507.74	529.85	463.61	1,501.20
GANDHI SAGAR	35.66	41.86	77.53	155.05
RANAPRATAP SAGAR & JAWAHAR SAGAR	70.74	106.11	176.85	353.69
PENCH	54.32	108.64	108.64	271.59
RAJGHAT	8.60	17.20	17.20	43.00
BARGI	117.54	235.08	117.54	470.15
BIRISINGHPUR	11.06	18.44	7.38	36.88
BANSAGAR – I	501.27	668.36	501.27	1,670.90
BAN SAGAR II				
BAN SAGAR III				
BAN SAGAR IV	31.86	42.48	31.86	106.21
MARIKHEDA	40.39	67.31	26.92	134.62
INDIRA SAGAR	734.53	1,769.54	834.69	3,338.76
CAPTIVE	30.90	41.20	30.90	103.00

Generating Stations	Ex-bus Energy Availability			
	East	West	Central	State
SARDAR SAROVAR	801.58	1,077.12	626.23	2,504.93
OMKARESHWAR	462.21	693.31	385.17	1,540.69
UPPCL (RIHAND,MATATILA,RAJGHAT)	43.31	57.37	49.34	150.02
WR – KSTPS	1,390.26	1,160.38	972.21	3,522.86
WR - VSTPS - III	622.90	682.15	596.88	1,901.94
WR - VSTPS-II	832.27	751.82	751.82	2,335.91
WR - VSTPS-I	1,155.36	950.84	1,099.41	3,205.61
AMARKANTAK COM	333.81	407.99	494.53	1,236.32
WR - SIPAT –II	482.53	423.04	317.28	1,222.84
AMARKANTAK EXT	382.19	467.12	566.21	1,415.52
SATPURA TPS PH I & II &III	1,247.73	1,376.81	1,677.99	4,302.53
ER- KAHALGAON STPS-II	90.44	177.52	66.99	334.95
ER-DVC (MTPS,CTPS)	829.50	1,332.22	351.91	2,513.63
WR - GANDHAR GPP	171.47	203.63	160.76	535.86
WR - KAWAS GPP	216.26	247.15	154.47	617.88
SGTPS EXT	980.01	1,120.01	1,400.02	3,500.04
SGTPS	1,324.56	1,513.79	1,892.23	4,730.58
RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00
Total	**13,757.52**	**16,560.82**	**14,196.25**	**44,514.60**

3.62 After applying merit order dispatch, it has been observed that intra- Discom transaction would occur only in the month of September, 2014 of around 8.22 MU. It is apparent from the results of merit order application and as indicated in the aforementioned tables that there would be a gap between energy availability and requirements of Discoms estimated on the basis of normative loss levels. The month wise requirement of the Discoms would not be met through their share from allocated capacities. Since the month wise requirement of the petitioners is more than the firm availability, hence the same would further be met from the availability of the Stations assigned to MPPMCL.

3.63 The Commission has applied the principle of merit order dispatch (MOD) on the generating stations allocated to MPPMCL for FY 2014-15. Month wise dispatch from these stations based on MOD is given in the table below:

Table 34 : Month-wise dispatch based on MOD from MPPMCL allocated stations for FY 2014-15 (MU)

Month	Dispatch from MPPMCL allocation stations (MU)			
	East	West	Central	State
April	200.28	278.23	239.70	718.21
May	162.04	451.70	396.45	1,010.19
June	199.98	484.91	435.33	1,120.22
July	389.35	440.06	490.40	1,319.82
August	293.11	233.10	433.55	959.76
September	106.69	0.00	201.71	308.40
October	195.23	208.44	236.94	640.62
November	625.40	532.57	477.96	1,635.93
December	448.63	553.52	673.81	1,675.97
January	634.12	562.09	681.17	1,877.37
February	598.44	754.27	450.01	1,802.72
March	499.92	629.61	345.10	1,474.63
Total	**4,353.19**	**5,128.51**	**5,062.14**	**14,543.83**

3.64 Details of Discom wise requirement of Ex-bus power purchase, energy availability after MOD, purchase from MPPMCL are given in the table below:

Table 35 : Requirement, availability and shortfall (in MU)

Particular	East	West	Central	State
Total Required Ex-Bus	18,113.55	21,681.10	19,263.77	59,058.43
Total available Ex-Bus After MOD from firm availability	13,757.52	16,560.82	14,196.25	44,514.60
Difference	**4,356.03**	**5,120.28**	**5,067.52**	**14,543.83**
Purchase from MPPMCL allocated stations based on MOD from in-firm availability	**4,356.03**	**5,120.28**	**5,067.52**	**14,543.83**
Balance required	0.00	0.00	0.00	0.00

3.65 After applying MOD on the MPPMCL stations, it has been observed that during most of the months of FY 2014-15, the availability from MPPMCL stations would remain partly unutilized by the Discoms. The Commission directs the petitioners to sell the surplus power through power exchange or through bidding, as has been proposed by them, after fully meeting demand of their consumers.

Power Purchase Costs

Central Generating Stations (Thermal)

3.66 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 36: 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 12.10.2012, Petition No. 264/2009 from 01.04.2009 to 31.03.2014
2	WR - VSTPS-I	CERC Order dated: 12.09.2012, Petition No. 227/2009 from 01.04.2009 to 31.03.2014
3	WR - VSTPS-II	CERC Order dated: 26.12.2011, Petition No. 258/2009 from 01.04.2009 to 31.03.2014
4	WR - KAWAS GPP	CERC Revised Order dated: 01.08.2013, Petition No. 25/GT/2013 from 01.04.2009 to 31.03.2014
5	WR - GANDHAR GPP	CERC Order dated: 30.12.2011, Petition No. 226/2009 from 01.04.2009 to 31.03.2014
6	WR - VSTPS – III	CERC Order dated: 28.05.2012, Petition No. 260/2009 from 01.04.2009 to 31.03.2014
7	WR - SIPAT –II	CERC Order dated: 20.01.2012, Petition No. 316/2009 from 01.04.2009 to 31.03.2014
8	ER- KAHALGAON STPS-II	CERC Review Order dated: 08.02.2013, Petition No. 11/RP/2012 from 01.04.2009 to 31.03.2014
9	WR - SIPAT -I (3 Units)	CERC Order dated: 22.08.2013, Petition No. 28/2011 from date of COD to 31.03.2014
10	NTPC Korba – VII	CERC Review Order dated: 9.04.2013, Petition No. 16/RP/2012 from date of COD to 31.03.2014
11	IPP Torrent	CERC Order dated: 11.01.2010, Petition No. 109/2009 from date of COD to 31.03.2014

3.67 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.

3.68 The Commission has considered variable cost as charged in actual bills raised by NTPC, MPPGCL and other generators to MPPMCL for the period November 2012 to October 2013 for FY 2014-15.

3.69 Other charges have been considered as per the latest bills available with the Commission till October, 2013.

Central and State Generating Stations (Hydel)

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

Indira Sagar (NHDC)

3.71 Charges for Indira Sagar hydel power plant have been admitted as per the CERC Tariff Order, dated June 13, 2012 for FY 2014-15.

Sardar-Sarovar

3.72 The Commission has admitted annual fixed charges as per the Tariff Order issued by it dated August 6, 2013.

Omkareshwar:

3.73 The Commission has admitted annual fixed charges for Omkareshwar as per the Tariff Order issued by the CERC dated May 9, 2013.

Renewable Sources

3.74 Discoms have proposed to purchase 1826 MU from renewable energy sources including solar and non solar energy sources. The cost of solar energy for FY 2014-15 has been considered as Rs 8.05/kWh and for non solar as Rs 3.89/kWh.

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

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

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

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

3.77 Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2014-15, as shown in the table below:

Table 37: Renewable energy requirement computed by the Commission (MU)

Particulars	**East**	**West**	**Central**	**State**
RPO Solar	1%	1%	1%	1%
RPO Non Solar	6%	6%	6%	6%
Total	**7%**	**7%**	**7%**	**7%**
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	181	217	192	590
RPO Non Solar	1087	1301	1156	3544
Total (MU)	**1268**	**1518**	**1348**	**4134**
Energy available from existing Renewable Sources (MU)				
Solar	150	179	160	489
Other than Solar	410	491	436	1337
Total	**560**	**670**	**596**	**1826**
Shortfall				
Solar	31	37	33	101
Other than Solar	677	810	720	2207
Total	**708**	**847**	**753**	**2308**

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

Table 38: RE power purchase cost admitted by the Commission

Particulars	East	West	Central	State
Power Purchase Rate (Rs/kWh)				
Solar	8.05	8.05	8.05	8.05
Non-Solar	3.89	3.89	3.89	3.89
A- RE Power Purchase Cost from existing sources (Rs Crore)				
Solar	120.85	144.65	128.52	394.02
Non-Solar	159.46	190.87	169.59	519.92
Sub-Total	**280.31**	**335.52**	**298.11**	**913.95**
B- RE Power Purchase Cost from new/ other sources to fulfill RPO(Rs Crore)				
Solar	24.97	29.88	26.55	81.40
Non-Solar	263.31	315.17	280.03	858.50
Sub-Total	**288.27**	**345.05**	**306.58**	**939.90**
Total (A+B)	**568.58**	**680.57**	**604.69**	**1853.84**

Captive Generation

3.79 Discoms have filed total availability of 103 MU from captive power plants during FY 2014-15. The Commission has admitted availability of 103 MU from Captive sources. Supply of power from captive power plants has been considered @ Rs. 2.45/ kWh for FY 2014-15. The rate provided in this Order for purchase of power from captive power plants is the maximum ceiling rate for firm power during normal time. The Commission directs Discoms that Purchase of power from captive power plants should be undertaken as per procedure prescribed in MPERC (Power purchase and other matters with respect to conventional fuel based Captive Power Plants) Regulations (revision – 1) 2009 dated 31st January, 2009.

Generating Station assigned to MPPMCL:

3.80 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. The Commission observed that the petitioners have not submitted the appropriate basis for projecting the rates for some of the upcoming generating stations. Subsequently, petitioners submitted the revised fixed and variable cost of some of the new generating stations through additional submission vide letter dated March 28, 2014.

3.81 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 2014-15 from the Central and State sector,:

Table 39: Basis of Fixed and Variable charges for MPPMCL plants

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Energy Charges (Rs./kWh)	Basis
1	SIPAT -I (3 Units)	293.75	1.56	CERC Order dated: 22.08.2013, Petition No. 28/2011 from date of COD to 31.03.2014
2	NTPC Korba – 7	87.21	1.02	CERC Review Order dated: 9.04.2013, Petition No. 16/RP/2012 from date of COD to 31.03.2014
3	IPP Torrent	35.73	3.36	CERC Order dated: 11.01.2010, Petition No. 109/2009 from date of COD to 31.03.2014
4	Singaji Thermal Power Station Phase I -Unit-1	702.47	1.78	Fixed charges as per Tariff Petition filed by MPGENCO Variable charges considered same as per Satpura TPS unit 10
	Singaji Thermal Power Station Phase I -Unit-2	321.42	1.78	
5	Satpura Thermal Power Station Exten - Unit 10	262.09	1.78	As per MPERC Tariff Order dated 8 October, 2013
	Satpura Thermal Power Station Exten - Unit 11	304.34	1.78	
6	NTPC Mauda TPS- Unit-1	102.88	3.33	CERC Order dated: 5.04.2013, Petition No. 69/GT/2013 (Docket No. 67/GT/2012)
	NTPC Mauda TPS- Unit-2	100.21	3.33	
7	Vindhyachal Mega Project, Stage 4-Unit-1	66.32	1.32	CERC Order dated: 5.04.2013, Petition No. 70/GT/2013 (Docket No. 104/GT/2012)
	Vindhyachal Mega Project, Stage 4-Unit-2	67.60	1.32	
8	DVC Durgapur Steel TPS- Unit-1	18.03	2.94	As per actual Power Purchase bills for FY'13

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Energy Charges (Rs./kWh)	Basis
	DVC Durgapur Steel TPS- Unit-2	18.03	2.94	As per actual Power Purchase bills for FY'13
9	UMPP Sasan, Sidhi Unit-1	0.00	0.70	As per Tariff quoted in accepted bid
	UMPP Sasan, Sidhi Unit-2	0.00	0.70	
	UMPP Sasan, Sidhi Unit 3& 4	0.00	0.70	
	UMPP Sasan, Sidhi Unit 5&6	0.00	0.70	
10	Jaypee Bina Power, Sagar Unit-1	200.52	2.85	Fixed cost has been considered as per MPERC, provisional tariff order dated June 29, 2013. Variable cost has been considered as per actual Power Purchase bills for 12 months (Nov-12 till Oct-13)
	Jaypee Bina Power, Sagar Unit-2	193.65	2.76	
11	Jaiprakash Power, Nigri- Unit-1	204.89	1.28	As per Tariff Petition filed to MPERC
	Jaiprakash Power, Nigri- Unit-2	144.38	1.28	
12	MB Power, Annupur	172.82	0.99	As per the per MW Fixed cost for Singhaji STPS petition filed for determination of provisional tariff to MPERC Variable cost as the per unit rate of Amarkantak Ext.
13	BLA Power, Narsinghpur- Unit-1	18.69	1.95	Fixed cost as per MPERC Order dated July 24, 2012, Variable cost-Based on average power purchase cost bills for 12 months Nov-12 till Oct-13 of BLA Unit-1
14	BLA Power, Narsinghpur-Unit-2	18.68	1.95	
15	M/s Jhabua Power, Seoni	134.41	1.62	Fixed Cost-As per the per MW Fixed cost for Singhaji STPS filed by MP Genco. Variable charge- Based on average power purchase cost bills for 12 months Nov-12 till Oct-13 of Amarkantak Ext.
16	Lanco TPS, Amarkantak	94.91	1.54	Fixed Cost – As filed by petitioner Variable cost- Based on average power purchase cost bills for 12 months Nov-12 till Oct-13 of Lanco Amarkantak
17	NTPC Barh STPS- Stage 2- Unit-1	25.04	2.99	As filed by petitioner
	NTPC Barh STPS- Stage 2- Unit-2	8.62	2.99	As filed by petitioner
	NTPC Barh STPS- Stage 1 Unit-1	71.27	2.99	As filed by petitioner

Sr. No.	Generating Stations	Fixed Cost (Rs. Crore)	Energy Charges (Rs./kWh)	Basis
	NTPC Barh STPS- Stage 1 Unit-2	23.96	2.99	As filed by petitioner
18	Torrent Power GPP	3.61	3.99	As per CERC tariff Order dated 29 May, 2013
19	Concessional Energy from Essar Power	0.00	2.90	As per actual Power Purchase bills for Nov 2012 to Oct 2013
20	Essar Power	0.00	2.71	As per the PPA
21	Renewable Energy Solar	394.01	0.00	As filed by petitioner
22	Renewable Energy Non Solar	519.91	0.00	As filed by petitioner
	SUB TOTAL	**4,609.46**		

3.82 Fixed and Variable rates for some of the above mentioned generating stations are considered provisionally for billing purpose as the Tariff Orders for the Generating Station of the appropriate Regulatory Commissions are not yet available. After issuance of the relevant Tariff Order of the generating station by the appropriate Commission, the tariff admitted in that Order will be considered applicable. Difference in the cost provisionally allowed in this Order and actual cost will be considered in the true-up of FY 2014-15 or allowed to be recovered through the FCA in case of variable charges.

M.P Power Generating Stations

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

3.84 Allocation of fixed costs amongst three Discoms is given in the following table:

Table 40 : Allocation of Fixed costs amongst Discoms (Rs Crore)

Fixed Cost	East	West	Central	State
NCE- WIND GENERATION	0.00	0.00	0.00	0.00
WR - KAKRAPAR APS	0.00	0.00	0.00	0.00
WR - TARAPUR APS Unit 3 & 4	0.00	0.00	0.00	0.00
GANDHI SAGAR	3.15	3.70	6.85	13.70
RANAPRATAP SAGAR & JAWAHAR SAGAR	4.58	6.88	11.46	22.92
PENCH	6.32	12.65	12.65	31.62
RAJGHAT	1.66	3.32	3.32	8.29
BARGI	5.14	10.28	5.14	20.55

Fixed Cost	East	West	Central	State
BIRISINGHPUR	1.70	2.84	1.13	5.67
BANSAGAR – I	63.02	84.02	63.02	210.06
BAN SAGAR II	0.00	0.00	0.00	0.00
BAN SAGAR III	0.00	0.00	0.00	0.00
BAN SAGAR IV	5.02	6.70	5.02	16.75
MARIKHEDA	9.35	15.59	6.23	31.17
INDIRA SAGAR	136.44	328.69	155.04	620.16
SARDAR SAROVAR	132.15	177.58	103.24	412.97
OMKARESHWAR	137.74	206.61	114.78	459.14
UPPCL (RIHAND,MATATILA,RAJGHAT)	0.00	0.00	0.00	0.00
WR – KSTPS	72.13	60.20	50.44	182.76
WR - VSTPS – III	64.19	70.30	61.51	196.00
WR - VSTPS-II	51.15	46.21	46.21	143.57
WR - VSTPS-I	69.06	56.84	65.72	191.62
AMARKANTAK COM	27.51	33.62	40.75	101.89
WR - SIPAT –II	56.46	49.50	37.12	143.08
AMARKANTAK EXT	49.98	61.08	74.04	185.10
SATPURA TPS PH I & II &III	75.81	83.65	101.95	261.40
ER- KAHALGAON STPS-II	10.29	20.20	7.62	38.11
ER-DVC (MTPS,CTPS)	88.82	142.65	37.68	269.15
WR - GANDHAR GPP	16.65	19.78	15.61	52.04
WR - KAWAS GPP	16.50	18.86	11.78	47.14
SGTPS EXT	111.56	127.50	159.37	398.43
SGTPS	95.79	108.65	136.94	341.39
RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00
Total	**1,312.18**	**1,757.85**	**1,334.64**	**4,404.67**

Variable Cost

3.85 Variable costs computed on the basis of the availability considered for purchase after applying the principle of merit order dispatch at Ex-Bus, are shown below in the table:

Table 41: Station wise admitted variable cost for the Discoms (Rs Crore)

Variable Cost	East	West	Central	State
NCE- WIND GENERATION	0.00	0.00	0.00	0.00
WR - KAKRAPAR APS	57.05	63.06	55.18	175.28
WR - TARAPUR APS Unit 3 & 4	142.23	148.43	129.87	420.53
GANDHI SAGAR	0.00	0.00	0.00	0.00
RANAPRATAP SAGAR & JAWAHAR SAGAR	0.00	0.00	0.00	0.00
PENCH	0.00	0.00	0.00	0.00

Variable Cost	**East**	**West**	**Central**	**State**
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
INDIRA SAGAR	0.00	0.00	0.00	0.00
CAPTIVE	7.57	10.09	7.57	25.24
SARDAR SAROVAR	0.00	0.00	0.00	0.00
OMKARESHWAR	0.00	0.00	0.00	0.00
UPPCL (RIHAND,MATATILA,RAJGHAT)	0.35	0.46	0.39	1.20
WR – KSTPS	133.44	111.38	93.32	338.14
WR - VSTPS – III	82.56	90.41	79.11	252.09
WR - VSTPS-II	119.48	107.93	107.93	335.35
WR - VSTPS-I	167.58	137.91	159.46	464.95
AMARKANTAK COM	51.59	63.05	76.42	191.06
WR - SIPAT –II	76.62	67.17	50.38	194.18
AMARKANTAK EXT	62.02	75.80	91.88	229.69
SATPURA TPS PH I & II &III	249.01	274.77	334.88	858.66
ER- KAHALGAON STPS-II	18.95	37.19	14.03	70.17
ER-DVC (MTPS,CTPS)	179.78	288.75	76.27	544.80
WR - GANDHAR GPP	40.06	47.57	37.55	125.18
WR - KAWAS GPP	51.54	58.91	36.82	147.27
SGTPS EXT	263.59	301.25	376.56	941.40
SGTPS	358.75	406.89	512.85	1,278.49
RSEB (CHAMBAL,SATPURA)	0.00	0.00	0.00	0.00
Total	**2,062.18**	**2,291.03**	**2,240.49**	**6,593.69**

3.86 After allowing long term purchases as per merit order dispatch, 14544 MU remains to be arranged in various months of FY 2014-15. This balance requirement would be met through availability of energy from generating stations allocated to MPPMCL. Total MU dispatch and cost of MPPMCL allocated generating stations are shown in the table below:

Table 42: Total MU dispatch and cost of MPPMCL allocated generating stations

Dispatch from MPPMCL Stations	Energy in MU				Cost (Rs Crore)			
	East	West	Central	Total	East	West	Central	Total
Total for the State	**4,356.03**	**5,120.28**	**5,067.52**	**14,543.83**	**813.76**	**953.15**	**959.00**	**2,725.91**

3.87 After allowing long term purchases from Discoms and MPPMCL allocated generating stations as per merit order principle, it has been observed that there is a surplus of 22468 MU from conventional sources during FY 2014-15. Further the Commission has approved the additional renewable energy purchase of 2308 MU for fulfilling the RPO compliance. Thus additional energy of 2308 MU from conventional sources will also be available to Discoms for sale outside the state. Accordingly, the total surplus energy available with the Discoms shall be 24776 MU for FY 2014-15.

3.88 The petitioners have proposed to sell half of surplus energy through the power exchange and remaining through competitive bidding route at the rate of Rs.3.50 per unit and Rs.4.50 per unit respectively. Looking to the present market scenario, the Commission is not convinced with the proposal made by the petitioners' in-toto. To assume at this juncture that half of the surplus power will be sold through power exchange and remaining through competitive bidding route may not happen in reality and the proportion may undergo a change. Simultaneously the proposed sale rates do not seem to be feasible looking to the present price trends in the market. The Commission, therefore, has considered the realizable rate of Rs.3.15 per unit for sale of entire surplus power as reasonable and has accordingly worked out the revenue income from sale of power.

3.89 The profit earned from the sale of surplus energy has been computed by considering the total revenue earned from sale of power after subtracting the total power purchase cost of corresponding MPPMCL allocated stations. Energy surplus of the Discoms vis-à-vis the overall energy availability and energy requirement and the details of profit earned from sale of energy are shown in the table below. The total MU dispatch and cost of MPPMCL allocated generating stations are also mentioned in table below:

Table 43 : Details of revenue from sale of Surplus energy

SL No	Particulars	Admitted
1	Total energy availability (MU)	81,527
2	Total energy requirement of Discoms (MU)	59,058
3	Surplus energy available for sale of power (MU)	22,468
4	Additional energy available after adjustment of purchase from RE sources for meeting RPO compliance (MU)	2,308
	Total surplus energy available (MU)	**24,776**
5	Per unit cost of sale of power (Rs/kWh)	3.15

SL No	Particulars	Admitted
6	**Total revenue earned (Rs Crore)**	**7,804**
7	**Total cost of power purchase for surplus energy (Rs Crore)**	**7,572**
8	**Profit from sale of surplus energy (Rs Crore)**	**233**

3.90 Profit earned from sale of surplus energy has been apportioned amongst the Discoms based on their proportion of total power purchase cost of generating stations allocated to Discoms. Discom-wise distribution of revenue from surplus energy is shown in the shown below in the table :

Table 44 : Discom-wise details of profit from sale of Surplus energy (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Profit from Surplus energy	**71**	**86**	**76**	**233**

Inter-State and Inter-Regional Transmission Charges

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

3.92 The Commission has reviewed inter-state transmission charges as per the actual bills available for FY 2012-13 and the claims filed by the petitioners. The Commission observed that the claims filed by the petitioners are reasonable. The Commission has admitted the same. These charges have been further allocated amongst Discoms, based on their firm capacity as per the GoMP notification inclusive of specific allocation for Bundelkhand region. The Commission has considered the capacities of generating stations available through MPPMCL which are allocated to State while allocating the PGCIL charges to the Discoms. The table below gives details of the charges allocated to East, West and Central Discoms.

Table 45 : PGCIL charges allowed to Discoms (Rs. Crore)

Discom	Share in MW	PGCIL Charges
East	30.89%	339.42
West	39.27%	431.56
Central	29.84%	327.86
Total	**100%**	**1098.84**

Intra-state Transmission Charges

3.93 The Commission has considered the transmission charges as admitted in the Transmission MYT Order for FY 2013-14 to FY 2015-16. Further the terminal benefits have been admitted as per MPPTCL Multiyear tariff order for FY 2013-14 to FY 2015-16. Accordingly intra–State transmission charges for FY 2014-15 for the Discoms have been admitted as given in the table below:

Table 46 : MPPTCL charges admitted for FY 2014-15 (Rs. Crore)

Annual MPPTCL Charges	FY 2014-15
MP Poorv KVVCL	520.06
MP Madhya KVVCL	671.40
MP Paschim KVVCL	545.70
Total	**1737.16**

3.94 With regard to the issue of expenses against terminal benefits for MPSEB/ successor entities employees who are to retire in FY 2014-15 as well as pension payments to be paid to the pensioners in FY 2014-15, the petitioners have prayed to allow expenses to the extent of expected cash outgo during FY 2014-15 on this account. They have claimed Rs.677 Crore under the intra-state transmission charges. Some additional amount on this account has also been claimed by the Discoms under O&M expenses as cash outflow during the year. The provision of terminal benefits and pension payments for all the successor companies of erstwhile MPSEB is covered under intra-state transmission charges. Hence no additional provisions are required on this account. The Commission has allowed the terminal benefits and pension expenses for FY 2014-15 on provisional basis on "pay as you go" principle payable to MP Transco to the extent of Rs.677 Crore. This is based on the MPPTCL Multiyear tariff order for FY 2013-14 to FY 2015-16. The Commission has not made any provision under sub clauses (5) , (6) of clause 3 of MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personnel of the Board and successor entities) Regulation 2012 (G-38 of 2012) for FY 2014-15 since no such demand has been made by the petitioners nor have any details been provided to support such claim.

MPPMCL Cost

3.95 The Commission has also admitted an amount of Rs. 58.68 Crore as MPPMCL expenses for FY 2014-15 as claimed by the petitioners based on the prudence check of projected expenditure.

SLDC Charges

3.96 The Commission has considered the SLDC charges as filed for FY 2014-15 provisionally. This has been included in the aforementioned transmission charges.

Total power purchase cost

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

Table 47 : Total power purchase cost admitted for FY 2014-15 (Rs Crore)

Particulars	East	West	Central	State
For all stations				
Total Fixed Charges (Rs Crore)	1,629.24	2,291.82	2,005.63	5,926.44
Variable Charges (Rs Crore)	2,313.06	2,713.55	2,771.43	7,797.84
Total Power Purchase cost (Rs Crore)	3,942.30	5,005.37	4,777.07	13,724.27
Additional RE cost (Rs Crore)	288.28	345.06	306.58	939.92
Revenue From Sale of Surplus Power (Rs Crore)	71.48	85.77	75.73	232.98
MPPMCL Cost (Rs Crore)	18.00	21.54	19.14	58.68
Total Power Purchase cost (Rs Crore)	4,177.09	5,286.20	5,027.06	14,489.89
PGCIL Charges (Rs Crore)	339.42	431.56	327.86	1,098.84
MPPTCL Charges (Rs Crore)	520.06	671.40	545.70	1,737.16
Grand Total (Rs Crore)	5,036.57	6,389.16	5,900.62	17,325.88

Pooled Power Purchase Cost

3.98 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 sells 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."

3.99 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 48 : Pooled Power Purchase cost for FY 2014-15

Particulars	FY 2014-15
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	57,232.43
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	15,239.05
Pooled Power Purchase Cost (Rs/kWh)	**2.66**

Network Cost

Capital Expenditure Plans/ Capitalization of Assets

Petitioners submissions

Investments

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

3.101 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 concerted efforts. Distribution Licensees are working for reduction in both technical and commercial losses. Distribution losses have also reduced in recent years but not up to the normative loss levels.

3.102 Details of Discom wise Capital Investment Plans under various schemes for FY 2013-14 and FY 2014-15 as filed are indicated below:

Table 49 : Capital Investment plan (Rs. Crore)

Distribution Company	FY 2013-14	FY 2014-15
East Discom	1,641.67	1730.74
West Discom	1314.71	1107.07
Central Discom	1297.35	530.79
Total for the State	**4,253.73**	**3368.6**

Capitalization and CWIP

3.103 Discom wise Capitalization Plan and the status of CWIP as filed by the Discoms for FY 2013-14 and FY 2014-15 are indicated below:

Table 50 : Discom wise year wise capitalization and bifurcation of CWIP (Rs. Crore)

Particulars	FY 2013-14	FY 2014-15
East Discom		
Opening Balance of CWIP	335.35	824.35
Fresh Investment during the year	1,313.34	1,782.50
Interest and Expenses Capitalized	0.00	0.00
Investment Capitalized	824.35	1351.07
Closing Balance of CWIP	**824.35**	**1,255.78**
West Discom		
Opening Balance of CWIP	883.31	983.29
Fresh Investment during the year	1,314.71	1,107.07
Interest and Expenses Capitalized	0.00	0.00
Investment capitalized	1214.73	1332.33
Closing Balance of CWIP	**983.29**	**758.03**
Central Discom		
Opening Balance of CWIP	321.95	657.25
Fresh Investment during the year	1648.33	1,120.02
Interest and Expenses Capitalized	0.00	0.00
Investment capitalized	1313.03	1137.63
Closing Balance of CWIP	**657.25**	**639.64**

Commission's Analysis on Asset Capitalization

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

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

3.106 The petitioners have filed the Capital Investment Plan for FY 2013-14 and FY 2014-15 as shown in the table below:

Table 51: Asset capitalization considered by Discoms for FY 2013-14 to FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
FY 2013-14	824.35	1214.73	1313.03
FY 2014-15	1351.07	1332.33	1137.63

3.107 The progress of asset addition by the Discoms for FY 2010-11, FY 2011-12, and FY 2012-13 as per audited accounts reveal that the Gross Fixed Assets (GFA) addition has been as follows:

Table 52 : Asset capitalization during FY 2010-11 to FY 2012-13 (Rs. Crore)

Particulars	East	West	Central
FY 2010-11	403.59	661.39	99.40
FY 2011-12	573.47	490.48	779.32
FY 2012-13	1,095.24	661.50	1,171.82

3.108 It can be seen from the above table that during FY 2011-12 and FY 2012-13 the Discoms have achieved significant progress in asset capitalization but projections of capitalization for FY 2013-14 and FY 2014-15 seem to be high. Therefore, the Commission has considered average of capitalization during FY 2011-12 and FY 2012-13 to project capitalization for FY 2013-14.Same rate of capitalization has been considered for FY 2014-15. The Commission admitted asset capitalization for FY 2013-14 and FY 2014-15 as shown in the table below:

Table 53: Asset capitalization admitted for FY 2013-14 to FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
FY 2013-14	834.35	575.99	975.57
FY 2014-15	834.35	575.99	975.57

Operations and Maintenance Expenses

Petitioners submission

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

Employee Expenses

3.110 The petitioners have submitted that in accordance with the Regulation 34.1 of the Tariff Regulations, the Commission has specified norms for Employee Expenses excluding Dearness Allowance (DA), pension, terminal benefits and incentives to be paid to employees. Therefore the same have been considered over and above the specified normative Employee expenses.

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

a) Basic pay has been taken at the same level as specified in the Tariff Regulations for calculation of the Dearness Allowance (DA). Current DA rate has been considered for first quarter i.e. April to June for computation of DA. 10% increase has been considered for second and third quarter i.e. July to December, 2014.Further 10% increase has been considered for fourth quarter i.e. Jan to March, 2015. Based on these assumptions, the DA considered as a percentage of Basic Salary is shown in the table below:

Particulars	FY 2013-14	FY 2014-15
DA as percentage of Basic for first quarter - Apr to June	80%	100%
DA as percentage of Basic for 2nd and 3rd quarter - July to Dec	90%	110%
DA as percentage of Basic for 4th quarter - Jan to March	100%	120%

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

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

3.112 Accordingly employee expenses have been claimed as Rs 782.79 Crore, Rs 731.92 Crore and 687.20 Crore by East, West and Central Discoms.

A&G Expenses

3.113 Petitioners have claimed the A&G expenses as per the provision of the Regulation 34.1 of the Tariff Regulations as Rs 121.73 Crore, Rs 100.07 Crore and Rs 91.89 Crore for East, West and Central Discoms. Petitioners have further submitted that norms of A&G expenses specified in the Tariff Regulations exclude Fees paid to the MPERC and Taxes payable to the Government. Accordingly, Fees paid to the MPERC and Taxes payable to the Government have been considered over and above the normative A&G expenses specified in the Tariff Regulations.

R&M Expenses

3.114 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. 117.01 Crore, Rs. 116.88 Crore, and Rs. 128.37 Crore for East, West and Central Discoms, respectively for FY 2014-15.

Other Items of O&M Expenses

Claims against terminal benefits

3.115 Petitioners have submitted that as per the provisions of the MPERC (Terms and Conditions for allowing Pension and Terminal Benefits Liabilities of Personnel of the Board and Successor Entities) Regulations, 2012, they have considered both the rate as prescribed in actuary report and actual cash out flow on account of terminal benefits. The liability as on March 31, 2009 for three Discoms was determined according to actuarial valuation. Details are given in the table below:

Table 54: Future Contribution rate of liability on account of Actuary

Assumption	East Discom				West Discom				Central Discom			
	Pension	Gratuity	Leave Encashment	Total	Pension	Gratuity	Leave Encashment	Total	Pension	Gratuity	Leave Encashment	Total
Contribution rate	22%	5%	1%	27 %	20%	5%	1%	26%	20%	5%	1%	25%
Discount rate	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%

Table 55: Calculation of Terminal Benefits (Rs. Crore)

Particular	Pension		Gratuity		Leave Encashment	
East Discom						
Provision as on 31.03.2013	908.75		180.42		61.84	
Discount @7%	7%	63.61	7%	12.63	7%	4.33
Current Service cost						
Yearly salary	743.40		743.40		743.40	
Contribution	22%	161.54	5%	36.80	1%	5.72
Total Provision for FY 2014-15		**225.15**		**49.43**		**10.05**
West Discom						
Provision as on 31.03.2013	858.77		168.96		43.76	
Discount @7%	7%	60.11	7%	11.83	7%	3.06
Current Service cost						
Yearly salary	701.40		701.40		701.40	
Contribution	20%	142.24	5%	32.76	1%	4.14
Total Provision for FY 2014-15		**202.36**		**44.58**		**7.20**
Central Discom						
Provision as on 31.03.2013	841.28		143.31		49.94	

Particular	Pension		Gratuity		Leave Encashment	
Discount @7%	7%	58.89	7%	10.03	7%	3.50
Current Service cost						
Yearly salary	657.30		657.30		657.30	
Contribution	20%	132.45	5%	29.97	1%	3.55
Total Provision for FY 2014-15		**191.34**		**40.00**		**7.05**

Table 56: Terminal Benefits Liability for Discoms (Rs. Crore)

Particulars	East Discom		West Discom		Central Discom	
	FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15
Pension	908.75	225.15	858.77	202.36	841.28	191.34
Gratuity	180.42	49.43	168.96	44.58	143.31	40.00
Leave Encashment	61.84	10.05	43.76	7.20	49.94	7.05
Total	**1151.01**	**284.63**	**1,071.50**	**254.14**	**1,034.52**	**238.38**

3.116 The petitioners have submitted that only yearly Cash Outflow for FY 2014-15 against Terminal Benefits including pension have been claimed as part of the employee expenses. As part of submission under additional information, the petitioners have submitted that the actual payments towards Terminal Benefits for FY 2012-13 was Rs. 196.20 Crore, Rs. 215.83 Crore and Rs. 165.90 Crore by East, West and Central Discoms. Further, East, West and Central Discoms made payments of Rs. 168.81 Crore, Rs. 200.32 Crore and Rs. 144.30 Crore against Terminal Benefits up to December, 2014. Cash outflow for all Discoms employees retired after June 1, 2005 for service rendered after June 1, 2005 are shown in the table below:

Table 57: Terminal Benefits (Cash Outflow) of Discoms for FY 2014-15 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Gratuity	47.66	51.16	40.10
Pension	18.36	22.33	15.87
Leave Encashment/NPS/ Others	0.00	19.64	0.00
Total	**66.03**	**93.12**	**55.97**

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

Table 58: O&M expenses claimed for FY 2014-15 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Employee Cost (including arrears, DA and others)	782.97	731.92	687.20
A&G Expenses	125.24	111.19	93.58
R&M expenses	117.01	116.88	128.37
Other Item of O&M expenses			
Terminal Benefit (Cash Outflow of Discoms)	66.03	93.12	55.97
MPERC Fees	0.52	0.63	0.55
Total O&M expenses	**1,091.77**	**1,053.75**	**965.68**

Commission's Analysis on O&M Expenses

3.118 Tariff Regulations specify normative O&M Expenses for the Discoms. Operation and Maintenance (O&M) expenses comprise Employee expenses, Repair and Maintenance (R&M) cost and Administrative and General (A&G) expenses. The amount of employee expenses, expenses against arrears on account of 6th Pay Commission and A&G expenses for FY 2014-15 have been specified in the Regulations. R&M expenses are specified as 2.3% of opening GFA for the FY 2014-15

3.119 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.

3.120 The Commission has allowed the terminal benefits and pension expenses for the FY 2014-15 on provisional basis on 'pay as you go' principle under the transmission charges. Therefore no separate provisions under O&M expenses of Discoms are warranted.

3.121 The Commission considers it appropriate to allow DA @ 100% for April to June and @ 110% 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 2014-15 as specified in the Tariff Regulations, subject to true up.

3.122 The Commission has admitted the incentive/bonus to employees as projected by West and Central Discoms, while in case of East Discom it seems to be on higher side so it has been worked out considering average growth of West and Central Discoms' incentive/bonus payment to employees.

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

Table 59: Employee Expenses as admitted for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
Employee Expenses excluding arrears, DA, Terminal Benefits and incentives	354.00	334.00	313.00
DA	380.55	359.05	336.48
Arrears	34.00	30.00	29.52
Incentive/Bonus to Employees	0.20	0.52	0.38
Total	**768.75**	**723.57**	**679.38**

3.124 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 60: A&G Expenses as admitted for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
A&G expenses	121.73	100.07	91.89
MPERC fees	0.52	0.63	0.55
Total A&G expenses	**122.25**	**100.70**	**92.44**

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

Table 61: R&M Expenses as admitted for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
Opening GFA as on 1st April, 2013	4,268.93	3,867.09	4,268.40
Asset addition considered during FY 2013-14	834.35	575.99	975.57
Opening GFA as on 1st April, 2014	5,103.29	4,443.08	5,243.97
% as R&M of opening GFA as specified in Tariff Regulations	2.30%	2.30%	2.30%
Total R&M	**117.38**	**102.19**	**120.61**

3.126 Total O&M expenses admitted by the Commission for FY 2014-15, have been summarized in the table below:

Table 62: O&M Expenses as admitted for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
Employee Expenses	768.75	723.57	679.38
A&G Expenses	122.25	100.70	92.44
R&M Expenses	117.38	102.19	120.61
Total O&M expenses	**1,008.37**	**926.46**	**892.43**

Depreciation

Petitioners submissions

3.127 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 2013-14 to FY 2014-15 is shown in Table below:

Table 63: Depreciation claimed by petitioners (Rs. Crore)

Particulars	East Discom		West Discom		Central Discom	
	FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15
Land under Lease	0.00	0.00	0.04	0.05	0.00	0.00
Building	1.28	1.46	2.70	2.88	2.13	3.10
Hydraulic Works	0.12	0.12	0.28	0.28	0.94	1.61
Other Civil Works	0.07	0.06	0.08	0.08	0.03	0.05
Plant and Machinery	56.57	66.68	77.90	101.50	91.02	114.61
Line Cable Networks etc.	85.56	107.10	85.17	121.02	112.84	144.74
Vehicles	0.01	0.01	0.01	0.00	0.00	0.00
Furniture and fixtures	0.00	0.00	0.13	0.19	0.14	0.17
Office Equipments	2.45	3.30	1.43	2.41	6.38	10.12
Total	**146.04**	**178.72**	**167.76**	**228.41**	**213.49**	**274.40**

Commission's Analysis of Depreciation

3.128 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, 2014. 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.

3.129 In case of existing Projects, the Tariff Regulations specify that the balance depreciable value as on 1st April, 2014 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2010 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 %.

3.130 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.

3.131 The Commission has dwelt at length on the reasons for not considering the projections of asset addition made by the Discoms for FY 2014-15, as these are not in conformity with the past trend. Further for computing the depreciation, the Commission has considered the closing GFA of true-up Order for FY 2008-09 as opening GFA for FY 2009-10. Average of actual asset addition for FY 2011-12 and FY 2012-13 has been considered for FY 2013-14 and FY 2014-15. Consumer Contribution, Grants and Subsidies toward cost of capital assets during respective years have been reduced from the GFA for arriving at net GFA for FY 2014-15. Consumer contribution, Grants and Subsidies during FY 2013-14 and FY 2014-15 have been considered the same as mentioned in audited statement of Accounts of FY 2012-13. Net GFA has been considered for allowing depreciation for FY 2014-15 on the basis of opening GFA of FY 2014-15 plus half of average addition during FY 2014-15 after netting of consumer contribution to arrive net GFA at the midpoint of the year.

3.132 The Commission has considered the depreciation rates i.e. 2.44%, 2.81%, and 2.44% for East, West and Central Discoms for FY 2014-15, as considered in the tariff order for FY 2013-14. However, the Commission clarifies that the difference in depreciation amount as admitted by the Commission in this Tariff Order and the actual Depreciation as per audited accounts for FY 2014-15 shall be duly considered in the true-up order for FY 2014-15.

3.133 The depreciation admitted for FY 2014-15 is given in the following table:

Table 64: Depreciation admitted (Rs. Crore)

Particular	**East**	**West**	**Central**
Opening GFA as on 1st April, 2009 (closing GFA from true-up order for FY 2008-09)	**1,763.17**	**1,782.31**	**1,871.57**
Add: Addition during FY 2009-10	252.39	75.40	173.24
Less: Consumer Contribution in FY 2009-10	252.39	42.99	96.39
Opening GFA as on 1st April, 2010	**1,763.17**	**1,814.72**	**1,948.42**
Add: Addition during FY 2010-11	403.59	661.39	99.40
Less: Consumer Contribution in FY 2010-11	190.79	37.94	83.51

Particular	East	West	Central
Opening GFA as on 1st April, 2011	**1,975.96**	**2,438.17**	**1,964.32**
Add: Addition during FY 2011-12	573.47	490.48	779.32
Less: Consumer Contribution in FY 2011-12	140.60	461.49	265.30
Opening GFA as on 1st April, 2012	**2,408.84**	**2,467.16**	**2,478.34**
Add: Addition during FY 2012-13	1,095.24	661.50	1,171.82
Less: Consumer Contribution in FY 2012-13	193.62	191.59	177.68
Opening GFA as on 1st April, 2013	**3,310.46**	**2,937.07**	**3,472.48**
Add: Addition during FY 2013-14	834.35	575.99	975.57
Less: Consumer Contribution in FY 2013-14	193.62	191.59	177.68
Opening GFA as on 1st April, 2014	**3,951.19**	**3,321.47**	**4,270.37**
Average of addition less addition to Consumer Contribution during FY 2014-15	320.37	192.20	398.95
GFA for Depreciation for FY 2014-15	**4,271.56**	**3,513.67**	**4,669.31**
Depreciation Rate (%)	2.44%	2.81%	2.44%
Depreciation admitted for FY 2014-15	**104.23**	**98.73**	**113.93**

Interest and Finance Charges

Petitioners submissions

3.134 The petitioners have submitted that Regulation 31 of Tariff Regulations provides the method of calculation of Interest and Finance Charges on loan capital. The same methodology has been adopted for projecting the Interest and Finance charges on project loans for FY 2014-15.

East Discom

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

Table 65: Interest cost claimed (Rs. Crore)

Particulars	East Discom	
	FY 2013-14	FY 2014-15
Addition to GFA during the year	824.35	1,351.07
Consumer contribution during the year	8.75	11.42
Net addition to GFA during the year	815.59	1,339.65
30% of addition to net GFA considered as funded through equity	244.68	401.90

Balance addition to net GFA during the year funded through debts	570.92	937.76
Debt Repayment due during the year (equal to the depreciation claim)	146.04	178.72
Closing balance of GFA identified as funded through debt	-	-
Average of loan balances	1,685.17	2,444.21
Weighted average rate of interest % on all loans	8.25%	9.51%
Total interest on project loans	139.04	232.51
Finance charge	3.16	3.44
Total Interest on Project loans & Finance Charge	**142.20**	**235.95**

West Discom

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

Table 66: Interest cost claimed (Rs. Crore)

Particulars	West Discom	
	FY 2013-14	FY 2014-15
Opening balance of GFA identified as funded through debt	1,049.07	1,756.22
Addition to GFA during the year	1,214.73	1,332.33
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	73.94	85.73
Net addition to GFA during the year	1,140.79	1,246.60
30% of addition to net GFA considered as funded through equity	342.24	373.98
Balance addition to net GFA during the year funded through debt	798.55	872.62
Debt Repayment due during the year (equal to the depreciation claim)	91.41	228.41
Closing balance of GFA identified as funded through debt	1,756.22	2,400.42
Average of loan balances	1,402.64	2,078.32
Weighted average rate of interest % on all loans	10.38%	12.96%
Total Interest on project loans	145.54	269.43
Finance Charges	14.90	16.26
Total Interest on Project loans & Finance Charge	**160.45**	**285.69**

Central Discom

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

Table 67: Interest cost claimed (Rs. Crore)

Particulars	Central Discom	
	FY 2013-14	FY 2014-15
Addition to GFA during the year	1,313.03	1,137.63
Consumer contribution during the year	-	-
Net addition to GFA during the year	1,313.03	1,137.63
30% of addition to net GFA considered as funded through equity	393.91	341.29
Balance addition to net GFA during the year funded through debt	919.12	796.34
Debt Repayment due during the year (equal to the depreciation claim)	213.49	274.40
Closing balance of GFA identified as funded through debt		
Average of loan balances	1,976.27	2,498.21
Weighted average rate of interest % on all loans	8.58%	8.23%
Total Interest on project loans	169.59	205.70
Finance Charges	18.38	18.63
Total Interest on Project loans & Finance Charge	**187.97**	**224.33**

Commission's Analysis of Interest and Finance Charges

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

3.139 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.

3.140 As explained in the section on capitalization under Network Cost chapter, the Discoms' past performance with respect to actual capitalization of assets has been less than the projected claims of asset addition. The Commission thus finds it appropriate not to consider the estimated capitalization that is projected for FY 2014-15. Therefore, the Commission has considered the average addition of assets as per latest Audited Statements of Accounts provided by the petitioners pertaining to FY 2011-12 and FY 2012-13 for computing the asset capitalization during FY 2013-14. Same rate of capitalization has been considered for FY 2014-15

3.141 The Commission has worked out the interest cost for FY 2014-15 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 value of consumer contribution, grants and subsidies added during FY 2012-13, as available from Audited Statement of Accounts, for FY 2013-14 and FY 2014-15.

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 2013-14 and FY 2014-15 shall be deemed to be equal to the depreciation allowed for that year.

d) Asset addition net of consumer contribution during FY 2013-14 is arrived at as average of asset additions during FY 2011-12 and FY 2012-13 based on Audited Statement of Accounts. The Commission has considered the asset addition in FY 2014-15 same as considered for FY 2013-14.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 East and Central Discom as 9.51% and 8.23%, respectively. However, for West Discom the Commission has recomputed interest rate as 12.85% as against claims of 12.96% after deducting short term loans from the total loan as per details submitted by the petitioner.

f) Other finance costs have been admitted by considering an average of previous two years (i.e. for FY 2013-14-average of FY 2011-12 and FY 2012-13 and for FY 2014-15-average of FY 2012-13 and projections for FY 2013-14).

3.142 Interest and finance charges admitted for FY 2014-15 are as under:

Table 68: Interest and Finance Charges admitted for FY 2014-15 (Rs. Crore)

Particular	East	West	Central
FY 2009-10			
Debt identified with GFA as on 1st April, 2009 (Closing of FY 2008-09 true-up Order)	195.52	110.76	329.16
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	0.00	22.69	53.79
Debt repayment	80.08	47.25	153.48
Total debt associated with GFA as on 31st March, 2010	115.44	86.20	229.47
FY 2010-11			
Debt identified with GFA as on 1st April, 2010	115.44	86.20	229.47
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	148.96	436.42	11.13
Debt repayment	39.63	47.63	39.13
Total debt associated with GFA as on 31st March, 2011	224.76	474.98	201.47
FY 2011-12			
Debt identified with GFA as on 1st April, 2011	224.76	474.98	201.47
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	303.01	20.29	359.81
Debt repayment	46.48	54.94	44.43
Total debt associated with GFA as on 31st March, 2012	481.30	440.34	516.86
FY 2012-13			
Debt identified with GFA as on 1st April, 2012	481.30	440.34	516.86
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	631.13	328.94	695.90
Debt repayment	60.62	60.53	59.51
Debt identified with GFA as on 31st March, 2013	1,051.81	708.75	1,153.25
FY 2013-14			
Debt identified with GFA as on 1st April, 2013	1,051.81	708.75	1,153.25
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	448.51	269.08	558.52
Debt repayment	76.97	70.10	77.43
Total debt associated with GFA as on 31st March, 2014	1,423.35	907.73	1,634.34
FY 2014-15 Interest Cost			
Debt identified with GFA as on 1st April, 2014	1,423.35	907.73	1,634.34
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	448.51	269.08	558.52
Debt repayment	104.23	98.73	113.93
Total debt associated with GFA as on 31st March, 2015	1,767.63	1,078.07	2,078.93
Average of loan Balance for FY 2014-15	1,595.49	992.90	1,856.64
Weighted average rate of interest (%) (as per Interest on Project Loans)	9.51%	12.85%	8.23%
Interest charges	151.73	127.59	152.80
Other Finance Charges (Average of FY 2012-13 and FY	2.80	13.05	18.49

Particular	East	West	Central
2013-14)			
Interest and Finance charges on Project Loans	**154.53**	**140.63**	**171.29**

Interest on Working Capital

Petitioners submission

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

3.144 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 69: Interest on Working Capital as filed for FY 2014-15

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	For Wheeling Activity			
1	1/6th of annual requirement of inventory for previous year	8.06	6.78	6.76
2	O&M expenses			
2.1	R&M expenses	117.01	116.88	128.37
2.2	A&G expense	125.76	111.82	94.13
2.3	Employee expenses	849.00	825.04	743.17
2.4	Total of O&M expenses	1,091.77	1,053.75	965.68
2.5	1/12th of total	90.98	87.81	80.47
3	Receivables	-		
3.2	Annual Revenue from wheeling charges	-	11.76	-
3.3	Receivables equivalent to 2 months average billing of wheeling charges	-	1.96	-
4	**Total Working capital (1+2.5+3.3)**	**99.04**	**96.55**	**87.23**
5	Rate of Interest	13.50%	13.50%	13.50%
6	Interest on Working capital	13.37	13.03	11.78
	For Retail Sale activity			
1	1/6th of annual requirement of inventory for previous year	0.42	1.69	0.36

2	Receivables	-		
2.1	Annual Revenue from Tariff and charges	6,712.91	8,265.23	7,106.97
2.2	Receivables equivalent to 2 months average billing	1,118.82	1,377.54	1,184.49
3	Power Purchase expenses	5,370.26	5,643.51	4,789.78
3.1	1/12th of power purchase expenses	447.52	470.29	399.15
4	Consumer Security Deposit	843.46	936.50	591.83
5	**Total Working capital (1+2.2-3.1-4)**	**-171.74**	**-27.56**	**193.87**
6	Rate of Interest	13.50%	13.50%	13.50%
7	Interest on Working capital	-23.18	-3.72	26.17
	Total Interest on Working Capital from Wheeling Activity	13.37	13.03	11.78
	Total Interest on Working Capital from Retails Activities	23.18	-3.72	26.17
	Net Interest on Working Capital	**-**	**9.31**	**37.95**

Commission's Analysis of Interest on Working Capital

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

3.146 The Commission has considered Gross block at the start of FY 2014-15 as Rs. 5103.29 Crore, Rs. 4443.08 Crore, and Rs. 5243.97 Crore for East, West and Central Discom, respectively. One percent of this value pro-rated to two months would work out to Rs. 8.51 Crore, Rs. 7.41 Crore, and Rs. 8.74 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.

3.147 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 2008-09, 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.

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

Table 70: Interest on Working Capital admitted by the Commission (Rs. Crore)

Particulars	Months	East	West	Central
Wheeling				
Inventory	2	6.80	5.92	6.99
Admitted O&M	1	84.03	77.21	74.37
Revenue		0.00	1.96	0.00
Total Working Capital Requirement (Rs. Crore.) – Wheeling		90.84	85.09	81.36
Interest Rate (%)		13.50%	13.50%	13.50%
Total Interest on Working Capital (Rs. Crore.)		12.26	11.49	10.98
Retail				
Inventory	2	1.70	1.48	1.75
Admitted O&M	1	0.00	1.00	2.00
Revenue	2	1,063.60	1,252.40	1,191.61
Less: Power Purchase Cost	1	348.09	440.52	418.92
Less: Consumer Security Deposit		843.46	936.50	591.83
Total Working Capital Requirement (Rs. Crore) – Retail		-126.25	-123.14	182.61
Interest Rate (%)		13.50%	13.50%	13.50%
Total Interest on Working Capital (Rs. Crore)		**-17.04**	**-16.62**	**24.65**
Total interest on Working Capital Requirement (Rs. Crore) – Wheeling		12.26	11.49	10.98
Total interest on Working Capital Requirement (Rs. Crore) – Retail		-17.04	-16.62	24.65
Net Interest on Working Capital		**-4.78**	**-5.14**	**35.64**
Total Interest on Working Capital admitted (Rs. Crore)		**0.00**	**0.00**	**35.64**

Interest on Consumer Security Deposit

Petitioners submissions

3.149 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 rate considered for projecting the interest on consumer security deposit is taken as average of the actual interest paid for last 3 years i.e. FY 2010-11, FY 2011-12 and FY 2012-13 on actual consumer security deposits by East Discom and Central Discom, while West Discom has considered interest rate as 8.50% for projecting the interest on consumer security deposit.

3.150 The Commission had directed the Discoms to provide details of the actual interest paid on consumer security deposit for FY 2012-13 and for the period April, 2013 to January, 2014. In response, East Discom informed that they have paid Rs. 41.64 Crore, West Discom paid Rs. 50.04 Crore, and Central Discom paid Rs. 38.75 Crore during FY 12-13. Discoms further submitted that details of interest paid for the period April, 2013 to January, 2014 on consumer security deposit can be provided only after finalization of Statement of Accounts. Opening consumer security deposit as on 1st April, 2012 was Rs. 564.03 Crore, Rs. 597.14 Crore, and Rs. 303.44 Crore for East, West, and Central Discom, respectively. Closing consumer security deposit as on 31st March, 2013 was Rs. 589.28 Crore, Rs. 710.26 Crore, and Rs. 460.01Crore for East, West and Central Discom, respectively. Claims against interest on security deposit made by the Discoms are shown below in the table:

Table 71: Interest on Consumer Security Deposit as per Regulations for FY 2014-15 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Interest on Consumer Security Deposit	38.34	79.60	65.86

Commission's Analysis of Consumer Security Deposit

3.151 The Commission has observed from Audited Statement of Accounts of the Discoms that the total outgo of annual interest on the Consumer Security Deposit is not in tune with the quantum of security deposits held and the interest costs allowed in past. Discoms have been paying less interest than admitted, which may be due to the reason that amount of security deposit held is neither adjusted pursuant to permanent disconnection or default of payments nor is the interest paid in such cases. Therefore, the Commission has decided to admit the interest on Consumer Security Deposit based on the Discoms' proposal for FY 2014-15. The Commission admitted interest on consumer security deposit as shown in the table below:

Table 72: Interest on Consumer Security Deposit (CSD) admitted for FY 2014-15 (Rs. Crore)

Particular	East	West	Central
Interest on Consumer Security Deposit	38.34	79.60	65.86

Return on Equity

Petitioners submissions

3.152 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 73: Return on Equity (Rs. Crore)

Sr. No.	Particulars	East Discom		West Discom		Central Discom	
		FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15	FY 2013-14	FY 2014-15
A	**Gross Fixed Assets at the beginning of year (net of consumer contributions)**	4,155.64	4,965.35	2,046.18	3,095.57	4,268.40	5,581.43
A1	Opening balance of GFA identified as funded through equity	1,246.69	1,489.61	997.11	1,339.35	1,280.52	1,674.43
A2	Opening balance of GFA identified as funded through debt	2,908.95	3,475.75	1,049.07	1,756.22	2,987.88	3,907.00
B	**Proposed capitalization of assets as per the investment plan (net of consumer contribution)**	815.59	1,339.65	1,140.79	1,246.60	1,313.03	1,137.63
B1	Proportion of capitalized assets funded out of equity, internal reserves	169.29	223.42	342.24	373.98	491.31	479.54
B2	Balance Proportion of capitalized assets funded out of project loans (B - B1)	646.30	1,116.24	798.55	872.62	821.72	658.09
C1	Normative additional equity (30% of B)	244.68	401.90	342.24	373.98	393.91	341.29
C2	Normative additional debt (70% of B)	570.92	937.76	798.55	872.62	919.12	796.34
D1	Excess / shortfall of additional equity over normative (B1-C1)	-75.38	-178.48	-	-	97.40	138.25
D2	Excess / shortfall of additional debt over normative (B2-C2)	75.38	178.48	-	-	-97.40	-138.25

Sr. No.	Particulars	East Discom		West Discom		Central Discom	
		FY	FY	FY	FY	FY	FY
E	Equity eligible for Return (A1+(C1/2)) or (A1+(B1/2)), whichever is lower	1,331.34	1,601.31	1,339.35	1,713.33	1,477.47	1,845.07
	Return on Equity (16% on E)	**213.01**	**256.21**	**214.30**	**274.13**	**236.40**	**295.21**

Commission's Analysis of Return on Equity

3.153 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 2014-15. 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 2014-15 is tabulated below.

Table 74: Return on Equity admitted for FY 2014-15 (Rs. Crore)

Particular	East	West	Central
FY 2009-10			
Total Equity identified with GFA as on 31st March, 2009 (Closing total equity in the true-up order for FY 2008-09)	465.57	523.33	488.26
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.00	9.72	23.05
Total Equity identified with GFA as on 31st March, 2010	465.57	533.05	511.31
FY 2010-11			
30% of addition to net GFA considered as funded through equity net of consumer contribution	63.84	187.04	4.77
Total Equity identified with GFA as on 31st March, 2011	529.41	720.08	516.08
FY 2011-12			
30% of addition to net GFA considered as funded through equity net of consumer contribution	129.86	8.70	154.21
Total Equity identified with GFA as on 31st March, 2012	659.27	728.78	670.29
FY 2012-13			
30% of addition to net GFA considered as funded through equity net of consumer contribution	270.49	140.97	298.24
Total Equity identified with GFA as on 31st March, 2013	929.76	869.75	968.53
FY 2013-14			
30% of addition to net GFA considered as funded through equity net of consumer contribution	192.22	115.32	239.37

Particular	East	West	Central
Total Equity identified with GFA as on 31st March, 2014	1,121.98	985.07	1,207.89
FY 2014-15			
30% of addition to net GFA considered as funded through equity net of consumer contribution	192.22	115.32	239.37
Total Equity identified with GFA as on 31st March, 2015	1,314.20	1,100.39	1,447.26
Average Equity	1,218.09	1,042.73	1,327.58
RoE @16% of FY 2014-15	**194.89**	**166.84**	**212.41**

Other items of ARR

3.154 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

3.155 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.

Table 75: Bad and Doubtful Debts for FY 2014-15 as per Regulations (Rs Crore)

Particulars	East Discom	West Discom	Central Discom
Bad and Doubtful Debts	67.13	82.65	71.07

Commission's Analysis on Bad and Doubtful debts

3.156 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.

3.157 In response to a query of the Commission, East, West and Central Discoms submitted segregation of actual bad and doubtful debt giving details of delayed payment surcharge written off, principal amount written off under any scheme or otherwise, as shown in the table below:

Table 76 : **Segregation of actual Bad Debts submitted by distribution licensees for FY 2012-13 (Rs. Crore)**

Actual bad debt written off	East Discom	West Discom	Central Discom	State
Delayed payment surcharge	18.10	113.15	364.58	495.83
Principal amount written off under any scheme	287.45	60.19	426.37	774.01
Principal amount actually written off without any scheme	0.00	0.00	0.00	0.00
Total actual bad debt written off	**305.55**	**173.34**	**790.95**	**1,269.84**

3.158 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.

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

3.160 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

3.161 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.

3.162 Table below indicates the details of other income filed by Discoms for FY 2014-15:-

Table 77: Other Income (Rs Crore)

Particulars	East Discom	West Discom	Central Discom
Income from Investment, Fixed & Call Deposits	7.69	14.18	32.67
Interest on loans and Advances to staff	0.00	0.03	0.27
Interest on Advances to Suppliers / Contractors	0.07	6.07	6.63

Income/Fee/Collection against staff welfare activities	0.05	0.00	0.00
Miscellaneous receipts	62.12	35.31	73.21
Misc. charges from consumers	40.68	90.86	4.46
Deferred Income (Consumer Contribution)	15.58		0.00
Wheeling charges	0.00	11.76	0.00
Income from Trading other than Power (i.e. sale of scrape, tender form)	0.00	2.53	1.20
Meter rent/Others	0.00	12.92	0.00
Total	**126.19**	**173.66**	**118.44**

Commission's Analysis on Other Income

3.163 Based on the actual other income received as per Audited Accounts for FY 2012-13 including 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 2014-15 as tabulated below:

Table 78: Other Income admitted for FY 2014-15 (Rs. Crore)

Particulars	East	West	Central
Other Income	157.36	289.03	244.52

3.164 The ARR as admitted for FY 2014-15 is presented in following table:

Table 79: Total Aggregate Revenue Requirement as admitted (Rs Crore)

Particulars	East	West	Central	Total
Power Purchase Cost including MPPMCL cost	4,177.09	5,286.20	5,027.06	14,490.35
PGCIL charges	339.42	431.56	327.86	1,098.84
Transco Charges (MP TRANSCO) including Terminal Benefits	520.06	671.40	545.70	1,737.16
O&M cost	1,008.37	926.46	892.43	2,827.26
Depreciation	104.23	98.73	113.93	316.89
Interest on Project Loans	154.53	140.63	171.29	466.46
Return on Equity	194.89	166.84	212.41	574.14
Interest on Working Capital	0.00	0.00	35.64	35.64
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	38.34	79.60	65.86	183.80

Particulars	East	West	Central	Total
Less: Other Income - Retail & Wheeling	157.36	289.03	244.52	690.91
ARR for FY 2014-15	**6,381.58**	**7,514.40**	**7,149.66**	**21,045.63**

Segregation of admitted ARR between Wheeling and Retail Sale activities

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

3.166 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.

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

Wheeling activity shall include:

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

Retail sale activity shall include:

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

Aggregate Revenue Requirement (ARR) admitted by the Commission for FY 2014-15

3.168 On the basis of above, the ARR for FY 2014-15 for wheeling and retail sale activity for all the three Discoms is admitted as under:

Table 80: Total ARR (wheeling and retail) as admitted (Rs. Crore)

Particulars	East	West	Central	Total
Power Purchase Cost including MPPMCL cost	4,177.09	5,286.20	5,027.06	14,490.35
PGCIL charges	339.42	431.56	327.86	1,098.84
Transco Charges (MP TRANSCO) including Terminal Benefits	520.06	671.40	545.70	1,737.16
(A) Sub Total- Power Purchase Cost	**5,036.57**	**6,389.16**	**5,900.62**	**17,326.35**
Wheeling Activity				
O&M cost	1,008.37	926.46	892.43	2,827.26
Depreciation	104.23	98.73	113.93	316.89
Interest on Project Loans	154.53	140.63	171.29	466.46
Return on Equity	194.89	166.84	212.41	574.14
Interest on Working Capital – Wheeling	0.00	0.00	35.64	35.64
(B) Sub Total- Wheeling ARR for FY 2014-15 as admitted	**1,462.03**	**1,332.66**	**1,425.70**	**4,220.39**
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	38.34	79.60	65.86	183.80
Less: Other Income - Retail & Wheeling	157.36	289.03	244.52	690.91
(C) Sub Total- Retail ARR for FY 2014-15 as admitted	**-117.02**	**-207.43**	**-176.66**	**-501.11**
Total ARR for FY 2014-15	**6,381.58**	**7,514.40**	**7,149.66**	**21,045.63**

Revenue from revised tariffs

3.169 The consumer category wise revenue at admitted tariff for FY 2014-15 is presented in the table below:

Table 81: Revenue from revised tariffs in FY 2014-15 (Rs. Crore)

Categories	EAST		WEST		CENTRAL		STATE	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
LV-1 Domestic	4610	2157.82	3997	1978.69	4360	2172.84	12967	6309.36
LV 2 : Non Domestic	796	518.20	828	538.08	883	592.22	2507	1648.50
LV 3 Public Water Works & Street Light	474	187.82	349	158.34	432	180.26	1255	526.42
LV-4: LT Industrial	313	182.94	580	353.28	359	209.27	1252	745.49
LV 5.1: Irrigation Pumps for Agriculture	3835	1426.52	7220	2726.28	4679	1752.15	15734	5904.95
LV-5.2 : Agriculture related use	0	0.00	0	0.00	0	0.00	0	0.00
LV 5.3:	17	6.94	2	1.06	4	1.83	23	9.82
Total LT	**10044**	**4480.2**	**12976**	**5755.7**	**10718**	**4908.6**	**33738**	**15144.5**
HT CATEGORIES								
HV-1: Railway Traction	637	368.67	593	343.79	978	582.02	2208	1294.48
HV-2: Coal Mines	496	321.27	0	0.00	35	25.49	531	346.76
HV-3.1: Industrial	1823	1124.18	2458	1484.60	1919	1132.37	6199	3741.15
HV-3.2: Non-Industrial	247	165.43	271	183.96	385	249.58	903	598.97
HV 3.3: Shopping Mall	6	4.06	44	27.40	0	0.00	51	31.46
HV 3.4: Power Intensive Industries	58	30.05	390	198.58	174	87.42	621	316.04
HV 4 Seasonal	8	4.51	7	4.49	2	1.25	17	10.25
HV 5	96	42.94	292	120.59	193	82.55	581	246.07
HV-6: Bulk Residential Users	455	213.89	8	4.14	190	93.79	653	311.83
HV-7: Bulk Supply to Exemptees	0	0.00	0	0.00	0	0.00	0	0.00
TOTAL HT	**3826**	**2275**	**4062**	**2368**	**3876**	**2254**	**11765**	**6897**
TOTAL	**13871**	**6755**	**17038**	**8123.29**	**14594**	**7163**	**45503**	**22042**

Gap / surplus at revised tariffs:

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

Table 82: Final ARR and revenue from existing tariffs (Rs Crore)

Particulars	East	West	Central	State
Total ARR for FY 2014-15 (A)	6,381.58	7,514.40	7,149.66	21,045.63
Impact of True-up of Discoms ARR for FY 2008-09 (B)	273.01	480.04	-93.84	659.21
Impact of True up of Transmission ARR for FY 2011-12 (C)	100.64	128.86	107.21	336.70
Total ARR for FY 2014-15 (D= A+B+C)	**6,755.24**	**8,123.29**	**7,163.02**	**22,041.54**
Revenue at existing Tariffs (E)	6,755.24	8,123.29	7,163.02	22,041.54
Uncovered Gap/Surplus (F=E-D)	**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 2014-15, the expenditure towards wheeling activity for all the Discoms is Rs. 4220.39 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 systemCertain 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 83 : Identification of asset value

Voltage level of Lines	East (ckt-kms)	West (ckt-kms)	Central (ckt-kms)	Cumulative length of lines (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crs.)
33KV	16,633.76	14,447.00	14,387.81	45,468.57	14.05	6,388.33
Below 33 KV						
(a) 11 KV	111,135.68	103,602.00	100,664.48	315,402.16	10.23	32,265.64
(b) LT	112,956.55	150,384.00	116,160.04	379,500.59	5.17	19,620.18
Sub-Total	224,092.23	253,986.00	216,824.52	694,902.75		51,885.82
Total	**240,725.99**	**268,433.00**	**231,212.33**	**740,371.32**		**58,274.16**

Table 84 : Total Cost of transformer voltage level

Transformer Voltage Level	East (MVA)	West (MVA)	Central (MVA)	Cumulative capacity (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11KV Transformer	7,249.15	9,917.05	8,236.00	25402.20	38.26	9718.88
11/0.4KV Transformer	7,106.26	11,509.88	11,525.00	30141.14	2.47 per 100 KVA	7444.86
Total	**14,355.41**	**21,426.93**	**19,761.00**	**55543.34**		**17163.74**

4.7 Data for length of lines and transformation capacity expected to be added during FY 2014-15 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 85 : 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	6388.33	9718.88	16107.22
Below 33 KV	51885.82	7444.86	59330.68
Total	**58274.16**	**17163.74**	**75437.90**

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

Table 86 : 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	16107.22	21.35%	4220.39	901.12
Below 33 KV	59330.68	78.65%		3319.27
	75437.90	**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 87 : Allocation of wheeling cost over distribution system users

	Particulars	Rs in Crore
A	Wheeling Cost at 33 kV	901.12
B	Sales at 33 kV(MU)	5877.49
C	Total Sales (MU) {excluding sales at 132 kV}	40266.74
D	Proportion of 33 kV sales to total sales (%)	14.60%
	Cost allocation	
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D)**	**131.53**

4.12 The wheeling cost allocated to 33 kV works out to Rs. 131.53 Crore. Based on this allocation and considering the consumption at 33 kV, the wheeling charges in Rupees per unit are determined as follows :

Table 88 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs./unit)
EHT	-	-	-
33 kV	131.53	5877.49	0.22

Applicability of wheeling charges under different scenarios

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

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

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

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

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

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

Determination of Cross-Subsidy Surcharge

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

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

8.5.1 ...

....

Surcharge formula:

S = T – [C (1+L/100) + D]

Where

S is the surcharge
T is the Tariff payable by the relevant category of consumers;
C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power
D is the Wheeling charge
L is the system Losses for the applicable voltage level, expressed as a percentage
….

8.5.5 Wheeling charges should be determined on the basis of same principles as laid down for intra-state transmission charges and in addition would include average loss compensation of the relevant voltage level."

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

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

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

Total Energy required in FY 2014-15 = 59058.43 MU

Table 89 : Cost of marginal power purchase of top 5% power i.e. 2952.92 MU

Stations	Units (MU)	Cost (Rs./unit)	Total cost (Rs. Crore)
Torrent Power GPP	22.13	5.62	12.44
WR- NTPC Mauda TPS-Unit-1	692.48	5.02	347.64
WR-NTPC Mauda TPS-Unit-2	580.79	5.02	291.57
Jaypee Bina Power, Sagar Unit-1	1,122.16	4.63	519.89
WR-NTPC Barh STPS-Stage 1 Unit-1	458.92	4.54	208.49
WR-NTPC Barh STPS-Stage 2- Unit-1	76.45	4.54	34.73
Total	2,952.92	4.79	**1,414.77**

4.19 The weighted average cost of power purchase of top 5% at the margin works out as Rs. 1414.77 Crore/2952.92 MU = Rs. 4.79 per unit.

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

Table 90 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	3.97%
33 kV (only 33 kV system)	4.50%

4.21 The cost of transmission shall be uniformly spread over all consumers at every voltage level, as the transmission network is utilized by all consumers. Therefore, similar to wheeling costs, the admitted transmission charges for FY 2014-15 are worked out as under:-

Table 91 : Transmission Charges

Particulars	**Rs. Crore**
PGCIL Charges	1,098.84
MPPTCL Charges	1,737.16
Total Charges	2,835.99
Units to be handled by MPPTCL	59,058.43
Transmission Charges per unit	**0.48**

4.22 Finally, the last term in the Tariff Policy formula 'T', Average Tariff for each category is derived from their expected revenue for FY 2014-15 .

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

4.24 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV under various scenario are worked out as detailed in the table below ("scenario wise cost"). The Cross-Subsidy Surcharge shall be the difference of average tariff and the total cost (Rs/unit) for the particular category at particular voltage. The category wise average tariff as per Tariff Order for FY 2014-15 is given in the table below ("category wise average tariff"). For example, for Railway Traction at 132 kV the average tariff for FY 2014-15 as per tariff order works out to Rs. 5.86 per unit and total cost works out to Rs. 5.47 per unit. Therefore, Cross-Subsidy Surcharge shall be Rs. 5.86 – Rs. 5.47 = Rs. 0.39 per unit. However, in case (e.g. Public Water Works, Other than Irrigation, Bulk Residential Users, Bulk Supply to Exemptees etc.) where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.

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

Table 92 : Scenario wise cost (Rs. per unit)

Scenario	**Cost of Power at 5% Margin**	**Cost of Power grossed up for distribution losses (4.5%)**	**Cost of Power grossed up for transmission losses (3.97%)**	**Transmission charges**	**Wheeling charges**	**Total Cost [C(1+L/100)+D]**
1	4.79	5.02	5.22	0.48	0.22	5.93
2	4.79		4.99	0.48		5.47
3	4.79		4.99	0.48		5.47
4	4.79	5.02	5.22		0.22	5.45

Table 93 : Category wise average tariff (Rs. per unit)

Category of HT/EHT consumers	Average Tariff 'T'
HV- 1 : Railway Traction	5.86
HV- 2 : Coal Mines	6.53
HV- 3.1 : Industrial	5.95
HV- 3.2 : Non-Industrial	6.61
HV-3.3: Shopping Malls	6.22
HV-3.4: Power Intensive Industries	5.09
HV-4 : Seasonal	5.93
HV- 5.1 : Public Water Works	4.22
HV- 5.2 : Other than Irrigation	4.44
HV- 6 :Bulk Residential Users	4.78

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 94: 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 95: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

Sr. No.	Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
		Region	%	%	%
1	November, 13	W.R.	3.65%	3.16%	21.80%
		E.R.	2.50%		
2	December, 13	W.R.	3.65%	3.16%	21.80%
		E.R.	2.50%		
3	January, 14	W.R.	3.65%	3.16%	21.80%
		E.R.	2.50%		
4	February, 14	W.R.	3.65%	3.16%	21.80%
		E.R.	2.50%		
5	March, 14	W.R.	3.65%	3.16%	21.80%
		E.R.	2.50%		
6	April, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
7	May, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
8	June, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
9	July, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		

Sr. No.	Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
		Region	%	%	%
10	August, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
11	September, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
12	October, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
13	November, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
14	December, 14	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
15	January, 15	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
16	February, 15	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		
17	March, 15	W.R.	2.28%	3.00%	19.59%
		E.R.	2.50%		

Note: * 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 Salient features of the ARR and Tariff proposals for FY 2014-15 filed by the petitioners, were published in the newspapers. 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. Last date of submission of comments/objections/suggestions was 7th March, 2014. The Commission has considered all the comments received up to the date of public hearings. Names of objectors are given in **Annexure-I**.

6.2 Subsequently, the Commission 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 are shown in the table below :-

Table 96 : No. of objections received

Sr. No.	Name of Discom	Number of suggestions/ objections received on ARR & Tariff Proposal for FY 2014-15
1	M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur, (East Discom)	15
2	M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore (West Discom)	40
3	M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal (Central Discom)	10
	Total	**65**

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

Table 97 : Public hearings held:

Sr. No.	Discom	Date of hearing	Venue of hearing
1	West Discom, Indore	6th May 2014	Santosh Sabhagrah, Film Bhavan, Near Rani Sati Gate, Yashwant Niwas Road, Indore.
2	East Discom, Jabalpur	9th May 2014	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur
3	Central Discom, Bhopal	12th May 2014	Court Room of MPERC, 5th Floor,Metro plaza ,Bhopal

6.4 During the hearings, a majority of the respondents from all consumer categories have welcomed the proposal of no tariff hike for FY2014-15. Petitioners have proposed to meet the revenue gap through improvement of their operational efficiency by way of reducing distribution losses and through efficient management of available surplus energy. It is further proposed that if any gap still remains same may be considered at the time of true up. However, some of the objectors expressed apprehension that the burden may not be cast upon them at the time of true up. They requested that the proposal of petitioners to pass remaining gap on the consumers at the time of true up may not be considered.

6.5 Some respondents were of the view that major causes of poor performance of Discoms were high distribution losses including theft of electricity and lack of meterisation of un-metered connections in domestic and agriculture categories. Respondents raised concerns on poor progress of meterisation of domestic households and agricultural connections in rural areas and were of the view that a definite and time bound plan for implementing 100% meterisation for all categories of consumers be enforced as lack of metering provides opportunity for manipulation and adjustment and encourages inefficiency. Respondents belonging to farmers' union in the area of East Discom stated that the Discom has issued inflated bills to farmers by arbitrarily enhancing agricultural pump load. They also stated that scheduled hours of supply meant for agricultural connections are not being provided which is adversely hitting to their livelihood.

6.6 Majority of the respondents have opposed the proposal of levy of reliability charges for providing 24 hours supply in urban & rural areas starting from FY2014 through feeder separation project. Proposed changes in general terms and conditions of tariff related to issues such as load factor calculation formula /incentives, power factor incentives, ToD tariff rebate/surcharge and additional charge for excess demand, etc. were opposed by objectors.

6.7 A meeting of the State Advisory Committee (SAC) was convened on 30th April, 2014 to solicit views of SAC members on the ARR/Tariff proposals . Suggestions made by the SAC members have been duly considered by the Commission while finalizing the Tariff Order.

6.8 A number of suggestions/ objections and comments have been received and given due consideration by the Commission. However, only salient objections/ responses related to ARR/tariff petition including those raised during the public hearings have been grouped together and are summarized in this Chapter . The Commission would like to make it clear that objections/ suggestions which were not on the issues related to the tariff petition and were in nature of either consumer complaints or complaints related to other issues, have not been considered here. Such stakeholders were advised to get their complaints redressed through the complaint redressal mechanism i.e. ECGRF / Ombudsman or at appropriate forum. The Chairmen of the ECGRFs of the Discoms, who were present during the respective hearings at the Discom HQ, were advised to take suitable action in all cases of consumers complaints on its receipt.

ISSUE NO.1: Railway traction

<u>Issue raised by objectors</u>:

- Railways requested to consider a rebate of 4% on 132 kV and 5% on 220 kV energy charges as supply is availed at 132/220 kV and also that voltage wise CoS be kept in mind while determining tariff for their category.

- They further submitted that cross-subsidy on traction tariff may be reduced and the tariff of railway traction may be brought down to a reasonable level and may be kept less than that of HT industrial tariff at 132kV/220kV.

- Amendment in clause 18 of the agreement for Mangliya TSS of Ratlam division of Western Railway and other TSS may be allowed to have the provision of feed extension on the same terms and conditions as provided in other agreements executed earlier with the erstwhile MPSEB.

<u>Response from Discoms:</u>

- Railway traction tariff at 50% LF is 114% of the average cost of supply, therefore, further voltage rebate is unwarranted.

- For railways ARPU as % of ACoS is 113%. This is well in the limit of (+/-) 20% of ACoS. Effective tariff at 50% LF as % of VCoS (EHT) for railway is 118% and for HV-3.1 Industrial (EHT) is 125%. Therefore effective tariff at 50% LF for railway is Rs 5.73/unit which is less than the effective tariff of Rs 6.07/unit at 50% LF for HV-3.1 Industrial categories.

- Excess demand, if any, at any point of time has cost implications and thus must be billed accordingly. Conditions warranting extension of feed just cannot be treated at par with force majeure conditions. The Commission may take an appropriate view in the matter as per the Electricity Act, 2003 & Supply Code, 2013.

<u>Commission's View:</u>

- Overall average cost of supply is considered for tariff formulation in accordance with the provisions of the Tariff policy and the directives of the Hon'ble APTEL. The Commission has been gradually reducing the cross subsidy to the extent possible while ensuring that tariff of subsidized categories does not get distorted resulting in sudden tariff shocks and has consciously reduced cross subsidy for railway traction over the years.

- The suggestion made by the objector to allow the feed extension as per earlier agreements with MPSEB has been appropriately considered.

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

<u>Issue raised by objectors</u>:

Representatives from industries/industrial associations submitted following objections/ suggestions:

- Category wise cost of supply may be worked out.

- Cross subsidy level may reflect the true cost of supply and actual cross subsidy charged from different categories of consumers. This may be worked out as per guidelines of Tariff Policy.

- A limit of cross subsidy may be fixed for supplying power to subsidized class of consumers.
- Tariff for subsidized class of consumers may be brought to 80% of the ACoS.

Response from Discoms:
The Commission may take a suitable view in the matter.

Commission's View:

- As per directives given in the judgment of Hon'ble APTEL, category wise indicative cross subsidy percentage vis-à-vis voltage-wise cost of supply has been computed as detailed in the chapter on Tariff Design.
- Category wise cross-subsidy percentage has been worked out based on overall average cost of supply as per the Tariff policy and as directed in ATE order. A conscious effort is made every year to reduce cross-subsidy percentage.
- As per directions of the ATE, VCoS based cross subsidy percentage shall also be reduced gradually. However, in absence of requisite data, only indicative VCoS cross subsidy percentages have been worked out based on available information. This may have to be further validated in due course of time when requisite data / information are available.

ISSUE NO.3: changes in levy of additional charges for excess demand in LV and HV category.

Issue raised by objectors:
Representatives from various industries and industrial associations have opposed the proposal for abolition of relief on billing of excess demand charges up to 105% of contract demand (CD). They also opposed the proposal to charge the excess demand over contract demand at 2 times of fixed charges up to 115% of CD and 2.5 times of fixed charges over and above 115% of CD and corresponding energy to be charged at 2 times of normal tariff on prorate basis.

Response from Discoms:
Petitioners are operating under the strict regime of availability based tariff and UI charges. Hence, 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. The proposal of increase in the penal charges is to ensure strict adherence of system discipline. The Hon'ble Supreme Court of India in Judgment dated October 20, 2011 in Civil Appeal No. 8859/2011 held that "Excess Load would fall under Section 126 of 2003 Act".

Commission's View:
The Commission has considered submissions of the objectors and the response of the petitioners and finds no justification for any change in existing provisions in this regard.

ISSUE NO.4: Reduction in existing tariff

Issue raised by objector:

- Some of the objectors submitted that there is a trend of reduction in domestic tariff around the country and requested to reduce the existing domestic tariff.
- One of the objectors submitted that consumers covered under H.V 6.2 bulk residential users category reduce the responsibilities of Discoms. Discoms in this case are required to deal with one HT consumer instead of a no. of LT consumers. This also reduces burden of losses of LT system & theft, and reduces effort in revenue collection, maintenance of equipments of the petitioners. Following suggestions were made:
  - Minimum billing demand may be kept as 75% of CD
  - Differentiate in minimum billing demand for different seasons or on 6 monthly basis such as 60% in winter from Oct to March and 90% during April to September.
  - Consider different rates for load factor less than 30% and beyond 30%.
- Some objectors requested that tariff of power intensive industries under HV-3.4 category may be reduced by 15% to 20% to ease the burden of industries and make investment lucrative for new industries.
- One of the objectors has suggested following measures for reduction of tariff :
  - By selling surplus energy at market rate
  - By reduction of various levies.
  - By reduction of tenure of loan period
  - By increasing generation
  - Reduction in T&D losses

Response from Discoms:

Retail tariff for various categories of consumers is decided by the Commission after a thorough analysis of the details and data submitted in ARR petition with the objective to do justice to both the distribution companies and the consumers. As far as tariff of other states is concerned, the consumer mix, consumption pattern and load of every state differ from each other. Therefore the tariff of same category in different states is also different.

Commission's View:

The Commission has determined the tariff after detailed analysis of each component of ARR in accordance with the Tariff Regulations so as to bridge the revenue gap duly complying with the framework laid down in the Tariff policy. Category wise tariff has been determined after due consideration of all relevant aspects.

ISSUE NO.5: Request for applicability of LV-2.1 tariff to charitable trusts and hospitals

Issue raised by objector:

One of the objectors has requested for application of LV-2.1 -Non-Domestic tariff to charitable trusts and hospitals instead of LV-2.2 tariff which is higher.

Response from Discoms:

Tariff determination is under the purview of the Commission.

Commission's View:

Consumers of charitable trust and hospitals are covered under tariff schedule LV 2.2 Non-Domestic category. Tariff schedule LV 2.1 is meant for educational institutions and hostels. The Commission does not consider it appropriate to accept the request of covering charitable trust and hospitals under tariff category LV 2.1.

ISSUE NO.6: Change in definition of power intensive industries in HV-3.4

Issue raised by objectors:

One of the objectors has requested that special provision be included in the applicability clause of the power intensive industry tariff HV 3.4 to include industries having heating load which is in excess of 50% of total connected load.

Response from Discoms:

The petitioners have submitted that electro thermal industry has already been covered in tariff category HV-3.4.

Commission's View:

Tariff schedule HV 3.4 includes electro thermal industries.Specifying a particular limit of heating load may not be appropriate.

ISSUE NO.7: Voltage wise cost of supply

Issue raised by objectors:

One of the objectors has suggested considering appointment of a consultant to carry out field studies to arrive at voltage wise T&D losses. Discoms assumption of apportioning 50% of commercial losses at 33 kV and above is incorrect.

Response from Discoms:

They welcome the proposal of appointing consultants for study of voltage wise T&D losses.

Commission's View:

Discoms need to work out details for segregation of system costs related to the network on different voltage levels and other related data. Consideration for appointment of consultant at this juncture is not feasible. As regards apportioning of commercial losses on higher voltages, the judgment of Hon'ble APTEL stipulates that HT consumers who are in the present system may also have to bear the burden of commercial losses of the system although they may be actually incurring lesser losses. Working of VCoS cross subsidy percentage in this tariff order is an exercise which is only indicative in nature, as a first step in this direction.

ISSUE NO.8: Amendment / Removal of Guaranteed minimum annual consumption clause.

Issue raised by objectors:

Representative from industries submitted that clause of Guaranteed minimum annual consumption may be amended /removed in a way that allows for set-off up to 100% of the units consumed and purchased from captive producers of wind or solar (i.e. Green energy) for the purpose of development of larger capacity of green energy.

Response from Discoms:

The matter of minimum consumption/minimum charges has already been raised several times in the public hearings of previous ARR/Tariff petitions and the Commission has covered this issue in the tariff order of FY 2011-12 on page no. 103.

Commission's View:

Guaranteed minimum annual consumption is applicable for the supply availed from the licensee. Off-setting the quantum of energy availed from a captive generator against the licensee's supply is not correct. Thus, there is no merit in the suggestion made by the objector.

ISSUE NO.9: Delayed payment surcharge may be considered as revenue earned in ARR

Issue raised by objectors:

Some of the objectors stated that income against the delayed payment surcharge is a part of the revenue earned and may be accounted as income in the ARR.

Response from Discoms:

Receipts from late payment surcharge are uncertain and hence, such receipts cannot be predicted. Moreover, the late payment surcharge means that the Licensee has been deprived of its own revenue and consequently, forced to take loans from financing agencies by paying huge interest. Delayed payment surcharge being the compensation against interest on these loans may not be treated as a part of revenue.

Commission's View:

Tariff regulations provide that the receipts against the delayed payment surcharge shall not be treated as income. The Commission does not allow interest on account of default in payment by the licensees as pass through. The suggestion is not acceptable.

ISSUE NO.10: Proposed abolition of HV-7 "Synchronization and Start-up Power for Generators Connected to the Grid" category from tariff schedule by the petitioners.

Issue raised by objectors:

Representatives from industries/industrial associations have opposed the proposal in this regard.

Response from Discoms:

Issues regarding start-up /auxiliary power may be dealt in the supply Code and the CPP Regulations and it should not be a part of retail supply tariff order.

Commission's View:
The Commission does not accept the proposed changes by the petitioners as the provisions in this regard have been made after due consideration.

ISSUE NO.11: Two-slab energy charges for some of the HT categories may be merged into one.

Issue raised by objectors:
One of the objectors has suggested that there may be a single rate for energy charges for load factor up to 50% and above 50% for HT consumers.

Response from Discoms:
The Commission has already expressed views in the matter of merging of two slabs in tariff order for FY 2013-14.

Commission's View:
Subsequent to merging of some of the HT categories particularly high load factor industries with that of other industries, two energy rates were provided, one for consumption commensurate for load factor up to 50% and another above 50% to avoid tariff shock. At this juncture, it is not feasible to prescribe a single rate otherwise it would result in increase of tariff to high load factor consumers of the same category, which is not desirable.

ISSUE NO.12: Separate tariff category for Agro based industries

Issue raised by objectors:
Some of the objectors submitted that a separate tariff category under LT and HT tariff be introduced for agro based industries such as Ginning, pressing, oil mill, rise mill, khandsari mill, sugar mill, besan mill, maida mill and flour mill etc. In this category, no fixed charges may be levied.

Response from Discoms:
Basis for the change of category does not have any rationale. Industries like Dal Mills, Sugar Mills etc are agro-based but the nature of their working is commercial.

Commission's View:
The Commission has considered the objectors' suggestions and petitioners' response. The Commission does not favour any changes in the existing provisions.

ISSUE NO.13: Norms for consumption of unmetered agricultural consumers

Issue raised by objector:
One of the objectors has submitted that under Atal Jyoti Abhiyaan, Discoms have increased the supply hours to rural areas to 24 Hrs. Daily 10 hours of power supply for agriculture is being given. Norms for assessed consumption of unmetered connections may, therefore, be increased as proposed by the petitioners.

Response from Discoms:
They agree with the objector and request to accept the proposal for revision in norms for assessment of consumption to unmetered connections.

Commission's View:
The Commission has given due consideration to the objectors' suggestions and have made appropriate provisions in the order.

ISSUE NO.14: Tariff plan for pre-paid energy meters for domestic category under LV-1

Issue raised by objector:
Objectors have requested that fixed charges in domestic category may be prescribed on per kW basis for pre-paid meter connections instead of relating it with the consumption .

Response from Discoms:
The Commission may take a view on this issue.

Commission's View:
There has been no proposal to provide tariff for pre-paid connections in ARR/ tariff petition neither any pre-paid connections have been reported by the petitioners. Therefore, the Commission has not accepted the request at this juncture.

ISSUE NO.15: Fuel Cost Adjustment may not be treated as a part of energy charge – some of the objectors objected levy of FCA

Issue raised by objectors:

- Representatives from industries / industrial associations have suggested that fuel cost adjustment charge may not be treated as part of energy charges to avoid burden of paying electricity duty.

- One of the objectors requested to reject the proposed Power Purchase Charge Adjustment (PPCA) formula and keep the existing FCA formula.

- Some of the objectors stated that levy of FCA may be withdrawn.

Response from Discoms:

- The Commission in chapter A5 of tariff order for FY 2013-14, at 5.9 para states that *"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."* Hence, the FCA is part of energy charges and the revenue obtained from it is a part of revenue obtained from energy charges

- Hon'ble Appellate Tribunal for Electricity in the judgment in O.P. No.1 of 2011 dated 11.11.2011 has given directions to the State Commissions in this regard as *"65(vi) Fuel and power purchase cost is a major expense of the Distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for fuel and* *power purchase cost in terms of Section 62(4) of the Act. The fuel and power purchase cost adjustment should preferably be on monthly basis on the lines of Central Commission's Regulations for the Generating Companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of its order put in place such formula/mechanism."*

Further the above formula is in line with the ATE order for the computation of Power Purchase Cost Adjustment (PPCA) factor and requested that same may be approved .

Commission's View:

- The FCA charge is levied on account of increase in fuel costs and is embedded in billing to the petitioners by the generators as Energy Charge rate every month. Difference of energy rates provided in the tariff order and actually billed, forms the basis for determining FCA. FCA, therefore, is very much a part of energy charge as clearly specified in the chapter on Fuel Cost Adjustment charge. The Commission, therefore, has not accepted the suggestion.

- The Commission has not considered change in levy of FCA as explained in the chapter on Fuel Cost Adjustment charge.

- The Commission has provided the formula for FCA as per section 62(4) of the Electricity Act, 2003 and in compliance of ATE order under OP No. 1 of 2011 dated November 11, 2011.

ISSUE NO.16: Change in category of Cold storage

Issue raised by objectors:

Representatives from cold storage associations have requested that the cold storage may be considered in the agriculture category and tariff rate meant for agriculture may be made applicable in HT and LT categories for them.

Response from Discoms:

Rationale given by the objectors for change of category to agricultural as they are agro-based units is baseless. There are many industries like Dal Mills, Sugar Mills etc which are agro-based but the nature of their working is commercial. Same is the case of Cold Storages. The end user consumers of cold storages comprise big retail entities, industries and big farmers. Most of them use the cold storage facility for the commercial purpose which proves that the Cold Storages are the commercial entities and there is no need to change their category .

Commission's View:

Cold storages are being operated on commercial basis as they are charging the cost of service provided by them to their customers. The suggestion for changing their category to agriculture is not acceptable.

ISSUE NO.17: Reliability charge

Issue raised by objectors:

Representatives from industries/industrial associations have submitted that any reliability charge is not justified as the present power supply quality and reliability needs considerable improvement compared to international standards.

Response from Discoms:

As the petitioners are moving towards regime of 24 hours continuous supply to all areas, therefore, reliability charge is justified in the tariff for FY 2014-15.

Commission's View:

No changes in the existing provisions have been considered appropriate. It is the duty of the licensee to provide hassle free quality supply for 24 hours. Moreover, such charge is relevant only in those cases where the licensee is required to incur additional expenses for purchase of costly power, which has not been demonstrated.

ISSUE NO.18: Separate category for Municipal Solid Waste (MSW) Plants

Issue raised by objectors:

Representative from A2Z Infrastructure Ltd. referred the Hon'ble Supreme Court directive to the government for implementation of the report of the Task force, which provides for supply of electricity and water to MSW Projects at concessional agriculture tariff. In this regard, a request has been made for creation of separate tariff category for Municipal Solid Waste (MSW) Plants keeping tariff comparable to agriculture tariff**.**

Response from Discoms:

Basis for the change of category is not justified. There are many industries like Dal Mills, Sugar Mills etc which are agro-based but the nature of their working is commercial. Petitioners further submitted that stakeholder's MSW facility is for the commercial purpose, which proves that there is no need to change the category for the said purpose.

Commission's View:

The Electricity Act, 2003, empowers the Commission to determine the tariff and consumer categories. The Commission is not inclined in creating any further category of consumers. It is the prerogative of state government to provide subsidy to the stakeholder (MSW project) or any other consumer category.

ISSUE NO.19: Abolition of differential tariff for rural areas

Issue raised by objectors:

One of the objectors has submitted that as 24 hours supply is being assured to rural areas, the differential tariff for rural areas may be abolished.

Response from Discoms:

The Commission may take a view in the matter.

Commission's View:

In the tariff order for FY 2013-14, the Commission had taken a stand that this matter will be reviewed during next tariff determination exercise after ascertaining factual position. It has been observed that hours of supply and quality in the rural areas are still not comparable with the urban areas, thus the differential tariff for rural areas is not being abolished as of now.

ISSUE NO.20: Merging of HV-4 seasonal tariff with HV-3 industrial and non-industrial tariff

Issue raised by objectors:

One of the objectors requested the Commission to merge the HV-4 seasonal tariff with HV-3 industrial and non-industrial tariff.

Response from Discoms:

The tariff schedules have been framed as per the type of usage of electricity. A seasonal category is one which uses electricity for a part of year only, whereas under industrial category, the consumers use the electricity round the year. Therefore, proposal for merger of both the categories is un-acceptable,

Commission's View:

Seasonal tariff facilitates seasonal consumers to have an option to suit their requirement. Consumption and demand in case of the seasonal consumers and other consumers varies during various periods of the year. Since it is an optional tariff, it has been continued.

ISSUE NO.21: Welding transformer surcharge.

Issue raised by objectors:

No separate welding transformer surcharge may be levied when the meter is having the facility of recording power factor. There is a provision to bill power factor surcharge in percentage of energy charge subject to maximum of 10% of energy charge. Hence, provision for levy of welding surcharge may be withdrawn.

Response from Discoms:

Rationale submitted by the objector is not justified and the suggestion may not be accepted.

Commission's View:

The suggestion is not appropriate in view of the fact that welding machine load behaves differently as compared to other loads causing not only low PF but also steep and frequent variations in the incident demand on the system. The welding surcharge has been in vogue since a very long time and is continued.

ISSUE NO.22: Increase in connected load for small industry – LV-4

Issue raised by objectors

Some of the objectors requested to increase the limit of connected load from 25 HP to 27HP (20 KW).

Response from Discoms:
The Commission may take a view on this issue.

Commission's View:
The Commission does not find any merit in the suggestion. Frequent changing of limits without any justified basis would only lead to difficulties for consumers.

ISSUE NO.23: Increase in ceiling limit of load for 33 kV HT consumers
Issue raised by objectors

- Some of the objectors requested to increase existing ceiling limit of Contract demand of 10000 kVA at 33 kV, as shifting to 132 kVA is quite costly to them and MP is already surplus in power. They requested that contract demand up to 14000 kVA may be allowed at 33kV without levy of any surcharge on the energy charges.

- Some of the objectors requested the Commission to increase ceiling limit of Contract demand of 50000 kVA to 75000 kVA for 132 kVA consumers.

Response from Discoms:
This matter is related to Supply Code and is not related to tariff determination. They will submit their views in the matter at the time of discussions on Supply Code.

Commission's View:
Ceiling on loads for a particular voltage is decided on a various technical parameters for efficient and safe grid operation. The Commission does not accept the suggestions made.

ISSUE NO.24: Changes proposed in the terms and conditions of tariff
Issue raised by objectors:
Some objectors have submitted that for any proposed changes in term and conditions of tariff, Discoms may file a separate petition or the Commission may publish the approach paper in which the reasons and merits /demerits for such changes may be given and due opportunity to all stakeholders may be provided to respond.

Response from Discoms:
Changes proposed in the general terms and conditions of LT and HT tariff are after due study and well within the purview of acts and in compliance of the Tariff Regulations.

Commission's View:
Changes in terms and conditions of tariff have financial and other implications. The Commission considers it appropriate that any changes in the terms and condition of the tariff schedule have to be considered with the ARR/ tariff petition only unless until circumstances so warrant to deal with these separately.

ISSUE NO.25: Abolition of TOD incentive for off peak period and increase in peak load surcharge

Issue raised by objectors:

- Representatives from various organisations have opposed the proposal for abolition of ToD rebate and increase in ToD surcharge. They suggested that ToD incentive for off peak period and surcharge for peak load period be kept at present level of 7.5% and 15% respectively.
- Some of the objectors were of the view that it will be prudent if the stipulated hours for peak load and off-peak load may be reviewed.
- Some of the objectors requested to increase off peak period rebate to 10% and 15% surcharge on peak period.
- Some of the objectors stated that since the power supply is surplus in the state as per the ARR/ tariff petition and thus the petitioners are not required to purchase costly power during peak load hours. Therefore no ToD surcharge may be levied. Instead the rate of rebate may be increased during night hours when cheap power is available.

Response from Discoms:

Rate of additional power purchase during the peak period is generally higher as compared to the normal period rate due to increase in system demand. Similarly rate of additional power purchase during off peak period is less as compared to normal period due to decrease in system demand. The price of short term transaction of electricity through traders may be observed on websites from which it can be seen that price of power during peak period is higher than the price of power traded round the clock by generally more than 15%. Price of power during off peak period, in general, is marginally lower than the price of power traded round the clock. Therefore, rebate offered in previous Tariff order during off peak period is not in line with the price of power during off peak period. Surcharge during peak period is also lower than the price of power during peak period. Therefore, rate of surcharge during the peak period may be increased to 30% and rebate may be withdrawn during off peak period.

Commission's View:

The Commission has fixed Time of Day surcharge for four hours *(from 6 pm to 10 pm*) and rebate for eight hours *(from 10 pm to 6 am next day).* The Commission does not find any justification for changes in time schedule for levy of surcharge or allowing rebate. The rate of surcharge and rebate have appropriately been modified in view of the fact that the petitioners have surplus power and are not required to make short term purchases.

ISSUE NO.26: Rounding off of load factor to nearest lower integer and abolition of load factor incentive for HT category

Issue raised by objectors:

Representatives from various organisations have submitted following objections:

- Load factor may be considered either at actual two decimal values or at higher whole number.
- The load factor incentive to HT consumers may be continued.

- One of the objectors requested to allow load factor incentive for load factor in excess of 50% instead of present provisions for incentive for load factor in excess of 75%

Response from Discoms:
They have not proposed any load factor incentive to any category of HT consumers. Petitioners further submitted that they are unable to recover 100% of efficient costs through the instant tariff petition. Therefore, it is appropriate to drop load factor incentives.

Commission's View:
The load factor incentive provision provides for rounding off to lowest integer and the Commission finds no merit in changing it. The Commission has also not accepted any changes in existing LF incentive formula.

ISSUE NO.27: Power factor incentive for HV industries.
Issue raised by objectors:
Representatives from industries/industrial associations have suggested that proposed reduction in power factor incentives in HT tariff category may not be accepted. Instead the incentives for PF above 98% may be increased. Further, power factor incentive for HV category may be provided for power factor above 90% in place of existing level of 95%.

Response from Discoms:
Any improvement in the power factor (P.F.) reduces maximum demand and hence reduces the bill of the consumer. Incentive above 95% P.F. was provided to compensate towards the cost of additional equipment required to improve the system. 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 consumers and general public and may not be construed as a matter of right.

Commission's View:
The levy of power factor penalty or providing power factor incentive has been evolved after due consideration over a period of time. No further change in existing provisions in this regard is considered appropriate by the Commission.

ISSUE NO.28: Meterisation of unmetered connections
Issue raised by objectors:
Some of the respondents stated that meterisation of unmetered category of consumers is required to be completed on priority within specific time period.

Response from Discoms:
As far as urban area is concerned contention of the objector regarding unmetered connections is not correct. However there are un-metered connections in rural area for which target has been set to provide meters on all such domestic connections up to 31st March 2015.

Commission's View:

The suggestions made by the objectors have been in active consideration of the Commission. The Commission gave specific time frame for meterisation of un-metered connections. Directions of the Commission to the petitioners in this regard are provided at the relevant section in this order.

ISSUE NO.29: Distribution losses

Issue raised by objector:

- One of the objectors has submitted that actual line losses of Discoms are higher than their normative losses; therefore, requested the Commission to calculate annual distribution loss levels by converting to monthly actual line losses and allow actual line losses to the Discoms in ARR.
- Representatives from various organisations have submitted that joint action plan for loss reduction is needed and submitted following suggestions:

  i). Division wise loss reduction target by assigning higher loss reduction targets to divisions with higher losses.

  ii). Public process to finalise loss reduction plan.

  iii). Quarterly performance reports on loss reduction may be submitted to the Commission and uploaded on the website by the Discoms.

Response from Discoms:

- They have appreciated the concern of the objectors and fully agree and strongly endorse the suggestion of allowing actual line losses.
- They are adopting various measures to curb the losses.

  i). Division wise loss target may lead to demand of differential tariff for the divisions and can lead to various difficulties.

  ii). The Commission has specified loss reduction trajectory in the Tariff Regulations after giving due consideration to various relevant factors including the petitioners' submissions and objectors' suggestions. Quarterly report on loss reduction is being submitted to the Commission.

Commission's View:

- The Commission has been deciding the tariff based on annual normative level of losses. Burden on account of any losses in excess of normative level is not passed on to the consumers and such excess losses are borne by the licensees.
- As regard fixing division wise losses targets etc., it is the responsibility of the licensees and the Commission does not wish to indulge in the micro management of company affairs.

ISSUE NO.30: Performance parameters and efficiency levels

Issue raised by objectors:

- One of the objectors submitted that Discoms have availed grants under APDRP programme from GOI for improvement of supply systems and reduction of T&D /AT&C losses. In this regard, objector requested to issue directives to fix performance and efficiency targets and monitor the progress of the same on regular basis.
- One of the objectors has submitted that details on past performance and level of accumulated losses is not known because true ups based on audited accounts for the utilities have not happened in the recent past, so the Commission may initiate a Suo-Moto process for pending true ups .
- One of the objectors submitted that as the utilities are willingly stepping forward to improve efficiency instead of relying on tariff increase, any carrying cost due to delay in true up may not be passed on to the consumers.

Response from Discoms:

- The Commission has fixed the line loss targets in the Tariff Regulations. Details of Capex plan and progress are provided in the petition.
- True-up petitions up-to FY 2011-12 have been filed.

Commission's View:

- Capex plan and progress are reviewed during the tariff determination exercise. Based on the review the Commission admits only prudent expenses.
- True up petitions have been received up to FY 2011-12. Finalization exercise is under process.

ISSUE NO.31: Estimation of sale

Issue raised by objector:

Some of the objectors have submitted that sales forecast of the Discoms for FY 2014-15 needs to be scaled down as figures seem unrealistic and on higher side.

Response from Discoms:

Revised estimates of sales for FY 2013-14 have been calculated on the basis of actual data up to the month of November, 2014. Projections of sales for FY 2014-15 have been made keeping in view the impact of schemes like RGGCY and FSP and increase in supply hours in rural areas,

Commission's View:

Projection of sale is a business proposition of the licensees. It is true that the projections made in the petition and the tariff order for FY 2013-14 do not match with actual for the period for which reports have been received. However, the Commission is of the view that the licensees need to be encouraged to increase their sales and reduce losses. The Commission has taken an appropriate view in the matter which is elaborated in the section on "Commission's analysis of sale" of this order.

ISSUE NO.32: Management of surplus energy

Issue raised by objector:

One of the objectors has submitted that management of surplus energy may be done on the basis of actual electricity market scenario and requested the Commission to direct the companies that they may enter in to PPAs as per actual requirement only. They further suggested backing down of high cost power plants.

Response from Discoms:

Procurement of power is always done as per the Merit Order. PPAs, particularly long term PPAs, are based on forecast made on a 7 to 10 year basis. Variations in actual demand are inevitable since the demand is based on a number of factors which cannot be predicted over a long time horizon. Management of surplus electricity is now part of evolving system not fully in place in the country. In any case backing dawn of power plant must be the last priority.

Commission's View:

The Commission has kept in view the suggestion while finalising the ARR. Moreover, the issue of backing down the high cost power plants has to be tackled in actual scenario depending on the demand and availability. The Commission has been providing for merit order purchase in the tariff order, which takes care of this issue.

ISSUE NO.33: Investment plan and Capitalization of Assets

Issue raised by objectors:

- Some of the objectors have submitted that Discoms may adhere to the Commission guidelines, while projecting the investment plan and capitalization of the assets.
- One of the objectors has suggested appointment of a third party agency to monitor the benefits, which have actually accrued after implementation of investment plan, namely reduction in losses.

Response from Discoms:

- Investment plan submitted in ARR/Tariff petition indicates present status and projections for future years. Contention of the objector to link this plan with actual expenses of past, could not be understood as the same cannot be set as a scale for all the time.
- The matter had been considered by the Commission and the need for third party validation has not been endorsed. In this context, the objector may refer to the Commission's order in the petition no. 80/07 filed by the M.P. Electricity Consumer Society, Indore. Hence the third party consultant to scrutinize the proposal is absolutely not needed.

Commission's View:

The Commission allows addition to the capex based on past actual. As regards cost benefits on account of infusion of capex, this issue was taken care of while deciding the loss trajectory taking in to consideration the amount of proposed / approved capex. Discoms, however, need to make aggressive efforts to ensure that additional capex does lead to actual pay-back in commercial and technical terms within stipulated time lines.

ISSUE NO.34: Terminal Benefit.

<u>Issue raised by objectors</u>:

Representatives from various associations of Power Companies including MPEB pensioners association have requested that the provision for contribution to the terminal benefits Trust and provisions for allowing yearly pension/ terminal benefits be allowed in ARR in addition to allowing yearly cash outgo against the terminal benefits/ pension.

<u>Response from Discoms:</u>

They agree with the contention of the objectors.

<u>Commission's View:</u>

The Commission has notified separate Regulations to deal with this issue and has also allowed expenses towards Pension and Terminal Benefits in the ARR for expenses against yearly pension/ terminal benefits for FY 14-15. The Commission further wishes to make it clear that it shall continue to admit the yearly cash out go for terminal benefits and pension to ensure that all pensioners get their due in time. This issue has been addressed in detail in the section on O&M expenses.

ISSUE NO.35: Other Income

<u>Issue raised by objector:</u>

Some of the objectors have submitted that details of income from cross-subsidy surcharge, minimum charges, excess demand charges, etc. are not captured.

<u>Response from Discoms:</u>

Main components of Non-tariff income are meter rent, wheeling charges, supervision charges, sale of scrape and miscellaneous charges from consumers. Revenue from cross-subsidy surcharge, minimum charges and excess demand charges is included in revenue from sale of power.

<u>Commission's View:</u>

The contention of the objector is incorrect. All such charges form a part of the revenue income received by the licensees and is taken care of at the time of true up. At this juncture, only the revenue income against the projected sale based on applicable tariff is considered for determination of ARR. Other income is considered as per Tariff Regulations.

ISSUE NO.36: Bad and Doubtful debts

<u>Issue raised by objector</u>:

Some of the objectors have submitted that Bad and doubtful debts have to be based on actual and not on an empirical formula of 1% of revenue collected.

<u>Response from Discoms:</u>

They have claimed provision of bad and doubtful debts on the basis of Tariff Regulations.

<u>Commission's View:</u>

The Commission has made appropriate provisions under the section on "Bad and doubtful debts" of this order.

ISSUE NO.37: Single connection for rural consumer

Issue raised by objector:

One of the objectors requested for single connection/tariff to rural farm house and agricultural pump clubbed together.

Response from Discoms:

As per the provisions of Electricity Act, 2003, tariff may be designed as per use of electricity; hence, levy of agriculture pump tariff for domestic purpose is against the provisions of the Electricity Act, 2003.

Commission's View:

The Commission does not accept the suggestions of the objector as the purpose of use is different i.e. agriculture and domestic.

ISSUE NO.38: Difference in levy of minimum consumption in LT & HT industry

Issue raised by objector:

One of the objectors submitted that minimum charges for 11 kV & 33 kV connections are high as compared to LT. It is suggested that minimum charges for 11/ 33kV connections may be made comparable to LT.

Response from Discoms:

The Commission may take a view on this issue.

Commission's View:

Minimum consumption in case of HT consumers corresponds to about 14% load factor only and in case of LT consumers it is hardly 4%. As may be seen that the levy of minimum consumption is at a very lower rate both for HT and LT consumers. Moreover, the minimum consumption is levied only in those cases where actual usage is lower than prescribed minimum. In case of LT, a consideration has been given to the fact that a large number of consumers are billed on connected load basis. In case of demand based tariff, the consumer has the flexibility to avail a contract demand based tariff on expected simultaneous use of equipments, while their connected load is more than the contract demand. Therefore the Commission finds no merit in equating minimum charges of HT categories to that of LT.

ISSUE NO.39:Re-categorisation for LT industries

Issue raised by objector:

Objector requested that instead of keeping separate category for LT industries having connected load up to 25 HP, a single category ranging from 1 to 100 HP be provided. Fixed charges may also be reduced.

Response from Discoms:
Suggestion to merge the categories as proposed by the objectors is not acceptable. Moreover it is justified that the consumers who have high contracted load are required to pay more fixed charges compared to consumers having low contracted load.

Commission's View:
LT industries having loads up to 25 HP are smaller industries which also includes flour mills, hullers etc. The Commission does not favour treatment to these small industries at par with the bigger industries. The Commission has not found it appropriate to accept the request of the objector.

ISSUE NO.40: Uniform fixed charge for all domestic sub-categories
Issue raised by objector:
Fixed charges in domestic category are related to varying parameter i.e. consumption. It is suggested that basis for arriving rate of fixed charges across all domestic sub-categories may be the same.

Response from Discoms:
The Commission had specified various sub-categories of a consumer category on the basis of different factors like use of electricity, supply voltage, nature of connection etc. and thus the sub-categories of any category cannot be treated on the same platform applicable for that category.

Commission's View:
Linking of fixed charges to the consumption in domestic category is to the benefit of the consumers. . Lower consumption leads to billing of lesser fixed charges and vice-a-versa.

ISSUE NO.41: Single tariff without any slab for Domestic and commercial category
Issue raised by objector:
Objector suggested that domestic & commercial category be merged and slab tariff be eliminated. This will also results in avoiding of more than one connection in the same premises.

Response from Discoms:
The Commission had specified various sub-categories of a consumer category on the basis of different factors like use of electricity, supply voltage, nature of connection etc. and thus the sub-categories of any category cannot be treated on the same platform applicable for that category.

Commission's View:
This suggestion is not acceptable, as the categories are defined based on purpose of use as well as consumption capacity i.e. load factor etc.

ISSUE NO. 42: Permitting use of 10% of domestic sanctioned load for non-domestic purpose
Issue raised by objectors
Some of the objectors suggested that 10% of the sanctioned load of domestic connection may be allowed to be used for non-domestic purpose.

Response from Discoms

This issue has been already settled in the tariff order for FY 2013-14.

Commission's View

The Commission agrees with the view expressed by the licensees. Further the purpose of use is taken into consideration for defining a particular consumer category. It would not be prudent to allow non-domestic use of a domestic connection.

ISSUE NO. 43: Reduction in period for advance payment for temporary agriculture connections

Issue raised by Objectors

Respondents from farmers associations have requested that existing provisions for advance payment for temporary connections for a minimum of three months be reduced to one month.

Response from Discoms

The Commission may take a view in this matter.

Commission's View

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

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 2014-15 for the petitioners. Due consideration was given to the submissions made by petitioners, objectors and all other relevant material. While determining tariff for various consumer categories, the Commission has given due consideration to the relevant provisions of the Electricity Act, 2003, National Tariff Policy and relevant Regulations.

Commission's Approach to Tariff Determination

7.2 As per the advice of GoMP vide letter no. F-5-15/2011/13 dated 22 May, 2014, uniform retail supply tariffs shall be continued for FY 2014-15.

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

Linkage to Average Cost of Supply

7.4 Vide letter no. MPERC/RE/2013/2780 dated October 25, 2013, the Commission directed Discoms to determine the voltage wise cost of supply for compliance of the directives given in the judgment passed by Hon'ble Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010. These judgements elaborate the methodology to be adopted as a first step to calculate voltage wise cost of supply on approximate basis till the requisite data is available to work out correct voltage wise cost of supply. These judgments further provide that the tariff of consumer categories is kept within ±20% of the overall average cost of supply except in case of consumers below the poverty line and that the cross subsidies be reduced gradually. The petitioners have submitted that the above mentioned order of Hon'ble APTEL has been challenged in the Hon'ble Supreme Court of India by the Respondents in the case and the matter is under consideration before the Apex Court. However, as per the directives of the Commission, the Discoms have submitted the details of calculation of the voltage wise cost of supply as per the methodology provided by the Hon'ble APTEL.

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

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

7.7 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.

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

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

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

(iii) Total technical and commercial losses of the petitioners have been considered the same as specified in the Tariff Regulations for FY 2014-15.

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

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

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

7.9 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 98: Computation of voltage-wise cost of supply for the State

State	**Units**	**EHT System (400 kV, 220 kV, 132 kV & 66 kV)**	**33 KV System**	**11 KV + LT System**	**Total**
Sales	MU	5,234	5,877	34,389	45,501
Technical and Commercial losses submitted	%	3.97%	4.50%	20.67%	23.06%
Energy input submitted	MU	5,451	6,409	47,279	59,139
Energy input admitted	MU	5,447	6,399	47,213	59,058
Energy lost admitted (Technical up to 33kV and 11 kV + LT- technical and commercial)	MU	212	522	12,824	13,557
Commercial loss assumed as 50% of 11kV and LT overall losses	MU			6,412	6,412
Balance 50% commercial losses for all voltage in proportion to sales	MU	738	828	4,846	6,412
Net energy input for Computing VCoS	MU	6,184	7,227	45,647	59,058
Power Purchase Costs - allocated based on voltage-wise losses	Rs. Crore	1,673	1,944	13,710	17,326
Other costs - allocated based on voltage-wise sales	Rs. Crore	520	565	3,326	4,410
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	77	91	523	691
Recoveries of Past	Rs. Crore	111	126	759	996
Total Costs (ARR requirement)	Rs. Crore	2,226	2,544	17,271	22,042
VCoS	**Rs. /unit**	**4.25**	**4.33**	**5.02**	**4.84**
ABR	Rs. /unit	5.68	5.96	4.53	4.84
Cross- Subsidy vis-a- vis VCoS	**%**	**133.50%**	**137.79%**	**90.11%**	**100.00%**

7.10 Consumer category wise approximate cross-subsidy worked out based on voltage wise cost of supply for FY 2014-15 is shown in the table below:

Table 99: Cross-subsidy based on voltage wise cost of supply for FY 2014-15 for the State

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV-1: Domestic Consumers	5.02	4.87	96.88%
LV-2: Non Domestic	5.02	6.58	130.93%
LV-3.1: Public Water Works	5.02	4.15	82.70%
LV-3.2: Street light	5.02	4.27	85.03%
LV-4: Industrial	5.02	5.92	117.95%
LV-5. Agriculture	5.02	3.75	74.73%
LV-Total	**5.02**	**4.49**	**89.38%**
HV-1: Railway Traction	4.25	5.86	137.84%
HV-2: Coal Mines	4.28	6.53	152.54%
HV-3.1: Industrial	4.30	5.95	138.31%
HV-3.2: Non-Industrial	4.54	6.61	145.79%
HV-3.3	4.32	6.22	143.80%
HV-3.4	4.30	5.09	118.30%
HV-4	4.41	5.93	134.54%
HV-5.1: Irrigation, PWW and other than Agriculture	4.31	4.23	98.33%
HV-6: Bulk Residential Users	4.35	4.78	109.72%
HV-7: Bulk Supply to Exemptees	-	-	-
HV-Total	**4.31**	**5.86**	**136.10%**
Total	**4.84**	**4.84**	**100.00%**

7.11 While determining the tariffs for FY 2014-15, 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 2014-15 works out to Rs.4.84 per unit as against Rs. 4.79 per unit for FY 2013-14. The table below shows the cost coverage on account of tariff for FY 2014-15 as compared to the cost coverage as determined by the Commission in the Tariff Order for FY 2013-14:

Table 100: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2013-14 (as per Tariff Order dated 23rd March, 2013)	FY 2014-15 (achieved as per this Tariff Order)
LV categories		
Domestic	97.85%	100.45%
Non-domestic	140.01%	135.75%
Public water works	85.44%	85.74%
Street Light	88.21%	88.16%
Industrial	122.29%	122.29%
Agriculture	75.00%	77.48%
HV categories		
Railways	124.84%	121.01%
Coal Mines	137.33%	134.76%
Industrial	119.90%	122.80%
Non-industrial	136.64%	136.50%
Irrigation, PWW and Other than agriculture	91.03%	88.41%
Bulk residential users	98.87%	98.62%

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

7.13 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 2014-15. These changes are mentioned in following paragraphs:

i). **Modification in applicability of LV 1.1 Domestic Category**: The Commission has included “Day care centres for senior citizens” in the applicability of LV 1.1 Domestic Category based on the representations received.

ii). **Abolition of payment for transformation loss and transformer rent for LV 4.1 (c):** In view of the revision in Supply code which now provides for LT connections up to 150 HP of connected load or 150 HP of contract demand without any ceiling on the connected load, the Commission has abolished the provision for levy of transformation loss and transformer rent for LV 4.1(c) Industrial Category.

iii). **Provision for emergency feed extension:**. In the daily order on petition no. 14/08 dated April 4, 2008, the Commission has allowed feed extension on the same terms and conditions as per agreement executed by Railways with Discoms. The Commission further vide communication dated 13.09.13 clarified that its order dated April 4, 2008 is still in force. For sake of clarity, the Commission has made provision for emergency feed extension in tariff schedule HV-1 for Railway Traction category under Specific terms and conditions.

iv). **Change in TOD Surcharge and Rebate:** Representatives from different institutions requested the Commission to reduce the evening peak load surcharge and increase the off peak load rebate in view of the present power surplus scenario. They further stated that night power now is cheaper than that of peak power. Hence while peak load surcharge should be waived off, the rebate should be increased so that the industries are incentivised to increase consumption. In this regard, the Commission held a meeting with the PS Energy GoMP, MD of MPPMCL, MDs of Discoms on April 23, 2014. During the discussions, it emerged that Discoms are not required to buy additional power during peak hours at higher cost to meet the peak load as they are relatively surplus in energy availability during both peak and off-peak hours. Thus, the Commission has reduced the evening peak load surcharge from 15% to 7.5% and increased the off peak load rebate to 15% from 7.5%.

v). **Billing of HT consumer having temporary supply through existing meter:** Based on the proposal of petitioners to provide suitable clarity in billing to HT consumers availing temporary supply through existing meter, the Commission has made appropriate modifications to the condition 1.17(g) of the General Terms and Conditions of high tension tariff.

vi). **Billing in case of excess connected load:** In accordance with the regulation 7.26 of the Supply Code, 2013, appropriate provisions have been made for billing in case the connected load is found in excess of sanctioned load in case connected load based tariff.

A8: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2013-14

The response submitted by Discoms on the directives issued by the Commission in the Retail Supply Tariff Order for FY 2013-14 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.

East Discom's submission:

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

a) System strengthening works / Augmentation of distribution capacity:

In order to reduce the technical losses, the distribution system is being strengthened /augmented. Following addition in the distribution system has been made till December, 2013.

Sr. no.	Particulars	Unit	As on Mar-2012	Added in FY 2012-13	As on Mar-2013	Added during FY 13-14 (up to Dec-13)
1	33/11KV S/s	No.	914	08	922	15
2	Power Transformer	No.	1416	47	1463	117
3	PTR Capacity	MVA	5556.20	358.60	5914.80	778
4	33KV Line	Km	14929.00	359.00	15288.00	640.00
5	11KV Line	Km	81635.00	14350.00	95985.00	7434.00
6	LT Line	Km	107984.00	2630.00	110614.00	1713.00
7	DTR	No	95022	21629	116651	11885
8	DTR Capacity	MVA	5628.61	802.01	6430.62	470.00

b) Implementation of Non-RAPDRP Schemes:

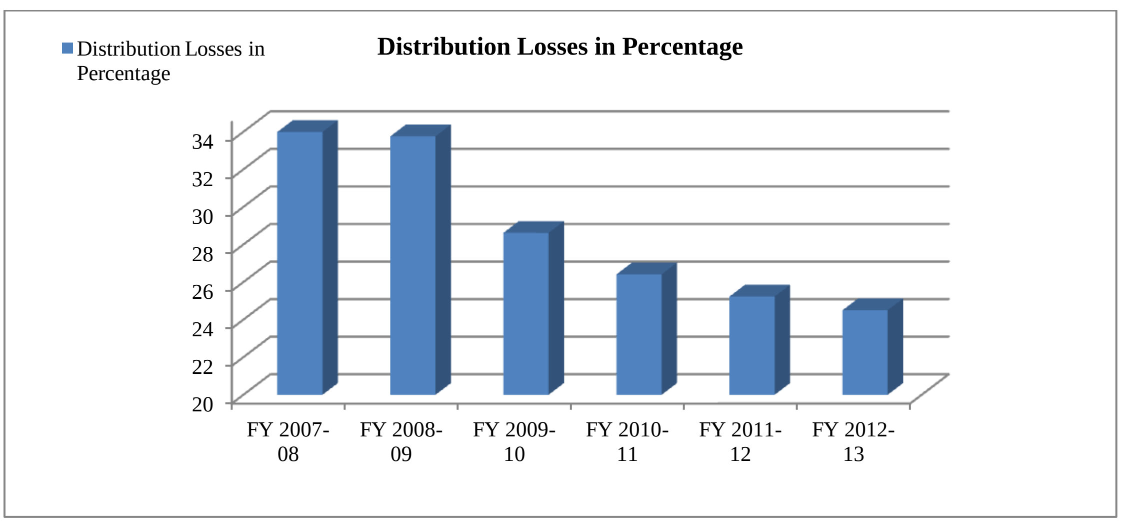
Due to the implementation of various loss reducing measures mainly involving shifting of meters to call bell location, replacement of old service lines by armoured cable and removal of bare LT line conductor by AB cable in theft prone areas in various towns included in Phase-I & II, overall losses have reduced from their earlier level of 47.28% to 12.91% in respect of 21 towns in Phase-I and from 53.62% to 17.34% in Oct-13 in case of 27 towns in Phase-II. Works in respect of 35 towns included in Phase-III are underway and overall losses of these townships have reduced to 23.98% in Oct-13 from earlier level of 57.66% . Another 35 towns have been included in Phase-IV for which work has been taken up in FY 2013-14.

c) Feeder Separation scheme:

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

West Discom submission:

Discom submitted that they are sincerely striving for reduction in line losses to bring it to the normative level. Details of reduction in losses as compared to previous years are as follows:



It is submitted that due to increase in supply hours and adverse ground realities, Discom is facing difficulties to achieve distribution loss level according to loss trajectory defined by the Commission. Discom has strengthened vigilance wing and launched intensive checking drives to curb pilferage of energy. Vigilance cell has conducted regular raids to check and to keep surveillance on pilferage of energy. Details from April 2013 to November 2013 are given as below:-

Connections Checked	No. of cases of irregularities/theft detected during the period			Total amount billed (Rs.in lacs)			Total amount realised (Rs.in lacs)			No. of cases filed before the Special Court during the period
	Direct Theft	Mal-practice	Total	Direct Theft	Mal-practice	Total	Direct Theft	Mal-practice	Total	
487645	37660	53301	90961	5737.31	8318.16	14055.47	3588.37	4066.88	7655.25	12029

Feeder separation and other schemes: Discom has launched the feeder separation scheme in two phases. Phase one covers Indore, Dhar, Khandwa, Khargone, Barwani, Burhanpur and Ratlam districts while phase two covers Ujjain, Dewas, Mandsaur, Neemuch, Alirajpur, Jhabua and Shajapur Districts. Works are under execution.
Discom has also launched various schemes for system strengthening under GoMP / TSP. SCSP, Feeder bifurcation, new irrigation pumps, ADB Second (TR 4 and 5), RGGVY(10^{th} and 11^{th} Plan), JBIC First and Second scheme.

Following addition in the distribution system has been made during FY 2012-13:

Sr. no	Particulars	FY 2012-13		
		At the Start of year	Additions during the year	At the end of year
1	Length of lines (ckt-km)			
	- 33kV	13,232	345	13,577
	- 11kV	69,188	15,050	84,238
	- LT	140,616	5,262	145,878
	Total	223,036	20,657	243,693
2	Number of 33/11kV substations	1,054	37	1,091
3	No. of Power Transformers	1,691	114	1,805
	Total MVA capacity of power transformers	7,012	681	7,693
4	Number of Distribution Transformers	110,401	13,899	124,300
	Total MVA capacity of Distribution Transformer	**9,230**	**793**	**10,023**

It is expected that the losses would be brought within normative level after execution of all above schemes.

Central Discom submission:
Work is being done under various schemes of the CAPEX Plan. Technical losses will certainly be reduced after completion of the work.

Commission's observations/ directions:
Although the Discoms have shown reducing trend of losses, efforts to reduce losses need to be further intensified. The Discoms should not only endeavour to achieve the benchmarks but to improve further to justify capital invested on loss reduction and system improvement.

8.2 Meterization of unmetered connections

Commission's Directives:

During the meeting held on 5th February, 2013 with the MDs of the Discoms and MPPMCL the issue of delay in meterisation of feeders, agricultural DTRs and unmetered domestic consumers was discussed. Discoms assured the Commission that all urban unmetered domestic connections would be provided with meters by end of June, 2013. Meterisation with respect to feeders, agricultural DTRs and unmetered rural domestic consumers would be completed by end of March, 2014. The Commission directs Discoms to ensure 100% meterisation by end of March, 2014.

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. Provision has been made for installation of meters on the new feeders .

b) Meterisation of un-metered domestic connections: The progress of meterisation for domestic and SLP category of consumers for the quarter ending September, 2013 is as follows:-

Total nos. of Domestic + SLP Connections at the end of quarter.		Total nos. of un-metered connections (DLF+SLP) at beginning of Qtr.		Total nos. of meters provided to un-metered connections (DLF+SLP) during the quarter.		Balance un-metered connections at the end of quarter	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
1022133	1919406	0	909732	0	57758	0	851974

Provision of 6.0 lakh meters has been made in FY 2013-14 for meterisation of un-metered consumers, replacement of stop / defective meters and for providing new connections along with provision of 3.55 lakh meters under Feeder separation Plan and 2.03 lakh under RGGVY. Till December 2013, a total of about 2.22 lakh un-metered connections have been provided with meters and further 2,00,000 meters are to be provided in the last quarter of FY 2013-14.

c) Meterisation of Agricultural DTRs:- Discom as on June-13 is having 64049 agricultural DTRs out of which 463 DTRs have been provided with DTR meters. In addition 34306 DTRs have been provided with 122642 meters in their distribution boxes for individual consumers. Meterisation of agricultural DTRs is not covered under provisions of ongoing schemes. However, presently provision of 20,000 DTR meters have been made in the work plan for FY 2013-14 and procurement is under process. Further meterisation of 20,000 DTRs shall be taken up in FY 2014-15. The balance DTR meterisation is proposed to be taken up in FY 2015-16.

Discom submitted that they had prayed to the Commission that looking to the huge backlog of un-metered domestic connections in rural areas due to past backlog and regularization of illegal connections they may be allowed to achieve the 100% meterisation of unmetered domestic connection by March-15 and DTR meterisation by FY 2015-16 in phased manner as proposed.

West Discom: Discom has achieved 100% meterisation in respect of urban domestic category. They have undertaken various projects to achieve target on meterisation. The company has made a concrete comprehensive meterisation plan and implementation is under progress.

Central Discom: Discom is committed for 100% meterisation by the end of FY 2013-14. Field officers are being constantly persuaded to expedite meterisation of un-metered domestic consumers, 33 & 11 KV feeders and predominant agricultural DTRs.

Commission's observations/ directions:

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

8.3 Capex. Plan for reduction of technical losses:

Commission‘s directives:

Discoms while submitting their Capex plans had assured the Commission that these plans cover meterisation of unmetered connections. In addition it was also assured that all new connections would be served with meters for which adequate provisions of meters have been made in the plans. The licensees should closely monitor progress of implementation of the Capex plans and ensure that as directed earlier, 100 % meterisation is achieved by end of March, 2014. The Discoms should also monitor and inform the benefits accrued on execution of schemes under the Capex plans.

Discoms' response:

East Discom: Discom submitted that calculation of actual loss reduction / benefits accrued from individual scheme is practically not possible when many schemes are running simultaneously. However, net impact against of all the schemes have been figured out. Works under Feeder Separation and R-APDRP schemes are under progress and large portion of work is yet to be completed.

West Discom: 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. HT/LT line ratio has also improved from 1:1.6 to 1:1.5.

Central Discom:
Benefits on account of implementation of the schemes under the capex plan are as tabulated below:

a) Line loss reduction

The capital works executed has resulted in reduction of line loss and AT&C losses.

S. No.	Particular	Annual percentage of losses		
		As on 31.03.2012	As on 31.03.2013	Reduction
1	Line Loss	32.70%	30.85%	1.85%
2	AT&C Loss	39.57%	30.85%	8.72%

b) Reduction in Transformer failure

Capital works executed have reduced over loading of transformers resulting in reduction in transformer failures.

S. No.	Particular	Annual percentage of failure		
		As on 31.03.2012	As on 31.03.2013	Reduction
1	Power transformer failure	3.16%	1.65%	1.51%
2	Distribution transformer failure	10.92%	9.80%	1.12%

c) Reduction in LT HT Ratio

"LT less System" is the ideal distribution system which needs major capital expenditure. The capital works executed has resulted in reduction of LT-HT Ratio.

S. No.	Particular	Annual percentage of failure		
		As on 31.03.2012	As on 31.10.2013	Reduction
1	LT HT Ratio	1.28	1.07	0.21

d) Reduction in over loading of 33 kV feeders

Due to over loading of 33 kV feeders power supply schedules were distributed in ABC and AB Groups. On execution of major 33 kV feeder bifurcation works under CAPEX Plan, it has resulted power supply schedules in single A Group only i.e. 24 hrs supply.

S. No.	Particular	Power supply schedules of 33 KV Feeders During Rabi season		
		FY 2011-12	FY 2012-13	FY 2013-14
d 1 u	Power supply in A, B, C, Groups	8	4	All feeders supplied in 'A' Group only
c t 2	Power supply in A, B Groups	157	171	

i

e) Reduction in payments towards drawl of Reactive Power

The capital works executed has resulted in reduction in payments towards drawl of Reactive Power.

S. No.	Particular	Amount in Crore		
		FY 2011-12	FY 2012-13	Reduction
1	Payments made towards drawl of Reactive Power	4.41	2.95	1.46

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

8.4 Segregation of rural feeders into agricultural and others:

Commission's Directives:
During the meeting with the MDs of the Discoms and MPPMCL on 5th Feb,2013 the Commission was informed that the work of feeder segregation is being given the highest priority and shall be completed soon. The Commission directs the Discoms to submit the quarterly status of progress of this scheme.

Discoms' response:

East Discom: *The status submitted is given below:*

Sr. no.	No. of feeders to be separated	No of feeders separated as on Dec-13
1	1645	1183

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

Central Discom: Quarterly progress is being regularly submitted by the Discom to the Commission.

Commission's observations/ directions:

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

8.5 Minimum supply hours:

Commission's directives:

The Commission directs the Licensees that the minimum daily supply hours as directed in the Tariff Order for FY 2012-13 shall be maintained in all areas until the feeder segregation activity is complete and 24 hours supply is commenced.

Discoms' response:

East Discom: Average supply hours for the year 2013-14 up to Dec, 2013 are shown below in the table:-

Month	Rural	THQ	DHQ	CHQ
April, 2013	23:54:00	24:00:00	24:00:00	24:00:00
May, 2013	24:00:00	24:00:00	24:00:00	24:00:00
June, 2013	24:00:00	24:00:00	24:00:00	24:00:00
July, 2013	24:00:00	24:00:00	24:00:00	24:00:00
Aug, 2013	24:00:00	24:00:00	24:00:00	24:00:00
Sept, 2013	24:00:00	24:00:00	24:00:00	24:00:00
Oct, 2013	24:00:00	24:00:00	24:00:00	24:00:00
Nov, 2013	24:00:00	24:00:00	24:00:00	24:00:00
Dec, 2013	24:00:00	23:59:42	23:59:45	24:00:00

***West Discom:** Supply hours from April, 2013 to December, 2013 are shown below in the table:*

SUPPLY HOURS WEST DISCOM FY 2013-14								
		CHQ		DIS.	THQ	RURAL		
S No.	Month	INDORE	UJJAIN			MIX	DLF	IRR
1	Apr-13	23:42	23:54	23:53	23:32	22:46	23:18	7:58
2	May-13	23:40	23:53	23:56	23:33	22:56	23:20	8:16
3	Jun-13	23:38	23:52	23:40	23:13	22:00	22:38	8:54
4	Jul-13	23:40	23:54	23:52	23:21	22:23	22:56	9:24
5	Aug-13	23:43	23:54	23:54	23:25	22:45	23:11	9:32
6	Sep-13	23:45	23:47	23:39	23:16	22:33	23:01	9:26
7	Oct-13	23:50	23:48	23:41	23:28	22:55	23:19	9:43
8	Nov-13	23:55	23:51	23:54	23:43	23:22	23:36	9:52
9	Dec-13	23:54	23:51	23:46	23:36	23:13	23:27	9:48
Average FY 2013-14 (up to Dec 13)		**23:45**	**23:51**	**23:48**	**23:27**	**22:46**	**23:12**	**9:13**

Central Discom: Average supply hours for FY 2013-14 up to August, 2013 are shown below in the table:-

Month	Average Supply Hours FY 2013-14					
	CHQ	DHQ	THQ	Mixed	DLF	Irrigation
Apr.2013	23:31	23:38	23:28	22:29	23:14	7:53
May2013	23:36	23:43	23:30	22:59	23:23	9:47
Jun.2013	23:25	23:24	23:10	21:59	22:43	9:36
Jul.2013	23:41	23:38	23:13	22:24	22:52	9:37
Aug.2013	23:33	23:39	23:22	22:44	23:01	9:39
Average	**23:33**	**23:36**	**23:21**	**22:31**	**23:03**	**9:18**

Commission's observations/ directions: The Commission directs the Licensees that the minimum daily supply hours as directed in the Tariff Order for FY 2012-13 should be maintained in all areas.

8.6 Appointment of Franchisees:

Commission's Directives:
As per the Electricity Act, 2003, the Distribution Licensee may appoint Distribution Franchisee for distribution of electricity in its Area of Supply. However, the Distribution Licensee is responsible for all actions of Franchisee related to the delegated functions. Discoms should exercise due diligence not only while appointing the Franchisees but also during their day to day functioning, so that the interest of consumers as well as financial health of Discoms remain intact/protected. Discoms should update the Commission on the status from time to time.

Discoms' response:

East Discom: M/s Essel Vidyut Vitaran (Sagar) Pvt. Ltd. have been appointed as distribution franchisee for Sagar City. The franchisee has started functioning w.e.f. 1st December, 2012.

West Discom: M/s Essel Vidyut Vitaran (Ujjain) Pvt. Ltd, have been appointed as distribution franchisee for Ujjain City.

Central Discom: M/s Essel Vidyut Vitaran (Gwalior) Pvt. Ltd, have been appointed as distribution franchisee for Gwalior City.

Commission's observations/ directions: Discoms should continue to inform updated status to the Commission from time to time.

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

Commission's Directives:

The Commission directs that the practice of providing tariff cards should be continued for tariff Order of FY 2013-14.

Discoms' response:

East Discom: Discom had arranged to print tariff cards for tariff order FY 2013-14 for different categories of the consumers and the same were provided to the field units for their distribution to the consumers.

West Discom: Information related to tariff for FY 2013-14 was given to the consumers.

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

Commission's observations/ directions: The Commission directs that the practice of providing tariff cards should be continued for Tariff Order of FY 2014-15.

8.8 Filing of ARR and tariff proposals in Hindi language

Commission's Directives:

The Commission had directed the Discoms after receipt of ARR/ Tariff proposals to file Hindi version. Subsequently the Discoms have submitted the Hindi version which was made public. The next filing of ARR/ tariff proposals should be made in Hindi and English.

Discoms' response:

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

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

8.9 Accounting of rebates/incentives/ surcharge:

Commission's Directives:

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 they have complied with the directives.

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

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

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

8.10 Maintaining uniform accounts:

Commission's Directives:

The Commission reiterates that Discoms should bring about uniformity in maintaining the accounts at an early date. MPPMCL which is the 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 the Company was incorporated on May 31, 2002 under Companies Act 1956. However, the commercial operations commenced from June 1, 2005 pursuant to GoMP Notification No. 226 dated May 31, 2005. The schedule VI to the Companies Act, 1956 ('the Act') provides the manner in which every company shall prepare its Balance Sheet, Statement of Profit and Loss and notes thereto. The Ministry of Corporate Affairs (MCA) has issued a revised form of Schedule VI vide gazette notification 30th March, 2011. The requirements of the Revised Schedule VI, do not apply to companies as referred to in the proviso to Section 211 (1) and Section 211 (2) of the Act, i.e., any insurance or banking company, or any company engaged in the generation or supply of electricity or to any other class of company for which a form of Balance Sheet and Profit and Loss account has been specified in or under any other Act governing such class of company. However, in the guidance note issued by Institute of Chartered Accountants of India, it is clarified that for companies engaged in the generation and supply of electricity, neither the Electricity Act, 2003, nor the rules framed there under, prescribe any specific format for presentation of Financial Statements by an electricity company. Section 61-6(c) of the Companies Act states that the Companies Act will apply to electricity companies, to the extent it is not contrary to the requirements of the Electricity Act. Keeping this in view, Revised Schedule VI may be followed by such companies till the time any other format is prescribed by the relevant statute. As such, the financial statements for the year FY 2011-12 onwards are being prepared as per Revised Schedule VI of the Companies act 1956. This will ensure uniform presentations in the accounts of all Discoms from the FY 2011-12 onwards. Discom prepares financial statements under historical cost basis in accordance with Generally Accepted Accounting Principles (GAAP) and the Accounting Standards as notified by the Companies (Accounting Standard) Rules 2006.

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

Central Discom: Discom submitted that the ERP program which covers the accounting part is in progress and maintaining of uniform accounts will be implemented after completion of such ERP program.

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

8.11 Compliance of Regulations:

Commission's Directives:

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

Discoms' response:

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

West Discom: Discom submitted that Discom is committed to adhere to directives issued by the Commission.

Central Discom: Discom submitted that the Petition has been filed in accordance with the provisions of the Regulations.

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

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

Commission's Directives:

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

Discoms' response:

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

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

Central Discom: It is submitted that the status of AMR of LT high value consumers (more than 25 HP) as on August 31, 2013 is as follows:-

Region	AMR	Installation	Downloading MRD files	Generation of bills
Bhopal	4560	4065	3286	2633
Gwalior	3834	3820	2218	1408

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

8.13 Payment of interest on consumer security deposit

Commission's Directives:
During public hearings on the petition, some of the consumers have raised the issue that the petitioners are not paying interest on consumer security deposit at the bank rate as specified in the Regulations. The Commission directs Discoms to ensure that the payment of interest on consumer security deposit be strictly made in accordance with the stipulations of the Regulations

Discoms' response:

East Discom: Discom submitted that the Revenue Management Software (RMS) which is being used for billing has got the provision for calculation & payment of interest on consumer security deposits, at the bank rate.

West Discom: Discom submitted that the Discom is strictly adhering the directive and ensured that the payment of interest on consumer security deposit is made in accordance with the stipulations of the Regulations.

Central Discom: Discom submitted that the payment of interest on consumer's security deposit is being made strictly as per the MPERC Regulations.

Commission's observations/ directions: In view of the submission of the Discoms in the matter, the Commission does not wish to pursue this matter any further. However, it shall take up the matter again in case any noncompliance of the part of the Discoms is brought to its notice.

8.14 Assessment consumption for billing to consumers

Commission's Directives:

During public hearings on the petition, some of the consumers have raised the issue that the petitioners are issuing the bills on assessed consumption even if the meter is working correctly and there is no evidence of any malpractice or theft. The Supply Code, 2004 (as amended) provides for billing in case of defective/ dysfunctional meters is reproduced below:

"9.17. In order to recover the energy charges for the duration when the meter remains dysfunctional, average monthly consumption of previous three meter reading cycles shall be the basis of billing. In case a check-meter is available, the readings of the meter may also be used for assessment of consumption. In case of HT consumers if during the period when the main meter is defective, the check meter is not installed or is also found defective, the quantity of electricity supplied shall be determined as stated above; provided that if in the opinion of the licensee, the conditions in the consumer's installation during the month in question were such as to render billing on such average consumption not equitable either to the consumer or to the licensee, the electricity supplied during such period shall be determined by the in charge of the local area circle of the licensee. In the event of the consumer not being satisfied with such determination, he may appeal to the in charge of the local Region of the licensee whose decision shall normally be acceptable."

The Supply code also provides for method of assessment of charges in case of theft of electricity.

The Commission has taken serious note of this practice. The Commission directs Discoms that unless the meter is found defective/ dysfunctional or tampered or evidence of theft of energy in the premises is established, no consumer should be billed on the basis of any kind of assessment of consumption other than the consumption that is recorded in the meter. The Commission directs the Discoms to submit compliance report on this directive within a month from the date of issue this order.

Discoms' response:

East Discom: Discom submitted that vide letter no. EZ/CE/(Comml) /MPERC/772 dated May 20, 2013 they have apprised to the Commission that directives to all the field offices have been issued to ensure assessment for billing only as per the provisions given in Supply Code 2004 and the tariff order. In cases where working of meter is OK, provision for doing the assessed billing has been locked in the RMS billing software itself.

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

Central Discom: Discom has already submitted the compliance report to the Commission.

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

Fresh directive

8.15 Proposal for modifications in the terms and conditions of the tariff

Commission's observations/ directions:
The Commission observed that in the proposed Tariff Schedule, petitioners have proposed various modifications in the terms and conditions of existing Tariff Schedule without elaborating the basis and justification for such modifications. The Commission directs Discoms not to repeat such practice in future. Discoms should separately indicate the proposed modifications in the terms and conditions of Tariff Schedule along with the basis and justifications in future in the ARR/tariff petition.

Annexure-1 (List of Objectors)

List of objectors of East Discom - FY 2014-15

Sl No.	Name and Address of the objector
1	Shri K.K. Agrawal, Bharat Krishak Samaj, Shri Shantilal Shah Kisan Karyalaya, Gangotri Apartment, Gol Bazar, Jabalpur
2	Shri Ramesh Patel, Bhartiya Kisan Union, Near Mahaveer Lok Sihora, Distt. Jabalpur 483225
3	Shri Thakur Mukul Bijoliya, Sagar
4	Shri P.G. Najpandey, M/s. Nagrik Upbhokta Margdarshak Manch, 6/47, Ramnagar, Aadhartal, Jabalpur 48004
5	Shri C.L. Swarnkar, CE (Retd.), MP State Electricity Board, Near Rachna Medical Stores, Nehanagar, Makroniya, Sagar
6	Shri H.P.Agrawal, Chief Electrical Distribution Engineer, West Central Railway, Indira Market, G.M. Office, Jabalpur 482 001
7	Shri Shankar Nagdeo, Shri Ravi Gupta, M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur 482 002
8	Shri D.R. Jeswani, M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur 482010
9	Shri Anil Chaturmohta, M.P. Chawal Udyog Sangh, M/s Ramdev Food Product, Koshmi, Balaghat, M.P.
10	Shri Jabir Khan, M/s. Prism Cement Ltd., Manakahari, Satna
11	Shri V.K. Agrawal, President, M/s. MP Vidyut Mandal Pensioners Association, 39, Satyanand Vihar, Rampur, Jabalpur 482 008
12	Shri V.K.S. Parihar, General Secretary, M/s. Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No. 13, Vidyut Nagar P.O., Rampur, Jabalpur 482008
13	Shri Tavinder Gujral, Member, Jila Panchayat, Jabalpur
14	Shri Prakash Pandey, M/s. Jagruk Nagrik Manch, Sihora
15	Shri Raj Narayan Bhardwaj, Bharat Kisan Sangh, 253, Sanjeevani Nagar, Jabalpur

List of objectors of West Discom - FY 2014-15

Sl. No.	Name and Address of the objector
1	Shri Praveen Kumar Jain, Jaipur and Bikaner Bank ke Samne, 23/2, Shankumarg Freeganj, Ujjain
2	Shri Ann Josey, M/s. Prayas, Amrita Clinic, Athawale Corner, Karve Road Corner, Deccan Gymkhana, Pune 411004
3	Shri A.R. Bose, CEO, The Indian Institute of Head and Neck Oncology, Indore Cancer Foundation, Raj Tilak, 779/D, Manishpuri, Indore 452018
4	Shri Subhash Kanungo, Zila Sanyojak, Aam Aadmi Party, 28/2, Ranjeet Marg, Ranipura, Barwani
5	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.)
6	Shri Deepak Agrawal, M/s. A2Z Infrastructure Limited, Regd Office: 205, Laxman Place, 19, Veer Savarkar Block, Shakarpur, Delhi 1100092
7	Shri Gautam Kothari, President, M/s. Pithampur Audhyogik Sangathan, 231, Saket Nagar, Indore- 452 018 (India)
8	M/s. National Steel & Agro Industries, 401, Mahakosh House, 7/5, South Tukoganj, Nath Mandir Road, Indore 452001
9	Shri R.D. Kirtani, Managing Director, M/s. Gajra Differential Gears Limited, Lohar Pipaliya, Kshipra, Dewas
10	Shri B.L. Jajoo, President, M/s. MP Cold Storage, 115-B, Industrial State, Pologround, Indore 452003
11	Shri R.S. Goyal, 51 Prakash Nagar, Nemawar Road, Indore 452 001
12	Shri R.C. Somani, Sukhraj, 67 C H Scheme No. 74 C Vijay Nagar, Indore
13	M/s. Masand Agro Equipment Pvt. Ltd., 70, Shastri Market, Indore 452 007
14	Shri Kailashchand Khandelwal, M/s. Sendhwa Cotton Association, C/o Vikas Cot Fiber Pvt. Ltd., Verla Road Sendhwa, Distt. Barwani 451666

Sl. No.	Name and Address of the objector
15	Shri Kailashchandra Khandelwal, M/s. M.P. Cotton Processors and Traders Association, C/s. Vikash Cott Fiber Pvt. Ltd. Varla Road, Sendhwa, Distt. Barwani 451666
16	M/s. Kasyap Sweetners Limited, Chetanya Gram, Badnawar, Distt. Dhar 454660
17	Shri Yogesh Harsola, M/s. Goverdhan Cottex, Pati-Bokrata Road, Khatia, Tehsil Pansemal, Distt. Barwani
18	Shri Dilip Jain, M/s Mahavir Cot Fibers, Pansemal Khetia Road., Khetia, Tehsil Pansemal, Distt:- Barwani.
19	Shri Kailashchand Khandelwal, M/s. Vikas Cot Fiber Pvt. Ltd., Verla Road Sendhwa, Distt. Barwani
20	Shri Manish Shrimali, M/s. Tirupati Fibers, Julwania Road, Khargone.
21	M/s. Divya Jyoti Industries Ltd, 92/3, Sapna Sangita Main Road, Indore 452 001
22	Shri Manjit Chawla, M/s. Herman Cotex, Bistan Road, Opp. Dejla Dewada Colony, Khargone - 451 001.
23	M/s. Sanghvi Ispat Industries, Plot No. 5-B & 6-A, Sector-A, Sanwar Road, Industrial Area, Indore
24	Shri Manjit Singh Chawla, Adhyaksh, Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
25	Shri Pramod Dafaria, Hon. Secretary, M/s. Association of Industries Madhya Pradesh, "Udyog Bhavan", Industrial Estate, Pologround, Indore-452 015
26	Shri Ashok Khandelia, President, M/s. Association of Industries, Dewas, 1/B/1, 1B/2A, I.S. Gajra Industrial Area, No. 1, A.B. Road, Dewas
27	M/s. Dhanalaxmi Solvex Pvt. Ltd., Shajapur
28	M/s. Dhanalaxmi Solvex Pvt. Ltd., A.B. Road, Dewas
29	M/s. Dhanalaxmi Solvex Pvt. Ltd., Harda
30	M/s. Dhanalaxmi Solvex Pvt. Ltd., Kareli, Distt. Narsinghpur
31	M/s. Pooja Soya Industries, 201, Bansi Plaza, M.G. Road, Indore 452 001

Sl. No.	Name and Address of the objector
32	Shri Pawan Goyal, M/s. Pawan Cotton Industries, Verla Road, Sendhwa , Distt. Barwani, 451666
33	Shri Mahesh Mittal, Chairman, M/s. All India Manufacturers Organisation, Industrial Estate, Pologround, Indore 452 015
34	M/s. Grasim Industries Ltd., Birlagram, Nagda 456 331
35	Shri M.C. Rawat, Secretary, The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
36	Dr. Gautam Kothari, Shri P.L. Nene, M/s. Electricity Consumers Society, C/o. AIMO (MPSB), Industrial Estate, Pologround, Indore 452015
37	Shri Sanjay Agrawal, M/s. Upbhokta Hit Prahari, 970, Manak Chowk, Mhow, Indore
38	Shri Mahesh Varan, Ujjain
39	Shri Dinesh Gupta, M/s. Ranbaxy Lab Ltd. Dewas
40	Shri Sankalp Ved, M/s. Ruchi Group, Dewas

List of objectors of Central Discom - FY 2014-15

Sl No.	Name and Address of the objector
1	Shri Ranjan Mimani, Chairman, MP Sate Council, Confederation of Indian Industry, E-2/109, Arera Colony, Bhopal 462 016
2	Shri S. Pal, Chief Executive, M/s. Vardhman Yarns (A unit of Vardhman Textiles Ltd), A1-A6, Industrial Area-II, Mandideep Distt. Raisen
3	Shri Sanjay Sharma, President, M/s. Banmore Industries Association, Annapurna Dal Mill, Sector B, Industrial Area, Banmore, Distt. Morena 476 444
4	Shri D.P. Goyal, President, M/s. Laghu Udyog Sangh, Sourabh Concrete Pipe, Industrial Area, A.B. Road, Morena
5	Shri Uday Samant, Director, M/s. Barna Hydro Projects Pvt. Ltd., Plot No. 302, Plot No. 75-B, Kasturba Nagar, Near Chetak Bridge, Bhopal
6	Shri K.N. Mathur, M/s. HEZ Limited, Mandideep

Sl No.	Name and Address of the objector
7	Dr. Praveen Agrawal, Vice President, M/s. M.P. Chamber of Commerce and Industries, Chamber Bhawan, Sanatan Dharm Mandir Road, Gwalior 476444
8	Shri M.K. Vaswani, Bhopal
9	Shri Shyam Vaidya, AHPL, Narsinghpur
10	Madhya Pradesh Congress Committee, Indira Bhawan, Shivaji Nagar, Bhopal -462016

TARIFF SCHEDULES

Annexure-2 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2014-15

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, old age homes, day care centres for senior citizens, rescue houses, orphanages, places of worship and religious institutions will also be covered under this category.

Tariff:

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

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

Monthly Consumption (units)	**Energy Charge (paise per unit) Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**
Up to 30 units	290	NIL

(b) Minimum Charges: Rs. 40 per connection per month as minimum charges is applicable to this category of consumers.

LV 1.2

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

Monthly Consumption Slab (units)	**Energy Charge with telescopic benefit (paise per unit) Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Up to 50 units	340	40 per connection	25 per connection
51 to 100 units	385	65 per connection	40 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	480	75 for each 0.5 kW of authorised load	50 for each 0.5 kW of authorised load
301 to 500 units	520	80 for each 0.5 kW of authorised load	70 for each 0.5 kW of authorised load
Above 500 units	555	85 for each 0.5 kW of authorised load	70 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).	675	300 for each one kW of sanctioned or connected or recorded load, whichever is the highest	200 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.	675	40 for each 1 kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	20 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. 500/- 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 @ 420 per unit	75 per connection
Un-metered connection in rural areas	75 units @ 340 per unit	30 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.

Tariff Schedule – LV-2

NON-DESTIC:

LV 2.1

Applicability:

This tariff is applicable for light, fan and power to Educational Institutions including workshops and laboratories of Engineering Colleges / Polytechnics/ITIs (which are registered with /affiliated/ recognized by the relevant Govt. body or university), Hostels for students or working women or sports persons (run either by Govt. or individuals)

Tariff:

Tariff shall be as given in the following table:

Sub category	**Energy Charge (paise/unit)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
Sanctioned load based tariff (only for connected load up to 20 kW)	520	90 per kW	60 per kW
Optional -Demand based Tariff (Only for contract demand above 10 kW and up to 20 kW)	520	180 per kW or 144 per kVA of billing demand	120 per kW or 96 per kVA of billing demand
Mandatory demand based tariff for contract demand above 20 kW	520	180 per kW or 144 per kVA of billing demand	120 per kW or 96 per kVA of billing demand

LV 2.2

Applicability:

This tariff is applicable for light, fan and power to Railways (for purposes other than traction and supply to Railway Colonies/water supply), Shops/showrooms, Parlors, All Offices, Hospitals and medical care facilities including Primary Health Centers, clinics, nursing homes belonging to either Govt. or public or private organisations, public buildings, guest houses, Circuit Houses, Government Rest Houses, X-ray plant, recognized Small Scale Service Institutions, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, professional's chambers (like Advocates, Chartered Accountants, Consultants, Doctors etc.), bottling plants, marriage gardens, marriage houses, advertisement services, advertisement boards/ hoardings, training or coaching institutes, petrol pumps and service stations, tailoring shops, laundries, gymnasiums, health clubs, telecom towers for mobile communication and any other establishment (except those which are covered in LV 2.1), who is required to pay Commercial tax/service tax/value added tax (VAT)/entertainment tax/luxury tax under any Central/State Acts.

Tariff:

Tariff shall be as given in the following table:

Sub category	**Energy Charge (paise/unit)**	**Monthly Fixed Charge (Rs.)**	
	Urban/ Rural areas	**Urban areas**	**Rural areas**
On all units if monthly consumption is not more than 50 units	540	50 per kW	30 per kW
On all units in case monthly consumption exceeds 50 units	600	85 per kW	60 per kW
Optional demand based Tariff (only for contract demand above 10 kW and up to 20 kW)	525	190 per kW or 152 per kVA of billing demand	120 per kW or 96 per kVA of billing demand
Mandatory demand based tariff for Contract demand above 20 kW	525	190 per kW or 152 per kVA of billing demand	120 per kW or 96 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	715	130 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	85 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	715 (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/-)	50 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	30 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	450		
Three Phase	650		
Dental X-ray machine	50		

* 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 25 per unit in energy charges shall be given to the connections of mobile communication towers situated in rural areas.

d) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

e) For LV-2.1 and LV-2.2: Any consumer having contract demand of 10 kW or more and up to 20 kW may opt for demand based Tariff, however, for the consumers having contract demand in excess of 20 kW demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.

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	365	140	No Minimum Charges
Municipality/ Nagar Panchayat	365	120	
Gram Panchayat	365	50	
Temporary supply	1.3 times the applicable tariff		
LV 3.2 Street light			
Municipal Corporation/ Cantonment board	380	235	No Minimum Charges
Municipality/ Nagar Panchayat	375	210	
Gram Panchayat	375	50	

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	LT industries having connected load up to 25 HP	90 per HP	30 per HP	400
4.1b	Demand based tariff (Contract demand up to 100HP)	220 per kW or 176 per kVA of billing demand	110 per kW or 88 per kVA of billing demand	520
4.1 c	Demand based tariff (Contract demand more than 100 HP and up to 150 HP)	300 per kW or 240 per kVA of billing demand	210 per kW or 168 per kVA of billing demand	535

<table>
<tr><th rowspan="2"></th><th rowspan="2">Category of consumers</th><th colspan="2">Monthly Fixed Charge (Rs.)</th><th rowspan="2">Energy Charge (paise per unit) – Urban / Rural Area</th></tr>
<tr><th>Urban Areas</th><th>Rural Areas</th></tr>
<tr><td>4.1 d</td><td>Temporary connection</td><td colspan="3">1.3 times of the applicable tariff</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="5">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.</td></tr>
<tr><td>4.2 a</td><td>During season</td><td>Normal tariff as for Non seasonal consumers</td><td>Normal tariff as for Non seasonal consumers</td><td>Normal tariff as for Non seasonal consumers</td></tr>
<tr><td>4.2 b</td><td>During Off -season</td><td>Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more</td><td>Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more</td><td>120 % of normal tariff as for Non-seasonal consumers</td></tr>
</table>

<u>Terms and Conditions</u>:

(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) Any consumer may opt for demand based tariff, however for the consumers having connected load **above 25 HP** , demand based tariff is mandatory 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:

(c.1) For connected load up to 100HP

i. **For LT Industries in rural areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 180 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 360 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 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 above specified units.

iv. Method of billing of minimum consumption shall be as given in the General Terms and Conditions of Low Tension tariff.

(c.2) For connected load more than 100 HP

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 480 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 or part thereof of contract demand in rural area and 40 units per HP per month or part thereof of contract demand 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.

(d) **Additional Charge for Excess Demand:** Shall be billed as given in the General Terms and Conditions of Low Tension Tariff.

(e) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

(f) Other Terms and conditions for **seasonal consumers**:

i. The consumer has to declare months of season and off season for the financial year 2014-15 within 60 days of issue of Tariff Order and inform the same to the Distribution Licensee. If the consumer has already declared the period of season and off-season during this financial year prior to issue of this Order, same shall be taken into cognizance for the purpose and accepted by the Distribution Licensee.

ii. The seasonal period once declared by the consumer cannot be changed during the financial year.

iii. This tariff is not applicable to composite units having seasonal and other category of loads.

iv. The consumer will be required to restrict his monthly off season consumption to 15% of the highest of average monthly consumption during the preceding three seasons. In case this limit is exceeded in any off season month, the consumer will be billed under Non seasonal tariff for the whole financial year as per the tariff in force.

v. The consumer will be required to restrict his maximum demand during off season up to 30 % of the contract demand. In case the maximum demand recorded in any month of the declared off season exceeds this limit, the consumer will be billed under Non seasonal tariff for the whole financial year as per the tariff in force.

Tariff Schedule – LV - 5

AGRICULTURE AND ALLIED ACTIVITIES

Applicability:

The tariff **LV-5.1** shall apply to connections for agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines and irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle.

The tariff **LV-5.2** shall apply to connections for nurseries, farms growing flowers/ plants/ saplings/ fruits, mushroom and grasslands.

The tariff **LV-5.3** shall apply to connections for fisheries ponds, aquaculture, sericulture, hatcheries, poultry farms, cattle breeding farms and those dairy units only where extraction of milk and its processing such as chilling, pasteurization etc. is done.

The tariff **LV- 5.4** shall apply to connections for permanent agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines and irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle to whom flat rate tariff is applicable.

Tariff:

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV- 5.1			
a) (i)	First 300 units per month	NIL	320
(ii)	Above 300 units up to 750 units in the month	NIL	380
(iii)	Rest of the units in the month	NIL	405
b)	Temporary connections	NIL	405
c)	DTR metered group consumers	NIL	300
LV-5.2			
a) (i)	First 300 units per month	NIL	320
(ii)	Above 300 units up to 750 units in the month	NIL	380
(iii)	Rest of the units in the month	NIL	405
b)	Temporary connections	NIL	405

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV-5.3			
a)	Up to 25 HP in urban areas	55 per HP	375
b)	Up to 25 HP in rural areas	20 per HP	375
c)	Demand based tariff (Contract demand and connected load up to 100 HP) in urban areas	170 per kW or 136 per kVA of billing demand	455
d)	Demand based tariff (Contract demand and connected load up to 100 HP) in rural areas	80 per kW or 64 per kVA of billing demand	455

LV-5.4	Agriculture flat rate tariff exclusive of subsidy*.	Rate payable by the consumer in Rs per HP per month for months of April to September	Rate payable by the consumer in Rs per HP per month for the months of October to March
a)	Three phase- urban	100	100
b)	Three phase- rural	100	100
c)	Single phase urban	100	100
d)	Single phase rural	100	100

***see para 1.2 of terms and conditions**

Terms and Conditions:

1.1 **Billing of consumers under tariff schedule LV 5.1:** Billing to the consumers covered under tariff schedule LV 5.1 shall be done on a monthly basis based on the consumption recorded in the meter. Unmetered temporary connection under this schedule shall be billed on the basis of assessment of consumption provided under condition 1.3 (iii) of this schedule.

1.2 **Billing of consumers under tariff schedule LV 5.4:**

Rates payable by the consumer under tariff schedule LV 5.4 are exclusive of subsidy. The bill for the consumer covered under the tariff schedule LV 5.4 shall be calculated at the rates specified under the tariff schedule LV 5.1 based on norms for assessment of units per HP specified under condition 1.3 of this schedule. The consumer shall be required to pay at the rates specified under tariff schedule LV 5.4 and the balance amount of the bill shall be paid by the State Govt. as advance subsidy to the Distribution licensee.

1.3 **Basis of energy audit and accounting for categories LV 5.1 and LV 5.4**:

i) For energy audit and accounting purposes, actual billed consumption of metered consumers covered under tariff schedule LV 5.1 and LV 5.4 shall be considered.

ii) For unmetered agriculture consumers under LV 5.4 category, assessed consumption shall be as per following norms:

Particulars	**No. of units per HP of sanctioned load per month**			
	Urban Area		**Rural Area**	
Type of Pump Motor	**June to Sept**	**Oct to March**	**June 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 lamp up to 40 W 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) **Consumers opting for demand based tariff:** The consumers availing supply at demand based tariff shall restrict their actual maximum demand within the contract demand. However, in case the actual maximum demand recorded in any month exceeds 105% of the contract demand, the tariff in this schedule shall apply to the extent of 105 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 105% of contract demand (termed as Excess Demand) and consumption corresponding thereto at the following rates:-

      i. **Energy charges for Excess Demand**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds the 105% of the contract demand.

      Example: If a consumer having a contract demand of 50 kVA records a maximum demand of 60 kVA, the billing of energy charges for excess demand of (60 kVA-52.5 kVA)= 7.5 kVA shall be = (total consumption recorded during the month* 7.5 kVA/maximum recorded demand)*1.3* energy charge unit rate.

      ii. **Fixed Charges for Excess Demand:** These charges shall be billed as per following:

1. **Fixed Charges for Excess Demand when the recorded maximum demand is up to 115% of the contract demand**: Fixed Charges for Excess Demand over and above the 105 % of contract demand shall be charged at 1.3 times the normal rate of Fixed Charges.

2. **Fixed Charges for Excess Demand when the recorded maximum demand exceeds 115% of contract demand**: In addition to Fixed Charges in 1 above, recorded demand over and above 15 % of the contract demand shall be charged at 2 times the normal rate of Fixed Charges.

b) Consumers opting for connected load based tariff: The consumers availing supply at connected load based tariff shall restrict their actual connected load within the sanctioned load. However, in case the actual connected load in any month exceeds 105% of the sanctioned load, the tariff in this schedule shall apply to the extent of 105 % of the sanctioned load only. The consumer shall be charged for the connected load found in excess of 105% of the sanctioned load (termed as Excess Load) and consumption corresponding thereto at the following rates:-

i. **Energy charges for Excess Load**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess load in case the connected load found at the consumer's premises exceeds the 105% of the sanctioned load for the entire period for which such use of excess load has taken place and if, however, the period during which such use of excess load has taken place cannot be ascertained, such period shall be limited to a period of twelve months immediately preceding the date of inspection.

Example: If a consumer having a sanctioned load of 100 kW and connected load is found of 107 kW, the billing of energy charges for excess load of (107 kW- 105 kW)= 2 kW shall be = (total consumption recorded during the month* 2kW kVA/connected load found)*1.3* energy charge unit rate.

ii. **Fixed Charges for Excess load:** These charges shall be billed as per following, for the period for which the use of excess load is determined in condition i) above:

1. **Fixed Charges for Excess load when the connected load is found up to 115% of the sanctioned load**: Fixed Charges for Excess load over and above the 105 % of sanctioned load shall be charged at 1.3 times the normal rate of Fixed Charges.

2. **Fixed Charges for Excess load when the connected load exceeds 115% of sanctioned load**: In addition to Fixed Charges in 1 above, connected load found over and above 15 % of the sanctioned load shall be charged at 2 times the normal rate of Fixed Charges.

c) The above billing for Excess connected Load or Excess Demand, applicable to consumers is without prejudice to the Distribution Licensee’s right to ask for revision of agreement and other such rights that are provided under the Regulations notified by the Commission or under any other law.

The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovoltampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month.

7. Other Terms and Conditions:

(a) For **advance payment** made before commencement of consumption period for which bill is prepared, a rebate of 1 % per month on the amount (excluding security deposit) which remains with the Distribution Licensee at the end of calendar month shall be credited to the account of the consumer after adjusting any amount payable to the Distribution Licensee.

(b) **Incentive for prompt payment**: An incentive for prompt payment @0.25% of the bill amount (excluding arrears, security deposit, meter rent and Government levies viz. Electricity Duty and Cess etc.) shall be given in case the payment is made at least 7 days in advance of the due date of payment where the current month billing amount is equal to or greater than Rs. One Lakh. The consumers in arrears shall not be entitled for this incentive.

(c) The Sanctioned Load or Connected Load or Contract Demand should not exceed 112.5 kW / 150 HP except where a higher limit is specified or the category is exempted from the ceiling on connected load. If the consumer exceeds his connected load or contract demand beyond this ceiling on more than two occasions in two billing months during the tariff period, the Distribution Licensee may insist on the consumer to avail HT supply.

(d) Metering Charges shall be billed as per schedule of Metering and Other Charges as prescribed in MPERC (Recovery of Expenses and other Charges for providing Electric Line or Plant used for the purpose of giving supply), Regulations (Revision-I), 2009. Part of a month will be reckoned as full month for purpose of billing.

(e) In case the cheque presented by the consumer is dishonoured, without prejudice to Distribution Licensee’s rights to take recourse to such other action as may be available under the relevant law, a service charge of Rs. 150 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 1.00 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date subject to a minimum of Rs.5/- per month for total outstanding bill amount up to Rs. 500/- and Rs 10/ per month for amount of bill more than Rs.500/. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be levied for the period after supply to the consumer is permanently disconnected. This provision shall not be applicable to that category where the levy of delayed payment surcharge has been prescribed separately.

(o) In case of conversion of LT connection into HT connection, it is mandatory on the part of both the consumer and the licensee to get the HT agreement executed before availing supply at HT.

(p) **Power Factor Incentive:**

If the average monthly power factor of the consumer is equal to or more than 85%, incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 85% up to 86%	0.5
Above 86% up to 87%	1.0
Above 87% up to 88%	1.5
Above 88% up to 89%	2.0
Above 89% up to 90%	2.5
Above 90% up to 91%	3.0
Above 91% up to 92%	3.5
Above 92% up to 93%	4.0
Above 93% up to 94%	4.5
Above 94% up to 95%	5.0
Above 95% up to 96%	6.0
Above 96% up to 97%	7.0
Above 97% up to 98%	8.0
Above 98% up to 99%	9.0
Above 99%	10.0

For this purpose, the “average monthly power factor” is defined as the ratio in percentage of total kilowatthours to the total kilovoltampere hours recorded during the month.

(q) Use of mix loads in one connection: Unless otherwise permitted specifically in the tariff category, the consumer requesting for use of mix loads for different purposes shall be billed for the purpose for which the tariff is higher.

(r) Consumers in the notified Industrial Growth Centres area receiving supply under urban discipline shall be billed urban tariff.

(s) No change in the tariff or the tariff structure including minimum charges for any category of consumer is permitted except with prior written permission from the Commission. Any action taken without such written permission of the Commission shall be treated as null and void and shall also be liable for action under relevant provisions of the Electricity Act, 2003.

(t) All conditions prescribed herein shall be applicable to the consumer notwithstanding if any contrary provisions exist in the agreement entered into by the consumer with the licensee.

8. Additional conditions for Temporary Supply at LT:

(a) Temporary supply cannot be demanded by a prospective/ existing consumer as a matter of right but will normally be arranged by the Distribution Licensee when a requisition giving due notice is made. The temporary additional supply to an existing consumer also shall be treated as a separate service and charged subject to following conditions. However service under Tatkal Scheme shall be made available within 24 hours according to the charges specified in the order of the Commission regarding Schedule of Miscellaneous Charges.

(b) Fixed Charge and Energy Charge for temporary supply shall be billed at **1.3** times the normal charges as applicable to relevant category if not specified otherwise specifically.

(c) Estimated bill amount is payable in advance before serving the temporary connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given to consumers for this advance payment.

(d) The Sanctioned load or connected load shall not exceed 112.5 kW / 150 HP.

(e) The month for the purpose of billing of charges for temporary supply shall mean 30 days from the date of connection. Any period less than 30 days shall be treated as full month for the purpose of billing.

(f) Connection and disconnection charges and other miscellaneous charges shall be paid separately as may be specified in the Schedule of Miscellaneous Charges.

(g) Load factor concession shall not be allowed on the consumption for temporary connection.

(h) Power factor incentive/penalty shall be applicable at the same rate as applicable for permanent connection.

Annexure-3 (Tariff Schedules for High Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2014-15

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	265	500

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 2014-15. 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	505	545	465
	33 kV supply	515	525	445
	132 kV supply	525	515	435
	220 kV supply	535	505	425

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	235	520	460
	33 kV supply	380	510	410
	132 kV supply	480	475	395
	220/400 kV supply	510	455	385
3.2	**Non-Industrial**			
	11 kV supply	200	550	475
	33 kV supply	310	525	460
	132 kV supply	435	490	425
3.3	**Shopping Malls**			
	11 kV supply	195	550	475
	33 kV supply	285	530	465
	132 kV supply	405	495	425
3.4	**Power intensive industries***			
	33 kV supply	435	405	405
	132 kV supply	560	385	385

*****Category HV 3.4 shall not be entitled to load factor incentive. Further energy charges for this category shall be same for entire consumption irrespective of load factor.

Specific Terms and Conditions:

(a) **Guaranteed Minimum Consumption** for all the above categories shall be on following basis :

Supply Voltage	Sub- category	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
For supply at 220/132 kV	Rolling Mills	1200
	Educational institutions	720
	Others	1800
For supply at 33 / 11 kV	Educational institutions	600
	Contract demand up to 100 kVA	600
	Others	1200

Note: The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff. However consumers under category HV 3.4 shall not be entitled to load factor incentive.

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

(d) **Rebate for supply through feeders feeding supply to predominantly to rural areas** : HT consumers of this category receiving supply through rural feeders shall be entitled to 10% rebate on Fixed Charges and 20 % reduction in Minimum Consumption (kWh) as specified above for respective voltage levels.

(e) **Additional specific terms and conditions for shopping mall**

(i) Individual end user shall not be levied a rate which is exceeding non-domestic-commercial tariff (LV 2.2) in case of LT connection and HT non-industrial tariff (HV 3.2) in case of HT connection, as determined by the Commission.

(ii) All end-users shall enter into a tripartite agreement with the Management Firm /developer of the shopping mall and the licensee for availing supply of electricity in the shopping mall in order to get the benefit of the tariff under this category.

(f) Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 4

SEASONAL:-

Applicability:

This tariff shall be applicable to such seasonal industries / consumers requiring energy for the production purposes for maximum continuous one hundred eighty days and for a minimum period of three months. **If the declared season/off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.**
The licensee shall allow this tariff to any industry having seasonal use only.

This tariff shall also be applicable to mini/micro and small hydel plants to meet the essential requirement of power to maintain the plants without any ceiling as to the period for which supply shall be taken.

Tariff:

Category of consumers	Monthly Fixed Charge (Rs./kVA of billing demand per month)	Energy Charge for consumption up to 50% load factor (paise / unit)	Energy Charge for consumption in excess of 50% load factor (paise / unit)
During Season			
11 kV supply	255	500	435
33 kV supply	285	490	420
During Off-Season			
11 kV supply	Rs. 255 on 10% of contract demand or actual recorded demand during the season, whichever is higher	600 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 285 on 10% of contract demand or actual recorded demand during the season, whichever is higher	588 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 2014-15 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	170	400
	33 kV supply	190	380
	132 kV supply	210	360
5.2	**Other than agricultural use**		
	11 kV supply	190	405
	33 kV supply	210	385
	132 kV supply	230	370

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	215	465	410
	33 kV supply	230	440	390
	132 kV supply	245	425	375
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	145	475	420
	33 kV supply	150	465	410
	132 kV supply	155	450	395

Specific Terms and Conditions:

(a) **Guaranteed Annual Minimum Consumption** shall be 780 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) **Load Factor Incentive:** The consumer shall be eligible for Load Factor incentive on energy charges as per the scheme given in General Terms and Conditions of High Tension Tariff.

(c) All individual end-users shall enter into a tripartite agreement with the Management of the Group Housing Society and the licensee for availing supply of electricity in the Society in order to get the benefit of the tariff under this category. The individual end user shall not be levied a rate exceeding the tariff applicable to the corresponding LT category.

(d) Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

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Tariff Schedule – HV - 7

SYNCHRONIZATION AND START UP POWER FOR GENERATORS CONNECTED TO THE GRID

Applicability:

This Tariff shall apply to those generators who are already connected to the grid but who are not consumers of the Distribution Licensee and seek to avail power for synchronization with the grid or for start-up.

Tariff for all voltages:

Category	Energy Charge (Paise/unit)
Generators for Start up power or synchronization with Grid	575

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

<u>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:</u>

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. 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.

<u>Incentive/ Rebate / penalties</u>

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)	7.5 % of Normal rate of Energy Charge as Surcharge
2.	Off peak load period (10 PM to 6 AM next day)	15 % of Normal rate of Energy Charge as Rebate

Note: Fixed charges shall always be billed at normal rates i.e. ToD Surcharge / Rebate shall not be applied on Fixed Charges

1.13 **Power Factor Penalty (For consumers other than Railway Traction HV-1)**

(i) If the average monthly power factor of the consumer falls below 90 percent, the consumer shall be levied a penalty @ 1% (one percent), for each one percent fall in his average monthly power factor below 90 percent, on total amount of bill under the head of "Energy Charges".

(ii) If the average monthly power factor of the consumer falls below 85 percent, the consumer shall be levied a penalty of 5% (five percent) plus @ 2% (two percent) for each one percent fall in his average monthly power factor below 85 percent. , on the total amount of bill under the head of "Energy Charges". This penalty shall be subject to the condition that overall penalty on account of low power factor does not exceed 35%.

(iii) Should the average monthly power factor fall below 70%, the Distribution Licensee reserves the right to disconnect the consumer's installation till steps are taken to improve the same to the satisfaction of the Distribution Licensee. This is, however, without prejudice to the levy of penalty charges for low power factor in the event of supply not being disconnected.

(iv) For this purpose, the "average monthly power factor" is defined as the ratio expressed in percentage of total kilowatthours to the total kilovoltampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

(v) Notwithstanding what has been stated above, if the average monthly power factor of a new consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:

a) This period of six months shall be reckoned from the month following the month in which the average power factor was found for the first time to be less than 90%.

b) In all cases, the consumer will be billed the penal charges for low power factor, but in case the consumer maintains the average monthly power factor in subsequent three months (thus in all four months) to not less than 90%, the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.

c) The facility, as mentioned herein, shall be available not more than once to new consumer whose average monthly power factor is less than 90% in any month during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as applicable to any other consumer.

1.14 **Additional Charges for Excess Demand**

i. The consumer shall at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds 105% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 105% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 105% of contract demand on energy charges and fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand. The excess demand so computed, if any, in any month shall be charged at the following rates from all consumers except Railway Traction.

ii. **Energy charges for excess demand**: The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds 105% of the contract demand.

Example: If a consumer having a contract demand of 200 kVA records a maximum demand of 250 kVA, the billing of energy charges for excess demand of (250 kVA- 210 kVA)= 40 kVA shall be = (total consumption recorded during the month* 40 kVA/maximum recorded demand)*1.3* energy charge unit rate.

iii. **Fixed charges for Excess Demand: -** These charges shall be billed as per following:

1. **Fixed charges for Excess Demand when the recorded maximum demand is up to 115% of the contract demand:** Fixed charges for Excess Demand over and above the 105 % of contract demand shall be charged at 1.3 times the normal fixed charges.

2. **Fixed charges for Excess Demand when the recorded maximum demand exceeds 115% of contract demand**: In addition to fixed charges in 1 above, recorded demand over and above 15 % of the contract demand shall be charged at 2 times the normal fixed charges.

   Example for fixed charges billing for excess demand: If the contract demand of a consumer is 100 kVA and the maximum demand recorded in the billing month is 140 kVA, the consumer shall be billed towards fixed charges as under:-

   a) Up to 105 kVA at normal tariff.

   b) Above 105 kVA up to 115 kVA i.e. for 10 kVA at 1.3 times the normal tariff.

   c) Above 115 kVA up to 140 kVA i.e. for 25 kVA at 2 times the normal tariff.

iv. In case of **Railway Traction** the excess demand so computed as per above, if any, in any month shall be charged at the following rates:

(a) When the recorded maximum demand is up to 115% of contract demand- Excess Demand over and above 105 % of the contract demand—at the rate of Rs. 290 per kVA

(b) When the recorded maximum demand exceeds 115% of contract demand: - In addition to fixed charges in (a) above, recorded demand over and above 15 % of the contract demand shall be charged—at the rate of Rs. 398 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 1.00 % 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:** If any consumer requires supply for a temporary period, the temporary supply 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 charge shall be recovered for the full billing month or part thereof.

(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. Deemed contract demand (DCD) = CD for permanent connection + sanctioned demand for temporary connection.

ii. Billing demand 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.

iii. The consumption corresponding to Permanent connection i.e. (A)

during the month shall be billed in the following manner:

$$A = \frac{\text{Contract demand (Permanent)}}{\text{Deemed contract demand or actual demand whichever is higher}} \text{ X Total consumption}$$

iv. The consumption corresponding to temporary sanctioned demand during the month i.e. (B) shall be billed at 1.3 times the normal energy charges and shall be billed in the following manner:

$$B = \frac{\text{sanctioned demand for temporary connection}}{\text{Deemed contract demand or actual demand recorded whichever is higher.}} \text{ x total consumption}$$

v. 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)

vi. 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.
