MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2018-19

Petition No. 03/2018

PRESENT:

Dr. Dev Raj Birdi, Chairman
Mukul Dhariwal, Member
Anil Kumar Jha, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2018-19 based on the ARR & Tariff Petition filed by the Distribution Licensees namely Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (East Discom), Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (West Discom), Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (Central Discom), and M.P. Power Management Company Limited (MPPMCL).

Table of Contents

List of Tables

List of Abbreviations

A&G	Administrative and General Expenses
AB	Aerial Bunched
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
AS	Additional Surcharge
AT&C	Aggregate Technical and Commercial
ATPS	Amarkantak Thermal Power Station
BPSA	Bulk Power Supply Agreement
CAGR	Compound Annual Growth Rate
CEA	Central Electrical Authority
CERC	Central Electricity Regulatory Commission
CFA	Cash Financial Assistance
CGS	Central Generating Station
CHPS	Chambal Hydro Power Scheme
COD	Commercial Date of Operation
CPP	Captive Power Plants
CSD	Consumer Security Deposit
CSS	Cross Subsidy Surcharge
CTPS	Chandrapur Thermal Power Station
CWIP	Capital Works in Progress
DA	Dearness Allowance
Discom	Distribution Company
DSM	Demand Side Management
DTPS	Durgapur Thermal Power Station
DTR	Distribution Transformer
DVC	Damodar Valley Corporation
EA 2003	Electricity Act, 2003
EHT	Extra High Tension
ER	Eastern Region
FCA	Fuel Cost Adjustment
FY	Financial Year
GAAP	Generally Accepted Accounting Principles
GC	Group Captive
GFA	Gross Fixed Asset
GoI	Government of India
GoMP	Government of Madhya Pradesh
GPP	Gas Power Plant

GST	Goods and Service Tax
GTIS	Group Term Insurance Scheme
HP	Horse Power
HPS	Hydro Power Station
HT	High Tension
IDC	Interest During Construction
IEX	Indian Energy Exchange
IND-AS	Indian Accounting Standards
ISPS	Indira Sagar Power Station
IPDS	Integrated Power Development Scheme
IPP	Independent Power Producer
KAPS	Kakarpar Atomic Power Station
kV	kilo Volt
kVA	kilo Volt Ampere
kVAh	kilo Volt Ampere hour
kW	kilo Watt
kWh	kilo Watt hour
LED	Light Emitting Diode
LT	Low Tension
MD	Maximum Demand
MOD	Merit Order Despatch
MP	Madhya Pradesh
MPERC	Madhya Pradesh Electricity Regulatory Commission
MPPGCL	Madhya Pradesh Power Generation Company Limited
MPPMCL	MP Power Management Company Limited
MPPTCL	Madhya Pradesh Power Transmission Company Limited
MPSEB	Madhya Pradesh State Electricity Board
MTPS	Mejia Thermal Power Plant
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NHDC	Narmada Hydroelectric Development Corporation
NPS	New Pension Scheme
NTP	National Tariff Policy
NTPC	NTPC Limited
O&M	Operation & Maintenance
OA	Open Access
OHP	Omkareshwar Hydro Project
PAF	Plant Availability Factor

PF	Provident Fund
PGCIL	Power Grid Corporation of India Ltd.
PLF	Plant Load Factor
PoC	Point of Connection
PPA	Power Purchase Agreement
PPCA	Power Purchase Cost Adjustment
PTR	Power Transformer
PWW	Public Water Works
PXIL	Power Exchange India Limited
R&M	Repair & Maintenance
RBI	Reserve Bank of India
RGGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RoE	Return on Equity
RPO	Renewable Purchase Obligation
SAC	State Advisory Committee
SBI	State Bank of India
SEZ	Special Economic Zone
SGTPS	Sanjay Gandhi Thermal Power Station
SLDC	State Load Dispatch Centre
SSP	Sardar Sarovar Project
TAPS	Tarapur Atomic Power Station
TBT	Terminal Benefit Trust
ToD	Time of Day
TPS	Thermal Power Station
UDAY	Ujwal Discom Assurance Yojana
UMPP	Ultra Mega Power Plant
VAT	Value Added Tax
WR	Western Region
WRPC	Western Regional Power Committee

A1: ORDER

(Passed on this 3rd Day of May, 2018)

1.1 This order is in response to the petition No. 03 of 2018 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 MP Power Management Company Limited, Jabalpur (hereinafter referred as the MPPMCL or collectively with Discoms referred to as the Petitioners) before Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). This petition has been filed under the provisions of Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2015 {RG-35 (II) of 2015) (hereinafter referred to as the Tariff Regulations or Regulations).

1.2 In accordance with the Tariff Regulations, the Distribution Licensees were required to file their respective petition(s)/proposal(s) for the determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2018-19 latest by 31 October, 2017. MPPMCL has sought several extensions for filing of the petition vide their letters dated 30th October, 2017, 30th November, 2017 and 24th December, 2017 finally upto 15th January, 2018 citing the following reasons:

a. Some of the vital data/information was awaited from the Discoms and the financial accounts of FY 2016-17 were not finalised due to adoption to IND-AS accounting standards.

b. Discoms faced difficulty in furnishing linked-in information in the formats of the ARR Petition. To prepare a detailed roadmap for achieving the targets of 42 lakh domestic connections as per Saubhagya Scheme to assess the impact in the ARR Petition for FY 2018-19.

1.3 The Commission considered the requests made by the Petitioners and allowed the final time extension up to 15th January, 2018.

1.4 MPPMCL and Distribution Licensees jointly filed the Petition (No.3/2018) on 12 January, 2018. Gist of the petition is given below:

Table 1 : Snapshot of the Petition for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Revenue from sale of power as per existing tariff	10,326	12,639	9,739	32,704
Aggregate Revenue Requirement (including	10,729	13,185	10,096	34,010

Particulars	East Discom	West Discom	Central Discom	State
True-up)				
Revenue gap in Income and Expenditure for FY 2018-19	402	546	357	1,306

1.5 The Petitioners have proposed to recover the gap of Rs. 1,306 Crore through revision in the retail supply tariff for FY 2018-19.

1.6 The motion hearing on the Petition was held by the Commission on 23 January, 2018. The Commission admitted the petition and directed the Petitioners to publish the public notice in Hindi and English in the prominent newspapers latest by 25 January, 2018 for inviting objections /comments/suggestions from the stakeholders on the subject petition by 16 February, 2018. Further, the Commission directed the Petitioners to furnish the reply on data-gaps observed within a fortnight.

1.7 During scrutinization of the Petition, the Commission has noted some errors in computation of "revenue from sale of power" as per the existing Tariff in central Discom, "employee cost" of East Discom and "interest on working capital" of all the three Discoms. The Commission vide letters dated 09th February, 2018 and 16th March, 2018, asked for reconciliation/correction of the same. The revised "revenue from sale of power" by Central Discom, "employee cost" by East Discom and "interest on working capital" by all the three Discoms have been submitted vide letters dated 26 February, 2018 and 28th March, 2018 based on which revised details are as shown in the table below:

Table 2 : Summary of the revised revenue gap based on Petitioner's reply to data-gaps for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Revised Revenue from sale of power as per existing tariff	10,326	12,639	9,552	32,517
Revised Aggregate Revenue Requirement (including True-up)	10,712	13,187	10,097	33,996
Revised Revenue gap in Income and Expenditure for FY 2018-19	**386**	**548**	**545**	**1,479**
Claimed Revenue gap in Income and Expenditure for FY 2018-19 in the Original Petition	**402**	**546**	**357**	**1,306**

1.8 The Commission received written objections from various stakeholders. Details of objections received, response from the Petitioners and views of the Commission thereof are given in the chapter 'A2: Public Objections and Comments on petition' of this order.

Public Hearing

1.9 The Commission held public hearings on the ARR/Tariff petition at, Indore, Bhopal and Jabalpur as per the schedule given below:

Table 3: Public hearings

Name of Discom	**Venue of Public Hearing**	**Date**
M.P. Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal	Swarn Jayanti Auditorium, Academy of Administration, 1100 Quarters, Bhopal	23rd February, 2018
M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	27th February, 2018
M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	8th March, 2018

1.10 The Commission has ensured transparency with regard to public participation and meticulously observed the same at every stage. Adequate opportunity has been given to all stakeholders to file as well as present their objections/comments/suggestions on the petition. The Commission has taken due cognizance of all the objections related to the tariff petition, received in the office of the Commission within stipulated time and also raised during the hearings. As per the provisions of the Electricity Act, 2003 and relevant regulations notified by the Commission in this regard, the Commission has finalised this order.

State Advisory Committee

1.11 The Commission convened a meeting of the State Advisory Committee (SAC) on 14th March, 2018 for seeking advice on the petition. SAC members provided several valuable suggestions regarding true-up cost, sales projections, surplus energy, rationalisation of tariff schedules and terms & conditions of tariff and terminal benefit. These issues have been duly taken in cognizance by the Commission while determining the ARR and Tariff for the FY 2018-19.

Distribution Losses

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

Table 4: Distribution loss reduction trajectory as per Regulations

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

1.13 The Commission has determined the ARR and tariffs for FY 2018-19 for the Discoms of the State by allowing losses only to the extent of distribution loss trajectory as given in the above table.

Energy Accounting and Meterization

1.14 The Commission had emphasized the importance of energy accounting and meterization from time to time separately and through 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. Meterization at various levels of the distribution network such as feeder/ DTR metering and consumer metering is of prime importance to locate high loss areas and to take action to curb losses. The Discoms have achieved 100% meterization of the domestic connections in urban area but the progress in remaining area i.e. feeder/ DTR metering and consumer metering in rural area have not been found satisfactory. There appears to be some progress with regard to feeder meterization, while meterization of agricultural DTRs and individual un-metered domestic connections in rural areas remains neglected. The Commission has also observed that number of existing feeder meters are lying defective which needs prompt replacements. The status as per periodic reports submitted by Discoms with regard to meterization of un-metered rural domestic connections, agricultural predominant DTRs and HT feeders up to quarter end December, 2017 is given below:

Table 5: Status of feeder meterization

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	1823	5038	2656	6001	1811	4578
2	No. of feeders provided with energy audit metering.	1823	5018	2560	5843	1730	4485
3	No. of feeders where energy audit meters are lying defective	0	42	199	561	64	263
4	No. of feeders on which energy audit meters are yet to be provided	0	20	96	158	81	93

Table 6: Status of meterization of un-metered rural domestic consumers

Particulars	**Domestic Rural**		
	Total no. of connections	**No. of un- metered connections**	**Percentage (%) Un-metered**
East Discom	3294760	378977	11.50%
West Discom	1955719	5091	0.26%
Central Discom	1249945	208104	16.65%
State Total	**6500424**	**592172**	**9.11%**

Table 7: Status of meterization of agricultural DTRs

Particulars	**Agricultural DTR**		
	Total no. of Pre-Dominant Agricultural DTRs	**No. of DTRs provided with meters**	**Percentage (%) of DTRs provided with meters**
East Discom	78116	6567	8.41%
West Discom	126099	21492	17.04%
Central Discom	152797	50576	33.10%
State Total	**357012**	**78635**	**22.03%**

1.15 The Commission would like to emphasize that directive for meterization of agricultural predominant DTRs is an interim arrangement till meters on all individual agricultural connections are provided. The Commission is of the firm view that all consumers should be metered individually. The present regime of billing on benchmark consumption to either domestic or agriculture consumers has got no incentive for energy saving by the consumers and it is also not possible to work out the real energy loss . The Commission has noted that the rate of meterization of Agricultural DTRs is extremely slow and only 12818 DTRs were provided with meters during the year out of which 11619 DTRs were provided with meters only in Central Discom. The pace of meterization is slowest in West Discom where only 416 DTRs were meterised. At this rate it will take years to comlete the meterization of DTRs. The Commission keeping in view of the fact that without the proper metering system in place it is not possible to assess the demand of the agriculture consumers, has, therefore, directed the Discoms to expedite feeder meterization and DTR meterization on priority basis and submit the action plan by 30.06.2018 for 100% meterization of Agriculture DTRs. There is also a need to segregate technical and commercial losses.

Aggregate Revenue Requirement of Discoms

1.16 The Commission has determined the aggregate revenue requirement of the Discoms for FY 2018-19. The Commission has noted that the existing tariffs would be sufficient to meet the ARR determined for FY 2018-19, therefore the request of the Petitioners to increase the Tariffs has not been allowed in this Order. However, the Commission has rationalised the tariff structure for LT Domestic category. ARR determined takes into account the true-up of supplementary bills of power purchase of Discoms for FY 2012-

13, ARR true up for MP Power Transmission Co. Ltd. (MPPTCL) for FY 2015-16 and MP Power Generation Co. Ltd. (MPPGCL) for FY 2015-16.

1.17 The Commission has passed the orders for true-up of ARR of MPPGCL, MPPTCL and Supplementary Bill for FY 2012-13 on 7th April, 2017, 15th May, 2017 and 25th April, 2018 respectively. The approved true-up amount has also been considered while finalizing the total ARR for FY 2018-19.

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

Table 8: ARR admitted by the Commission for FY 2018-19 (Rs. Crore)

Particulars	**East**	**West**	**Central**	**State**
Power Purchase admitted	6379.00	8444.39	5463.67	20287.07
Inter-State transmission charges	452.90	537.66	421.45	1412.01
Intra-state transmission charges including SLDC	821.64	1052.90	875.26	2749.80
O&M Expenses	1703.20	1677.86	1584.18	4965.24
Depreciation	148.46	104.81	197.43	450.70
Interest & Finance Charges				
On Project Loans	115.98	49.04	222.50	387.52
On Working Capital Loans	104.43	50.53	44.32	199.27
On Consumer Security Deposit	33.25	69.81	57.88	160.94
Return on Equity	281.91	177.22	376.67	835.79
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Total Expenses admitted	**10042.77**	**12166.22**	**9245.34**	**31454.33**
Less: Other income + Non-Tariff Income	174.30	204.75	212.20	591.25
Net total Expenses	**9868.46**	**11961.47**	**9033.15**	**30863.08**
Impact of True-Up Amounts of Past Years				
Impact of True up for MP Transco for FY 15-16	99.08	126.11	105.09	330.28
Impact of True up for MP Genco for FY 15-16	-134.91	-168.89	-107.93	-411.74
Supplementary bills adjustment for FY 2012-13	278.42	358.13	348.33	984.88
Total impact of True-Up Amounts of Past Years	**242.59**	**315.34**	**345.49**	**903.42**
Total ARR	**10111.05**	**12276.82**	**9378.63**	**31766.50**

1.19 The Commission has continued with the prescribed mechanism for recovery of Fuel Cost Adjustment (FCA) on quarterly basis so that uncontrollable costs on account of variations in the variable charges are adjusted timely in accordance with the spirit of the Tariff Policy and directives by the Hon'ble APTEL.

1.20 The Commission has made suitable provisions to fulfil the Renewable Purchase

Obligations (RPO) in the ARR of the Discoms as per relevant Regulations. The Petitioners are directed to fulfil their RPOs accordingly.

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

1.22 In this Order, the Commission has not allowed any increase in the existing Tariffs, but due to change in the consumer sales ratios and related revenues, the category-wise Cross Subsidy has shown variance with respect to previous year.

1.23 The Petitioners have requested for revision of normative units for flat rate agriculture consumers from FY 2018-19. Considering the representative sample data submitted and various justifications put forth by the petitioners, the Commission has taken a considerate view and allowed partial increase in the normative units for permanent agricultural pump connections from 1500 Units/ HP / Annum for Rural and 1560 Units / HP / Annum for Urban connections to 1590 Units /HP / Annum uniformly for Rural and Urban Connections subject to submission of deatiled report for the representative sample agriculture feeders along with sample energy audit on predominantly agricultural DTRs in all the three Discoms justifying their claim in the next tariff filing/ true-up to the satisfaction of the Commission. The Commission has further directed to install the meters on all the remaining unmetered predominant Agriculture DTR's so as to measure the consumption of the agricultural pumps.

Implementation of the order

1.24 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 11th May, 2018 to 31st March, 2019, unless amended, extended or modified by an order of this Commission.

1.25 The Commission has thus accepted the petition of the Distribution Licensees of the State and MPPMCL with modifications and conditions and has accordingly determined the retail supply tariffs and charges recoverable by the Distribution Licensees in their area of supply for FY 2018-19. The detailed order provides for the grounds and reasons of determining the ARR, 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 along with the Commission's observations on the suggestions and comments received from the stakeholders on the ARR and the tariff proposal. The

Commission directs Petitioners that this order be implemented along with directions given and conditions mentioned in the detailed order and in the schedules of this order. It is further ordered that the licensees are permitted to issue bills to the consumers in accordance with the provisions of this tariff order and applicable Regulations.

(Anil Kumar Jha) **Member**	**(Mukul Dhariwal)** **Member**	**(Dr. Dev Raj Birdi)** **Chairman**

A2: PUBLIC SUGGESTIONS AND COMMENTS ON LICENSEES' PETITIONS

2.1 After admission of the ARR and Tariff proposals for FY 2018-19 filed by the MPPMCL and three Discoms, public notice was published in the prominent newspapers of the State to invite comments/objections/suggestions from various stakeholders. The tariff petition filed by the Petitioners along with a gist of the petition was uploaded on the Commission's and the Petitioners' websites. The Commission has considered all the comments received up to the date of public hearings. Names of Stakeholders who had filed the comments/ objections on Discoms ARRs/Tariff Proposals for FY 2018-19 are given in Annexure-I.

2.2 Public Notice, comprising the gist of the ARR and tariff proposals were published by Petitioners on 25 January, 2018, in the following Hindi and English newspapers requesting the stakeholder to file their objections/comments/suggestions latest by 16 February, 2018.

Table 9 : List of Newspapers

Newspaper	Language
Dainik Bhaskar, Jabalpur	Hindi
Dainik Bhaskar, Satna	Hindi
Dainik Aacharan, Sagar	Hindi
Dainik Nav Duniya, Bhopal	Hindi
Dainik Raj Express, Indore	Hindi
Dainik Patrika, Gwalior	Hindi
Dainik Avantika, Ujjain	Hindi
The Hitwad, Jabalpur	English
The Times of India, Bhopal	English
Free Press, Indore	English

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

Table 10 : Numbers of suggestions received

Sr. No.	Name of Discom	Number of suggestions received on ARR & Tariff Proposal for FY 2018-19
1.	West Discom, Indore	66
2.	Central Discom, Bhopal	13
3.	East Discom, Jabalpur	20
	Total	**99**

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

Table 11 : Public hearings held:

Sr. No.	Name of Distribution Company	Venue of Public Hearing	Date
1	M.P. Madhya Kshetra Vidyut Vitran Company Ltd., Bhopal (Central Discom)	Swarna Jayanti Auditorium, Academy of Administration, 1100 Quarters, Bhopal	February 23, 2018
2	M.P. Paschim Kshetra Vidyut Vitran Co. Ltd., Indore (West Discom)	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	February 27, 2018
3	M.P. Poorv Kshetra Vidyut Vitran Company Ltd., Jabalpur (East Discom)	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	March 8, 2018

2.5 As a part of the tariff exercise, a meeting of the State Advisory Committee (SAC) was convened on 14 March, 2018 at the Commission's office to obtain views and suggestions of the members on the ARR/Tariff proposals of the licensees. The issues raised and suggestions made by the members of SAC have been appropriately considered.

2.6 While a number of suggestions/ objections and comments have been received and given due consideration by the Commission, only salient objections/suggestions received related to the tariff petition including those raised during the public hearings, have been grouped together according to the nature of the suggestions/objections and are summarized in this chapter as given in the following paragraphs. Some of the issues raised by the stakeholders do not relate to tariff and ARR, hence not discussed here.

A. <u>COMMENTS ON PETITIONERS' PROPOSALS</u>

ISSUE No. 1: Introduction of Category LV 2.3 for Government Primary Schools and Government Middle Schools with connected load up to 1 kW

<u>Petitioners' Proposal</u>

It is proposed that Government Primary Schools and Government Middle Schools with connected load up to 1 kW be considered under a new separate category LV 2.3, which will be billed on a Flat rate of Rs 600 per month per connection for Urban area and Rs 400 per month per connection for Rural area. The connections provided to such schools will strictly exclude use of heating/ welding loads. This is being done to prepare one consolidated bill of all such schools which will facilitate in the provisioning of funds by the Education department and immediate realization of revenue for the Discoms.

<u>Stakeholders Suggestions</u>

LV 2.3 for Govt. schools may be extended to private schools also, especially the ones situated in the rural areas.

Petitioners' Response

The tariff for consolidated billing of all government schools and realisation of revenue from one window has been proposed.

Commission's views

The Commission is not convinced with the proposal of flat rate billing as the Commission has been emphasizing on 100% metrization of unmetered connections in the State. Meterization is essential for the purpose of energy accounting and audits and unmetered connections have got no incentive for energy savings. The requirement of the consumer can be met by using various IT initiatives/ Advance payment options/ installation of prepaid meters etc. Therefore, the proposal of the petitioners has not been accepted by the Commission.

ISSUE No. 2: Special Terms and conditions for Temporary Connections under LV 1

Petitioners' Proposal

It is proposed that in case of temporary purpose, 10% of sanctioned load is allowed to be used for lighting purpose and actual load for welding/ grinding purpose for the renovation/ upgradation of house from the existing metered permanent domestic connection on the same tariff applicable for permanent connection. This is being done keeping in mind that most of the Domestic connections comes under connected load up to 3 KW while the load for Welding and grinding activities may go up to 5 KW and so to incorporate this requirement change has been proposed.

Stakeholders Suggestions/Comments

The proposal should be allowed for HT permanent connections also.

Petitioners' Response

The proposal to allow temporary load of HT permanent connections equivalent to 10% of sanction load is not prudent and cannot be considered. This percentage is so high-looking to the high contract demand of the HT consumers.

Commission's views

The Commission has considered the proposal submitted by the petitioners and has appropriately addressed it in the order.

ISSUE No. 3: Rebate to all consumers having contract demand up to 25 HP in LV 4 Category

Petitioners' Proposal

It is proposed that all LT consumers falling under LV4 category having contract demand up to 25 HP be given a rebate of 30% in the energy charges for the month, provided that the Maximum demand does not exceed the contact demand for 25 HP. This is being done so as to promote sales consumption. Also to bring the contract demand at par with the limit before the Tariff order FY 2017-18, in which it was revised by the Hon'ble Commission.

Stakeholders Suggestions

The proposal may be reduced to consumers of contract demand upto 10 HP.

The rebate should also be made applicable to consumers whose billing demands are lesser than 25 HP rather than just the contracted demand.

Petitioners' Response

The proposal to provide 30% rebate in the energy charges for consumers with contract demand upto 25 HP (from 20 HP in the previous year) is based on the stakeholder suggestions and in order to increase the consumption of surplus energy within the State. The Commission may take a suitable view on the matter.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has decided to continue with the existing conditions.

ISSUE No. 4: Urban Tariff for Industrial township/ area which are developed/ recognized/approved by the government of Madhya Pradesh

Petitioners' Proposal

The Petitioner proposes that the Consumers situated in Industrial Growth Centres, Industrial Parks, Industrial Clusters or any other Industrial township/area which are developed/ recognized/ approved by the government of Madhya Pradesh or any of its Agencies, shall be billed under urban tariff. This change is proposed keeping in mind that a 24 hours power supply is provided to such institutions which is an ideal scenario for urban category and so they should be billed as per urban tariff. (Retail Supply Tariff Order FY 2017-18, Page No.175, Point n).

Stakeholders Suggestions

Only Industrial Growth Centres may be billed under urban tariff as they are getting many benefits from State as well as Centre. On the other hand, other Industrial Parks, Industrial Clusters or any other Industrial township/area, located in rural area for its development should not be considered as urban.

Petitioners' Response

Since the industries located in rural areas too receive 24 hours supply of urban discipline, the Tariff proposed by the Petitioners is appropriate.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

ISSUE No. 5: Rebate for incremental consumption under HV 3 category

Petitioners' Proposal

It is proposed that a rebate of 60 paisa per unit on energy charges be provided to HV 3 tariff category consumers for incremental month consumption w.r.t consumption of FY 2015-16 same month to promote consumption of Units under this category.

Stakeholders Suggestions

The rebate on incremental energy consumed in a month when compared to the consumption during the same month in FY 2015-16 should be extended to HT consumers whose HT agreements commenced later in comparison with their previous year's consumption.

Petitioners' Response

The proposal to provide rebate for incremental monthly consumption for consumers whose HT agreements have commenced during the year 2016-17 and 2017-18 can't be accepted as those consumers can avail rebate for new connection subject to fulfilment of conditions as provided in Tariff Petition. The proposal to allow both rebates simultaneously lack rationale.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

ISSUE No. 6: Rebate for new HT connections under HV 3 category

Petitioners' Proposal

It is proposed to provide a rebate of Rs 1 per unit in energy charges for new connection for the consumption recorded. The rebate shall be allowed from the date of commencement of HT agreement for a period of five years or up to FY 2021-22 whichever is earlier for such new projects for which agreements for availing supply from licensee are commenced during FY 2016-17, FY 2017-18 and FY 2018-19. Provided these connections are served to "new" projects only and no rebate is applicable for new connections obtain by virtue of change in ownership in existing connection.

This benefit is provided to support the economic development of the state and also to encourage the HT consumers to consume more energy at reduced prices.

Stakeholders Suggestions

This proposal should also include previous consumers who want to restart unlike allowance for only greenfield projects.

The rebate for new HT connection be extended for next 5 years for all new connection at 33 kV and 132 kV.

Petitioners' Response

The new HT connections under HV-3 can avail rebate for new connection subject to fulfilment of conditions as provided in Tariff Petition. The mechanism of rebate cannot be allowed to misuse through intentional change in ownership only to avail the benefit of the rebate etc.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

ISSUE No. 7: Rebate on enhancement of contract demand by HT Connection

Petitioners' Proposal

It is proposed that if the HT consumers have increased their contract demand after 31st March 2016, at least by 250 kVA or 25% of the existing contract demand, whichever is lower, a rebate of Rs. 1/Unit is applicable on energy charge on corresponding consumption during the month, *provided that such enhanced contract demand is maintained during the corresponding month. This is being done so as to promote sales consumption among the HT consumers. This rebate shall be applicable from the effective date of commencement of the tariff period.*

Stakeholders Suggestions

The rebate on increase of demand may be allowed without any limit of the contract demand increase as it may benefit the small consumers.

Petitioners' Response

A rebate of Rs. 1/Unit on energy charges can be availed by a consumer for a corresponding month, provided that such enhanced contract demand is maintained during the month. This rebate can be available to the consumer upto the release of next tariff order provided he maintains his enhanced contract demand. This rebate is more beneficial to the consumer as the proposed amount of rebate is Rs. 1/unit as against the proposed incremental rebate of 60 paise/unit.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has allowed flat 60 paise per unit rebate irrespective of whether the incremental consumption is due to load enhancement or otherwise**.**

ISSUE No. 8: Rebate for captive consumers

Petitioners' Proposal

The petitioners are proposing a rebate of Rs 2 per unit for the incremental consumption and corresponding reduction in generation by the captive consumers, recorded during any month of the current year compared to the corresponding month of the last year.

The petitioners are proposing a rebate to the captive consumers, in order to encourage consumption of electricity from the petitioners. This rebate is being proposed to make competitive power available to such consumers and to promote them to consume power from Discoms on account of attractive rates.

Stakeholders Suggestions

The rebate of Rs. 2 per unit should be provided for 5 years if a captive consumer shuts down the CPPs for improving its consumption from the DISCOMs.

The formula is very cumbersome and should be simplified.

The rebate should be allowed continuously for 5-7 years.

Petitioners' Response

A Captive Consumer will avail a rebate of Rs 2 per unit on Reduction in Captive generation, if it has an incremental consumption of power purchased from Discom and a reduction in Captive Generation Units, recorded during any month of the current year compared to the corresponding

month of the last year simultaneously. This rebate is already allowed for a period of five years starting from FY 2016-17 provided the Consumer maintains the above status.
The petitioners are proposing a rebate to the captive consumers, in order to encourage consumption of electricity from the Discoms. This rebate is being proposed to make competitive power available to such consumers and to promote them to consume power from Discoms on account of attractive rates. This rebate is being proposed by the Discoms to protect the interest of the consumers.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

ISSUE No. 9: Rebate for Open Access Consumers, including Group Captive consumers

Petitioners' Proposal

The Petitioners are proposing a rebate of Rs. 1 per unit to the Open Access consumers including Group Captive consumers, in order to promote competition and encourage consumption of electricity from the distribution licensees. This rebate is being proposed to make competitive power available to such consumers and to promote them to consume power from Discoms on account of attractive rates.

Stakeholders Suggestions

The proposal to provide different rebates in Tariff for consumers within the same category i.e., Captive Consumers and OA/GC Consumers is against the provisions of the Electricity Act, 2003 and the Tariff Regulations.

This proposal discourages Open Access and goes against the Electricity Act, 2003.

Petitioners' Response

The Petitioners are proposing a rebate of Rs. 1 per unit to the Open Access consumers including Group Captive consumers, in order to promote competition and encourage consumption of electricity from the distribution licensees. This rebate is being proposed to make competitive power available to such consumers and to promote them to consume power from Discoms on account of attractive rates. This rebate is being proposed by the Discoms to protect the interest of the consumers.

Since the proposed rebate shall be provided on the increased consumption. there is no bar in any provisions of the Electricity Act 2003 including section 62(3).

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

ISSUE No. 10: Temporary supply at HT

Petitioners' Proposal

Petitioners are proposing changes in calculation of fixed charges for excess demand and energy charges for consumption corresponding to excess demand. If the actual recorded demand is higher than the sanctioned demand, then demand recorded in excess of sanctioned demand shall be treated as excess demand. For billing purpose such excess demand if any in any month shall be charged at 1.2 times of the normal fixed and energy charges of temporary connection instead of 1.5 times, for benefit of consumers. The credit of guaranteed minimum consumption will be applicable as permanent consumers.

Stakeholders Suggestions

The Tariff for HT Temporary supply should be 1.2 times the Fixed Charges and normal Energy Charges. The Fixed Charges should be recovered for the number of days for which connection is availed during the month by prorating the monthly fixed charges.

Petitioners' Response

The petitioners do not agree with the contention of the stakeholder and would like to continue with the treatment as proposed in the instant petition for FY 2018-19.

Commission's views

The Commission has noted the submissions of the stakeholders and response of the Discoms and has appropriately addressed the issue in the order.

B. PUBLIC SUGGESTIONS AND COMMENTS

ISSUE No. 1: Minimum Consumption Charges

Stakeholders Suggestions

To withdraw Tariff Minimum Consumption as it was introduced long before the introduction of Fixed Charges, which can enable Discoms to recover their Fixed Costs.

The Power Tariffs of Charitable and Non-Profit Organizations may be subsidized and the provision for Tariff Minimum Charges may be withdrawn.

The Tariff Minimum Charges for Godowns, Warehouses and temporary connections for construction of own house may be withdrawn.

Petitioners' Response

As per the principles of two part tariff, fixed cost charges are meant for the recovery of fixed cost and energy charges are meant for the recovery of variable cost. At present fixed charges are not sufficient to recover the fixed cost of the licensee. Therefore, unless the fixed charges are increased to the level sufficient to recover the fixed cost of supply, TMM cannot be abolished.
As per clause 42.1(d) of the Tariff Regulations the tariff minimum charges cannot be removed unless the fixed charges are aligned with recovery of full fixed cost.

In view of above clause tariff minimum units (charges) can't be removed for all category of consumers at once. Hon'ble commission has already reduced the TMM for some LT categories of consumers in Tariff Order for FY 2017-18. Further Discom has proposed to abolish the tariff minimum from LT industrial consumer with a view to promote small scale industries.

ISSUE No. 2: Power Purchase Cost

Stakeholders Suggestions

Reasons for increase in power purchase cost in past years may be scrutinized. The Discoms have never tried to renegotiate the higher cost PPA.

Discoms are purchasing costly power from private generating companies and Central Generating Stations with high transmission charges and the PPAs were signed without consulting stakeholders. Govt. should consider generating more energy from state owned power plants than purchasing power from private generating stations.

Petitioners' Response

The details of the steps taken regarding foreclosure/termination of PPAs is available at page no. 69 of the instant Petition.

ISSUE No. 3: Renewable Purchase Obligation (RPO)

Stakeholders Suggestions

The State has become Solar Power Surplus and has a surplus of 588 MU, possibility should be explored to supply this surplus solar power to CPP to fulfill their obligation. With this there would be corresponding reduction in open access. In addition, to fulfill in non-solar power requirement of 148 MU, the Discoms should explore the possibility to source this power from captive, mini/micro hydro electric power plant located within the State.

Petitioners' Response

The Petitioner appreciated the Stakeholder's suggestions and stated that to fulfil the RPO, new Solar PPAs shall be made as per the requirements.

ISSUE No. 4: Surplus Power

Stakeholders Suggestions

The surplus power of 12576 MU available for FY 2017-18 is sold at Rs. 2.60 per unit in IEX, while it could be sold at higher rates within the State. Stakeholders further submitted some suggestion as

- The surplus power should be offered to Railway at the attractive rates i.e. above IEX rates since Railway has requirement of 2300 MU.

- Increase of normal Tariffs for upto 150% of Contracted Demand to allow enhanced consumption from industrial consumers.

- Sales to domestic consumers at lower tariffs.
- Backing down of costly power wherever feasible.

Petitioners' Response

- The surplus power is always offered to other states as and when required.
- The proposed Rs. 2.60 per unit based on the average of past 36 month rate of energy exchange.
- The detailed calculation of surplus power is available on page no. 79 (table no. 31) of the instant petition.
- Various rebates have been proposed for the sale of surplus power to the consumers.
- The demand of the State is not consistent throughout the year, where the peak demand appears during the Rabi season i.e. October to January. During the remaining months the demand becomes low. So in order to maintain 10 Hrs. Supply for agricultural feeder & 24 Hrs Supply to other than agriculture feeders and to meet out the peak demand during the Rabi season the licensee has to enter into long term PPAs. During off season the availability of power from the plants is more as compared to the demand. Such excess power is usually backed down and the petitioners have to pay the fixed costs to honour these long term PPAs.

ISSUE No. 5: Time of Day Rebate

Stakeholders Suggestions

To improve the DSM, the off peak hours' incentive should be increased from 20% to 25-30% so as to make load curve straight.

TOD should also be introduced to all LT Industrial consumers so as to shift the load in night hours and also to provide opportunity to LT Industrial consumers of having cheaper power. The off peak timings should be extended to 10 PM – 8 AM from 10 PM – 6 AM.

Petitioners' Response

The Off-peak rebate is reasonable and as the Petitioners have not proposed any ToD surcharge, further increase in rebate is not justified.

ISSUE No. 6: Computation of CSS based on FCA

Stakeholders Suggestions

The proposal to increase the Cross-Subsidy Surcharge (CSS) to the extent of FCA does not comply to any provision or policy relating to CSS. They are completely unrelated and further, when the FCA is added to the formula for calculation of CSS, the resultant CSS is always lower than the actual CSS calculated.

Petitioners' Response

Average Tariff (T) consists of Energy Charge and Fixed Charge as calculated in the formula under Cross Subsidy Surcharge as per National Tariff Policy, 2016. FCA is passed on to consumers, either positive or negative, at the time of actuals. Cross Subsidy is limited to maximum of 20% of average tariff. While calculating Cross Subsidy Surcharge, FCA should also be considered as FCA is a part of Energy Charge and leads to increase or decrease in average tariff. The Commission may take suitable view on the matter.

ISSUE No. 7: Rebate for Captive Consumers

Stakeholders Suggestions

The proposal for offering Rs. 2 per unit rebate for CPP consumers is attractive but has the limitation that it is applicable only to the monthly consumption in the base year. The rebate may be revised to Rs. 2.50 per unit as the incremental consumption would mean an increment in Fixed Charges and other costs for the consumer or suggested that the calculation should be made as increase in % consumption from Discoms instead of actual consumption, or the average consumption over 3-5 years may be considered for the calculation.

Petitioners' Response

A Captive Consumer will avail a rebate of Rs 2 per unit on Reduction in Captive generation, if it has an incremental consumption of power purchased from Discom and a reduction in Captive Generation Units, recorded during any month of the current year compared to the corresponding month of the last year simultaneously. This rebate is already allowed for a period of five years starting from FY 2016-17 provided the Consumer maintains the above status.

ISSUE No. 8: Same tariff for Industrial, Non-industrial & Power Intensive Industries

Stakeholders Suggestions

The tariff of industrial, non-industrial and power intensive industries should be equal as it will help consumers and Discom.

Petitioners' Response

Difference in the rates for industrial & Power incentive industries is as per section 62(3) of Electricity act 2003 which is reproduced below for reference-

"The appropriate commission shall not, while determining the tariff under this act show undue preference to any consumer of electricity but may differentiate according to consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or time at which the supply is required or geographical position of any area, the nature of supply and purpose for which supply is required. "

ISSUE No. 9: Change in terms and condition of tariff in HV-4

Stakeholders Suggestions

The off-season period for seasonal consumers should be 4 months in place of 6 months as due to change in Govt. policy, ginning and pressing industries are not able to consume TMM units. The consumers are required to restrict the maximum demand during off season to 30% of the contract demand and in case the consumer exceeds the limit he will be billed under HV-3.1 industrial schedule for whole year, resulting huge financial loss. Stakeholders further requested to permit 15% load during the off-season as allowed to HV-3.1 industrial consumer.

Petitioners' Response

As proposed by the stakeholder, one cannot compare the seasonal consumer with the industrial consumer. The charges of the seasonal consumer are already lower than the industrial consumer, only on the premise that they consume power in a particular segment of the year and not throughout the year. If it is the submission of the seasonal consumers that the period of the off season is very less, then there would be no need of separate cheaper tariff for the seasonal consumer. In view of this the proposal of the stake holder cannot be accepted.

ISSUE No. 10: Distribution Loss

Stakeholders Suggestions

The distribution losses are much higher than the guidelines mentioned by the Commission and should be reduced.

Petitioners' Response

As far as tariff determination is concerned the same is done by the Commission on the normative loss approved in the Tariff Regulations therefore, any loss over and above the normative loss has not been considered by the Commission.

ISSUE No. 11: Rural Area Tariff

Stakeholders Suggestions

The rural consumption is catching up with the urban consumption. Hence, the difference between urban and rural Tariffs should be bridged.

Petitioners' Response

In the instant petition, the Petitioners have tried to reduce the gap between urban and rural tariff to some extent. Even though the number of supply hours in rural and urban areas are at par, the quality of supply and services in rural areas is not as good as in urban areas.

ISSUE No. 12: Power factor Incentive/Rebate

Stakeholders Suggestions

The maximum power factor surcharge should be reduced to 20% from the present surcharge of 35%. A maximum of 10% may be allowed as rebate like for LT consumers.

Petitioners' Response

As per Electricity Act 2003 (Act), the Commission has sole jurisdiction to determine tariff of the consumer. The principle of determination of tariff is mentioned in section 61 and 62 of the Act. Section 62 (3) specifically provides for the factor based on which Commission may differentiate tariff between different category. In an ideal situation every consumer is required to maintain unity power factor. Therefore, the power factor penalty as well as incentive are introduced to motivate or force, as the case may be, to the consumer to improve power factor which is necessary for stability of the system. Further to motivate for more consumption by the consumers Petitioners has proposed various other rebates separately. Therefore, proposal of stakeholder to increase power factor incentive lacks rationale and hence unacceptable.

ISSUE No. 13: Load factor Calculation and Load Factor Incentive

Stakeholders Suggestions

Load factor should be calculated as per the formula in the Tariff Order for FY 2010-11 as the load factor reduces as the power factor improves in the present formula.

The demand mentioned in the present formula of load factor should be considered as the Billing Demand instead of Contracted Demand.

The load factor incentive should not be withdrawn and the value may be reduced to 45%.

Petitioners' Response

The reason behind the load factor incentive is to motivate consumers towards the utilization of 100% sanctioned/contracted load. A rebate for incremental consumption has been proposed; therefore, the proposal of the stakeholder cannot be accepted.

ISSUE No. 14: Increase in Ceiling limit of 33kV Consumers

Stakeholders Suggestions

Increase the ceiling limit of 33 kV consumers from 10000 kVA to 15000 kVA since it is costly for a 33kV consumer to shift to 132 kV level.

Petitioners' Response

The proposal pertains to the provision of the supply code.

ISSUE No. 15: Augmenting the limits of Additional Charges towards levy of fixed charges for Excess Demand by HT consumers and LT consumers

Stakeholders Suggestions

The utilisation of power upto 50% above the contracted demand should be permitted to consume the surplus power available with the Discoms. Normal Energy Charges and 1.2 times Fixed Charges may be recovered upto 150% of contracted demand.

Petitioners' Response

The Petitioner has proposed to continue with the proposal in the instant Petition for FY 2018-19.

ISSUE No. 16: Scrutiny of other ARR Expenses

Stakeholders Suggestions

Proper scrutiny of the proposed expenses like O&M expenses, Capital Investment Plan, Scheme wise capitalization, CWIP, fixed assets addition, depreciation, interest on loan, bad and doubtful debts, etc., should be done.

Petitioners' Response

The expenses are being claimed by the Petitioners as per the provisions of Regulations.

ISSUE No. 17: Terminal Benefits (Pension, Gratuity and Leave Encashment) Provision

Stakeholders Suggestions

No provisions are made for Terminal Benefits Trust Funds (TBT) creation in the Tariff Petition. There is no point in making any provision for the benefit of helpless retired persons if it is to be denied/ disobeyed with impunity as the fund of Rs. 120 Crore provided by the Commission in Tariff Order for FY 2017-18 has not been contributed by the three Discoms to the Registered TBT Funds. Provision for corpus funds for meeting the future liabilities of pension should also be made. The Commission should allow provision for contribution to the TBT in its Tariff Order for FY 2018-19.

Petitioners' Response

It is already mentioned in the ARR Petition that the Discoms are, at present, not in a state of financial surplus. For making any contribution to TBT, the Discoms have to borrow money from outside at high interest rates, whereas investment in TBT fund maintained in a bank would attract lower interest rates. Hence, the Petitioners are of the opinion that it be rational to fund TBT when the Discoms are in a state of financial surplus. As regards the provision for TBT provision for FY 2018-19, the Commission may take appropriate view in the matter.

ISSUE No. 18: Change in LV-4 Tariff

Stakeholders Suggestions

The provision for restricting the demand of seasonal loads to 30% of the contracted demand and levying non-seasonal tariff in case the MD for any month exceeds 31.5% of contracted demand should be reviewed.

Petitioners' Response

As proposed by the stakeholder, one cannot compare the seasonal consumer with the normal consumer. The charges of the seasonal consumer are already lower than the normal consumer, only on the premise that they consume power in a particular segment of the year and not throughout the year. If it is the submission of the seasonal consumers that the period of the off season is very less, then there would be no need of separate cheaper tariff for the seasonal consumer. In view of this the proposal of the stake holder cannot be accepted.

ISSUE No. 19: LV-1 Terms & Condition

Stakeholders Suggestions

In order to avoid the tariff shock due to billing of the fixed charges to the domestic consumers the definition of authorized load may be revised as *"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 authorized load. Example: If consumption during the month is more than 75 units and less than 113 units, then the authorized load will be taken 0.5 KW. In case the consumption is more than 112 units then the authorized load will be taken as 1 kW.)"*

The fixed charges may be levied based on the energy consumption at Rs./unit instead of slab based system.

Petitioners' Response

The definition of Authorized Load is provided in the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time and same is not the subject matter of tariff and ARR petition.

The proposed definition by the Stakeholder may not be entertained.

Determination of Tariff is based on the National Tariff Policy, 2016. Accordingly, the Tariff for domestic consumers is proposed by the Petitioner.

ISSUE No. 20: Non-Compliance of Commission's Directions

Stakeholders Suggestions

Discoms are not complying with the Commission's directions on

- Technical study of the distribution network to ascertain voltage wise cost of supply
- Impact assessment of billing of tariff minimum consumption
- Segregation of Technical & Commercial losses

Petitioners' Response

Petitioner is making its best effort to comply all the direction of the Commission. Appropriate response/reports etc., already submitted to the Commission for consideration.

ISSUE No. 21: Tariff of Temporary Supply

Stakeholders Suggestions

At present tariff of temporary supply is 1.3 times of normal tariff and as per NTP 2016, tariff for temporary supply cannot be more than 1.2 times of normal tariff.

Petitioners' Response

The National Tariff Policy issued by the Government of India is one of the guiding factors for determination of tariff provided under section 61 of the Electricity Act 2003. Therefore, tariff of temporary category determined by the Commission does not require any modification. However, the Commission is requested to clarify the billing procedure in this regard.

ISSUE No. 22: Sales Projection

Stakeholders Suggestions

The sales proposed by the DISCOMs are highly inflated when compared to the actual sales due to reasons like open access, slow industrial growth and Railways exercising their rights as deemed licensee. The HT:LT ratio is also very low (20:80), leading to under-recovery of the DISCOMs. Small changes in the Regulations and the Rebate structure could improve the HT Industrial consumption. There is unlikely to be any growth in domestic and agriculture categories during FY 2018-19 because of energy efficiency measures like efficient LED, Ujala, 5-star pumps, solar pumps, rooftop solar generation and net metering. Hence there may not be any growth during FY 2018-19.

Petitioners' Response

The projections done for sale in Domestic Category are based on the CAGR computations for the past years' actual data, which is in line with the guidelines of MPERC Tariff Regulations. Further, the projection has been done considering the effect of Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya Scheme. Accordingly, the growth has been projected considering all the above-mentioned factors.

The projections done for sale in Agriculture Category are based on the CAGR computations for the past years' actual data, which is in line with the guidelines MPERC Tariff Regulations and is in line with the plan of Mukhya Mantri Sthayi Krishi Pump Yojna, it is anticipated that additional permanent connections will be served. Accordingly, the growth has been projected considering all the above-mentioned factors.

ISSUE No. 23: Tariff of Hostels

Stakeholders Suggestions

The tariff for Hostels for students should be given the rebate of at least 25 % to hostels of normal tariff.

Petitioners' Response

The tariff for any category is reflective of the average cost to supply as per the provisions of National Tariff Policy. The Petitioners has acted in this regard. However, the Commission may look into the same.

ISSUE No. 24: Open Access

Stakeholders Suggestions

The sale of surplus power from the stranded power plants should not be considered for calculation of Additional Surcharge as they are no longer stranded. In addition, this leads to double recovery of fixed cost of the stranded assets, if available.

The sales of power at IEX for Rs. 2.65 per unit is higher than the Additional Surcharge of Rs. 1.02 and hence, the backed-down capacity may be sold via IEX at an increased price rather than recovery through Additional Surcharge.

Additional Surcharge should be calculated based on daily least fixed cost, which arrives at Rs. 0.73 per unit. The Open Access Consumers also pay fixed charges towards recovery of fixed costs of the DISCOMs. Hence, the Fixed Charges should be subtracted before calculation of AS.

The distribution licensees have to conclusively demonstrate that in terms of the existing power purchase commitments (long term power purchases), the excess capacity has been and continues to be stranded and the distribution licensees are unavoidably required to bear the fixed cost of such power purchase requirements. For satisfying that there is non-scheduling of electricity on account of open access consumers, the distribution licensees are required to first produce the block wise data on generation availability, schedule given, the open access during the said time blocks, the short-term purchases and UI over-drawals during the said time blocks. No such details have been provided with the tariff petition. The following formula may be used for calculation of stranded capacity:

SP = Minimum [(URS - STPP-REP -LS), OA]

Where,
SP is Stranded Power (MW) attributable to Open Access customers during the time block
URS is un-requisitioned power (MW) during the time block from various Power Stations with which Discom has long-term PPA duly approved by the SERC
LS is the quantum (MW) of load shedding carried out or load restrictions imposed on various categories of consumers or areas during the time block
STPP is the Short term Power Purchase (MW) during the time block,
REP is the Renewable Energy Purchase (MW) during the time block against RPO,
OA is the quantum of Open Access granted (MW) during the time block

As per the APTEL judgements in Appeal Nos. 169, 170, 171, 172 of 2005 and 248, 249 of 2006 the Additional Surcharge calculated at Rs. 1.02 per unit is against the spirit of Open Access.

The charges like Additional Surcharge and Cross Subsidy Surcharges should be included in the ARR of the Discoms or withdrawn completely.

Petitioners' Response

There is no existing formula for computation of Additional Surcharge in National Tariff Policy, 2016. The proposed formulation of Additional Surcharge is based on the Commission's methodology and in compliance with the National Tariff Policy, 2016. A weighted average cost of all existing generating stations has been considered in the computation. States apart from Madhya Pradesh have been following a similar procedure. Further, in the Tariff Order for FY 2017-18, the Petitioner had filed for an additional surcharge amounting to Rs. 1.08 per unit whereas in the ARR Petition for FY 2018-19 the Petitioner has asked for an amount of Rs. 1.02 per unit as additional surcharge. A detailed report on the methodology and basis of calculation of the same has been submitted to the Commission. The Commission may take suitable view on the matter.

Open Access Cross Subsidy Surcharge and Additional Surcharge are as per the provisions of the Tariff Regulation. Further, the grant and withdrawal of this facility does not pertain to this Tariff Petition.

ISSUE No. 25: Start-up power

Stakeholders Suggestions

Billing demand for temporary/stand-by consumers may be calculated as follows:

• Temporary/Standby demand charges shall be applicable for part of day, i.e. hourly basis instead of full day.

• Demand charges for Temporary/Standby Consumer shall be levied on recorded maximum demand rather than Contracted Demand.

As per para 8.5.6 of National Tariff Policy, 2016 charges shall not be more than 125% of normal tariff of the category. Hence, tariff for stand-by consumers may please be reviewed in accordance with guidelines laid in National Tariff Policy.

The start-up power should be available to mini/micro hydel power generators at the export line.

Petitioners' Response

Consumers availing Temporary / Standby supply from the State Utility are billed for 100% of their Contracted Demand even though their recorded demand is much less than contracted demand

The Petitioners have proposed certain changes in schedule HV 7 for extending power to those generators who are connected to the Grid for synchronization or breakdown or startup or maintenance.

ISSUE No. 26: Metering and Billing

Stakeholders Suggestions

Assessed bills should not be issued to consumers. The bills should be based on the actual meter reading.

Billing demand should be made 75% of the contracted demand instead of 90%.

The 100% meterization programme continues to lag and the Commission needs to take a firm and final view. All Discoms' employees, followed by Government and Semi Government employees should be installed prepaid meters. Smart meters may be installed for urban centers and industrial areas.

Petitioners' Response

Assessed Bills are issued as per the provisions of Supply Code approved by the Commission.

The proposal for reduction of billing demand to 75% of contracted demand from 90% contracted demand lacks rationale.

The quarterly progress report of meterization is being regularly submitted before the Commission. Response of the directive of the Commission in this regard is already submitted to the Commission.

ISSUE No. 27: Voltage-wise Cost of Supply

Stakeholders Suggestions

The Commission should ascertain that the voltage-wise cost of supply is submitted by the Discoms. Since a proper study on segregation of technical and commercial losses was not conducted, the proposed Cost of Supply may be rejected.

Petitioners' Response

Petitioner has calculated the voltage wise cost of supply as per the direction of the Hon'ble APTEL in the appeal no 103 of 2010 & IA no 137 & 138 of 2010. This methodology adopted by the Commission and the Petitioner, has been approved by the Hon'ble APTEL in the Appeal no 134/2015. 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.

ISSUE No. 28: Rebates for Power Loom Consumers

Stakeholders Suggestions

The rebates provided for Power Looms should be increased and the Tariff for Power Loom consumers should be reduced.

Petitioners' Response

The Commission may look into the matter and may take decision appropriately as per the Tariff Regulations, 2015**.**

ISSUE No. 29: Rebate for Consumers

Stakeholders Suggestions

Rebates should be provided for HT consumers similar to the rebate of 6.25% provided by Indore Municipal Corporation for annual water charges. This may increase HT power consumption.

A tariff concession to the green efforts like Designated Consumers, platinum green buildings and five star rated equipment will go towards recognizing the Climate Change.

Petitioners' Response

Petitioners have proposed several rebates and incentives for new HT Consumers as well as for incremental consumption by the existing HT Consumers. Further, rebate is proposed for the railway to encourage the railway to procure power from the Discoms.

ISSUE No. 30: Reduction in Tariff Categories and Revision of Tariff Regulations

Stakeholders Suggestions

The Tariffs may be simplified and the number of categories and sub-categories should be reduced. Slab tariffs be abolished to the extent possible.

MPERC (Terms & Conditions for Determination of Tariff for Distribution and Retail supply of Electricity and Methods and Principles Fixation of Charges) Regulations, 2015 be revised considering the recent developments like shortage to surplus, large increase in Renewable Energy, Coal Surplus, Climate change Regulations. Energy Efficiency measures LED, Petrol to Electric vehicle.

Petitioners' Response

Electricity Act 2003 particularly section 62(3) provides for the differentiation of the tariff of electricity among consumers depending upon the "when it is used (ToD)", "how it is used (voltage, power factor, load factor)" and "where it is used (nature and purpose of supply)". It is established principle that the law makers while making the law do not fail to notice of the welfare of the people. Therefore, by distraction from the law welfare of the people could not be achieved. Therefore, although the multiple slab may be reduced, one proposal in this regard also found in place in this current petition, however slabs cannot be eliminated. Moreover, revision of tariff regulation is not the subject matter of this tariff petition.

ISSUE No. 31: Truing-up before ARR and Tariff Determination

Stakeholders Suggestions

Truing-up from FY 2013-14 to FY 2017-18 should be done before ARR and Tariff Determination for FY 2018-19.

Petitioners' Response

As per provisions of the Electricity Act, 2003 and Tariff Regulations, 2015, Tariff is decided based on the projected data and any variation shall be considered in the true-up exercise. ARR and true-up are two different exercise and cannot be considered same.

ISSUE No. 32: Discrimination among Consumers

Stakeholders Suggestions

The proposal to provide different rebates in Tariff for consumers within the same category i.e., Captive Consumers and OA/GC Consumers is against the provisions of the Electricity Act, 2003 and the Tariff Regulations. The statements made in the proposals (12.2.17 and 12.2.18) discourage Open Access and Captive Consumption of Power and goes against the Electricity Act, 2003.

Petitioners' Response

The petitioners are proposing a rebate to the captive consumers, in order to encourage consumption of electricity from the Discoms. This rebate is being proposed to make competitive power available to such consumers and to promote them to consume power from Discoms on account of attractive rates. This rebate is being proposed by the Discoms to protect the interest of the consumers.

Since the proposed rebate shall be provided on the increased consumption thus there is no bar in any provision of the Electricity Act 2003 including section 62(3).

ISSUE No. 33: Proposal for Power Purchase Cost Adjustment (PPCA)

Stakeholders Suggestions

The claim for PPCA should be rejected as such provisions are already available as working capital and the remaining may be trued-up. The additional burden if quantified and if it is recurring can be included in Power Purchase Costs.

Petitioners' Response

The Commission in Tariff Order for FY 2017-18 has specified formula for deriving Fuel Cost Adjustment (FCA) for recovery/adjustment of un-controllable costs due to increase or decrease in the cost of fuel in case of coal, oil, and gas for generating plants only. The existing PPCA calculation mechanism did not cover the recovery of incremental power purchase, which includes shortage in supply from identified power supply sources in the tariff order requiring distribution licensee to purchase power at higher price from the power market or other sources to meet the demand. In view of above PPCA is proposed in place of FCA.

ISSUE No. 34: Temporary Loads in HT Premises

Stakeholders Suggestions

The method of pro-rata calculation of temporary consumption as per rule 1.18 (G) is incorrect and should be amended as per the factual position and enforced from FY 2014-15.

Petitioners' Response

Consumer has not proposed any other alternative for the calculation. Hence, Petitioner submits that there is no other method except the method of prorates is suitable for calculation in the joint temporary and permanent supply.

ISSUE No. 35: Introduction of Night Tariffs

Stakeholders Suggestions

A new Tariff for Night Tariff may be introduced for such industries that operate at night hours only. The tariff shall be applicable from 22:00 hrs to 10:00 hrs for 12 hours and the demand charges may be 50% of the present demand charges as the operation is only for 12 hours. Energy charges may also be reduced as the price at which energy is sold in night hours is in the range of Rs. 2.50 per unit. This Tariff may be applicable only for industries having demand lesser than 2000 kVA. This may utilize the surplus power sold at night time effectively. Similar Tariff is introduced in Gujarat and has been successful for the past 5-10 years.

Petitioners' Response

The Petitioners have already provisioned for ToD Rebate to all HT Consumers which provides 20% rebate on the Energy Charges for units consumed during the off – peak hours of 10 PM to 6 AM (next day). It is a form of Night Tariff in itself.

ISSUE No. 36: Tariff Determination as per Tariff Policy

Stakeholders Suggestions

The Commission should notify a road-map, which would ensure that the tariff would be within 20% plus/minus of the average cost of supply.

Petitioners' Response

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 to keep in mind that any category of consumers is not put to tariff shock by a sudden steep hike.

ISSUE No. 37: Review of Banking Policy

Stakeholders Suggestions

The policy on power banking should be reviewed.

Petitioners' Response

The demand of the State is not consistent throughout the year, where the peak demand appears during the Rabi season i.e. October to January. During the remaining months the demand becomes low. Hence, the Commission directed the Petitioners to bank the energy to meet the excess demand in its Retail Supply Order for FY 2013-14.

ISSUE No. 38: Reduction of Tariff for Street Lights of Gram Panchayats

Stakeholders Suggestions

The tariffs for street lights under Gram Panchayats should be reduced.

Petitioners' Response

The tariff proposed by the Petitioners for Gram Panchayats is already low as compared to Municipal Corporations and Nagar Panchayats.

ISSUE No. 39: Levy of FCA

Stakeholders Suggestions

The proposed FCA should not be allowed as it leads to an additional 9% electricity duty increase. Hence, it may be recovered as surcharge.

Petitioners' Response

FCA is levied for recovery of incremental variable power purchase cost due to increase in the cost of fuel during the tariff period FY 2017-18. Present petition is filed for the FY 2018-19. Since the revenue from the existing tariff is not sufficient to meet out the total ARR/Cost of Supply hence nominal tariff hike is proposed. The ARR/Cost of supply is calculated strictly in accordance with 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, {2015(RG-35 (II) of 2015}.

Commission's views on Stakeholder submissions

Majority of the stakeholders from all consumer categories opposed tariff hike as proposed by the Discoms. Most of the respondents welcomed the proposed change in general terms and conditions of tariff by the Petitioners in favor of consumers and requested the Commission to consider the same. Some of the stakeholders suggested to withdraw tariff minimum charges/ consumption as fixed charges are being applicable in the tariff. However, the Commission has continued with the tariff minimum charges/ units as presently fixed charges are not sufficient to recover full fixed cost of ARR.

Some of the stakeholders expressed their concern over poor progress of meterization so far achieved by the Discoms, specifically in case of agricultural and domestic connections in rural areas. They opined that one of major cause of high distribution & commercial losses across the Discoms is lack of meterization of un-metered connections for domestic and agriculture categories. With regard to management of surplus power available in the State, majority of the stakeholders submitted that the Discoms need to explore alternative mechanisms to deal with the issue of surplus power in a prudent manner. Some stakeholders requested that the Commission may design tariff in such a way that surplus power may be consumed within the state such as introducing night tariff or by providing higher rebate in off peak hours and reducing the tariff for industrial consumers. Some of the stakeholders suggested that costly power purchase agreements be abandoned to avoid the burden of fixed cost which leads to tariff hike. They also suggested that the principle of merit order dispatch should be scrupulously followed by the Petitioners. The Commission has appropriately considered the power purchase expenses as per provisions of the tariff regulations and the CERC and MPERC orders issued for respective generating stations and power purchase bills of previous years. The Commission has allowed power procurement on the basis of merit order dispatch principle to keep the power purchase cost low.

Further, the Commission has taken note of all the comments/suggestions/ observations of the Stakeholders related to tariff petition, raised in writing as well as during the course of hearing and Petitioner’s response to them. The Commission has endeavoured to capture all the comments/ suggestions/ observations. However, in case any comment/ suggestion/ observation is not specifically elaborated, it does not mean that the same has not been considered. The Commission has considered all the issues raised by the Stakeholders and Petitioner’s response on those issues while carrying out the detailed analysis of ARR & Tariff for FY 2018-19 in accordance with MPERC Tariff Regulations, 2015 as detailed in the subsequent sections of this Order.

A3: AGGREGATE REVENUE REQUIREMENT FOR PETITIONERS

Sales forecast as projected by the Petitioners

3.1 The Petitioners have submitted that for projection of sales for FY 2018-19, category wise and slab wise actual data of the sales, number of consumers, connected/contract load, etc. of the preceding four years and revised estimate for FY 2017-18 have been used.

3.2 The Petitioners have further submitted that the approach being followed is to analyse 3 year and 2 year Compound Annual Growth Rates (CAGRs) and year on year growth rate of each category and its sub-categories in respect of urban & rural consumers separately. After analysis of the data, appropriate / reasonable growth rates have been assumed for future consumer forecasts from the past CAGRs of the Category/Sub-category by the three Discoms. The past CAGR on sales per consumer / sales per kW and connected load has been applied while forecasting the connected load and sales in each category/sub-category. The use of specific consumption i.e., consumption per consumer and / or consumption per unit load is the basic forecasting variable and is widely used in load and energy sales forecasting.

3.3 The Petitioner submitted that increase in Domestic category sales is mainly due to proposed addition of nearly 43 Lakh consumers on account of Saubhagya/DDUGJY schemes during FY 2017-18 and FY 2018-19 as shown in the Table below:

Table 12: Consumers addition due to Saubhagya/DDUGJY schemes during FY 2017-18 and FY 2018-19 (Figures in Lakhs)

Discom	FY 2017-18	FY 2018-19	Total
East Discom	6.62	11.27	17.88
West Discom	4.18	2.00	6.18
Central Discom	5.74	13.24	18.98
Total	**16.54**	**26.50**	**43.04**

3.4 It is submitted by the Petitioners that the existing norms for consumption of unmetered agriculture consumers specified by the Commission are understated and that actual consumption are well above the existing norms. In support the Petitioner has submitted that in the past four years, the Agriculture sector has been growing for over 20% per annum in the State. The overall area under cultivation has increased, instead of the traditional two Crops per year, the farmers are now cultivating up to three-four crops per year. With an extraordinary increase in the cultivation of water-intensive crops like Paddy and Green Grams (Moong), the area used for Kharif crop cultivation too has increased by almost 50%. Accordingly, the electricity consumption by irrigation pumps has also increased. Some districts have seen tremendous increase in the Agriculture load due to this phenomenon. Further, due to decrease in groundwater levels regions like Malwa, the average head for pumps has increased, leading to increase in electricity consumption. All these factors have been key contributors to additional consumption. Hence, in the months from April to September, the consumption of pump connections is more than the normative units thus leading to increase in Distribution and AT&C losses.

Therefore, it has been proposed by the Petitioners to increase the normative units for permanent agricultural pump connections from 1500 Units/ HP / Annum and 1560 Units / HP / Annum to 1680 Units /HP / Annum and 1740 Units / HP / Annum for Rural and Urban Connections, respectively.

3.5 The proposed norms for the period April to September as submitted by the Petitioners for normative consumption of flat rate agriculture consumers are as follows:-

Table 13: Normative Consumption for Unmetered Agriculture Consumers

Particulars	**No. of units per HP or part thereof of sanctioned load/ month**	
Type of Pump Motor	**Urban Area (April to Sept)**	**Rural Area (April to Sept)**
Three Phase	120	110
Single Phase	120	110

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

Table 14: Category wise sales projected by Petitioners (MU)

Particulars	**Projections for FY 2018-19**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LT				
LV-1: Domestic	5,513	4,302	4,739	14,554
LV-2: Non Domestic	1,119	1,135	993	3,246
LV-3: Public Water Works & Street Light	578	548	383	1,509
LV4: LT Industrial	510	619	308	1,436
LV 5.1: Agriculture Irrigation Pumps	6,658	10,251	5,741	22,650
LV-5.2 :Agriculture related Use	8	2	5	14
LT Sales (MU)	**14,385**	**16,856**	**12,169**	**43,410**
HT				
HV-1: Railway Traction	25	0	25	50
HV-2: Coal Mines	447	0	31	478
HV-3.1: Industrial	1,648	3,170	2,651	7,468
HV-3.2: Non-Industrial	271	471	442	1,185
HV-3.3: Shopping Mall*				
HV-3.4: Power Intensive Industries*				
HV-4: Seasonal	8	13	2	24
HV-5.1: Public Water Works and Irrigation	108	366	238	712
HV-5.2: Other Agricultural	15	11	9	35
HV-6: Bulk Residential Users	291	32	168	490
HV-7: Synchronization/ Start-up Power	0	6	1	6
HT Sales (MU)	**2,814**	**4,068**	**3,567**	**10,448**
Total LT + HT Sales (MU)	**17,199**	**20,924**	**15,735**	**53,858**

* Shopping Mall consumption is included in Non-Industrial and Power Intensive Industries consumption is included in Industrial

Commission's Analysis

3.7 The Commission has noted that the increase in Domestic sales is mainly due to proposed addition of about 43 Lakh consumers on account of Saubhagya/DDUGJY scheme during FY 2017-18 and FY 2018-19.

3.8 The Petitioners have requested for revision of normative units for flat rate agriculture consumers from FY 2018-19. Vide letter dated 9 February, 2018 the Commission has asked the Petitioners to submit the detailed study demonstrating the need for revision of norms. In reply, the Petitioners have submitted a report based on a sample study of predominant agriculture feeders across the Discoms. On analyzing the submitted data it has been observed that sample size of 1323 feeders is about 20% of the 11 kV agriculture feeders. This sample study has been carried out on the 11 kV feeders which are dedicated feeders for the agricultural pumps and supplying power for 10 hours per day. Had this study been supported by the energy audit on predominantly agricultural distribution transformers, more accurate results would have been arrived. However, considering the representative sample data submitted and various justifications put forth by the petitioners, the Commission has taken a considerate view and allowed partial increase in the normative units for permanent agricultural pump connections from 1500 Units/ HP / Annum for Rural and 1560 Units / HP / Annum for Urban connections to 1590 Units /HP / Annum uniformly for Rural and Urban Connections subject to submission of detailed report for the representative sample agriculture feeders along with sample energy audit on predominantly agricultural DTRs in all the three Discoms justifying their claim in the next tariff filing/ true-up to the satisfaction of the Commission. The Commission has further directed to install the meters on all the remaining unmetered predominant Agriculture DTR's so as to measure the consumption of the agricultural pumps.

3.9 The Commission has reviewed the sales forecast and compared the same with past trends. The Commission has taken due cognizance of submissions made by Discoms and various stakeholders for increase in projected sales. Accordingly, the Commission has admitted the sales as filed by the Petitioners for all categories except for Agriculture. The Commission has appropriately reckoned the sales for Agriculture category based on aforementioned revised norms. The Commission has admitted the category-wise sales as given in the Table below

Table 15: Category wise sales admitted by the Commission (MU)

Particulars	**Projections For FY 2018-19**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
LV-1: Domestic	5513	4302	4739	14554
LV-2: Non Domestic	1119	1135	994	3247
LV-3: Public Water Works & Street Light	578	548	383	1509
LV4: LT Industrial	510	619	308	1436
LV 5: Agriculture and allied activities	6306	9713	5438	21457
LT Sales (MU)	**14025**	**16316**	**11862**	**42204**

Particulars	**Projections For FY 2018-19**			
Consumer Categories	**East Discom**	**West Discom**	**Central Discom**	**Total for the State**
HV-1: Railway Traction	25	0	25	50
HV-2: Coal Mines	447	0	31	478
HV-3.1: Industrial	1552	2286	2417	6255
HV-3.2: Non-Industrial	263	411	413	1087
HV-3.3: Shopping Mall	8	60	29	98
HV-3.4: Power Intensive Industries	96	884	234	1213
HV-4: Seasonal	8	13	2	24
HV-5: Public Water Works and Irrigation & Other Agricultural	124	376	248	747
HV-6: Bulk Residential Users	291	32	168	490
HV-7: Synchronization/ Start-up Power	0	6	1	6
HT Sales (MU)	**2814**	**4068**	**3567**	**10448**
Total LT + HT Sales (MU)	**16839**	**20384**	**15429**	**52652**

Energy Balance

Petitioners Submissions

3.10 The Petitioners have projected the requirement of 67,449 MU for procurement of energy for projected sales of 53,858 MU. The Petitioners have converted the annual projected sales into monthly sales using the sales profiles observed in the past years. It is submitted by the Petitioners that for computation of the intra-State transmission losses (MPPTCL system losses) for FY 2017-18 and FY 2018-19, the actual Intra-State Transmission Losses for FY 2016-17 of approx. 2.71% has been considered as reported in Annual Report on Regulatory Compliance for FY 2016-17 of MPPTCL.

3.11 For Western Region (WR) and Eastern Region (ER), transmission losses of stations allocated to Madhya Pradesh have been considered on 52 weeks average loss level (12 September, 2016 to 10 September, 2017) of 3.57% and 2.29%, respectively for FY 2018-19.

3.12 The Petitioners have projected energy requirement on the basis of the month wise grossing up of the projected distribution losses. Accordingly, energy requirement for FY 2018-19 has been shown in the Table below:

Table 16: Energy requirement for FY 2018-19 as proposed by Petitioners

Particulars	East Discom	Central Discom	West Discom	MP State
Total Units sold to LT category (MU)	14,385	12,169	16,856	43,410
Total Units sold to HT category (MU)	2,814	3,567	4,068	10,448
Total Units Sold by Discom (MU)	**17,199**	**15,735**	**20,924**	**53,858**
Distribution loss (%)	16.00%	17.00%	15.00%	16.05%
Distribution loss (MU)	3,232	3,241	3,823	10,296
Units Input at Distribution Interface (MU)	20,431	18,977	24,746	64,154
Transmission loss (%)	2.71%	2.71%	2.71%	2.71%
Transmission loss (MU)	569	529	689	1,787
Input at G-T interface (MU)	21,000	19,505	25,436	65,941
WR-PGCIL Losses	3.57%	3.57%	3.57%	3.57%
ER-PGCIL Losses	2.29%	2.29%	2.29%	2.29%
External Loss (MU)	481	446	581	1,508
Total Units to be Purchased (MU)	**21,481**	**19,952**	**26,016**	**67,449**

Commission's Analysis

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

Table 17: Loss targets as per Regulations (in %)

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

3.14 The Commission has considered the distribution losses for FY 2018-19 as specified in the Tariff Regulations for projecting the energy requirement. For arriving at the total quantum of energy requirement the Commission has considered annual sales grossed up by annual level of prescribed loss levels as per the calculations shown in subsequent paragraphs/ tables.

3.15 To work out PGCIL system losses, the inter-State transmission losses have been considered separately for Eastern and Western Region generating stations. For Western Region generating stations, average transmission losses of 3.57% have been considered based on actual losses of past 52 weeks as submitted by the Petitioners. Similarly, these losses have been considered as 2.29% for Eastern Region generating stations.

3.16 The Commission has considered actual intra-State transmission losses of FY 2016-17 at 2.71% for FY 2018-19 as filed by the Petitioners. The energy balance / power purchase requirement on the basis of the sales admitted by the Commission for the Discoms for FY 2018-19 is presented in the following table:

Table 18: Power purchase requirement projected by the Commission

Particular	East Discom	West Discom	Central Discom	State
Total Sales (MU)	16,839	20,384	15,429	52,652
Distribution loss (%)	**16.00%**	**15.00%**	**17.00%**	**15.91%**
Distribution loss (MU)	3,208	3,597	3,160	9,965
Input at T-D interface (MU)	20,047	23,981	18,589	62,617
Transmission loss (%)	**2.71%**	**2.71%**	**2.71%**	**2.71%**
Transmission loss (MU)	558	668	518	1,744
Input at G-T interface (MU)	20,605	24,649	19,107	64,361
PGCIL Losses %				
WR- PGCIL Losses %	3.57%	3.57%	3.57%	3.57%
ER- PGCIL Losses %	2.29%	2.29%	2.29%	2.29%
PGCIL Losses (MU)	478	569	443	1,490
Power Purchase Requirement (MU)	**21,083**	**25,218**	**19,550**	**65,851**

Assessment of Energy Availability

Petitioners Submissions

3.17 The Petitioners have assessed availability of energy for the State, on the following basis:

(a) Existing long term allocated generation capacity of MP

(b) New generation capacity additions during the period FY 2017-18 and FY 2018-19 by MPPGCL, Central Sector, Joint venture and IPP's.

(c) Impact of generation capacity allocation in WR and ER.

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

Table 19: Upcoming Stations and Technical Parameters

Particulars	Capacity (MW)	PLF (first 90 days)	PLF (after 90 days)	Remarks	MP Share		CoD
					%	MW	
NTPC Mouda II Unit 2	660	77.08%	77.08%	PLF of Mouda II 1st Unit considered	18.77%	123.85	18-Sep-17
NTPC Solapur STPS, Unit-1	660	27.00%	27.00%	PLF of First two months considered Sep and Oct 17	25.15%	165.99	25-Sep-17
NTPC Solapur STPS, Unit-2	660	27.00%	27.00%	PLF as per Solapur I	23.03%	152	30-Jun-18
NTPC Gadarwara STPS, Unit-1	800	65.00%	82.50%	New Plants-Assumption	50.00%	400	30-Jun-18
NTPC Lara STPS, Raigarh, Unit I	800	65.00%	82.50%		7.98%	63.8	30-Jun-18
Shri Singaji Phase-2, Unit-1	660	66.47%	66.47%	PLF of Singaji STPS Ph 1 Considered	90.00%	594	30-Sep-18
Shri Singaji Phase-2, Unit-2	660	66.47%	66.47%		90.00%	594	31-Dec-18
Total	**4,900**					**2,093.64**	

3.19 For projecting the availability from CGS, the latest allocation provided by Western Regional Power Committee (WRPC) in letter no. WRPC/Comml-I/6/Alloc/2017/13837 dated 22 September, 2017 and for Eastern Region NTPC Kahalgaon 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21 February, 2007 have been considered for FY 2018-19.

3.20 No Availability has been considered from Kakrapar, Rihand, Matatila and Essar Power based on nil availability in last few months in FY 2017-18, but projections have been made for FY 2018-19 based on assumption that power would be available during the FY 2018-19. Petitioner further submitted that Tokisud(N) mine has now been handed back to Ministry of Coal GoI. M/s Essar power has generated concessional power through e-auction coal since its COD (29.04.2013). The power from the plant was placed in MOD and was scheduled as per requirement. Tokisud(N) mine was never handed over to M/s Essar Power and therefore generation of power was continued through e-auction coal and the rates determined by the Commission in SMP 51/2015 were not applied due to non-availability of coal from Tokisud (N) mine.

3.21 MPPMCL has decided to foreclose the PPAs with DVC for 400 MW from DVC (MTPS & CTPS) and 100 MW (DTPS) w.e.f., 01 March, 2018 and 15, May 2017 respectively. The cost of such plants has not been considered while calculating the power purchase cost for FY 2018-19.

3.22 During FY 2017-18, power from MB Power Unit II and Sugen Torrent Generating Stations has been scheduled following MoD whereas in the Tariff Order for FY 2017-18 the Commission had not considered availability and the cost thereon from these plants. The power purchase expenditure incurred on these plants will be submitted before the Commission in the true up of FY 2017-18. For FY 2018-19, the availability from these plants has been considered as the PPAs with these plants remain in force.

3.23 Following table shows MPPMCL allocated existing stations as well as the new capacity additions which are expected to become operational till end of FY 2018-19:

Table 20: MPPMCL allocated stations submitted by the Petitioners

Station	**Region**	**Capacity (MW)**	**MP Share (%)**	**MP Share (MW)**
Central Sector				
NTPC-Korba	WR	2,100	23%	479
NTPC Korba -III	WR	500	16%	76
NTPC-Vindyachal I	WR	1,260	35%	441
NTPC-Vindyachal II	WR	1,000	32%	316
NTPC-Vindyachal III	WR	1,000	24%	243
NTPC Vindhyanchal MTPS, Stage - 4 Unit 1 & Unit 2	WR	1,000	28%	284
NTPC Vindhyanchal MTPS, Stage - 5	WR	500	28%	142
NTPC Sipat Stage - 1	WR	1,980	17%	337

Station	Region	Capacity (MW)	MP Share (%)	MP Share (MW)
NTPC - Sipat Stage II	WR	1,000	19%	186
NTPC Mouda STPS, Stage -1	WR	1,000	18%	181
NTPC Mouda Stage-II, Unit 1	WR	660	19%	124
NTPC Mouda Stage-II, Unit 2	WR	660	19%	124
NTPC-Kawas	WR	656	21%	140
NTPC-Gandhar	WR	657	18%	117
NTPC - Kahalgaon 2	ER	1,500	5%	74
KAPP – Kakrapar	WR	440	26%	113
TAPS- Tarapur	WR	1,080	21%	230
NTPC Solarpur STPS Unit 1	WR	660	25%	166
NTPC Solarpur STPS Unit 2	WR	660	23%	152
NTPC Gadarwara STPS, Unit 1	WR	800	50%	400
NTPC Lara STPS, Raigarh Unit 1	WR	800	8%	64
MP GENCO				
ATPS - Chachai-Extn	State	210	100%	210
STPS - Sarni-PH 2 & 3	State	830	100%	830
STPS - Sarni-PH 4	State	500	100%	500
SGTPS - Bir'pur - PH 1 & 2	State	840	100%	840
SGTPS - Bir'pur - Extn	State	500	100%	500
Shri Singaji STPS Phase -1	State	1200	100%	1,200
Shri Singaji STPS Phase -2 Unit 1	State	660	90%	594
Shri Singaji STPS Phase -2 Unit 2	State	660	90%	594
Bargi HPS	State	90	100%	90
Bansagar Tons HPS	State	315	100%	315
Bansagar Tons HPS-Silpara	State	30	100%	30
Bansagar Tons HPS-Devloned	State	60	100%	60
Bansagar Tons HPS-Bansagar IV (Jhinna)	State	20	100%	20
Birsighpur HPS	State	20	100%	20
Marhi Khera HPS	State	60	100%	60
Rajghat HPS	State	45	50%	23
CHPS-Gandhi Sagar	State	115	50%	58
CHPS-RP Sagar & Jawahar Sagar	State	271	50%	136
Pench HPS	State	160	67%	107
JV Hydel & Other Hydel				
NHDC - Indira Sagar	State	1,000	100%	1,000
Omkareshwar HPS	State	520	100%	520

Station	Region	Capacity (MW)	MP Share (%)	MP Share (MW)
Sardar Sarovar	WR	1,450	57%	827
Rihand HPS	WR	300	15%	45
Matatila HPS	WR	31	33%	10
DVC				
DVC (MTPS, CTPS)	ER	1,840	0%	-
DVC DTPS Unit 1	ER	500	0%	-
DVC DTPS Unit 2	ER	500	0%	-
IPPs				
Torrent Power GPP	WR	765	10%	75
BLA Power Unit 1 & Unit 2	State	90	35%	32
Jaypee Bina Power Unit 1 & Unit 2	State	500	70%	350
Lanco Amarkantak	WR	300	100%	300
UMPP Sasan Unit 1 to Unit 6	WR	3,960	38%	1,485
Essar Power STPS	State	600	5%	30
Jaiprakash Power, Nigri Unit 1 & Unit 2	WR	1,320	38%	495
MB Power, Anuppur	WR	1,200	35%	420
Jhabua Power Unit 1, Seoni	WR	600	35%	210
Captive	State	17		17
Renewables				
Renewable Energy – Solar	State	1,284	100%	1,284
Other Mini/Micro	State	32	100%	32
Renewable Energy - Other than Solar	State	2,371	100%	2,371

3.24 The Petitioners have submitted that after meeting the requirement of the State and selling power on the power exchange, the Petitioners still have to back-down plants partially so as to save on the variable costs being incurred. The Petitioners have applied month-wise merit order dispatch principles on the basis of variable costs for FY 2018-19, after considering all generating stations allocated to MPPMCL. The Petitioners have also considered partial back down of units/stations which are higher in the MoD (provided that variable costs of such stations are higher than Rs. 2.60 per unit, i.e., the 36- month average rate of energy in the Power Exchange), during those periods when their running is not required to meet the demand in that period and the market rates do not justify their running either. This addresses demand fluctuations and ensures that power procured from cheaper sources is fully utilized and avoids procurement of power from costlier sources. The resultant benefit of reduced power procurement cost or sell at a higher rate, whichever the case maybe, is in turn passed on to the consumers.

3.25 The following table shows the stations which are considered by the Petitioners for partial/full back down:

Table 21: Stations which are considered by the Petitioners for partial /full back down

Stations	**Normative Availability (MU)**	**Back down (MU)**	**Net Availability (MU)**
	FY 19	**FY 19**	**FY 19**
NTPC Mouda I	1,361	798	563
NTPC Mouda II Unit 1	788	656	132
NTPC Mouda II Unit 2	788	656	132
NTPC Solapur STPS, Unit-1	370	217	153
NTPC Solapur STPS, Unit-2	255	115	140
NTPC Gadarwara STPS, Unit-1	1,910	861	1,049
NTPC Lara STPS, Raigarh, Unit I	305	237	68
Satpura TPS Ph-II & III	4,006	3,337	670
SGTPS Ph-I & II	3,347	284	3,063
Shri Singaji STPS, Ph-I	6,585	1,119	5,467
Shri Singaji Phase-2, Unit-1	1,634	-	1,634
Shri Singaji Phase-2, Unit-2	813	-	813
Torrent Power	173	173	-
BLA Power	65	38	27
Jaypee Bina Power	2,120	1,940	180
Essar Power STPS	20	12	8
Jhabua Power STPS, Unit-1	745	745	-
Total Backdown (MU)	**11,189**		

3.26 The following table shows the overall station wise availability of all the stations after application of merit order dispatch and back-down for the period FY 2018-19 as submitted by the Petitioners:

Table 22: Total Availability of Energy submitted by the Petitioners FY 2018-19

Energy available from all Stations allocated to MPPMCL	86,433
Less: Energy backed down	11,189
Total	**75,244**

Commission's Analysis

3.27 The Commission has considered the CGS allocation for FY 2018-19 as provided by Western Regional Power Committee (WRPC) in letter no. WRPC/Comml-I/6/Alloc/2018/1374 dated 7 February, 2018 and for Eastern Region NTPC Kahalgaon 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21 February, 2007. Further, the

Commission allocated remaining generating stations as per notification no. 2211/F-3-13/2016/XIII dated 21st March, 2016, Energy Deptt. Govt. of Madhya Pradesh. The Commission has further distributed the generating capacities among the Discoms as per their energy requirement.

3.28 The Commission has considered the month-wise average Plant Availability for three years to project the energy availability from CGS allocated to the state except Kawas and Gandhar Gas based Power Plants, which have been considered based on previous year's actual availability as provided by NTPC.

3.29 The Commission has considered the energy availability of MPPGCL thermal generating stations and hydro generating stations for FY 2018-19 based on the projections submitted by the MPPGCL vide letter No. 07-12/CS-MPPGCL/MPERC/Ex-Bus Generation/243 dated 17 February, 2018 except for Gandhi Sagar hydro as projection for Gandhi Sagar was much higher than the average availability for the last three years. Further, MPPGCL has not submitted the availability from RP Sagar HPS as it is being operated by Rajasthan Authority. Therefore, the Commission has considered the average Plant Availability of the last three years to project the energy availability from Gandhi Sagar and RP Sagar hydro.

3.30 As regards availability projections in respect of Indira Sagar Power Station (ISPS), Omkareshwar (OSP) and Sardar Sarovar Project (SSP) the Commission has considered the average of actual availability of past three years as provided by NHDC and NVDA.

3.31 With regards to new NTPC stations, the Commission has obtained the details of their CODs from NTPC and appropriately considered the same.

3.32 Energy availability of new generating stations has been projected on the basis of the norms specified in the CERC (Terms and Conditions of Tariff) Regulations, 2014 and MPERC Generation Tariff Regulations, 2015 on case to case basis.

3.33 In view of the Commission's orders dated 22 May, 2015 and 25 July, 2015 in Petition Numbers 16/2014 and 36/2015, respectively the Commission has been disallowing the availability and the cost of generation from Unit number 1&2 of M/s BLA Power. In appeal no. 201 of 2017, Hon'ble Aptel vide order dated 19.04.2018 has remanded the matter to the Commission for determination of tariff for unit no. 1 of BLA Power plant for FY 2016-17 to FY 2018-19 wherein BLA Power has also been directed to appear before the Commission on 28.05.2018. The petition for determination of tariff for unit no. 2 of BLA Power plant is not filed with the Commission. In view of aforesaid status, the availability and the cost of generation from Unit number 1&2 of M/s BLA Power plant as filed by the Petitioner has not been considered in this order.

3.34 Further, the Commission has not considered the availability and the cost there on for the Sugen Torrent Generating Station. However, issue of allowing fixed cost if any, may be dealt appropriately at the time of True-up exercise. Further, the availability from Essar power as concessional energy submitted in the petition is not in accordance with the Commission's order dated 4th May, 2016 in SMP No 51/2015 therefore the availability as proposed by the petitioners for FY 2018-19 has not been considered in this order.

However, the petitioner is at liberty to approach the Commisison with a separate petition in this regard.

3.35 Month wise and generating station wise details of projected availability for FY 2018-19 are indicated in the table below:

Table 23 : Month wise energy availability projection for FY 2018-19 (MUs)

Sr. No.	Generating Stations	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Total
A.	**Central Generating Stations**													
1	WR – KSTPS	299	320	317	289	268	320	311	277	282	314	292	327	3,615
2	WR - VSTPS-I	307	267	241	200	180	285	297	315	329	258	244	319	3,243
3	WR - VSTPS-II	224	191	138	125	133	197	216	236	214	203	206	226	2,308
4	WR - VSTPS - III	181	168	158	155	121	118	144	167	167	169	163	182	1,894
5	WR-Vindhyachal Mega Project, Stage 4-Unit-1	85	89	100	81	64	90	93	101	102	91	88	101	1,086
6	WR-Vindhyachal Mega Project, Stage 4-Unit-2	85	89	100	81	64	90	93	102	102	91	88	101	1,086
7	WR-Vindhyachal Mega Project, Stage 5-Unit-1	108	95	98	82	75	97	100	97	98	84	43	93	1,069
8	WR - KAWAS GPP	28	32	21	24	20	29	43	38	28	20	23	22	328
9	WR - GANDHAR GPP	35	41	22	29	29	32	44	45	34	27	24	27	389
10	WR - KAPS	20	24	32	26	25	26	27	25	28	43	39	33	347
11	WR - TAPS Unit 3 & 4	118	116	98	129	131	125	125	120	122	97	109	123	1,411
12	WR - Sipat -I (3 Units)	216	194	211	211	236	237	178	202	224	234	193	240	2,576
13	WR - Sipat STPS -II	132	130	126	134	101	129	132	129	129	130	90	130	1,492
14	WR-NTPC Korba - 7	47	55	51	36	44	50	72	51	52	54	47	53	611
15	WR- NTPC Mauda TPS- Unit-1	56	58	56	58	58	56	58	56	58	58	52	58	680
16	WR-NTPC Mauda TPS- Unit-2	56	58	56	58	58	56	58	56	58	58	52	58	680
17	WR-NTPC Mauda TPS Stage 2- Unit-1	65	67	65	67	67	65	67	65	67	67	60	67	788
18	WR-NTPC Mauda TPS Stage 2- Unit-2	65	67	65	67	67	65	67	65	67	67	60	67	788
19	WR-NTPC Lara STPS, Raigarh u1	0	0	0	0	0	0	39	38	39	39	35	39	230
20	WR-NTPC Gadarwara STPS, u1	0	0	0	0	0	0	0	0	246	246	222	246	961
21	WR-NTPC Solapur STPS, Unit 1	46	48	46	48	48	46	48	46	48	48	43	48	563
22	ER- Kahalgaon STPS-II	50	52	36	37	37	50	52	50	52	52	47	52	565
	SUB TOTAL	**2,222**	**2,160**	**2,036**	**1,938**	**1,825**	**2,163**	**2,262**	**2,279**	**2,544**	**2,450**	**2,224**	**2,611**	**26,712**
B.	**State Generating Stations**													
I	THERMAL													

Sr. No.	Generating Stations	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Total
23	Amarkantak Ext	118	122	118	122	122	118	122	118	122	122	110	122	1,434
24	Satpura TPS Ph II &III	350	361	350	361	361	350	361	350	361	361	326	361	4,254
25	SGTPS Ext	288	298	288	298	298	288	298	288	298	298	269	298	3,506
26	SGTPS	395	408	395	408	408	395	408	395	408	408	369	408	4,808
27	Singaji Thermal Power Stations Phase I -Unit-1	287	296	287	296	296	287	296	287	296	296	268	296	3,488
28	Singaji Thermal Power Stations Phase I -Unit-2	287	296	287	296	296	287	296	287	296	296	268	296	3,488
29	Singaji Thermal Power Stations Phase II -Unit-1	0	0	0	0	0	0	289	280	289	289	261	289	1,696
30	Singaji Thermal Power Stations Phase II -Unit-2	0	0	0	0	0	0	0	0	0	289	261	289	839
31	Satpura Thermal Power Stations Exten - Unit 10	139	144	139	144	144	139	144	139	144	144	130	144	1,691
32	Satpura Thermal Power Stations Exten - Unit 11	139	144	139	144	144	139	144	139	144	144	130	144	1,691
	SUB TOTAL	**2,002**	**2,069**	**2,002**	**2,069**	**2,069**	**2,002**	**2,358**	**2,282**	**2,358**	**2,647**	**2,390**	**2,647**	**26,893**
II	HYDEL													
	INTERSTATE													
33	Gandhi Sagar	5	4	6	9	13	5	6	15	25	26	29	25	168
34	RP Sagar & Jawahar Sagar	10	11	11	16	33	23	40	49	49	50	54	36	383
35	Pench	16	20	17	20	28	34	54	31	29	39	32	13	334
36	Rajghat	8	7	5	4	4	8	8	12	12	8	6	2	85
	SUB TOTAL	**40**	**43**	**39**	**49**	**78**	**70**	**108**	**107**	**116**	**123**	**121**	**76**	**970**
	INTRA STATE													
37	Bargi	54	50	40	39	32	35	38	36	36	54	42	42	499
38	Birishinghpur	2	2	3	7	12	6	3	6	7	2	1	0	52
39	Bansagar – I,II,III	115	87	100	100	103	90	98	73	83	113	82	88	1,132
40	Bansagar IV	6	4	5	5	7	7	5	6	7	11	9	7	80
41	Marikheda	3	3	3	3	7	8	10	9	7	8	9	3	72
42	**SUB TOTAL**	**180**	**146**	**151**	**154**	**161**	**146**	**155**	**131**	**140**	**187**	**143**	**141**	**1,835**
43	BILATERAL AND OTHERS													
	Indira Sagar	181	185	149	148	228	154	156	144	155	225	186	149	2,059
	Others (Mini Micro)	3	3	3	3	3	3	3	3	3	3	3	3	35
44	Captive	3	3	3	3	3	3	3	3	3	3	3	3	34
45	Sardar Sarovar	117	100	121	97	100	169	118	109	118	83	49	32	1,214
46	Omkareshwar	80	85	72	74	109	73	68	62	66	96	82	71	936
47	**SUB TOTAL**	**384**	**376**	**349**	**324**	**442**	**402**	**347**	**321**	**344**	**410**	**323**	**257**	**4,279**
48	UPPCL (Rihand,	6	6	5	7	15	14	9	8	8	8	7	7	99

Sr. No.	Generating Stations	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Total
	Matatila)													
	SUB TOTAL	**6**	**6**	**5**	**7**	**15**	**14**	**9**	**8**	**8**	**8**	**7**	**7**	**99**
49	IPPs													
	WR-UMPP Sasan, Sidhi Unit-1	154	159	154	159	159	154	159	154	159	159	143	159	1,868
III	WR-UMPP Sasan, Sidhi Unit-2	154	159	154	159	159	154	159	154	159	159	144	159	1,876
50	WR-UMPP Sasan, Sidhi Unit 3& 4	308	318	308	318	318	308	318	308	318	318	287	318	3,744
51	WR-UMPP Sasan, Sidhi Unit 5&6	308	318	308	318	318	308	318	308	318	318	287	318	3,744
52	Jaypee Bina Power, Sagar Unit-1	106	109	106	109	109	106	109	106	109	109	99	109	1,287
53	Jaypee Bina Power, Sagar Unit-2	106	109	106	109	109	106	109	106	109	109	99	109	1,287
54	WR-Jaiprakash Power, Nigri- Unit-1	154	159	154	159	159	154	159	154	159	159	143	159	1,868
55	WR-Jaiprakash Power, Nigri- Unit-2	154	159	154	159	159	154	159	154	159	159	143	159	1,868
56	WR-MB Power, Annupur- Unit 1	129	133	129	133	133	129	133	129	133	133	120	133	1,567
57	WR-MB Power, Annupur- Unit-2	129	133	129	133	133	129	133	129	133	133	120	133	1,567
58	WR- Jhabua Power, Seoni	76	78	76	78	78	76	78	76	78	78	71	78	922
59	WR-Lanco TPS, Amarkantak	185	191	185	191	191	185	191	185	191	191	173	191	2,250
60	Renewable Energy Solar	136	136	136	136	136	136	136	136	136	136	136	136	1,636
61	Renewable Energy Non Solar	364	364	364	364	364	364	364	364	364	364	364	364	4,370
62	**SUB TOTAL**	**2,460**	**2,526**	**2,460**	**2,526**	**2,526**	**2,460**	**2,526**	**2,460**	**2,526**	**2,526**	**2,330**	**2,526**	**29,852**
63	**Grand Total**	**7,294**	**7,325**	**7,041**	**7,067**	**7,116**	**7,257**	**7,765**	**7,587**	**8,035**	**8,350**	**7,538**	**8,264**	**90,640**

Assessment of Power Purchase Cost

Petitioners Submissions

3.36 Details of the fixed cost and variable charges of MPPMCL allocated stations are mentioned in the table below:

Table 24 : Fixed cost and Variable charges of MPPMCL allocated stations submitted by the Petitioners for FY 2018-19

Station	Fixed Charges (Rs Crore)	Remarks	Variable Charges (Rs/unit)	Remarks
Central Sector				
NTPC-Korba	246	As per actual bills from Sep 16 to Aug 17	0.93	As per actual bills from Sep 17 to Nov 17
NTPC Korba –III	80	As per actual bills from	1.08	As per actual bills from

Station	Fixed Charges (Rs Crore)	Remarks	Variable Charges (Rs/unit)	Remarks
		Sep 16 to Aug 17		Dec 16 to Nov 17
NTPC-Vindyachal I	260	As per actual bills from Sep 16 to Aug 17	1.63	As per actual bills from Sep 17 to Nov 17
NTPC-Vindyachal II	159	As per actual bills from Sep 16 to Aug 17	1.54	As per actual bills from Sep 17 to Nov 17
NTPC-Vindyachal III	187	As per actual bills from Sep 16 to Aug 17	1.53	As per actual bills from Sep 17 to Nov 17
NTPC Vindhyanchal MTPS, Stage - 4 Unit 1&2	326	As per actual bills from Sep 16 to Aug 17	1.54	As per actual bills from Sep 17 to Nov 17
NTPC Vindhyanchal MTPS, Stage – 5	162	As per actual bills from Sep 16 to Aug 17	1.55	As per actual bills from Sep 17 to Nov 17
NTPC Sipat Stage - 1	340	As per actual bills from Sep 16 to Aug 17	1.22	As per actual bills from Sep 17 to Nov 17
NTPC - Sipat Stage II	182	As per actual bills from Sep 16 to Aug 17	1.43	As per actual bills from Sep 16 to Aug 17
NTPC Mouda STPS, Stage -1 Unit 1&2	242	As per actual bills from Sep 16 to Aug 17	2.61	As per actual bills from Sep 16 to Aug 17
NTPC Mouda Stage II Unit 1	76	As per actual bills from Sep 16 to Aug 17	2.72	As per actual bills from Sep 16 to Aug 17
NTPC Mouda Stage II Unit 2	76	As per Mouda Stage II Unit 1	2.72	As per Mouda Stage II Unit 1
NTPC-Kawas	90	As per actual bills from Sep 16 to Aug 17	2.06	As per actual bills from Sep 16 to Aug 17
NTPC-Gandhar	92	As per actual bills from Sep 16 to Aug 17	1.92	As per actual bills from Sep 16 to Aug 17
NTPC - Kahalgaon 2	57	As per actual bills from Sep 16 to Aug 17	2.20	As per actual bills from Sep 16 to Aug 17
KAPP- Kakarpar	-	-	2.41	As per actual bills from Sep 15 to Aug 16
TAPS- Tarapur	-	-	2.95	As per actual bills from Sep 16 to Aug 17
NTPC Solapur STPS, Unit-1	87	As per actual bills from Sep 17 to Oct 17	2.65	As per actual bills from Sep 17 to Oct 17
NTPC Solapur STPS, Unit-2	60	As per actual bills from Sep 17 to Oct 17	2.65	As per actual bills from Sep 17 to Oct 17
NTPC Gadarwara STPS, Unit 1	184	As per Mouda Stage II Unit 1	2.72	As per Mouda Stage II Unit 1
NTPC Lara STPS, Raigarh Unit 1	29	As per Mouda Stage II Unit 1	2.72	As per Mouda Stage II Unit 1
MP GENCO				

Station	Fixed Charges (Rs Crore)	Remarks	Variable Charges (Rs/unit)	Remarks
ATPS - Chachai-Extn	229	As per actual bills from Sep 16 to Aug 17	1.84	As per actual bills from Sep 16 to Aug 17
STPS - Sarani-PH 2 & 3	378	As per actual bills from Sep 16 to Aug 17	2.76	As per actual bills from Sep 16 to Aug 17
STPS Extension Phase 4	695	As per actual bills from Sep 16 to Aug 17	2.09	As per actual bills from Sep 16 to Aug 17
SGTPS - Birsingpur - PH 1 & 2	387	As per actual bills from Sep 16 to Aug 17	2.36	As per actual bills from Sep 16 to Aug 17
SGTPS - Birsingpur – Extn	377	As per actual bills from Sep 16 to Aug 17	2.18	As per actual bills from Sep 16 to Aug 17
Shri Singaji STPS Phase -1	1313	As per actual bills from Sep 16 to Aug 17	2.56	As per actual bills from Sep 16 to Aug 17
Shri Singaji STPS Phase -2 Unit 1	376	Assumption	2.56	As per Singaji Phase I
Shri Singaji STPS Phase -2 Unit 2	125	Assumption	2.56	As per Singaji Phase I
Bargi HPS	8	As per actual bills from Sep 16 to Aug 17	0.51	As per actual bills from Sep 16 to Aug 17
Bansagar Tons HPS	60	As per actual bills from Sep 16 to Aug 17	0.72	As per actual bills from Sep 16 to Aug 17
Bansagar Tons HPS-Silpara	5	As per actual bills from Sep 16 to Aug 17	0.65	As per actual bills from Sep 16 to Aug 17
Bansagar Tons HPS-Devloned	9	As per actual bills from Sep 16 to Aug 17	1.08	As per actual bills from Sep 16 to Aug 17
Bansagar Tons HPS-Bansagar IV (Jhinna)	9	As per actual bills from Sep 16 to Aug 17	1.18	As per actual bills from Sep 16 to Aug 17
Birsingpur HPS	3	As per actual bills from Sep 16 to Aug 17	1.57	As per actual bills from Sep 16 to Aug 17
Marhi Khera HPS	17	As per actual bills from Sep 16 to Aug 17	1.39	As per actual bills from Sep 16 to Aug 17
Rajghat HPS	1	As per actual bills from Sep 16 to Aug 17	1.28	As per actual bills from Sep 16 to Aug 17
CHPS-Gandhi Sagar	3	As per actual bills from Sep 16 to Aug 17	0.68	As per actual bills from Sep 16 to Aug 17
CHPS-RP Sagar & Jawahar Sagar	-	-	1.51	As per actual bills from Sep 16 to Aug 17
Pench THPS	9	As per actual bills from Sep 16 to Aug 17	0.43	As per actual bills from Sep 16 to Aug 17
JV Hydel & Other Hydel				
NHDC - Indira Sagar	619	As per actual bills from Sep 16 to Aug 17	0.45	As per actual bills from Sep 16 to Aug 17

Station	Fixed Charges (Rs Crore)	Remarks	Variable Charges (Rs/unit)	Remarks
Omkareshwar HPS	428	As per actual bills from Sep 16 to Aug 17	0.42	As per actual bills from Sep 16 to Aug 17
Sardar Sarovar	178	As per actual bills from Sep 16 to Aug 17	0.82	As per actual bills from Sep 16 to Aug 17
Rihand HPS	-		0.4	As per actual bills from Sep 15 to Aug 16
Matatila HPS	-		0.4	As per actual bills from Sep 15 to Aug 16
DVC				
DVC (MTPS, CTPS)	-		-	
DVC DTPS	-		-	
IPPs				
Torrent Power	67	As per actual bills from Sep 16 to Aug 17	4.92	As per actual bills from Sep 16 to Aug 17
BLA Power Unit 1	10	As per actual bills from Sep 16 to Aug 17	2.70	As per actual bills from Sep 16 to Aug 17
Jaypee Bina Power	458	As per actual bills from Sep 16 to Aug 17	2.78	As per actual bills from Sep 16 to Aug 17
Lanco Amarkantak	281	As per actual bills from Sep 16 to Aug 17	1.13	As per actual bills from Sep 16 to Aug 17
UMPP Sasan	168	As per actual bills from Sep 16 to Aug 17	1.39	As per actual bills from Sep 17 to Nov17
Essar Power STPS	-		2.66	As per actual bills from Sep 16 to Aug 17
Jaiprakash Power, Nigri	586	As per actual bills from Sep 16 to Aug 17	0.77	As per actual bills from Sep 16 to Aug 17
MB Power Anuppur	303	As per actual bills from Sep 16 to Aug 17	1.92	Approved by the Commission for FY 18
Jhabua Power, Seoni	42	As per actual bills from Sep 16 to Aug 17	2.78	Assumed
Captive	-	-	2.29	Approved by the Commission for FY 18
Renewable				
Solar	-		5.95	As per actual bills from Sep 16 to Aug 17
Other Micro/Mini Hydro	-		3.81	As per actual bills from Sep 16 to Aug 17
Other than Solar	-		5.38	As per actual bills from Sep 16 to Aug 17

3.37 The Merit Order Dispatch (MOD) applied for FY 2018-19 as submitted by the Petitioners is given in the following table:

Table 25 : MOD for FY 2018-19 as submitted by the Petitioners

Sl No.	Particulars	Variable Charge (paise/kWh)	Availability (MU)
1	KAPP Kakrapar	241	347
2	TAPP Tarapur	295	1,411
3	Solar	595	1,636
4	Other Mini Micro	381	35
5	Other than Solar	538	4,309
6	Rihand HPS	40	78
7	Matatila HPS	40	22
8	NHDC Omkareshwar HPS	42	1,021
9	Pench HPS	43	252
10	NHDC Indira Sagar HPS	45	2,221
11	Rani Awanti Bai Sagar, Bargi HPS	51	466
12	Bansagar Ph-II HPS (Silpara)	65	107
13	Gandhisagar HPS	68	168
14	Bansagar Ph I HPS (Tons)	72	1,166
15	Jaiprakash Power STPS, Nigri	77	3,211
16	Sardar Sarovar HPS	82	1,303
17	NTPC Korba	93	3,615
18	Bansagar Ph-III HPS (Deolond)	108	114
19	NTPC Korba III	108	611
20	Lanco Amarkantak TPS Unit 1	113	2,105
21	Bansagar Ph-IV HPS (Jhinna)	118	97
22	NTPC Sipat I	122	2,576
23	Rajghat HPS	128	30
24	Reliance UMPP, Sasan	139	10,840
25	Marhikheda HPS	139	111
26	NTPC Sipat II	143	1,492
27	Ranapratap Sagar & Jawahar Sagar HPS	151	370
28	NTPC Vindyachal III	153	1,894
29	NTPC Vindyachal IV	154	2,171
30	NTPC Vindyachal II	154	2,308
31	NTPC Vindyachal V Unit 1	155	1,069
32	Birsinghpur HPS	157	36
33	NTPC Vindyachal I	163	3,243
34	Amarkantak TPS Ph-III	184	1,550
35	NTPC Gandhar GPP	192	250
36	MB Power STPS	192	2,148
37	NTPC Kawas GPP	206	299
38	Satpura TPS Ph-IV	209	2,561
39	SGTPS Ph-III	218	3,303
40	NTPC Kahalgaon 2	220	565
41	Captive	229	34

Sl No.	Particulars	Variable Charge (paise/kWh)	Availability (MU)
42	SGTPS Ph-I & II	236	3,347
43	Shri Singaji STPS, Ph-I	256	6,585
44	Shri Singaji Phase-2, Unit-1	256	1,634
45	Shri Singaji Phase-2, Unit-2	256	813
46	NTPC Mouda I	261	1,361
47	NTPC Solapur STPS, Unit-1	265	370
48	NTPC Solapur STPS, Unit-2	265	255
49	Essar Power STPS	266	20
50	BLA Power	270	65
51	NTPC Gadarwara STPS, Unit-1	272	1,910
52	NTPC Lara STPS, Raigarh, Unit I	272	305
53	NTPC Mouda II Unit 1	272	788
54	NTPC Mouda II Unit 2	272	788
55	Satpura TPS Ph-II & III	276	4,006
56	Jaypee Bina Power	278	2,120
57	Jhabua Power STPS, Unit-1	278	745
58	Torrent Power	492	173
	Total		**86,433**

3.38 The table below shows the details of the fixed costs and variable costs for FY 2018-19.

Table 26 : Fixed cost and Variable cost as filed for FY 2018-19

Station	Fixed Cost (Rs Crore)	Variable Cost (Rs Crore)
Central Sector		
NTPC-Korba	246	337
NTPC Korba –III	80	66
NTPC-Vindyachal I	260	529
NTPC-Vindyachal II	159	355
NTPC-Vindyachal III	187	289
NTPC Vindhyanchal MTPS, Stage - 4 Unit 1&2	326	334
NTPC Vindhyanchal MTPS, Stage – 5	162	166
NTPC Sipat Stage - 1	340	314
NTPC - Sipat Stage II	182	213
NTPC Mouda STPS, Stage -1 Unit 1&2	242	147
NTPC Mouda Stage II Unit 1	76	36
NTPC Mouda Stage II Unit 2	76	36
NTPC-Kawas	90	62
NTPC-Gandhar	92	48
NTPC - Kahalgaon 2	57	125
KAPP- Kakrapar	-	84

Station	Fixed Cost (Rs Crore)	Variable Cost (Rs Crore)
TAPS- Tarapur	-	416
NTPC Solapur STPS, Unit-1	87	41
NTPC Solapur STPS, Unit-2	60	37
NTPC Gadarwara STPS, Unit 1	184	286
NTPC Lara STPS, Raigarh Unit 1	29	18
MP GENCO		
ATPS - Chachai-Extn	229	285
STPS - Sarani-PH 2 & 3	378	185
STPS Extension Phase 4	695	534
SGTPS - Bir'pur - PH 1 & 2	387	724
SGTPS - Bir'pur – Extn	377	722
Shri Singaji STPS Phase -1	1,313	1,400
Shri Singaji STPS Phase -2 Unit 1	376	418
Shri Singaji STPS Phase -2 Unit 2	125	208
Bargi HPS	8	24
Bansagar Tons HPS	60	84
Bansagar Tons HPS-Silpara	5	7
Bansagar Tons HPS-Devloned	9	12
Bansagar Tons HPS-Bansagar IV (Jhinna)	9	11
Birsingpur HPS	3	6
Marhi Khera HPS	17	15
Rajghat HPS	1	4
CHPS-Gandhi Sagar	3	11
CHPS-RP Sagar & Jawahar Sagar	-	56
Pench THPS	9	11
JV Hydel & Other Hydel		
NHDC - Indira Sagar	619	101
Omkareshwar HPS	428	42
Sardar Sarovar	178	107
Rihand HPS	-	3
Matatila HPS	-	1
DVC		
DVC (MTPS, CTPS)	-	-
DVC DTPS	-	-
IPPs		
Torrent Power	67	-
BLA Power Unit 1	10	7
Jaypee Bina Power	458	50
Lanco Amarkantak	281	238
UMPP Sasan	168	1,511
Essar Power STPS	-	2

Station	**Fixed Cost (Rs Crore)**	**Variable Cost (Rs Crore)**
Jaiprakash Power, Nigri	586	247
MB Power Anuppur	303	377
Jhabua Power, Seoni	42	-
Captive	-	8
Renewable		
Solar	-	973
Other Micro/Mini Hydro	-	13
Other than Solar	-	2,319

Commission's Analysis

Determination of Variable Cost

Central, State and other Generating Stations

3.39 The Commission has considered variable charges for FY 2018-19 on the basis of actual bills raised by NTPC, MPPGCL and other generators to MPPMCL submitted to the Commission for the period February, 2017 to January, 2018 for approval of Fuel Cost Adjustment (FCA) Charges.

Captive Generation

3.40 For Captive Generation, the Petitioners have filed availability of 34 MU @ Rs. 2.29/ kWh during FY 2018-19. The Commission has directed the Petitioners that purchase of power from captive power plants should be undertaken in accordance with Clause 3.2 of MPERC (Power purchase and other matters with respect to conventional fuel based Captive Power Plants) Regulations (revision – 1) 2009 dated 31st January, 2009, as reproduced below:

"3.2 The maximum rate of purchase of power from a CPP Holder by the Distribution Licensee shall be as determined by the Commission in its tariff order issued from time to time. However, the concerned Distribution Licensee shall have the option of procuring short-term / long-term power from any CPP Holder based on competitive bidding, using the guidelines specified by the Ministry of Power, Government of India in this regard but not exceeding the rates as determined by the Commission. In such an event, the Commission shall adopt the rate for power purchase as decided through such competitive bidding. In all such cases, the agreement shall be executed by M.P. Power Trading Co. Ltd. on behalf of the Distribution Licensee."

Renewable sources

3.41 For renewable sources, the Commission has considered quantum of 1636 MUs and 4409 MUs from Solar and Non-solar, respectively. As regards rate of solar power, weighted average rate of Rs 5.95/ kWh has been considered for existing solar capacities. For Non-Solar, weighted average rate of Rs 5.38/ kWh has been considered.

New/Other Generating Station

3.42 For new/ other generating stations, the Commission has considered the variable charges on case to case basis.

Determination of Fixed Cost

Central, State and other Generating Stations

3.43 For Central Generating Stations (Thermal and Hydel), the Commission has considered latest available tariff orders issued by CERC for individual stations.

3.44 For inter-State Generating Stations (Hydel), the Commission has considered latest available Tariff Orders issued by appropriate Commissions for individual stations.

3.45 Fixed costs of the MPPGCL stations have been considered in accordance with the Generation MYT order issued by MPERC for the control period FY 2016-17 to FY 2018-19.

New/Other Generating Station

3.46 For new/ other generating stations, the Commission has considered the fixed charges on case to case basis.

Table 27: Basis of Fixed and Variable charges for the generating stations during FY 2018-19

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
A. Central Generating Stations					
1	WR – KSTPS, Korba	222.74	CERC Order 24-02-2017 in P.no. 323/GT/2014 for 01-04-2014 to 31-03-2019	137	Average of 12 months up to January 2018
2	WR - VSTPS-I, Vindhyachal	250.05	CERC Order 24-02-2017 in P.no. 338/GT/2014 for 01-04-2014 to 31-03-2019	178	Average of 12 months up to January 2018
3	WR - VSTPS-II, Vindhyachal	150.48	CERC Order 06-02-2017 in P.no. 327/GT/2014 for 01-04-2014 to 31-03-2019	165	Average of 12 months up to January 2018
4	WR - VSTPS – III, Vindhyachal	173.22	CERC Order 24-02-2017 in P.no. 342/GT/2014 for 01-04-2014 to 31-03-2019	164	Average of 12 months up to January 2018

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
5	WR-Vindhyachal Mega Project, Stage 4-Unit-1	149.32	CERC Order 10-03-2017 in P.no. 339/GT/2014 for 01-04-2014 to 31-03-2019	166	Average of 12 months up to January 2018
6	WR-Vindhyachal Mega Project, Stage 4-Unit-2	149.32	CERC Order 10-03-2017 in P.no. 339/GT/2014 for 01-04-2014 to 31-03-2019	166	Average of 12 months up to January 2018
7	WR-Vindhyachal Mega Project, Stage 5-Unit-1	157.29	CERC Order 31-08-2016 in P.no. 234/GT/2015 for 30-10-2015 to 31-03-2019	166	Average of 12 months up to January 2018
8	WR - Kawas GPP	86.91	CERC Order 24-03-2017 in P.no. 341/GT/2014 for 01-04-2014 to 31-03-2019	252	Average of 12 months up to January 2018
9	WR - Gandhar GPP	89.93	CERC Order 10-04-2017 in P.no. 325/GT/2014 for 01-04-2014 to 31-03-2019	236	Average of 12 months up to January 2018
10	WR - Kakrapar APS	0.00	-	231	As per CEA Notification dated 1.7.2012
11	WR - Tarapur APS Unit 3 & 4	0.00	-	280	As per CEA Notification dated 1.7.2012
12	WR - Sipat -I (3 Units)	286.00	CERC Order 29-03-2017 in P.no. 337/GT/2014 for 01-04-2014 to 31-03-2019	132	Average of 12 months up to January 2018
13	WR - Sipat –II	155.42	CERC Order 15-12-2017 in RP.no. 28/RP/2017 for 01-04-2014 to 31-03-2019	138	Average of 12 months up to January 2018

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
14	WR-NTPC Korba - 7	67.93	CERC Order 03-03-2017 in P.no. 340/GT/2014 for 01-04-2014 to 31-03-2019	123	Average of 12 months up to January 2018
15	WR- NTPC Mauda TPS- Unit-1	110.15	CERC Order 01-02-2017 in P.no. 328/GT/2014 for 01-04-2014 to 31-03-2019	264	Average of 12 months up to January 2018
16	WR-NTPC Mauda TPS- Unit-2	110.15	CERC Order 01-02-2017 in P.no. 328/GT/2014 for 01-04-2014 to 31-03-2019	264	Average of 12 months up to January 2018
17	WR-NTPC Mauda TPS Phase II-Unit-1	111.38	As per NTPC Mauda Phase II Tariff Petition (90% of AFC)	264	As per NTPC Mauda Phase I
18	WR-NTPC Mauda TPS Phase II-Unit-2	111.38	As per NTPC Mauda Phase II Tariff Petition (90% of AFC)	264	As per NTPC Mauda Phase I
19	WR-NTPC Lara STPS, Raigarh Unit1	49.60	As per NTPC	183	As per NTPC
20	WR-NTPC Solapur STPS, Unit 1	109.47	As per NTPC Solapur Tariff Petition (90% of AFC)	312	Average of 5 months up to January 2018
21	WR-NTPC Gadarwara STPS, Unit 1	205.12	As per NTPC	226	As per NTPC
22	ER- Kahalgaon STPS-II	56.68	CERC Order 21-01-2017 in P.no. 283/GT/2014 for 01-04-2014 to 31-03-2019	221	Average of 12 months up to January 2018
B. State Generating Stations					
	THERMAL				

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
23	Amarkantak Ext	199.20	As per MPERC order dated 14 July 2016 in petition No.8/2016	173	Average of 12 months up to January 2018
24	STPS PH II &III, Sarani	326.93	As per MPERC order dated 14 July 2016 in petition No.8/2016	218	Average of 12 months up to January 2018
25	SGTPS ext., Unit No. 5 Birisinghpur	390.62	As per MPERC order dated 14 July 2016 in petition No.8/2016	190	Average of 12 months up to January 2018
26	SGTPS, PH II &III Birisinghpur	376.79	As per MPERC order dated 14 July 2016 in petition No.8/2016	221	Average of 12 months up to January 2018
27	Singaji Thermal Power Station Phase I -Unit-1	522.08	As per MPERC order dated 14 July 2016 in petition No.8/2016	232	Average of 12 months up to January 2018
28	Singaji Thermal Power Station Phase I -Unit-2	522.08	As per MPERC order dated 14 July 2016 in petition No.8/2016	232	Average of 12 months up to January 2018
29	Singaji Thermal Power Station Phase II -Unit-1	238.99	As per MPPGCL	232	As per Singaji TPS Phase I
30	Singaji Thermal Power Station Phase II -Unit-2	112.42	As per MPPGCL	232	As per Singaji TPS Phase I
31	Satpura Thermal Power Station Exten - Unit 10	323.64	As per MPERC order dated 14 July 2016 in petition No.8/2016	198	Average of 12 months up to January 2018
32	Satpura Thermal Power Station Exten - Unit 11	323.64	As per MPERC order dated 14 July 2016 in petition No.8/2016	198	Average of 12 months up to January 2018
II	**HYDEL**				
	INTER-STATE				
33	Gandhi Sagar	6.06	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
34	Ranapratap Sagar & Jawahar Sagar	6.29	As per Gandhi Sagar Tariff Order	0	-
35	Pench	30.93	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
36	Rajghat	10.80	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
	INTRA-STATE				
37	Bargi	21.16	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
38	Birisinghpur	6.51	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
39	Bansagar – I	172.48	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
40	Bansagar II				-
41	Bansagar III				-
42	Bansagar IV	15.88	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
43	Marikheda	30.72	As per MPERC order dated 14 July 2016 in petition No.8/2016	0	-
Bilateral and Others					
44	Indira Sagar	570.53	CERC order dated: 31.5.2016, Petition No.265/GT/2014	0	-
45	Others (Mini Micro)	0.00	As per the Petitioners	381	As per Petitioner
46	Captive	0.00	As per the Petitioners	229	As per Petitioner

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
47	Sardar Sarovar	124.07	Based on MPERC Order dated Aug.6,2013	0	-
48	Omkareshwar	344.14	CERC order dated: 26.5.2016, Petition No.264/GT/2014	0	-
49	UPPCL (Rihand, Matatila)	3.97	As per Petitioners	0	-
III	**IPPs**				
50	UMPP Sasan, Sidhi Unit-1	31.27	As per Quoted Tariff	115	As per Quoted Tariff
51	UMPP Sasan, Sidhi Unit-2	31.39	As per Quoted Tariff	115	As per Quoted Tariff
52	UMPP Sasan, Sidhi Unit 3& 4	62.66	As per Quoted Tariff	115	As per Quoted Tariff
53	UMPP Sasan, Sidhi Unit 5&6	62.66	As per Quoted Tariff	115	As per Quoted Tariff
54	Jaypee Bina Power, Sagar Unit-1	252.37	MPERC order in Petition No. 5 of 2016 dated 8.8.2016	278	Average of 12 months up to January 2018
55	Jaypee Bina Power, Sagar Unit-2	252.37	MPERC order in Petition No. 5 of 2016 dated 8.8.2016	278	Average of 12 months up to January 2018
56	Jaiprakash Power, Nigri- Unit-1	403.21	MPERC order in Petition No. 72 of 2015 dated 24.5.2017	66	Average of 12 months up to January 2018
57	Jaiprakash Power, Nigri- Unit-2	403.21	MPERC order in Petition No. 72 of 2015 dated 24.5.2017	66	Average of 12 months up to January 2018
58	MB Power, Anuppur Unit I	303.37	MPERC order dated 29.07.2015 in Petition No. 31 of 2015	180	Average of 12 months up to January 2018
59	MB Power, Anuppur Unit II	238.69	MPERC order dated 28.10.2017 in Petition No. 18 of 2017	196	Average of 9 months up to January 2018

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Variable Charges (Paisa/kWh)	Basis
60	Jhabua Power, Seoni	177.70	MPERC order dated 6.09.2016 in Petition No. 16 of 2016	228	Average of 6 months up to January 2018
61	Lanco TPS, Amarkantak	168.00	As per Petitioners filing	166	Average of 12 months up to Oct 2016
62	Renewable Energy Solar	0	-	595	As per Petitioners filing
63	Renewable Energy Non-Solar	0	-	538	As per Petitioners filing

3.47 Scheduling of Renewable energy sources would be governed by the appropriate Regulations amended from time to time.

Generating Stations	Rate (Paisa /kWh)
Renewable Energy Solar	595
Renewable Energy Non-Solar	538
Others (Mini Micro)	381

3.48 For determination of power purchase expenses, the Commission has applied the principles of Merit Order Dispatch (MOD) on the basis of variable rates for all generating stations for FY 2018-19, as shown in the table below:

Table 28 : MOD on allocated generating stations for FY 2018-19

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Variable Charges (Paisa/kWh)
1	WR – KAPS	1	231
2	WR - TAPS Unit 3 & 4	1	280
3	Gandhi Sagar	0	0
4	RP Sagar & Jawahar Sagar	0	0
5	Pench	0	0

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Variable Charges (Paisa/kWh)
6	Rajghat	0	0
7	Bargi	0	0
8	Birishinghpur	0	0
9	Bansagar - I	0	0
10	Bansagar II	0	0
11	Bansagar III	0	0
12	Bansagar IV	0	0
13	Marikheda	0	0
14	Indira Sagar	0	0
15	Sardar Sarovar	0	0
16	Omkareshwar	0	0
17	UPPCL (Rihand, Matatila)	0	0
18	WR-Jaiprakash Power, Nigri- Unit-1	0	66
19	WR-Jaiprakash Power, Nigri- Unit-2	0	66
20	WR-UMPP Sasan, Sidhi Unit-1	0	115
21	WR-UMPP Sasan, Sidhi Unit-2	0	115
22	WR-UMPP Sasan, Sidhi Unit 3& 4	0	115
23	WR-UMPP Sasan, Sidhi Unit 5&6	0	115
24	WR-NTPC Korba - 7	0	123
25	WR - Sipat -I (3 Units)	0	132
26	WR - KSTPS	0	137
27	WR - Sipat STPS -II	0	138
28	WR - VSTPS - III	0	164
29	WR - VSTPS-II	0	165
30	WR-Vindhyachal Mega Project, Stage 4-Unit-1	0	166
31	WR-Vindhyachal Mega Project, Stage 4-Unit-2	0	166
32	WR-Vindhyachal Mega Project, Stage 5-Unit-1	0	166
33	WR-Lanco TPS, Amarkantak	0	166
34	Amarkantak Ext	0	173
35	WR - VSTPS-I	0	178
36	WR-MB Power, Annupur- Unit-1	0	180

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Variable Charges (Paisa/kWh)
37	WR-NTPC Lara STPS, Raigarh Unit-1	0	183
38	SGTPS Ext	0	190
39	WR-MB Power, Annupur- Unit-2	0	196
40	Satpura Thermal Power Stations Exten - Unit 10	0	198
41	Satpura Thermal Power Stations Exten - Unit 11	0	198
42	Satpura TPS Ph II &III	0	218
43	ER- Kahalgaon STPS-II	0	221
44	SGTPS	0	221
45	WR-NTPC Gadarwara STPS, Unit-1	0	226
46	WR- Jhabua Power, Seoni	0	228
47	Captive	0	229
48	Singaji Thermal Power Stations Phase I -Unit-1	0	232
49	Singaji Thermal Power Stations Phase I -Unit-2	0	232
50	Singaji Thermal Power Stations Phase II -Unit-1	0	232
51	Singaji Thermal Power Stations Phase II -Unit-2	0	232
52	WR - Gandhar GPP	0	236
53	WR - Kawas GPP	0	252
54	WR- NTPC Mauda TPS- Unit-1	0	264
55	WR-NTPC Mauda TPS- Unit-2	0	264
56	WR-NTPC Mauda TPS Stage 2-Unit-1	0	264
57	WR-NTPC Mauda TPS Stage 2-Unit-2	0	264
58	Jaypee Bina Power, Sagar Unit-1	0	278
59	Jaypee Bina Power, Sagar Unit-2	0	278
60	WR-NTPC Solapur STPS, Unit 1	0	312

3.49 The Commission has directed the Petitioners that they should not unduly restrict supply to any category of consumers during the tariff period.

3.50 After fulfilment of the energy requirement and meeting demand of consumers, it has been observed that the availability from some of the generating stations would remain unutilized by the Discoms. The Commission has directed the Petitioners to sell this surplus power through power exchanges, bilateral arrangements or through bidding in order to maximize the revenue. Details of available and surplus energy has been shown in the Table below:

Table 29: Total Availability of Energy worked out by the Commission (FY 2018-19)

Energy availabe from all Stations allocated to MPPMCL	90,640
Less: Energy backed down having variable rate above Rs 2.60/Unit *	6,073
Total Energy Available for Scheduling (including for sale on the Exchange)	**84,567**

**Basis for considering Rs 2.60/Unit has been detailed in Section-"Management of surplus power"*

Fixed Cost

3.51 The fixed costs of all generating stations allocated among Discoms on energy requirement basis is given in the following table:

Table 30 : Total fixed costs of all generating stations allocated among Discoms (Rs Crore)

Sr. No.	Particulars	Fixed Cost (Rs. Crore)			
		East	**West**	**Central**	**State**
1	WR - KAPS	0	0	0	0
2	WR - TAPS Unit 3 & 4	0	0	0	0
3	Others (Mini Micro)	0	0	0	0
4	Renewable Energy Solar	0	0	0	0
5	Renewable Energy Non Solar	0	0	0	0
6	Gandhi Sagar	2	2	2	6
7	RP Sagar & Jawahar Sagar	2	2	2	6
8	Pench	10	12	9	31
9	Rajghat	3	4	3	11
10	Bargi	7	8	6	21
11	Birishinghpur	2	2	2	7
12	Bansagar – I, II & III	55	66	51	172
13	Bansagar IV	5	6	5	16
14	Marikheda	10	12	9	31

Sr. No.	Particulars	Fixed Cost (Rs. Crore)			
		East	West	Central	State
15	Indira Sagar	183	218	169	571
16	Sardar Sarovar	40	48	37	124
17	Omkareshwar	110	132	102	344
18	UPPCL (Rihand, Matatila)	1	2	1	4
19	WR-Jaiprakash Power, Nigri- Unit-1	129	154	120	403
20	WR-Jaiprakash Power, Nigri- Unit-2	129	154	120	403
21	WR-UMPP Sasan, Sidhi Unit-1	10	12	9	31
22	WR-UMPP Sasan, Sidhi Unit-2	10	12	9	31
23	WR-UMPP Sasan, Sidhi Unit 3& 4	20	24	19	63
24	WR-UMPP Sasan, Sidhi Unit 5&6	20	24	19	63
25	WR-NTPC Korba - 7	22	26	20	68
26	WR - Sipat -I (3 Units)	92	110	85	286
27	WR – KSTPS	71	85	66	223
28	WR - Sipat STPS -II	50	60	46	155
29	WR - VSTPS - III	55	66	51	173
30	WR - VSTPS-II	48	58	45	150
31	WR-Vindhyachal Mega Project, Stage 4-Unit-1	48	57	44	149
32	WR-Vindhyachal Mega Project, Stage 4-Unit-2	48	57	44	149
33	WR-Vindhyachal Mega Project, Stage 5-Unit-1	50	60	47	157
34	WR-Lanco TPS, Amarkantak	54	64	50	168
35	Amarkantak Ext	64	76	59	199
36	WR - VSTPS-I	80	96	74	250
37	WR-MB Power, Annupur- Unit 1	97	116	90	303
38	WR-NTPC Lara STPS, Raigarh-Unit 1	16	19	15	50
39	SGTPS Ext	125	150	116	391
40	WR-MB Power, Annupur- Unit-2	76	91	71	239
41	Satpura Thermal Power Station Exten - Unit 10	104	124	96	324
42	Satpura Thermal Power Station Exten - Unit 11	104	124	96	324
43	Satpura TPS Ph II &III	105	125	97	327
44	ER- Kahalgaon STPS-II	18	22	17	57
45	SGTPS	121	144	112	377
46	WR-NTPC Gadarwara STPS, Unit-1	66	79	61	205
47	WR- Jhabua Power, Seoni	57	68	53	178
48	Captive	0	0	0	0
49	Singaji Thermal Power Station Phase I -Unit-1	167	200	155	522
50	Singaji Thermal Power Station Phase I -Unit-2	167	200	155	522
51	Singaji Thermal Power Station Phase II -Unit-1	77	92	71	239
52	Singaji Thermal Power Station Phase II -Unit-2	36	43	33	112
53	WR - Gandhar GPP	29	34	27	90

Sr. No.	Particulars	Fixed Cost (Rs. Crore)			
		East	West	Central	State
54	WR - Kawas GPP	28	33	26	87
55	WR- NTPC Mauda TPS- Unit-1	35	42	33	110
56	WR-NTPC Mauda TPS- Unit-2	35	42	33	110
57	WR-NTPC Mauda TPS Stage 2- Unit-1	36	43	33	111
58	WR-NTPC Mauda TPS Stage 2- Unit-2	36	43	33	111
59	Jaypee Bina Power, Sagar Unit-1	81	97	75	252
60	Jaypee Bina Power, Sagar Unit-2	81	97	75	252
61	WR-NTPC Solapur STPS, Unit 1	35	42	33	109
62	**Total**	**3,160**	**3,780**	**2,930**	**9,869**

Variable Cost

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

Table 31: Station wise admitted variable cost of scheduled energy for Discoms

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
1	WR - KAPS	26	31	24	80
2	WR - TAPS Unit 3 & 4	127	150	118	395
3	Others (Mini Micro)	4	5	4	13
4	Renewable Energy Solar	313	371	290	973
5	Renewable Energy Non Solar	755	895	701	2,351
6	Gandhi Sagar	0	0	0	0
7	RP Sagar & Jawahar Sagar	0	0	0	0
8	Pench	0	0	0	0
9	Rajghat	0	0	0	0
10	Bargi	0	0	0	0
11	Birishinghpur	0	0	0	0
12	Bansagar – I, II&III	0	0	0	0
13	Bansagar IV	0	0	0	0
14	Marikheda	0	0	0	0
15	Indira Sagar	0	0	0	0
16	Sardar Sarovar	0	0	0	0
17	Omkareshwar	0	0	0	0
18	UPPCL (Rihand, Matatila)	0	0	0	0
19	WR-Jaiprakash Power, Nigri- Unit-1	39	47	37	123
20	WR-Jaiprakash Power, Nigri- Unit-2	39	47	37	123

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
21	WR-UMPP Sasan, Sidhi Unit-1	69	82	64	215
22	WR-UMPP Sasan, Sidhi Unit-2	69	82	64	216
23	WR-UMPP Sasan, Sidhi Unit 3& 4	138	164	128	430
24	WR-UMPP Sasan, Sidhi Unit 5&6	138	164	128	430
25	WR-NTPC Korba - 7	24	29	22	75
26	WR - Sipat -I (3 Units)	110	130	102	341
27	WR - KSTPS	159	188	147	494
28	WR - Sipat STPS -II	66	78	61	205
29	WR - VSTPS - III	100	119	93	311
30	WR - VSTPS-II	122	146	113	382
31	WR-Vindhyachal Mega Project, Stage 4-Unit-1	58	69	54	180
32	WR-Vindhyachal Mega Project, Stage 4-Unit-2	58	69	54	180
33	WR-Vindhyachal Mega Project, Stage 5-Unit-1	57	67	53	178
34	WR-Lanco TPS, Amarkantak	120	142	111	374
35	Amarkantak Ext	80	94	74	248
36	WR - VSTPS-I	184	219	171	575
37	WR-MB Power, Annupur- Unit 1	83	99	77	259
38	WR-NTPC Lara STPS, Raigarh Unit 1	13	17	12	42
39	SGTPS Ext, Birsingpur	171	206	159	537
40	WR-MB Power, Annupur- Unit-2	51	63	47	161
41	Satpura Thermal Power Station Exten - Unit 10	53	66	49	167
42	Satpura Thermal Power Station Exten - Unit 11	53	66	49	167
43	Satpura TPS Ph II &III	146	182	135	463
44	ER- Kahalgaon STPS-II	21	26	20	67
45	SGTPS Phase –I & II, Birsingpur	151	189	140	480
46	WR-NTPC Gadarwara STPS, Unit-1	55	68	49	172
47	WR- Jhabua Power, Seoni	22	27	20	69
48	Captive	1	1	1	3
49	Singaji Thermal Power Station Phase I - Unit-1	37	49	35	121
50	Singaji Thermal Power Station Phase I - Unit-2	9	12	8	29
51	Singaji Thermal Power Station Phase II - Unit-1	0	0	0	0
52	Singaji Thermal Power Station Phase II - Unit-2	0	0	0	0
53	WR - Gandhar GPP	0	0	0	0

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
54	WR - Kawas GPP	0	0	0	0
55	WR- NTPC Mauda TPS- Unit-1	0	0	0	0
56	WR-NTPC Mauda TPS- Unit-2	0	0	0	0
57	WR-NTPC Mauda TPS Stage 2- Unit-1	0	0	0	0
58	WR-NTPC Mauda TPS Stage 2- Unit-2	0	0	0	0
59	Jaypee Bina Power, Sagar Unit-1	0	0	0	0
60	Jaypee Bina Power, Sagar Unit-2	0	0	0	0
61	WR-NTPC Solapur STPS, Unit 1	0	0	0	0
62	**Total**	**3,720**	**4,458**	**3,450**	**11,628**

Note: *As regards Solar Power, the Commission has considered the cost based on total energy available from existing sources. Further, for Non-Solar Power, the Commission has considered the cost based on energy to the extent of RPO (available energy from existing sources being less than RPO).*

Renewable Purchase Obligation (RPO)

Petitioners Submissions

3.53 The Petitioners have submitted that as per Regulation 4.1 of MPERC (Co-generation and generation of electricity from Renewable sources of energy) Regulation, 2010 as amended from time to time, for FY 2018-19 the minimum quantum of electricity is 1.75% for Solar and 7.50% for Non-Solar of the total energy requirement excluding consumption met through hydro sources of power.

3.54 Accordingly, the Petitioners have computed RPO requirement (which is already included in the power purchase cost) as shown in the following table:

Table 32: RPO for FY 2018-19

Renewable Purchase Obligation Computations		**FY 2018-19**
Solar	%	1.75%
Other than Solar	%	7.50%
Total	%	9.25%
Ex-bus renewable energy requirement to fulfill RPO (MU)		
Solar	MU	1.048
Other than Solar	MU	4,491
Total	MU	5,539
Energy Available from existing Renewable Sources		
Solar	MU	1,636
Other than Solar	MU	4,344
Total	MU	5,980
Shortfall		
Solar	MU	-
Other than Solar	MU	148

Renewable Purchase Obligation Computations		FY 2018-19
Total	MU	148
Extra Surplus available after meeting RPO obligations	MU	148
IEX rate	Rs/unit	2.60
Additional revenue from sale of surplus due to RPO obligation	Rs Crore	38
Renewable Energy Purchase Rates		
Solar	Rs./unit	5.95
Other than Solar	Rs./unit	5.38
Additional Cost due to RPO Obligation		
Solar	Rs. Crore	0
Other than Solar	Rs. Crore	79
Net Additional Cost to be borne for shortage of RPO	**Rs. Crore**	**41**

Commission's Analysis

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

3.56 The Commission had notified Sixth Amendment to the said Regulation and the amendment therein is as follows:

As per regulation 4.1 of notified MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) regulation, 2010 [ARG-33(I)(v) of 2015], the minimum quantum of electricity is 1.25% for Solar and 6.50% for Non-Solar for FY 2016-17, 1.50% for Solar and 7.00% for Non-Solar for FY 2017-18 and 1.75% for Solar and 7.50% for Non-Solar for FY 2018-19 excluding consumption met through hydro sources of power during the financial year.

3.57 For FY 2018-19, the minimum quantum of electricity from Renewable sources of energy is 1.75% from Solar and 7.50% from Non-Solar sources. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2018-19 excluding consumption met through hydro sources of power, as shown in the table below:

Table 33: Renewable Purchase Obligation computed by the Commission (MU)

Particulars	East	West	Central	State
RPO Solar	1.75%	1.75%	1.75%	1.75%
RPO Non-Solar	7.50%	7.50%	7.50%	7.50%
Total	9.25%	9.25%	9.25%	9.25%
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	329	394	305	1,028
RPO Non-Solar	1,410	1,687	1,308	4,405

Particulars	East	West	Central	State
Total (MU)	**1,740**	**2,081**	**1,613**	**5,433**
Energy available from existing Renewable Sources (MU)				
Solar	524	626	486	1,636
Other than Solar (including Mini Micro Hydro power)	1,391	1,664	1,290	4,344
Total	**1,915**	**2,290**	**1,775**	**5,980**
Shortfall				
Solar	0	0	0	0
Other than Solar	20	23	18	61
Total	**20**	**23**	**18**	**61**

3.58 The Commission has worked-out the cost of renewable energy power purchase to fulfil the RPO compliance as shown in the table below:

Table 34: RE power purchase cost to fulfil RPO for FY 2018-19

Particulars	East	West	Central	State
Power Purchase Rate (paise/kWh)				
Solar from existing sources	595	595	595	595
Non-Solar	538	538	538	538
A- RE Power Purchase Cost from existing sources to fulfil RPO (Rs Crore)				
Solar	196	234	182	612
Non-Solar (including Mini Micro Hydro power)	746	893	692	2,332
Sub-Total	**942**	**1,127**	**874**	**2,943**
B- RE Power Purchase Cost from new/ other sources to fulfill RPO (Rs Crore)				
Solar	0	0	0	0
Non-Solar	11	13	10	33
Sub-Total	**11**	**13**	**10**	**33**
Total (A+B)	**953**	**1,140**	**884**	**2,976**

Management of Surplus Energy

Petitioners Submissions

3.59 The Petitioners have submitted that as per the power supply position, the state is expected to have surplus energy in most of the months in FY 2018-19. Currently, MPPMCL sells surplus power through Power Exchange (IEX) at a cost which is determined by the market.

3.60 The Petitioners have further submitted that the average IEX rate is Rs 2.60 per unit on the basis of the past three years' rates (September 2014 to August 2017). Hence, for the purpose of computation of revenue from surplus energy, the average rate has been considered as Rs 2.60 per unit.

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

Table 35: Management of Surplus Energy with Discoms for the MYT period FY 2018-19

Ex-bus energy available	MU	86,433
Back down of Power	MU	11,189
Ex-bus energy required by Discoms	MU	67,449
Surplus Energy	MU	7,795
Additional surplus due to RPO obligation	MU	148
Management of Surplus energy		
Sales of total surplus energy via IEX	MU	7,943
Rate of Sale of surplus Energy		
IEX	Rs. per unit	2.60
Revenue from Sale of surplus Energy through IEX	**Rs. Crore**	**2,066**

Commission's Analysis

3.62 The Commission has considered the average rate of Rs.2.60 per unit for sale of surplus power through IEX/ PXIL/bilateral arrangements/bidding derived on the basis of the analysis of IEX monthly data for September 2014 to August 2017. As sale of surplus energy has been considered at Rs 2.60 /kWh, stations having variable rate more than Rs 2.60/kWh are to be backed-down. However, the Commission is of the view that the petitioners should make efforts to maximise the revenue from sale of surplus energy through other ways also e.g. bilateral contracts.

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

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

SL No	Particulars	Reference	Admitted
1	Total energy availability (MU)	A	90,640
2	Total energy requirement of Discoms (MU)	B	65,851
3	Total Surplus energy available (MU)	C=A-B	24,789
4	Surplus energy available at variable rate below Rs 2.60 (Mus)	D	18,716
5	Variable cost of surplus energy having variable rate below Rs 2.60 (Rs Crore)	E	4,164
6	Per unit cost of sale of surplus power	F	2.60

SL No	Particulars	Reference	Admitted
	(Rs/kWh)		
7	Revenue from sale of surplus power (Rs Crore)	G=D*F	4,866
8	Fixed cost of surplus energy (Rs Crore)		3,631
9	**Total saving in fixed cost of surplus energy from sale of surplus energy (below Rs 2.60 per Unit) (Rs Crore)**	**H=G-E**	**702**

3.64 Discom-wise distribution of revenue from sale of surplus power (below Rs 2.60 per Unit) is shown in the table below:

Table 37 : Discom-wise distribution of revenue from sale of surplus power (below Rs 2.60 per Unit) (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Revenue from sale of surplus power (below Rs 2.60 per Unit) (Rs Crore)	1,669	1,202	1,995	4,866

Sale of Power to SEZ

3.65 The Commission has observed that MPPMCL has signed the Bulk Power Supply Agreement (BPSA) with SEZ, Indore on 29 March, 2016 and additional BPSA for 5 MW for supply of power on long term basis up to 45 MW from its allocated generating stations. Accordingly, the Commission has projected the revenue earned by the sale of power to SEZ in to the total power purchase cost admitted for the Discoms as shown in the Table below:

Table 38: Projected revenue earned from the sale of power to SEZ for FY 2018-19

Sr. No.	Particulars	Units	
1	Energy Required by the SEZ at State periphery (less Renewable Purchase Obligation)	MU	368.21
2	Weighted Average Rate of SEZ Allocated Stations	Rs /Unit	3.36
3	Revenue from sale of power to SEZ (1X2)	Rs Crore	123.61
4	Rate for sale of surplus energy	Rs/Unit	2.60
5	*Less*: Revenue from surplus energy @ Rs. 2.60/Unit (1X4)	Rs Crore	95.73
6	**Balance revenue to be considered from SEZ (3-5)**	**Rs Crore**	**27.87**

Inter State Transmission Charges associated with existing capacities

Petitioners Submissions

3.66 The Petitioners have submitted that inter-state transmission charges consist of the charges for transmission system of WR and ER. The Petitioners have considered Inter-State Transmission Charges for FY 2016-17 as per provisional figures from power purchase statement and for FY 2017-18 to FY 2018-19 based on CERC Order (Determination of Point of Connection (PoC) rates and transmission losses for the period of October to December, 2017 in accordance with Regulation 17(2) of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and amendments thereto) dated 31 October 2017.

3.67 The Petitioners have further submitted that the estimated Inter-state transmission charges for FY 2018-19 amounts to Rs. 2,236.80 Crore. Estimated Inter-state transmission costs have then been allocated to Discoms based on past trend of actual costs as mentioned below:

Table 39: Inter-state transmission charges filed by Discoms for FY 2018-19

Particulars	PGCIL Costs (Rs Crore)
East Discom	717.46
West Discom	667.63
Central Discom	851.72
Total	**2236.80**

Commission's Analysis

3.68 PGCIL charges consist of charges to be paid for transmission systems of Western Region and Eastern Region. The Commission has reviewed inter-state transmission charges as per the actual bills available for FY 2014-15, FY 2015-16 and FY 2016-17 and the claims filed by the Petitioners. The Commission has observed that the Petitioners have considered annual increase of 26% with respect to FY 2016-17 for projecting the Inter-State transmission charges for FY 2017-18 and FY 2018-19 in-spite of almost same Inter-State charges in FY 2014-15, FY 2015-16 and FY 2016-17. The Petitioners could not establish the reason for a steep rise of 26% in inter State Transmission Charges with respect to FY 2016-17. In this situation, the Commission has considered average of 3 years inter State transmission charges from FY 2014-15 to FY 2016-17, amounting to Rs. 1412 Crore for FY 2018-19. These charges have been further allocated amongst Discoms, in the following Table, based on past trend of actual cost as submitted by the Petitioners:

Table 40: PGCIL charges admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Inter-State Transmission charges	452.90	537.66	421.45	1,412.01

Intra - State Transmission and SLDC Charges

Petitioners Submissions

3.69 The Petitioners have considered Intra-State Transmission Charges including SLDC Charges for FY 2017-18 to FY 2018-19 as per the Tariff Orders of the Commission in Petition no 70/2016 and 69/2016 dated 26 April, 2017 i.e., Rs. 2,501.16 Crore and Rs. 2,716.59 Crore respectively as per the methodology adopted by the Commission in its previous Tariff Orders.

3.70 As per the provisions of the regulations, the liability towards pension and other Terminal Benefits of the Pensioners and Personnel of the erstwhile Board and its Successor Entities shall comprise cash outflow in each financial year for making payment to all the Pensioners including Existing Pensioners subject to the provision of Regulation 3 (8).

3.71 Further the Petitioners have allocated intra-state transmission charges including SLDC charges and terminal benefits for FY 2018-19 to three Discoms as per past trend as indicated in the table below:

Table 41: Intra-State Transmission Charges including SLDC charges filed by Petitioners for FY 2018-19 (Rs. Crore)

Particulars	**FY 2018-19**
East Discom	811.71
West Discom	1,040.18
Central Discom	864.69
Total	**2716.59**

Commission's Analysis

3.72 The Petitioners have projected the intra-state transmission charges (including SLDC charges) of Rs. 2716.59 Crore for FY 2018-19. The Commission has considered intra-state transmission charges of Rs. 2740.21 Crore as projected in the transmission tariff order dated 10 June, 2016.

3.73 Towards levy and collection of SLDC charges for FY 2018-19, the Commission has considered Rs. 9.58 Crore from the latest available tariff order as admitted by the Commission in the order dated 26 April, 2017 for FY 2017-18.

3.74 Accordingly, intra–state transmission charges for FY 2018-19 including SLDC charges have been admitted as given in the table below:

Table 42 : Intra State Transmission charges including SLDC charges admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total for State
Intra–State Transmission charges including SLDC charges and terminal benefits	822	1053	875	2,750

3.75 The Commission has allowed the terminal benefits and pension expenses for FY 2018-19 on provisional basis on "pay as you go" principle payable to MP Transco to the extent of Rs.1282.38 Crore. This is based on the MPPTCL tariff order for FY 2018-19. The actual amount of terminal benefits shall be considered by the Commission in the true-up petition to be filed by MPPTCL after exercising prudence check.

MPPMCL Costs: Details and Discom wise Allocation

Petitioners Submissions

3.76 The Petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. (-) 398 Crore for FY 2018-19 and allocated the same to three Discoms based on total energy requirement at state boundary. Details of the expenses and costs allocated to Discoms are mentioned in the table below:

Table 43: Expenses of MPPMCL as filed for FY 2018-19 (Rs Crore)

Particulars	Amount
Purchase of Power from Other Sources	(2)
Wheeling Charges for Banking of Power	32
Depreciation & Amortization Expenses	9
Interest & Finance Charges	39
Repairs & Maintenance	3
Employee Costs	71
Administration & General Expenses	42
Other Expenses	4
Expenses	197
Less-Revenue Other Income	596
Profit)/Loss for the Period	(398)

Table 44: MPPMCL Costs allocated to Discoms for FY 2018-19 (Rs Crore)

Particulars	Amount
East Discom	(127)
West Discom	(154)
Central Discom	(118)
Total	**(398)**

Commission's Analysis

3.77 The Petitioners have filed Rs. 197 Crore as MPPMCL expenses for FY 2018-19. The

Commission has observed that most of the expenses included in MPPMCL cost relate to the expenses proposed to be incurred for the power purchase. The Commission is of the opinion that such expenses should have been included under power purchase cost. Further, the Commission has admitted expenses of Rs. 116 Crore towards O&M expenses only and Rs. 596 Crore as other income, as filed by the Petitioners. Net MPPMCL cost admitted in this Order is Rs. (-) 480 Crore has been allocated among the Discoms as shown in the table below. The expenses related to power purchase, if any, incurred by MPPMCL would be appropriately considered at the time of truing up for FY 2018-19, after prudence check.

Table 45: MPPMCL Costs allocated to Discoms by the Commission for FY 2018-19 (Rs Crore)

Particulars	Amount
East Discom	(-)153
West Discom	(-)185
Central Discom	(-)142
Total	(-)**480**

Summary of Power Purchase Cost

Petitioners Submissions

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

Table 46: Total Power Purchase Cost as filed for FY 2018-19

Total Power Purchase Cost		East Discom	West Discom	Central Discom	State
A	Ex-bus Units to be Purchased (MU)	21,481	26,016	19,952	67,449
B	Fixed Cost (Rs. Crore)	3,106	4,106	2,869	10,081
C	Variable Cost (Rs. Crore)	3,890	5,165	3,613	12,668
D	MPPMCL costs (Rs. Crore)	(127)	(154)	(118)	(398)
E = B+C+D	Total Power Purchase Cost - Ex Bus (Rs. Crore)	6,869	9,117	6,365	22,351
F=E/A*10	Rate of Power Purchase (Rs./kWh)	3.20	3.50	3.19	3.31
G	External Losses (MU)	481	581	446	1,508
H	Inter -State Transmission Cost (Rs. Crore)	716	858	663	2,237
I = (A-G)	Energy to be Purchased at State Periphery (MU)	21,000	25,436	19,505	65,941
J= (E+H)	Total Power Purchase Cost at State Boundary (Rs. Crore)	7,585	9,975	7,028	24,588
K=J/I*10	Rate of Power Purchase at State Boundary (Rs./kWh)	3.61	3.92	3.60	3.73
L	Intra State Transmission Loss (MUs)	569	689	529	1,787

Total Power Purchase Cost		East Discom	West Discom	Central Discom	State
M	Intra State Transmission Cost – MPPTCL including SLDC (Rs. Crore)	812	1,040	865	2,717
N= I-L	Total units purchased at Discom interface (MUs)	20,431	24,746	18,977	64,154
O = (J+M)	Total Power Purchase cost at Discom interface (Rs Crores)	8,397	11,015	7,892	27,304
P=O/N *10	Rate of Power Purchase at Discom Boundary (Rs./kWh)	4.11	4.45	4.16	4.26

Commission's Analysis

3.79 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 2018-19 (Rs Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
Total Fixed Charges	3,157.36	3,786.74	2,925.26	9,869.37
Total Variable Charges (including surplus energy cost)	5,052.42	6,055.51	4,683.74	15,791.67
Total Power Purchase cost	8,209.78	9,842.25	7,609.01	25,661.04
less: Revenue from sale of surplus power	1,669.07	1,201.93	1,995.10	4,866.10
less: Revenue from sale to SEZ	8.92	10.67	8.28	27.87
MPPMCL Cost	-152.78	-185.26	-141.95	-480.00
Total Power Purchase cost	6,379.00	8,444.39	5,463.67	20,287.07
PGCIL Charges	452.90	537.66	421.45	1,412.01
MPPTCL Charges	821.64	1,052.90	875.26	2,749.80
Grand Total	**7,653.55**	**10,034.94**	**6,760.38**	**24,448.87**
Power purchase rate at ex-bus (Rs/Unit)	3.03	3.35	2.79	3.08
Power purchase rate at State Periphery (Rs/Unit)	3.32	3.64	3.08	3.37
Power purchase rate at Discom Periphery (Rs/Unit)	3.82	4.18	3.64	3.90
Power purchase per unit sales (Rs/Unit)	4.55	4.92	4.38	4.64

Pooled Power Purchase Cost

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

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

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

3.81 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 2018-19

Particulars	**FY 2018-19**
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	59,809.64
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	16,949.15
Pooled Power Purchase Cost (Rs/kWh)	**2.83**

Capital Expenditure Plans/ Capitalization of Assets

Petitioners Submissions

Investments

3.82 The Petitioners have submitted that they are undertaking various projects in forthcoming years for system strengthening and reduction of distribution losses. The focus is on creation of new 33/11 kV Substations, bifurcation of overloaded 33 kV feeders, bifurcation of agricultural feeders at 11 kV level, Addl. / Aug of PTRs, Installation of DTRs, conversion of bare LT line into AB Cables and replacement of service lines etc.

3.83 The Petitioners have further submitted that the overall distribution loss of the system is the sum of technical and commercial losses. The technical losses are mainly due to inadequate infrastructure which needs strengthening, renovation and up-gradation of the capacity of lines, sub-stations and associated infrastructures. The commercial losses are mainly due to pilferage of energy which can also be reduced to a large extent by re-engineering of the system which requires capital investment and dedicated efforts. Discoms are working on both the issues and the distribution losses have considerably come down but not up to the normative loss levels.

3.84 Details of Discom wise capital investment plans under various schemes for FY 2018-19 as filed are indicated below:

Table 49 : Capital Investment plan for FY 2018-19 (Rs. Crore)

Discoms	Amount
East	1,735
West	1,830
Central	1,176
Total for the State	**4,741**

Capitalization and CWIP

3.85 Discom wise capitalization plan and the status of capital works in progress (CWIP) as filed by the Petitioners for FY 2018-19 are indicated below:

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

Particulars	East Discom	West Discom	Central Discom
Opening Balance of CWIP	1,999	3,713	1,525
Fresh Investment during the year	1,735	1,830	1,176
Investment capitalized	764	472	757
Closing Balance of CWIP	**2,970**	**5,072**	**1,944**

Commission's Analysis on Asset Capitalization

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

3.87 The capital investment plan shall show separately, ongoing projects that will spill over into the year under review and new projects (along with justification) that would commence during the tariff period and would be completed within or beyond the tariff period.

3.88 The Commission has observed that there has been a change in the Accounting Standard of the Petitioners and asked them to submit the basis for the Capitalisation claimed in the Petition. The Petitioners submitted that while preparing of Annual Accounts for FY 2016-17 the GFA has been restated for FY 2014-15 and 2015-16 as per provision of

Ind_AS notified by the Ministry of Corporate Affairs, GOI. As per the provision of Ind_AS the Company has to show its assets at deemed cost (i.e., GFA minus accumulated depreciation) as on the transition date (i.e., 1 April 2015) therefore GFA for subsequent year was also restated.

3.89 West Discom claimed ARR based on the GFA calculated as per provision of the Tariff Regulations, 2015, while East and Central Discoms claimed ARR based on their accounts which are prepared as per the new Indian Accounting Standard notified by the GOI.

3.90 The Audited Accounts as per GAAP Standards considered by the Commission for ARR determination as per the Tariff Regulations, 2015 were submitted by the Petitioners as below:

Table 51 : GFA as per GAAP submitted by East Discom (Rs. Crore)

	Fixed Assets Group	**Gross Block**			
		As at 1 April 2016	**Additions in 2016-17**	**Deductions in 2016-17**	**As at 31 Mar 2017**
(A)	**TANGIBLE ASSETS**				
I)	**Own Assets**				
1	Land	1.70	0.02	-	1.72
2	Land under lease	0.58	-	-	0.58
3	Civil Structure -Buildings	50.46	0.93	-	51.39
4	Civil Structure - Others	12.41	0.83	-	13.24
5	Plant and Equipment	2,086.26	55.09	-	2,141.35
6	Lines Cables Network	2,978.62	290.07	-	3,268.69
7	Vehicles	2.99	2.23	-	5.22
8	Office & IT Equipment	65.58	91.99	-	157.57
	Group Total (1 to 8)	**5,198.60**	**441.16**	**-**	**5,639.76**
II)	**RGGVY Assets / Consumer Contribution Assets**				
1	Plant and Equipment	970.38	202.97	-	**1,281.94**
2	Lines Cables Network		108.59	-	
	Sub Total (II)	**970.38**	**311.56**	**-**	**1,281.94**
	SUB TOTAL (A)	**6,168.98**	**752.72**	**-**	**6,921.70**
(B)	**INTANGIBLE ASSETS**				
1	Computer Software	-	70.63	-	**70.63**
	SUB TOTAL (B)	**-**	**70.63**	**-**	**70.63**
	Grand Total (A+B)	**6,168.98**	**823.35**	**-**	**6,992.33**
	Previous Year (15-16)	**6,034.35**	**134.63**	**-**	**6,168.98**

Table 52 : GFA as per GAAP submitted by West Discom (Rs. Crore)

S. No	Assets Group	GROSS BLOCK			
		As On 1-Apr-16	**Additions in 2016-17**	**Deductions in 2016-17**	**As On 31-Mar-17**
A)	TANGIBLE ASSETS				
I)	Own Assets				
1	Land and Land Rights.				
	i) Leasehold Land	1.32	-		1.32
	ii) Freehold Land	4.25			4.25
2	Buildings.	95.19	1.36		96.55
					-
3	Other Civil Works.	11.49	1.01		12.51
4	Plant and Machinery.	1,865.76	146.31	4.92	2,007.15
5	Lines And Cable Net Works.	2,658.58	169.26	14.76	2,813.09
6	Vehicles.	4.15	1.19	0.10	5.24
7	Furniture and Fixtures	5.86	0.71		6.56
8	Office Equipment.	50.03	7.12		57.14
	Sub Total (1 To 9)	4,696.62	326.96	19.77	5,003.81
II)	RGGVY / C-C ASSETS				
	i) Line & Cables	488.51	87.99		576.50
	ii) Distribution Transformer	93.97	24.15		118.12
	iii) Meter	56.83			56.83
	iv) Substation	0.18			0.18
	v) Building	1.19			1.19
	Sub Total (i To v)	640.69	112.14	-	752.83
	Total (I + II) [A]	5,337.31	439.10	19.77	5,756.64
B)	INTANGIBLE ASSETS				
1	Computer Software	31.55	9.45	-	41.00
	Sub-Total [B]	31.55	9.45	-	41.00
	Grand Total (A + B)	5,368.86	448.55	19.77	5,797.64
	Previous Year	4,881.07	499.64	11.85	5,368.86

Table 53 : GFA as per GAAP submitted by Central Discom (Rs. Crore)

S. No	Particulars of Asset	Gross Block			
		Opening as on 1.4.2016	Direct addition during FY	Addition through CWIP	Closing as on 31.3.2017
A	**Tangible Assets**				
1	Land	8.96	0.00	-	8.96
2	Building	104.68	-	16.83	121.52
3	Other Civil Works	6.67	-	-	6.67
4	Hydraulic Works	12.20	-	-	12.20
5	Plant & Machinery	2,837.00	0.04	207.57	3,044.61
6	Lines and Cables	3,546.78	26.31	411.24	3,984.33
7	Office Equipments	129.70	13.55	-	143.25
8	Vehicle	3.48	-	-	3.48
9	Furniture & Fixture	3.47	0.13	-	3.60
10	Capital Stores & Spares		150.39		150.39
11	RGGVY Assets	555.53	-	261.80	817.33
12	Supervision Assets	246.36	105.58	-	351.95
	Total Tangible Assets	**7,454.83**	**296.00**	**897.44**	**8,648.27**
B	**Intangible Assets**	11.67	8.26	-	19.93
	Total Fixed Assets	**7,466.51**	**304.26**	**897.44**	**8,668.21**

3.91 The asset addition by the Discoms as per audited accounts from FY 2014-15 to FY 2016-17 are given in the Table below:

Table 54 : Asset capitalization during FY 2014-15 to FY 2016-17 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2014-15	692.89	566.19	1164.71
FY 2015-16	134.63	487.79	897.06
FY 2016-17*	823.35	448.55	1201.70
Average	550.29	500.84	1087.82

**The addition of Assets is based on GAAP submitted by the Petitioners*

3.92 For considering the asset addition for the Discoms, generally the Commission considers the lower value of average asset addition of the Discoms during the past years and the Petitioners claimed asset capitalisation. The Commission has observed that the Petitioners claim for additional capitalisation during FY 2017-18 and FY 2018-19 are lower than the average capitalisation added during the past 3 years except for East Discom. But considering asset capitalisation of Rs 823.35 Crore during FY 2016-17 by East Discom the Commission has admitted the projections as envisaged by East, West and Central Discoms for FY 2017-18 and FY 2018-19, as shown in the table below:

Table 55: Asset capitalization admitted for FY 2017-18 and FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2017-18	738	462	737
FY 2018-19	764	472	757

Operations and Maintenance Expenses

Petitioners Submissions

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

Employee Expenses

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

a) For the calculation of Employees Expenses excluding arrears, DA, terminal benefits and incentives, Basic salary notified in MPERC regulation has been multiplied to 2.57 for considering impact of 7th Pay for FY 2018-19. For computation of Dearness allowance, percentage increase has been considered as per 6th Pay for FY 2016-17 and FY 2017-18 and for FY 2018-19 as per 7th Pay notification by MP Government for quarterly or half yearly for all three Discoms (every year in January and July). Based on this, the DA as a percentage of Basic Salary (approved by MPERC) is shown in the table below:

Table 56: DA as a percentage of Basic Salary Proposed

Particulars (as per 6th Pay)	FY '17	FY '18	FY '19
DA as percentage of Basic for first quarter - Apr to June	125%	136%	
DA as percentage of Basic for 2nd and 3rd quarter - July to Dec	132%	139%	
DA as percentage of Basic for 4th quarter - Jan to March	136%	142%	
Particulars (as per 7th Pay)	**FY '17**	**FY '18**	**FY '19**
DA as percentage of Basic for first quarter - Apr to June		4%	7%
DA as percentage of Basic for 2nd and 3rd quarter - July to Dec	2%	5%	9%
DA as percentage of Basic for 4th quarter - Jan to March	4%	7%	11%

Discom wise DA Arears are considered here after impact of 7th Pay. For the arrears calculation for the impact on 7th Pay, all three Discoms has considered arrears totalling to Rs 494 Crore. The same is to be passed on to Discoms employees in 5 FYs starting from FY 2018-19. As a result, the impact of arrears in employees would be Rs 99 Crore in each FY.

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

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

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

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

3.95 Accordingly, employee expenses have been claimed as Rs 1,263 Crore, Rs 1,301 Crore and Rs 1,167 Crore by East, West and Central Discoms, respectively.

Terminal Benefits (Pension, Gratuity and Leave Encashment) Provision

3.96 Petitioners have claimed that Terminal Benefit of the employees have been calculated as per the provisions of MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personnel of Board and successor entities) Regulations, 2012 (G-38 of 2012) notified in the MP gazette notification dated 20 April, 2012. In view of provisions of the MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personnel of Board and successor entities) Regulations, 2012, Petitioners claim both provision as per the rate prescribed in actuary report and actual cash out flow on account of terminal benefits.

3.97 According to actuarial valuation the liability as on 31 March, 2009 for the three Discoms was determined. In addition to this liability, the Actuary valuation has prescribed the following percentage for the future contribution rate (as a % age of Basic Pay + Grade pay + DA) required to be made by the three Discoms for meeting the liabilities arising due to future service:

Table 57: Future Contribution rate of liability on account of Actuary (%)

Assumption	East Discom				Central Discom				West Discom			
	Pension	Gratuity	Leave Encashment	Total	Pension	Gratuity	Leave Encashment	Total	Pension	Gratuity	Leave Encashment	Total
Contribution Rate	21.73%	4.95%	0.77%	27.45%	20.15%	4.56%	0.54%	25.52%	20.28%	4.67%	0.59%	25.54%
Discount Rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

3.98 According to the above prescribed methodology, liability for FY 2018-19 has been worked out and this liability is pertaining to all the employees of licensee, eligible for such benefits. Terminal Benefits Provisions calculations are provided in table below:

Table 58: Calculation of Terminal Benefits Provisions (Rs. Crores)

Particular	East Discom				West Discom				Central Discom				MP State			
	Pension	Gratuity	L.E.	Total	Pension	Gratuity	L.E.	Total	Pension	Gratuity	L.E.	Total	Pension	Gratuity	L.E.	Total
Provision as on 31.03.2018	2,017	417	90	2,524	1,509	327	90	1,925	1,746	309	91	2,145	5,271	1,052	271	6,594
Discount @7%	141	29	6	177	106	23	6	135	122	22	6	150	369	74	19	462
Current Service Cost	248	57	9	314	243	56	7	306	215	49	6	269	707	161	22	889
Total Provision for FY 19	**390**	**86**	**15**	**490**	**349**	**79**	**13**	**441**	**337**	**70**	**12**	**420**	**1,076**	**235**	**41**	**1,351**
Total Upto FY 19	**2,406**	**503**	**105**	**2,668**	**1,857**	**406**	**103**	**1,937**	**2,083**	**379**	**103**	**2,347**	**6,347**	**1,287**	**311**	**6,952**

A&G Expenses

3.99 Petitioners have claimed the A&G expenses as per the provision of the Regulation 34.1 of the Tariff Regulations as Rs 197 Crore, Rs 164 Crore and Rs 110 Crore for East, West and Central Discoms, respectively. Petitioners have further submitted that norms of A&G expenses specified in the Tariff Regulations exclude fees paid to the MPERC and taxes payable to the Government. Accordingly, fees paid to the MPERC and taxes payable to the Government have been considered over and above the normative A&G expenses specified in the Tariff Regulations.

R&M Expenses

3.100 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. 129 Crore, Rs. 147 Crore, and Rs. 170 Crore for East, West and Central Discoms, respectively for FY 2018-19.

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

Table 59: O&M expenses claimed for FY 2018-19 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Employee Cost (including arrears, DA and others)	1,241*	1,301	1,167
A&G Expenses	197	164	110
R&M expenses	129	147	170
Total O&M expenses	**1,56**7	**1,611**	**1,447**

**Corrected by East Discom in Reply to data gaps conveyed by the Commission vide letter dated 9 February, 2018*

Commission's Analysis on O&M Expenses

3.102 Tariff Regulations specify normative O&M Expenses for the Discoms. These expenses comprise Employee expenses, Repair and Maintenance (R&M) expenses and Administrative & General (A&G) expenses. The amount of employee expenses and A&G expenses for FY 2018-19 have been specified in the Regulations. Further the Commission has considered the impact of the Seventh Pay Commission as proposed by the Petitioners subject to true-up of employee expenses as per audited Accounts for FY 2018-19. R&M expenses are specified as 2.3% of opening GFA for the FY 2018-19. 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.

3.103 The Commission has allowed the terminal benefits and pension expenses for the FY 2018-19 on provisional basis under the transmission charges on "pay as you go" basis. It has been noted that various stakeholders have been demanding contribution towards fund for the Terminal Benefit (Pension, Gratuity and Leave Encashment) Trust as per Provision 3(6) of the MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personnel of Board and successor entities) Regulations, 2012(G-38 of 2012), extract of the same is shown below:

"3(6) The liabilities in regard to the contribution to be made under sub-clause 2(iii) above shall be allowed in the tariff of respective Successor Entities in the relevant year limited to the extent to be decided by the Commission in the relevant tariff order..."

3.104 The Commission has considered an amount of Rs. 210 Crore (Rs 70 Cr for each Discom) towards the Pension and Terminal Benefit Trust Fund (liabilities provision) which is to be contributed by the Discoms to the Registered Terminal Benefits Trust for FY 2018-19. The Commission has directed the Discoms to file the mechanism along with detailed conditions with regards to management of funds.

3.105 The Commission has considered it appropriate to allow DA @ 7% for April to June, @ 9% for July to December and @ 11% for January to March of the Basic salary as proposed by the Petitioners subject to true-up.

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

3.107 The Commission has considered the Arrear on account of the 7th Pay Commission as proposed by the Petitioners as Rs. 494 Crore but has considered the same to be passed on to the employees over a period of 3 years in equal installments from FY 2018-19 as per the 7th Pay Commission orders issued by the Petitioners.

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

Table 60: Employee Expenses as admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Employee expenses				
Basic Salary	1,048.56	1,099.96	979.17	3,127.69
DA	94.37	99.00	88.13	281.49

Particulars	East Discom	West Discom	Central Discom	Total
leave encashment in lieu of retirees	51.00	44.00	59.00	154.00
NPS Employer Contribution	7.00	10.00	2.00	19.00
PF/CFA/GTIS/Annuity	5.00	8.00	7.00	20.00
7th Pay Arrear	57.06	55.43	52.17	164.67
Total Employee expense	**1262.99**	**1316.39**	**1187.47**	**3,766.85**

3.109 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. The Commission is supportive of Petitioners endeavour in promoting digital and cashless transactions and shall consider the service charges payable to cash less bill payments intermediaries at the time of true-up along with taxes payable to the Government as per actual. Details of A&G expenses and fees paid to the MPERC as admitted are given in the Table below:

Table 61: A&G Expenses as admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
A&G expenses	192.00	147.00	110.00	449.00
MPERC fees	0.41	0.50	0.39	1.30
Total A&G expenses	**192.41**	**147.50**	**110.39**	**450.30**

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

Table 62: R&M Expenses as admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Opening GFA as on 1st April, 2017	7730.33	6259.64	9405.21	23395.18
% as R&Mof opening GFA as specified in Tariff Regulations	2.3%	2.3%	2.3%	2.3%
Total R&M Expenses	**177.80**	**143.97**	**216.32**	**538.09**

3.111 Total O&M expenses admitted by the Commission for FY 2018-19, have been summarized in the table below:

Table 63: O&M Expenses as admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Employee Expenses	1262.99	1316.39	1187.47	3766.85
A&G Expenses	192.41	147.50	110.39	450.30
R&M Expenses	177.80	143.97	216.32	538.09
Terminal Benefits Provision	70.00	70.00	70.00	210.00
Total O&M expenses	**1,703.20**	**1,677.86**	**1,584.18**	**4,965.24**

Depreciation

Petitioners Submissions

3.112 The Petitioners have submitted that they have worked-out detailed depreciation based on rates specified by the Commission in Annexure-II of Tariff Regulations. The depreciation worked out for FY 2018-19 is shown in Table below:

Table 64: Depreciation claimed by Petitioners (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Land under Lease	0	0	0
Building	2	3	2
Hydraulic Works	0	0	0
Other Civil Works	0	0	72
Plant and Machinery	99	99	0
Line Cable Networks etc.	197	110	126
Vehicles	0	0	0
Furniture and fixtures	0	0	0
Office Equipment's	5	3	8
RGGVY	0	30	19
Intangible Assets	0	3	
Supervision Assets	0	0	12
Capital Stores & Spares	0	0	14
Total	**303**	**247**	**254**

Commission's Analysis of Depreciation

3.113 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, 2018. 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.

3.114 In case of existing projects, the Tariff Regulations specify that the balance depreciable value as on 1st April, 2018 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2018 from the gross depreciable value of the assets. The rate of depreciation shall continue to be charged at the rate specified in 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 %.

3.115 The Commission has observed that Discoms have not submitted the detailed Asset Register for substantiation of depreciation claimed. Asset addition for FY 2017-18 and FY 2018-19 has been considered as admitted in previous section. Consumer contribution, grants and subsidies towards the cost of capital assets during respective years have been reduced from GFA for arriving at net GFA for FY 2018-19. Net GFA has been considered for allowing depreciation for FY 2018-19 on the basis of opening GFA for FY 2018-19 plus half of asset addition during FY 2018-19 net of the consumer contribution.

3.116 The Commission has considered the depreciation rates i.e. 2.44%, 2.81%, and 2.44% for East, West and Central Discoms for FY 2018-19, as considered in the tariff order for FY 2017-18. However, the Commission clarifies that the difference in depreciation amount as admitted by the Commission in this tariff order and the depreciation worked out on the basis of audited accounts for FY 2018-19 shall be duly considered at the time of truing up of the ARR for FY 2018-19 subject to scrutiny of Asset Register.

3.117 The depreciation admitted for FY 2018-19 is given in the following table:

Table 65: Depreciation admitted for FY 2018-19 (Rs. Crore)

Particular	East	West	Central	Total
Opening GFA as on 1st April, 2013 (Closing approved in last True-up)	**3,310.46**	**2,929.48**	**3,451.90**	**9,691.84**
Add: Addition during FY 2013-14	1,072.52	447.79	1,136.36	2,656.67
Less: Consumer Contribution, Grants and Subsidies in FY 2013-14	114.88	240.96	214.18	570.02
Opening GFA as on 1st April, 2014	**4,268.10**	**3,136.31**	**4374.08**	**11,778.48**
Add: Addition during FY 2014-15	692.89	566.19	1164.71	2,423.79
Less: Consumer Contribution, Grants and Subsidies in FY 2014-15	350.92	248.81	278.07	877.80
Opening GFA as on 1st April, 2015	**4,610.06**	**3,453.69**	**5,260.72**	**13,324.47**
Add: Addition during FY 2015-16	134.63	487.79	897.06	1,519.48
Less: Consumer Contribution, Grants and Subsidies in FY 2015-16	134.63	458.87	213.56	807.06
Opening GFA as on 1st April, 2016	**4,610.06**	**3482.61**	**5944.22**	**14,036.89**
Add: Addition during FY 2016-17	823.34	448.55	1201.70	2,473.60
Less: Consumer Contribution, Grants and Subsidies in FY 2016-17	239.21	300.65	141.14	681.00
Opening GFA as on 1st April, 2017	**5194.20**	**3630.51**	**7004.77**	**15,829.48**
Add: Addition during FY 2017-18	738.00	462.00	737.00	1,937.00
Less: Consumer Contribution, Grants and Subsidies in FY 2017-18	150.54	384.00	17.00	551.54
Opening GFA as on 1st April, 2018	**5781.66**	**3708.51**	**7724.77**	**17,214.95**
Add: Addition during FY 2018-19	764.00	472.00	757.00	1,993.00
Less: Consumer Contribution, Grants and Subsidies in FY 2018-19	158.69	429.00	24.00	611.69
Closing GFA as on 31st March 2019	6386.97	3751.51	8457.77	18596.26
Average GFA	6084.31	3730.01	8091.27	17,905.60
Rate of Depreciation	**2.44%**	**2.81%**	**2.44%**	

Particular	East	West	Central	Total
Depreciation	**148.46**	**104.81**	**197.43**	**450.70**

Interest and Finance Charges

Petitioners submissions

3.118 The Petitioners have submitted that Regulation 31 of Tariff Regulations provides for the method of calculation of interest and finance charges on loan capital. The methodology adopted by the Commission in the tariff order for FY 2017-18 has been adopted for projecting the interest and finance charges on project loans for FY 2018-19.

East Discom

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

Table 66: Interest cost claimed by East Discom (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	1,594
70% of addition to net GFA considered as funded through Loan net of consumer contribution	424
Debt Repayment due during the year (equal to the depreciation claim)	303
Closing balance of GFA identified as funded through debt	1,714
Average of loan balances	1,654
Weighted average rate of interest (%) on all loans	7%
Total interest on project loans	108
Finance charge	18
Total Interest on Project loans & Finance Charge	126

West Discom

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

Table 67: Interest cost claimed by West Disom (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	509
70% of addition to net GFA considered as funded through Loan net of consumer contribution	191
Debt Repayment due during the year (equal to the depreciation claim)	247
Closing balance of GFA identified as funded through debt	452
Average of loan balances	480
Weighted average rate of interest (%) on all loans	**7%**
Total interest on project loans	**33**

Finance charge	10
Total Interest on Project loans & Finance Charge	**43**

Central Discom

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

Table 68: Interest cost claimed by Central Discom (Rs. Crore)

Particulars	**Amount**
Opening balance of GFA identified as funded through debt	2,200
Addition to GFA during the year	757
Consumer contribution during the year/ Asset Constructed Under RGGVY During the year	24
Net addition to GFA during the year	733
30% of addition to net GFA considered as funded through equity	220
Balance addition to net GFA during the year funded through debts	513
Debt Repayment due during the year (equal to the depreciation claim)	254
Closing balance of GFA identified as funded through debt	2460
Weighted average rate of interest (%) on all loans	**7%**
Total interest on project loans	**180**
Finance charge	22
Total Interest on Project loans & Finance Charge	**202**

Commission's Analysis of Interest and Finance Charges

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

3.123 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.

3.124 The Commission has worked out the interest cost for FY 2018-19 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.

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 2017-18 and FY 2018-19 shall be deemed to be equal to the depreciation allowed for that year.

d) Asset additions during the year have been treated as financed 70% through loan and 30% through equity.

e) The Commission has worked-out the weighted average rate of interest based on the submissions made by the Petitioners in Format 3a.

f) Other finance costs for FY 2018-19 have been admitted as per actual from the audited accounts for FY 2016-17 submitted by the Petitioners.

3.125 Interest and finance charges admitted for FY 2018-19 are given in the following table:

Table 69: Interest and finance charges admitted for FY 2018-19 (Rs. Crore)

Particular	**East Discom**	**West Discom**	**Central Discom**	**State**
FY 2013-14				
Debt identified with GFA as on 1st April, 2013 (Closing approved in last True-up)	1,051.80	703.52	1,139.05	2,894.37
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	670.35	144.78	645.52	1,460.65
Debt repayment	92.46	85.22	95.48	273.16
Debt identified with GFA as on 31st March, 2014	1,629.69	763.07	1,689.09	4,081.86
FY 2014-15				
Debt identified with GFA as on 1st April, 2014	1,629.69	763.07	1,689.09	4,081.86
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	239.38	222.17	620.65	1,082.19
Debt repayment	108.31	92.59	117.54	318.45

Particular	East Discom	West Discom	Central Discom	State
Debt identified with GFA as on 31st March, 2015	1,760.76	892.65	2,192.19	4,845.60
FY 2015-16				
Debt identified with GFA as on 1st April, 2015	1,760.76	892.65	2,192.19	4,845.60
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	0.00	20.24	478.45	498.69
Debt repayment	112.49	97.46	136.70	346.64
Debt identified with GFA as on 31st March, 2016	1,648.27	815.44	2,533.94	4,997.66
FY 2016-17				
Debt identified with GFA as on 1st April, 2016	1,648.27	815.44	2,533.94	4,997.66
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	408.89	103.53	742.39	1,254.82
Debt repayment	119.61	99.94	157.98	377.53
Debt identified with GFA as on 31st March, 2017	1,937.55	819.03	3,118.36	5,874.94
FY 2017-18				
Debt identified with GFA as on 1st April, 2017	1,937.55	819.03	3,118.36	5,874.94
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	411.22	54.60	504.00	969.82
Debt repayment	133.91	103.11	179.70	416.72
Debt identified with GFA as on 31st March, 2017	2,214.87	770.52	3,442.66	6,428.05
FY 2018-19				
Debt identified with GFA as on 1st April, 2018	2,214.87	770.52	3,442.66	6,428.05
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	423.72	30.10	513.10	966.92
Debt repayment	148.46	104.81	197.43	450.70
Closing debt associated with GFA	2,490.13	695.81	3,758.33	6,944.27
Average debt	2,352.50	733.16	3,600.49	6,686.16

Particular	East Discom	West Discom	Central Discom	State
Weighted average rate of interest (%) on loans	4.29%	5.59%	5.68%	
Interest on Project Loans	100.88	40.97	204.61	346.46
Other Finance cost	15.10	8.07	17.89	41.06
Interest cost admitted on project loans	**115.98**	**49.04**	**222.50**	**387.52**

Interest on Working Capital

Petitioners Submissions

3.126 The Petitioners have stated that the working capital requirement has been estimated based on the norms specified in the Regulations. The Petitioners have considered interest rate of 13.75% for the calculation of the interest on the working capital.

Table 70: Interest on Working Capital as filed for 2018-19 (Rs Crore)

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	For Wheeling Activity			
1	1/6th of annual requirement of inventory for previous year	9	8	9
2	O&M expenses			
2.1	R&M expenses	129	147	170
2.2	A&G expense	197	164	110
2.3	Employee expenses	1241#	1,301	1,167
2.4	Total of O&M expenses	1566#	1,611	1,447
2.5	1/12th of total O&M expenses	131#	134	121
3	Receivables			
3.1	Annual Revenue from wheeling charges	0	1	1
3.2	Receivables equivalent to 2 months average billing of wheeling charges	0	0	0
4	Total Working capital (1+2.5+3.2)	139#	143	130
5	Rate of Interest	13.75%	13.75%	13.75%
6	Interest on Working capital (Wheeling)	**19#**	**20**	**18**
	For Retail Sales activity			
	Particular			
1	1/6th of annual requirement of inventory for previous year	0	2	2
2	Receivables			
2.1	Annual Revenue from Tariff and charges	10,746#	13,229	10,098
2.2	Receivables equivalent to 2 months average billing	1,791#	2,205	1,683
3	Power Purchase expenses	6,996#	9,117*	6,364.72$
3.1	1/12th of power purchase expenses	583 #	760*	530.39 $

Sr. No.	Particulars	East Discom	West Discom	Central Discom
4	Consumer Security Deposit	532	1,117	926
5	Total Working capital (1+2.2-3.1-4)	676#	330 *	229$
6	Rate of Interest	13.75%	13.75%	13.75%
7	Interest on Working capital (Retail Sales)	**93#**	**45 ***	**31$**
	Net Interest on Working Capital	**112#**	**65***	**49$**

**Revised by West Discom in reply to data gaps conveyed by the Commission vide letter dated 9.2.2018*
 # Revised by East Discom in reply to data gaps conveyed by the Commission vide letter dated 9.2.2018
$ Revised by Central Discom in reply to data gaps conveyed by the Commission vide letter dated 9.2.2018

Commission's Analysis of Interest on Working Capital

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

3.128 The Commission has considered the opening Gross block of FY 2018-19 for East, West and Central Discoms. One percent of opening Gross block pro-rated to two months to work-out 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.

3.129 Tariff Regulations allow working capital interest to the Discoms at the rate equal to the State Bank of India (SBI) Advance Rate as on 1st of April of the relevant year. The SBI Advance Rate on 1 April, 2018 stands at 13.45%. Accordingly, the normative interest rate for working capital loans to Discoms would be limited to 13.45%. The interest on working capital admitted by the Commission for wheeling and retail sales activity combined together is shown in the table below:

Table 71: Interest on Working Capital admitted by the Commission (Rs. Crore)

For wheeling activity					
Sr. No.	**Particulars**	**Months**	**East Discom**	**West Discom**	**Central Discom**
A)	1/6th of annual requirement of inventory for previous year	2.00	10.31	8.35	12.54
B) i)	Total of O&M expenses		1,703.20	1,677.86	1,584.18
B) ii)	1/12th of total	1.00	141.93	139.82	132.01
C)	Receivables				
C) i)	Annual Revenue from wheeling charges		0.00	2.88	0.00
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	2.00	0.00	0.48	0.00

For wheeling activity					
Sr. No.	**Particulars**	**Months**	**East Discom**	**West Discom**	**Central Discom**
D)	Total Working capital		152.24	148.65	144.56
	(A), B) ii), C) ii))				
E)	Rate of Interest		13.45%	13.45%	13.45%
F)	**Interest on Working capital**		**20.48**	**19.99**	**19.44**
For Retail Sales activity					
A)	1/6th of annual requirement of inventory for previous year	2.00	2.58	2.09	3.14
B)	Receivables				
B) i)	Annual Revenue from Tariff and charges		10,111.05	12,273.94	9,378.63
B) ii)	Receivables equivalent to 2 months average billing	2.00	1,685.18	2,045.66	1,563.11
C)	Power Purchase expenses		6,379.00	8,444.39	5,463.67
C) i)	1/12th of power purchase expenses	1.00	531.58	703.70	455.31
D	Consumer Security Deposit		532.00	1,117.00	926.00
E)	Total Working capital (A+B ii) - C i) - D)		624.17	227.04	184.93
F)	Rate of Interest		13.45%	13.45%	13.45%
G)	**Interest on Working capital**		**83.95**	**30.54**	**24.87**
	Summary				
	For wheeling activity		20.48	19.99	19.44
	For Retail Sales activity		83.95	30.54	24.87
	Total Interest on working Capital		104.43	50.53	44.32
	Total Interest on working Capital admitted		**104.43**	**50.53**	**44.32**

Interest on Consumer Security Deposit

Petitioners Submissions

3.130 Discoms have submitted that interest on consumer security deposit has been paid to the consumers according to relevant Regulations. They have further submitted that interest on consumer security deposit has been calculated as per the RBI Bank Rate as on April 1, i.e., 6.25%.

Table 72: Interest on Consumer Security Deposit as per Regulations for FY 2018-19 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Interest on Consumer Security Deposit	33	70	58

Commission's Analysis of Consumer Security Deposit

3.131 The Commission has computed the interest on consumer security deposit as per the norms of the Tariff Regulations at RBI latest Bank Rate of 6.25% on 1 April, 2018 and admitted the same as shown in the table below:

Table 73: Interest on Consumer Security Deposit (CSD) admitted for FY 2018-19 (Rs. Crore)

Particular	East	West	Central
Interest on Consumer Security Deposit	33.25	69.81	57.88

Return on Equity

Petitioners submissions

3.132 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 74: Return on Equity for 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
Opening balance of GFA identified as funded through equity	1,587	1,236	1,823
Normative additional equity (30% of Capitalisation net consumer contribution)	182	82	227
Closing balance of GFA identified as funded through equity	1,768	1,318	2,050
Average Equity	1,678	1,277	1,936
Return on Equity (16% on Average Equity)	**279**	**204**	**310**

Commission's Analysis of Return on Equity

3.133 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 2018-19. 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 2018-19 is tabulated below.

Table 75: Return on Equity admitted for FY 2018-19 (Rs. Crore)

Particular	East	West	Central
FY 2013-14			
Total Equity identified with GFA as on 31st March, 2013 (Closing from last True-up)	929.75	867.48	962.36
30% of addition to net GFA considered as funded	287.29	62.05	276.65

Particular	East	West	Central
through equity net of consumer contribution			
Total Equity identified with GFA as on 31st March, 2014	1217.05	929.53	1239.01
FY 2014-15			
30% of addition to net GFA considered as funded through equity net of consumer contribution	102.59	95.21	265.99
Total Equity identified with GFA as on 31st March, 2015	1319.64	1024.74	1505.00
FY 2015-16			
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.00	8.68	205.05
Total Equity identified with GFA as on 31st March, 2016	1319.64	1033.42	1710.05
FY 2016-17			
30% of addition to net GFA considered as funded through equity net of consumer contribution	175.24	44.37	318.17
Total Equity identified with GFA as on 31st March, 2017	1494.88	1077.79	2028.22
FY 2017-18			
30% of addition to net GFA considered as funded through equity net of consumer contribution	176.24	23.40	216.00
Total Equity identified with GFA as on 31st March, 2018	1671.12	1101.19	2244.22
FY 2018-19			
30% of addition to net GFA considered as funded through equity net of consumer contribution	181.59	12.90	219.90
Total Equity identified with GFA as on 31st March, 2019	1852.71	1114.09	2464.12
Average Equity	1761.91	1107.64	2354.17
RoE @16% of FY 2018-19	**281.91**	**177.22**	**376.67**

Other items of ARR

3.134 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 submissions

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

Table 76: Bad and Doubtful Debts for FY 2018-19 as per Regulations (Rs Crore)

Particulars	East Discom	West Discom	Central Discom
Bad and Doubtful Debts	103	126	97

Commission's Analysis on Bad and Doubtful debts

3.136 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.

3.137 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.

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

3.139 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 submissions

3.140 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.

3.141 The Petitioner have projected their Other Income & Non-Tariff Income for FY 2017-18 and FY 2018-19 based on the average 3 years income received during the previous years (except West Discom wherein it has been considered based on line wise expenditure approach) excluding UDAY impact as can be verified in FY 2016-17 provisional accounts prepared under IND-AS. UDAY's impact as in consideration in Non-Tariff Income is actually not a source of financial income/revenue but a onetime accounting adjustment with a liability write off. The Petitioners have made the projections for FY 2017-18 and FY 2018-19 as per the Regulatory Requirement specified under the Tariff Regulations, 2015 and other applicable Regulations. Accordingly, the Other Income & Non-Tariff Income is shown below:

Table 77: Other Income for FY 2018-19 (Rs Crore)

Particulars			
Income from Investment, Fixed & Call Deposits	13	44	27
Interest on loans and Advances to staff	0	0	0
Interest on Advances to Suppliers / Contractors	14	0	5
Income/Fee/Collection against staff welfare activities	0	0	0
Miscellaneous receipts	11	0	16
Misc. charges from consumers (meter rent, etc)	53	51	75
Deferred Income (Consumer Contribution)	0	0	0
Wheeling charges	0	1	1
Income from Trading other than Power (i.e sale of scrape, tender form)	0	0	10
Supervision charges	0	0	18
Recovery from theft	9	0	0
Others	71	113	0
Total	**172**	**210**	**151**

Commission's Analysis on Other Income

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

Table 78: Total actual other income as per audited accounts (Rs Crore)

Discoms	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**
East Discom	152.02	141.17	209.05	169.90
West Discom	252.28	214.23	303.56	202.06
Central Discom	378.43	159.63	231.74	204.48
Total	**782.73**	**515.03**	**744.35**	**576.44**

3.143 Based on the above actual other income received as per audited accounts for FY 2013-14 to FY 2016-17, which includes the receipts against meter rent, recovery from billing against cases of theft/ unauthorized use of energy, misc. receipts etc., the Commission has admitted other income for FY 2018-19 as tabulated below:

Table 79: Other Income admitted for FY 2018-19 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**	**State**
Other Income	174.30	204.75	212.20	591.25

3.144 The ARR as admitted for FY 2018-19 is presented in the following table:

Table 80: Aggregate Revenue Requirement (ARR) as admitted (Rs Crore)

Particulars	**East**	**West**	**Central**	**State**
Power Purchase admitted	6379.00	8444.39	5463.67	20287.07
Inter-State transmission charges	452.90	537.66	421.45	1412.01
Intra-state transmission charges including SLDC	821.64	1052.90	875.26	2749.80
O&M Expenses	1703.20	1677.86	1584.18	4965.24
Depreciation	148.46	104.81	197.43	450.70
Interest & Finance Charges				
On Project Loans	115.98	49.04	222.50	387.52
On Working Capital Loans	104.43	50.53	44.32	199.27
On Consumer Security Deposit	33.25	69.81	57.88	160.94
Return on Equity	281.91	177.22	376.67	835.79
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Total Expenses admitted	**10042.77**	**12166.22**	**9245.34**	**31454.33**
Less: Other income + Non-Tariff Income	174.30	204.75	212.20	591.25
Net total Expenses	**9868.46**	**11961.47**	**9033.15**	**30863.08**
Impact of True-Up Amounts of Past Years				
Impact of True up for MP Transco for FY 15-16	99.08	126.11	105.09	330.28
Impact of True up for MP Genco for FY 15-16	-134.91	-168.89	-107.93	-411.74
Supplementary bills adjustment for FY 2012-13	278.42	358.13	348.33	984.88
Total impact of True-Up Amounts of Past Years	**242.59**	**315.34**	**345.49**	**903.42**
Total ARR	**10111.05**	**12276.82**	**9378.63**	**31766.50**

Segregation of admitted ARR between Wheeling and Retail Sales activities

3.145 Tariff Regulations provide that the Discoms should file their ARR in three parts, viz. for power purchase activity, for wheeling (distribution) activity and for retail sales 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 sales activities. The purpose of segregating the total distribution expenses into wheeling and retail sales activities is to establish the wheeling charges that are to be recovered from open access customers.

3.146 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 sales activities. Discoms have considered normative interest on working capital, bad debts and interest on consumer security deposits in retail sales activity. All other items have been considered entirely as part of wheeling activity.

3.147 The Commission allocates the fixed costs related to wheeling and retail sales activities in the following manner:

Wheeling activity shall include:

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

Retail sales activity shall include:

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

3.148 On the basis of above, the ARR for FY 2018-19 for all the three Discoms is segregated as under:

Table 81: Total ARR as admitted (Rs. Crore)

Particulars	**East**	**West**	**Central**	**Total**
Power Purchase Cost including MPPMCL Expenses	6379.00	8444.39	5463.67	20287.07
PGCIL charges	452.90	537.66	421.45	1412.01
Transco Charges (MP TRANSCO) including Terminal Benefits	821.64	1052.90	875.26	2749.80
Total impact of True-Up Amounts of Past Years	242.59	315.34	345.49	903.42
(A) Sub Total- Power Purchase Cost	**7896.14**	**10350.29**	**7105.87**	**25352.29**
Wheeling Activity				
O&M cost	1703.20	1677.86	1584.18	4965.24
Depreciation	148.46	104.81	197.43	450.70
Interest on Project Loans	115.98	49.04	222.50	387.52
Return on Equity	281.91	177.22	376.67	835.79

Particulars	**East**	**West**	**Central**	**Total**
Interest on Working Capital – Wheeling	20.48	19.99	19.44	59.91
(B) Sub Total- Wheeling ARR for FY 2018-19 as approved	**2270.02**	**2028.93**	**2400.21**	**6699.16**
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	33.25	69.81	57.88	160.94
Interest on Working Capital – Retail	83.95	30.54	24.87	139.36
Less: Other Income - Retail & Wheeling	174.30	204.75	212.20	591.25
(C) Sub Total- Retail ARR for FY 2018-19 as approved	**-55.10**	**-102.40**	**-127.45**	**-284.95**
Total ARR for FY 2018-19	**10111.05**	**12276.82**	**9378.63**	**31766.50**

Revenue from existing tariffs

3.149 The consumer category wise revenue including rebate/incentives at existing tariff, admitted for FY 2018-19 is presented in the table below:

Table 82: Revenue including rebate/incentives at existing tariffs in FY 2018-19 (Rs. Crore)

Customer Categories	East Discom		West Discom		Central Discom		State	
	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)	Sales (MU)	Revenue (Crore)
LV: Categories								
LV-1: Domestic Consumers	5513	3281	4302	2630	4739	2927	14554	8837
LV-2: Non-Domestic	1119	892	1135	980	994	844	3247	2716
LV-3: Public Water Works & Street Light	578	320	548	320	383	223	1509	864
LV-4: Industrial	510	380	619	509	308	258	1436	1148
LV-5 Agriculture and Other allied use	6306	3164	9713	4948	5438	2824	21457	10937
HV: Categories								
HV-1: Railway Traction	25	14	0	0	25	14	50	28
HV-2: Coal Mines	447	345	0	0	31	20	478	365
HV-3.1: Industrial	1552	1182	2286	1714	2417	1521	6255	4418
HV-3.2: Non-Industrial	263	210	411	331	413	329	1087	870
HV-3.3: Shopping mall	8	6	60	47	29	22	98	76
HV-3.4: Power Intensive Industries	96	57	884	523	234	136	1213	715
HV-4: Seasonal and Non-Seasonal	8	6	13	11	2	2	24	19
HV-5: Irrigation, PWW and other than Agriculture	124	74	376	238	248	152	747	464
HV-6: Bulk Residential Users	291	180	32	20	168	105	490	305
HV-7: Synchronization/ Start-up Power	0	0	6	5	1	0	6	6
Total	**16839**	**10111**	**20384**	**12276**	**15430**	**9380**	**52653**	**31767**

Gap / surplus at existing tariffs:

3.150 Details of total ARR as admitted by the Commission and the revenue income including rebate/incentives at existing tariff is shown in the table below:

Table 83: Final ARR and revenue from existing tariffs (Rs Crore)

Particulars	**East**	**West**	**Central**	**State**
Total ARR for FY 2018-19 (A)	9868	11961	9033	30863
Impact of True up for MP Transco for FY 15-16	99	126	105	330
Impact of True up for MP Genco for FY 15-16	-135	-169	-108	-412
Supplementary bills adjustment for FY 2012-13	278	358	348	985
Total True-up (B)	243	315	345	903
Total ARR for FY 2018-19 (A+B=C)	**10111**	**12277**	**9379**	**31767**
Revenue at existing Tariffs (D)	10111	12277	9379	31767
Uncovered Gap/Surplus (D-C=E)	**0**	**0**	**0**	0
Revenue at Proposed Tariffs (F)	10111	12277	9379	31767
Uncovered Gap/Surplus (F-C=G)	**0**	**0**	**0**	**0**

A4: WHEELING CHARGES, CROSS SUBSIDY SURCHARGE AND ADDITIONAL 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 2018-19, the expenditure towards wheeling activity for all the Discoms is Rs. 6699.16 Crore as given in Table 81.

Segregation of costs among voltage levels

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

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

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

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

Table 84 : Voltage-wise Cost Break-up of Subtransmission & Distribution Lines

Voltage level of Lines	East Discom (ckt-kms)	West Discom (ckt-kms)	Central Discom (ckt-kms)	Cumulative length of lines (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crs.)
33KV	18,482.00	17,196.50	16,950.50	52,629.00	14.04	7,389.11
Below 33 KV						
(a) 11 KV	133,240.00	141,398.00	155,288.00	429,926.00	10.56	45,400.19
(b) LT	124,070.50	170,082.00	134,817.00	428,969.50	5.43	23,293.04
(c) Sub-Total	257,310.50	311,480.00	290,105.00	858,895.50		68,693.23
Total	**275,792.50**	**328,676.50**	**307,055.50**	**911,524.50**		**76,082.34**

Table 85 : Total cost of transformer voltage level

Transformer Voltage Level	East Discom	West Discom	Central Discom	Cumulative capacity (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11KV Transformer	9,115.00	11,981.00	10,456.00	31552.00	42.03	13251.84
11/0.4KV Transformer	8,772.00	18,181.00	13,174.00	40127.00	2.58 per 100 KVA	10352.77
Total	**17,887.00**	**30,162.00**	**23,630.00**	**71679.00**		**23604.61**

4.7 Data for length of lines and transformation capacity expected to be added during FY 2018-19 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 86 : 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	7389.11	13251.84	20640.95
Below 33 KV	68693.23	10352.77	79046.00
Total	**76082.34**	**23604.61**	**99686.95**

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

Table 87 : Identification of network expenses (wheeling cost) at different voltage level)

Voltage level	Assets value (Rs. Crore)	Assets value Ratio (%)	Total wheeling cost (Rs Crore)	Allocation of wheeling Cost (Rs Crore)
33KV	20640.95	20.71%	6699.16	1387.11
Below 33 KV	79046.00	79.29%		5312.05
Total	**99686.95**	**100.00%**		**6699.16**

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 88 : Allocation of wheeling cost over distribution system users

	Particulars	
A	Wheeling Cost at 33 kV (Rs. Crore)	1387.11
B	Sales at 33 kV(MU)	6543.16
C	Total Sales (MU) {excluding sales at 132 kV}	49534.57
D	Proportion of 33 kV sales to total sales (%)	13.21%
	Cost allocation	
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D) (Rs. Crore)**	183.23

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

Table 89 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs./unit)
EHT	-	-	-
33 kV	183.23	6543.16	0.28

Applicability of wheeling charges under different scenarios

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

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

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

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

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

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

Determination of Cross-Subsidy Surcharge

4.15 The Tariff Policy notified by GOI on dated 28 January, 2016 prescribes the following formulae for determination of cross- subsidy surcharge for various categories of consumers.

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

8.5.1 …

….

Surcharge formula:

S= T – [C/ (1-L/100) + D+ R]

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation
C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation
D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level
L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level
R is the per unit cost of carrying regulatory assets.
Above formula may not work for all distribution licensees, particularly for those having power deficit, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.

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

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

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

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

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

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

Table 90 : Weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

Generating Stations	Requirement (MU)	Total cost (Rs. Crore)	Wt. Average rate of power purchase (Rs./unit)
Dispatched	65,850.84	20,287.07	3.08

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

Table 91 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	4.89%
33 kV (only 33 kV system)	5.91%

4.19 The cost of transmission shall be uniformly spread over all consumers at every voltage level, as the transmission network is utilized by all consumers. Therefore, similar to wheeling costs, the admitted transmission charges for FY 2018-19 are worked out as under:

Table 92 : Transmission Charges

Particulars	Unit	Quantity
PGCIL Charges	Rs. Crore	1,412.01
MPPTCL Charges	Rs. Crore	2,749.80
Total Charges	Rs. Crore	**4,161.81**
Units to be handled by MPPTCL	MUs	65,850.84
Transmission Charges	Rs per unit	0.63

4.20 Finally, the term in the Tariff Policy formula 'T', Average Tariff for each category is derived from their expected revenue for FY 2018-19.

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

4.22 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV under various scenario are worked out as detailed in the table below ("scenario wise cost"). The Cross-Subsidy Surcharge shall be the difference of average tariff and the total cost (Rs/unit) for the particular category at particular voltage. The category wise average tariff as per tariff order for FY 2018-19 is given in the table below ("category wise average tariff"). However, Cross-Subsidy surcharge shall not exceed 20% of the average tariff applicable to the category of the consumers seeking open access. In case where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.

4.23 Aforementioned wheeling charges and cross subsidy surcharges shall be applicable to consumers availing open access from renewable source of energy as per the provisions of the MPERC (Co-generation and generation of Electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 [ARG-33(I)(v) of 2015] as amended from time to time.

Table 93 : Scenario wise cost (Rs. per unit)

Scenario	Wt. Average rate of power purchase (Rs./unit)	Cost of Power grossed up for distribution losses (5.91%)	Cost of Power grossed up for transmission losses (4.89%)	Transmission charges (Rs. per unit)	Wheeling charges (Rs. per unit)	Total Charges [C/(1-L/100)+D+R]
1	3.08	3.27	3.44	0.63	0.28	4.35
2	3.08		3.24	0.63		3.87
3	3.08		3.24	0.63		3.87
4	3.08	3.27	3.44		0.28	3.72

Table 94 : Category wise average tariff (Rs. per unit)

As per Scenario 1				
Category of HT/EHT consumers	**Average Tariff''T' (Rs Per Unit)**	**Ceiling 20% (Rs/Unit)**	**CSS (Rs/Unit)**	**Applicable CSS (Rs/Unit)**
HV- 1: Railway Traction	5.57	1.11	1.22	1.11
HV- 2: Coal Mines	7.63	1.53	3.28	1.53
HV- 3.1: Industrial	7.06	1.41	2.71	1.41
HV- 3.2: Non-Industrial	8.00	1.60	3.65	1.60
HV-3.3: Shopping Malls	7.77	1.55	3.42	1.55
HV-3.4: Power Intensive Industries	5.90	1.18	1.55	1.18
HV-4: Seasonal & Non-seasonal	7.89	1.58	3.54	1.58
HV- 5: Public Water Works	6.21	1.24	1.86	1.24
HV- 6: Bulk Residential Users	6.22	1.24	1.87	1.24
HV-7: Synchronization start-up power	8.87	1.77	4.52	1.77

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

Determination of Additional Surcharge
Petitioners submissions

4.24 The Petitioners submitted that the National Tariff Policy, 2016 also provides for the determination of additional surcharge to be levied from consumers who are permitted open access.

4.25 The financial position of the Discom's are getting constrained due to eligible consumers opting for open access. There has been an increase in quantum and number of consumers opting for open access over the last few years. With this shift of consumers to open access, the power remains stranded and the Discom's have to bear the additional burden of capacity charges of stranded power to comply with its Universal Supply Obligation.

4.26 In other states also, separate orders for levy of additional surcharges have been passed by respective Commission after considering the impact of shift by open access consumers and based on other data with due prudence check.

4.27 In light of the provisions specified in the Clause 5.8.3 of the National Electricity Policy, Section 42(4) of the Electricity Act 2003 besides relevant clause 13.1 of MPERC (Term & conditions for Open Access in MP) Regulations, 2005, the Petitioners determined additional surcharge on a yearly basis for Open Access consumers of the State in addition to levy of Cross subsidy surcharge specified in Tariff Policy 2016 on the basis of latest data for previous 12 months commencing from September 2016 to August 2017.

4.28 The Petitioners have computed the additional surcharge by considering the weighted average monthly fixed rate of surrendered power, which is based on daily weighted fixed rate of the generating station in the surrendered power. The Petitioners worked-out additional surcharge as shown in the table below:

Table 95 : Determination of additional surcharge by Petitioners

Month	Energy Entitlement (MU)	Energy Scheduled (MU)	Energy Surrendered (MU)	Effective Cost (Rs./kWh)	OA Consumption (MU)	Cost of Surrendered Energy due to OA (Rs. Crore)
	(1)=(2)+(3)	(2)	(3)	(4)	(5)	(6)=(5)*(4)
Sep-16	7606.6	5106.2	2500.3	1.04	88	9.13
Oct-16	8335.7	5486.7	2849	1.01	83.6	8.44
Nov-16	7717.2	5821.3	1895.9	1.14	92	10.52
Dec-16	7505.3	6133.4	1372	1	117.3	11.77
Jan-17	7816.6	5969.9	1846.8	1.17	119.4	13.98
Feb-17	7237.5	5451.4	1786.1	1.11	94.3	10.47
Mar-17	7634.8	5671.4	1963.3	0.75	60.2	4.52
Apr-17	7787.0	5786.1	2000.9	0.87	42.4	3.67
May-17	6039.1	6039.1	0	0.99	90.8	9.03

Month	Energy Entitlement (MU)	Energy Scheduled (MU)	Energy Surrendered (MU)	Effective Cost (Rs./kWh)	OA Consumption (MU)	Cost of Surrendered Energy due to OA (Rs. Crore)
Jun-17	7509.1	5181.6	2327.5	0.9	43.6	3.9
Jul-17	7162.5	4977.5	2185	0.61	57.4	3.5
Aug-17	7949.9	5449.6	800.9	1.4	37.2	5.2
Total	**90301.3**	**67074.1**	**21527.7**		**926.4**	**94.13**
Additional Surcharge on OA Consumers (Rs./Unit) (6)/(5)*10						**1.02**

4.29 The Petitioners have thus determined the additional surcharge of Rs 1.02 per unit on the power drawn by the Open Access consumers from the date of issuance or applicability of this Retail Supply Tariff Order by the Commission.

Commission's Analysis

4.30 The Commission has considered the submissions made by the Petitioners and stakeholders in light of the provisions specified in the clause 5.8.3 of the National Electricity Policy, Section 42(4) of the Electricity Act 2003 besides relevant clause 13.1 of MPERC (Term & conditions for Open Access in MP) Regulations, 2005 and determined additional surcharge on a yearly basis for Open Access consumers of the State in addition to levy of Cross subsidy surcharge specified in the Tariff Policy 2016.

4.31 The Commission has examined the methodology proposed by the Petitioners in regard to computation of additional surcharge and has approved the same for determination of additional surcharge to be recovered from Open Access consumers for FY 2017-18 on the basis of latest data made available by Petitioners for previous 12 months commencing from September 2016 to August 2017. The Commission has computed the additional surcharge by considering the average monthly fixed rate arrived based on daily least fixed rate of generating stations whose energy was surrendered due to open access consumers. The Commission worked-out additional surcharge as shown in the table below:

Table 96 : Determination of additional surcharge

Sl no	Months	Energy entitlement (MU)	Energy Scheduled in (MU)	Energy Surrendered (MU)	Average monthly fixed rate (based on daily least fixed rate) (Rs per unit)	OA Units (MU)	Cost of Surrendered Energy due to Open Access (Rs. Cr.)
1	**2**	**3**	**4**	**5=3-4**	**6**	**7**	**8=(7*6)**
1	Sep-16	7606.6	5106.2	2500.3	0.56	88.0	4.92
2	Oct-16	8335.7	5486.7	2849.0	0.54	83.6	4.53

Sl no	Months	Energy entitlement (MU)	Energy Scheduled in (MU)	Energy Surrendered (MU)	Average monthly fixed rate (based on daily least fixed rate) (Rs per unit)	OA Units (MU)	Cost of Surrendered Energy due to Open Access (Rs. Cr.)
3	Nov-16	7717.2	5821.3	1895.9	0.74	92.0	6.77
4	Dec-16	7505.3	6133.4	1372.0	0.65	117.3	7.64
5	Jan-17	7816.6	5969.9	1846.8	0.62	119.4	7.46
6	Feb-17	7237.5	5451.4	1786.1	0.56	94.3	5.31
7	Mar-17	7634.8#	5671.4	1963.3#	0.61	60.2	3.68
8	Apr-17	7787.0	5786.1	2000.9	0.73	42.4	3.09
9	May-17	7629.7	6039.1	1590.6	0.63	90.8	5.76
10	Jun-17	7509.1	5181.6	2327.5	1.27	43.6	5.53
11	Jul-17	7162.5	4977.5	2185.0	1.34	57.4	7.69
12	Aug-17	6250.5#	5449.6	800.9	1.25	37.2	4.64
Total		**90192.4**	**67074.1**	**23118.3**		**926.4**	**67.01**
Additional Surcharge on OA Consumers (Rs./Unit) = (8/7*10)							**0.723**

#- The Commission has noted that the values submitted in the Petition are in variance with the Annexure submitted along with the Petition. The Commission has considered the numbers submitted in the Annexure.

4.32 The Commission has thus determined the additional surcharge of Rs 0.723 per unit on the power drawn by the Open Access consumers from the date of applicability of this Retail Supply Tariff Order.

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 PPCA 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.

5.4 The Petitioners have submitted that PPCA charge shall be in the form of paisa 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 treated as part of energy charge.

5.5 The PPCA charge shall be uniformly applicable to all categories of consumers of the discoms. The PPCA charge shall also be uniformly applicable to all categories of open access consumers for the quantum of such supply as is availed by them from the discoms.

5.6 Since on PPCA charge is a part of energy charge and uniformly applicable to all categories of consumers, average tariff will change to the tune of applicable PPCA charge. Therefore, it will be more appropriate to add per unit PPCA rate in the formula for determination of cross subsidy surcharge for various categories of consumers under the term “T” in CSS formula.

5.7 MPPMCL, Jabalpur is a holding company and has been authorized by the discoms to procure power on behalf of them for retail supply to consumers. MPPMCL shall work out the rate of PPCA every quarter based on change in average cost of power purchase during the preceding quarter based on the bills received by them from the Generators. The information shall be prepared in the manner as decided by the Commission in the Tariff Order for every month of the “preceding quarter” and summated thereafter for the quarter.

5.8 MPPMCL shall workout “normative sale” based on normative PGCIL, transmission and distribution loss (percentage /quantum) for the months of preceding quarter, as provided in the Tariff Orders, and the total ex-bus power drawn during the preceding quarter.

5.9 PPCA charge shall be worked out by MPPMCL based on the formula provided by the Commission and the discoms shall be advised by them from time to time to incorporate the PPCA charge for billing purposes for the billing quarter. This exercise should be completed at least 15 days before the commencement of the billing quarter. MPPMCL shall simultaneously submit all relevant details of calculations along with supporting details to the Commission within 7 days of the completion of the exercise.

5.10 If the Commission finds after reviewing the details submitted by the MPPMCL, any over or under recovery of PPCA charge, it may direct the MPPMCL and the discoms to make required changes in PPCA charge billing and any further adjustments in consumer bills that it may consider appropriate. The discoms shall commence billing of PPCA charge from the first day of the billing quarter.

Commission's analysis

5.11 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.

5.12 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.

5.13 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.

5.14 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.

5.15 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 consumed 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.

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

5.17 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.

5.18 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 97: 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							

5.19 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.

5.20 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.

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

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

5.23 Following illustration is given for the purpose of understanding:

5.24 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.

5.25 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 98: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
Month/Year	**Region**	**%**	**%**	**%**
January, 2018	W.R.	3.77%	2.87%	16.78%
	E.R.	2.09%		
February, 2018	W.R.	3.77%	2.87%	16.78%
	E.R.	2.09%		
March, 2018	W.R.	3.77%	2.87%	16.78%
	E.R.	2.09%		
April, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
May, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
June, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
July, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
August, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
September, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
October, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
November, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
December, 2018	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
January, 2019	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
February, 2019	W.R.	3.57%	2.71%	15.91%

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	**%**	**%**	**%**
	E.R.	2.29%		
March, 2019	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		

* 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: RETAIL TARIFF DESIGN

Legal Position

6.1 In exercise of the powers vested under Section 61 and Section 62 of the Electricity Act, 2003 and all other powers enabling in this behalf, the Commission has determined the Aggregate Revenue Requirement and Tariff for FY 2018-19 for the Petitioners. Due consideration was given to the submissions made by Petitioners, Stakeholders, suggestions made by State Advisory Committee and all other relevant material. While determining tariff for various consumer categories, the Commission has given due consideration to the relevant provisions of the Electricity Act, 2003, Tariff Policy 2016 and relevant Regulations.

Commission's Approach to Tariff Determination

6.2 As per advice of the Energy Department GoMP letter No.F 05-15/2011/13 dated 14.3.2018, uniform retail supply tariffs for each consumer category in all the three Discoms shall be continued for FY 2018-19.

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

Linkage to Average Cost of Supply

6.4 The Commission directed Discoms to determine the voltage wise cost of supply in compliance to the directives given in the judgment passed by Hon'ble Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010. In this regard, Petitioners have submitted that aforesaid judgement of the Hon'ble Appellate Tribunal for Electricity (APTEL) has been challenged in the Hon'ble Supreme Court of India. However, as per directive of the Commission, Petitioners have submitted the details of calculation of the voltage wise cost of supply as per the methodology provided by the Hon'ble APTEL.

6.5 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.

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

In the absence of requisite data, the Hon'ble APTEL has further advised that the power purchase cost which is the major component of the Discoms' costs can be apportioned to different voltage levels in proportion to the sales 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.

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

(i) Voltage wise cost of supply has been computed for above 33 kV and 33 kV and 11 kV (inclusive of LT) categories only.
(ii) Sales as admitted by the Commission for above 33 kV and 33 kV and 11 kV (inclusive of LT) categories have been considered.
(iii) Losses as specified in the Tariff Regulations for FY 2018-19 have been considered for the Petitioners.
(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 of losses as submitted by the Petitioners.
(v) Power purchase costs at the Discom periphery for above 33 kV, 33 kV and 11 kV (inclusive of LT) based on the voltage-wise input energy have been considered. All other costs of the Discom are allocated based on the sales to each voltage-level.
(vi) Voltage wise total cost derived has been divided by voltage wise sales for working out the voltage wise cost of supply

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

Table 99: 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	3,117	6,543	42,991	52,652

Technical and Commercial losses submitted by the Petitioner	%	4.89%	5.91%	13.14%	20.15%
Energy input submitted	MU	3,278	7,312	56,860	67,449
Energy input admitted	MU	3,205	7,131	55,514	65,851
Energy lost admitted (Technical up to 33kV and 11 kV + LT- technical and commercial)	MU	88	588	12,523	13,199
Commercial loss assumed as 50% of 11kV and LT overall losses	MU			6,261	6,261
Balance 50% commercial losses for all voltage in proportion to sales	MU	371	778	5,113	6,261
Net energy loss admitted	MU	459	1,366	11,374	13,199
Net energy input	MU	3,576	7,909	54,365	65,851
Power Purchase Costs - allocated based on voltage-wise net energy input	Rs. Crore	1,305	2,952	20,192	24,449
Other costs - allocated based on voltage-wise sales	Rs. Crore	438	856	5,712	7,005
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	36	74	481	591
Recoveries of Past	Rs. Crore	55	114	734	903
Total Costs (ARR requirement)	Rs. Crore	1,762	3,848	26,156	31,767
Voltage-wise Cost of Supply	**Rs. /unit**	5.65	5.88	6.08	6.03

6.9 Consumer category wise approximate cross-subsidy worked out based on voltage wise cost of supply for FY 2018-19 is shown in the table below:

Table 100: Cross-subsidy based on voltage wise cost of supply for FY 2018-19 for the State

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV			

Category	VCoS (Rs /unit)	Average billing rate (Rs /unit)	Ratio of Average Billing Rate to Voltage-wise Cost of supply (%)
LV			
LV-1: Domestic Consumers	6.08	6.07	100%
LV-2: Non-Domestic	6.08	8.36	137%
LV-3.1: Public Water Works & Street light	6.08	5.72	94%
LV-4: Industrial	6.08	7.99	131%
LV-5. Agriculture	6.08	5.10	84%
HV			
HV-1: Railway Traction	5.65	5.57	98%
HV-2: Coal Mines	5.79	7.63	132%
HV-3.1: Industrial	5.65	7.06	125%
HV-3.2: Non-Industrial	5.94	8.00	135%
HV-3.3: Shopping Mall	5.89	7.77	132%
HV-3.4: Power Intensive	5.81	5.90	101%
HV-4: Seasonal & Non-seasonal	5.92	7.89	133%
HV-5.1: Irrigation, PWW and other than Agriculture	5.84	6.21	106%
HV-6: Bulk Residential Users	5.90	6.22	105%
HV-7: Synchronization Power to Generators	5.91	8.87	150%
Total	**6.03**	**6.03**	**100%**

6.10 While determining the tariffs for FY 2018-19, 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 FY 2018-19 works out to Rs. 6.01 per unit as against Rs. 6.25 per unit for FY 2017-18. The table below shows the cost coverage (Average realization in percentage of Average cost of supply) on account of tariff for FY 2018-19 as compared to the cost coverage in the tariff order for FY 2017-18:

Table 101: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2017-18 (as per tariff order)	FY 2018-19 (achieved as per this tariff order)
LV categories		
Domestic	96%	101%
Non-domestic	134%	139%
Public water works & Street Light	94%	95%
Industrial	125%	132%
Agriculture	86%	84%
HV categories		
Railways	-	92%
Coal Mines	130%	126%
Industrial	123%	117%
Non-industrial	134%	133%
Irrigation, PWW and Other than agriculture	94%	103%
Bulk residential users	102%	103%

6.11 The cost structure has undergone a change during the year as explained in previous sections of this order. Further, in compliance to the Hon'ble APTEL judgment dated 9 January, 2017 in the matter of Appeal No.134 of 2015 wherein it has been observed that the State Commission while issuing the Retail supply tariff orders and for purpose of avoiding tariff shocks to consumers, should also identify the roadmap for reduction of cross subsidies. The Commission has been consciously making efforts over the past several years to reduce the cross-subsidy levels across all consumer categories. In this Order, the Commission has not allowed any increase in the existing Tariffs, but due to change in the consumer sales ratios, the category-wise Cross Subsidy has shown inadvertent variance with respect to the previous year's Tariff Order.

6.12 After giving due consideration to the suggestions/ comments of the Stakeholders and the proposals submitted by the Discoms, the Commission has made some changes in the tariff design for FY 2018-19. These changes are mentioned in following paragraphs:

i. **Fixed Charges Rationalisation for LV 1.2:** The fixed charges shall be levied considering 0.1 kW for every 15 units or part thereof consumed for LV 1.2 category instead of 0.5 kW for every 75 units or part thereof consumed. The fixed charges are also proportioned to 0.1 kW.

ii. **Fixed Charges of Temporary/DTR Meter Connection of LV 1.2:** The fixed charges levied for Temporary/DTR meters of LV 1.2 category is reduced from Rs. 390 and Rs. 350 per kW sanctioned load per month to Rs. 300 and Rs. 250 per kW sanctioned load per month for urban and rural connections, respectively.

iii. **Increase in Rebate to Prepaid Consumers for Domestic and Non-Domestic categories:** In order to promote prepaid metering, rebate has been increased from 20 paise per unit to 25 paise per unit to the energy charges.

iv. **Additional charge for Excess connected load or Excess demand for Domestic Consumers**: No extra charges are applicable on the energy/fixed charges due to the excess demand or excess connected load.

v. **Temporary Load for Renovation/Upgradation for LV 1 Category:** In case of temporary requirement for renovation/upgradation of premises, additional load is allowed to be used from existing metered connection on the same tariff applicable for permanent connection. Provided that the total load used in the premises at a time should not exceed 130% of its sanctioned load.

vi. **Applicability of LV 2.2 Category:** The applicability of LV 2.2 Category has been revised to "any other establishment which is not covered in other LV categories" instead of "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."

vii. **Temporary Tariff:** Wherever the rates for Temporary connection/ supply were charged at 1.3 times, the same have been reduced to 1.25 times the applicable tariff.

viii. **Minimum Consumption for LV 4 Category:** The minimum consumption for LV 4 Category has been reduced from 15 and 30 units per HP per month to 10 and 20 units per HP per month for rural and urban connections, respectively.

ix. **Seasonal consumers** under LV-4 and HV-4 tariff categories are now allowed maximum demand to the extent of 34.5% of CD (115% of 30% of CD) in any month during the declared off season.

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

The normative units for agriculture consumers have been revised for urban and rural connections as per table below:

Table 102: Normative Consumption for Unmetered Agriculture Consumers

Particulars	**No. of units per HP of sanctioned load per month**	
	Urban/Rural Area	
Type of Pump/Motor	**April to Sept**	**Oct to March**
Three Phase	**95**	**170**
Single Phase	**95**	**180**

xi. **Increase in Contract Demand and Connected Load:** For demand-based tariff for LT 5.3 category, the upper limit for contract demand and connected load has been revised from 100 HP to 150 HP.

xii. **Applicability for Urban Tariff for Industrial Growth Centres:** The Commission has clarified that urban tariff is applicable also for Notified Industrial areas/ Industrial parks receiving supply under **urban discipline**.

xiii. **Increase in rebate for new railway traction projects:** The rebate in energy charges for new railway traction projects has been increased from 10% to 15% and shall be allowed till FY 2021-22.

xiv. **Applicability of HV 3.1 Category:** Cold storages have been included in the HV 3.1 Category.

xv. **Rebate for existing HT connections:** Instead of 10% rebate on incremental consumption, a flat 60 paise per unit rebate has been introduced irrespective of whether the increase in consumption is due to load enhancement or otherwise**.**

xvi. **Rebate for Captive power plant consumers:** The applicability of the rebate has been allowed till FY 2021-22 and limited only for the captive plants located in MP.

xvii. **Rebate for Open Access consumers:** A rebate of Rs 1 per Unit on incremental consumption is allowed to consumers presently meeting their demand through open access and would be switching their consumption from open access to Licensee.

xviii. **Conversion of Existing LT Industrial/Non-domestic connection to corresponding HT connection:** A rebate of Rs. 1 per unit in the energy charges of HV 3 category shall be provided to those LT consumers who convert to HV 3 category during FY 2018-19.

xix. It has been clarified that rebate on incremental consumption would not be applicable for green field projects which are getting rebate of Rs 1 per unit.

xx. A new tariff category has been introduced for charging of electric vehicle/electric rickshaws in LV and HV separately.

xxi. Excess demand for HT temporary tariff, presently billed at 1.5 times temporary tariff has been reduced to 1.2 times.

A7: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2017-18

The response submitted by Discoms on the directives issued by the Commission in the Retail Supply tariff order for FY 2017-18 and the Commission's observations/directions thereon are given below:

7.1 Meterization of unmetered connections

Commission's Directives:
The Commission has noted the submission of Discoms. East & West Discoms have still not submitted the definite timeline for 100% meterization of Agricultural DTRs. The Commission directs them to submit the timeline for 100% meterization of pre-dominant Agricultural DTRs within 3 months. The Commission also directs all discoms to send the quarterly progress report of meterization.

East Discom submission:
The quarterly progress report of Meterization is being regularly submitted before the Commission. The latest submission of the report has been done vide letter no. Discom/EZ/WS/2880 dated 20 September, 2017.

Central Discom submission:
The quarterly progress report of Meterization is being regularly submitted before the Commission. The reports for quarter ending June 2017 & September 2017 have already been submitted vide letter No.416 & 506 respectively.

West Discom submission:
The quarterly progress report of Meterization is being regularly submitted before the Commission. Further, Discom has submitted the Meterization plan of Pre-Dominant Agricultural DTRs vide Letter Number: MD/WZ/05/Comm/TRAC/17124 submission dated 25 August, 2017.

Commission's observations/ directions:
The Commission has noted the submission of Discoms and has obtained the latest reports from the Discoms for Quarter ending Dec 2017. The Commission has observed that the progress of the Discoms regarding DTR meterization for the year 2017-18 is not satisfactory. The Commission further directs the Discoms to achieve 100% meterization of pre-dominant Agricultural DTRs adhering to the timeline submitted to the Commission by the Discoms.

7.2 Issue of tariff card with first bill based on new tariff

Commission's Directives:
The Commission has noted the submission of Discoms and directs that the practice of providing tariff cards should be continued.

East Discom submission: Information related to tariff of different categories for FY 2017-18 has been provided to the consumers through tariff cards for LT Consumers and Tariff schedule booklets for all HT Consumers.

Central Discom submission:
Information related to tariff of different categories for FY 2017-18 has been provided to the consumers through tariff cards for LT Consumers and Tariff schedule booklets for all HT Consumers.

West Discom submission:
Information related to tariff of different categories for FY 2017-18 has been provided to the consumers through tariff cards for LT Consumers and Tariff schedule booklets for all HT Consumers.

Commission's observations/ directions:
The Commission has noted the submission of Discoms and directs that the practice of providing tariff cards should be continued.

7.3 Accounting of rebates/incentives/surcharge

Commission's Directives:
The Commission has noted the submission of Discoms and directs Discoms to submit a comprehensive report to the Commission with the next tariff petition filing.

East Discom submission:
A comprehensive report on this issue has already been submitted to the Commission via email dated 18 December, 2017.

Central Discom submission:
A comprehensive report on this issue has already been submitted to the Commission dated 14 December, 2017 via letter no MD/CZ/Comml-III/1555.

West Discom submission:
A comprehensive report on this issue has been submitted to the Commission dated 12 December, 2017 via letter no MD/WZ/05/COM/TRAC/24011.

The brief summary of incentives/Rebate/Surcharge for FY 2015-16 & FY 2016-17 for HV Categories is as shown below:

Table 103: Summary of Incentive/Rebate/Surcharge submitted by the Petitioners (in Rs. Crore)

FY	2015-16			2016-17			2017-18		
Discom	Addl Charge Recovered	Rebate Provided	Net Impact	Addl Charge Recovered	Rebate Provided	Net Impact	Addl Charge Recovered	Rebate Provided	Net Impact
Central	47	(130)	(83)	25	(70)	(46)	40.56	(160.26)	(119.69)
East	73	(177)	(104)	50	(190)	(140)	24	(139)	(115)
West	66	(199)	(133)	23	(265)	(242)	13.33	(226.65)	(213.32)

Commission's observations/ directions:
The Commission has noted the submission of Discoms and directs Discoms to submit a comprehensive report to the Commission by 30th September 2018 including consumer wise and

category wise increase/decrease in sales and revenue, for each rebate/incentives/surcharge with analysis of impact on consumer wise sales/revenue. A proper and meaningful information derived from the available data by using professional Data analytics should be submitted to the Commission.

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

Commission's Directives:
The Commission noted the submission of Discoms. The Commission directs the Discoms to submit the report on the subjected study along with the next tariff petition.

Consolidated submission:
Detailed technical study of distribution network to ascertain voltage wise cost of supply is associated with the study of segregation of technical and commercial losses. The study of technical and commercial losses is very cumbersome and exhaustive task. However, a preliminary study has been conducted considering sample feeders to ascertain the methodology of segregation of technical and commercial losses. Further, petitioners have submitted that, a comprehensive study will be submitted to Commission by September 2018.

Commission's observations/ directions:
The Commission noted the submission of Discoms. The Commission directs the Discoms to submit the report on the subjected study by 30th Sep, 2018.

7.5 Impact assessment study for switching from KWh billing to KVAh billing

Commission's Directives:
The Commission noted the submission of Discoms. The Commission directs the Discoms to submit the comprehensive study report referring to other States where KVAH billing is prevalent with the next tariff petition.

Consolidated submission:
A Report on Impact assessment study for switching from kWh billing to kVAh billing is submitted to the Commission vide Letter No. CGM (RM)/ARR FY-19/1212 dated 17 February, 2018. The summary of the report is as below:

Table 104: Summary of Impact of Switching from kWh to kVAh billing

Category	East		West		Central		State	
	Conv. Factor	Net Impact	Conv. Factor	Net Impact	Conv. Factor	Net Impact	Conv. Factor	Net Impact
HV 2.1 11 kV Coal Mines	0.937	0.03%	n/a	n/a	0.927	-0.05%	**0.936**	**0.00%**
HV 2.1 33 kV Coal Mines	0.93	0.03%	n/a	n/a	0.916	-0.05%	**0.923**	**0.00%**
HV 2.1 132 kV Coal Mines	0.938	0.00%	n/a	n/a	n/a	n/a	**0.938**	**0.00%**
HV 3.1 33 kV Industrial Feeder	0.928	0.04%	0.922	0.01%	0.8945	-0.01%	**0.908**	**-0.01%**

HV 3.1 11 kV Industrial Feeder	0.922	-0.01%	0.922	-0.04%	0.913	0.01%	**0.92**	**-0.05%**
HV 3.1 132 kV Industrial Urban Feeder	0.925	-0.05%	0.791	0.04%	0.93	0.02%	**0.921**	**-0.02%**
HV 3.1 220/400 kV Industrial Urban Feeder	0.889	-0.03%	0.889	0.03%	n/a	n/a	**0.909**	**-0.02%**
HV 3.2 11 kV Non Industrial Feeder	0.895	-0.03%	0.922	-0.01%	0.924	-0.04%	**0.916**	**0.04%**
HV 3.2 33 kV Non Industrial Feeder	0.922	0.04%	0.927	-0.02%	0.946	-0.03%	**0.94**	**0.04%**
HV 3.2 132 kV Non Industrial Urban Feeder	n/a	n/a	0.936	-0.03%	0.9	0.00%	**0.936**	**-0.01%**
HV 3.3 11 kV Shopping Malls	0.927	0.01%	0.932	-0.05%	0.936	-0.05%	**0.933**	**0.01%**
HV 3.3 33 kV Shopping Malls	0.928	-0.02%	0.929	0.05%	0.929	-0.02%	**0.929**	**0.02%**
HV 3.4 33 kV Power Intensive Industries	0.934	-0.05%	0.926	-0.02%	0.927	-0.01%	**0.927**	**-0.01%**
HV 3.4 132 kV Power Intensive Industries	n/a	n/a	0.924	0.05%	0.936	0.03%	**0.929**	**0.03%**
HV 4.1 11 kV Seasonal	0.899	0.05%	0.932	-0.03%	n/a	n/a	**0.921**	**0.04%**
HV 4.1 33 kV Seasonal	0.922	-0.03%	0.923	0.00%	0.94	0.02%	**0.924**	**-0.02%**
HV 5.1 11 kV PWW, Group and Lift Irrigation	0.913	0.03%	0.896	0.04%	0.906	-0.05%	**0.905**	**-0.02%**
HV 5.1 33 kV PWW, Group and Lift Irrigation	0.916	0.03%	0.929	-0.03%	0.913	-0.02%	**0.921**	**0.01%**
HV 5.1 132 kV PWW, Group and Lift Irrigation	0.916	-0.03%	0.913	0.01%	0.928	0.03%	**0.918**	**-0.02%**
HV 5.2 11 kV Other Agri	0.913	0.01%	0.944	0.00%	0.926	0.05%	**0.917**	**0.02%**
HV 5.2 33 kV Other Agri	0.93	0.03%	0.932	-0.03%	0.466	-0.02%	**0.927**	**-0.02%**
HV 6.1 33 kV Bulk Residential Users	0.933	-0.01%	0.93	0.00%	0.967	0.01%	**0.951**	**0.05%**
HV 6.2 11 kV Bulk Residential Urban Feeder	0.936	0.03%	0.942	-0.03%	0.941	0.05%	**0.938**	**0.03%**
HV 6.2 33 kV Bulk Residential Urban Feeder	0.945	-0.03%	0.909	-0.03%	0.939	-0.05%	**0.938**	**-0.01%**

Commission's observations/ directions:

The Commission has noted the submissions made by the Petitioners and has observed that the report is not supported with the supporting data linked in excel sheets with system generated monthly MIS reports. Petitioners are therefore directed to submit the revised report as mentioned above latest by 15th July 2018.

7.6 Impact assessment of billing of tariff minimum consumption

Commission's Directives:

Commission is not convinced with the submissions of Discoms and directs them to carry out a detailed study for each category and submit the same within 3 months.

Consolidated submission:

A Report on Impact assessment of Billing of Tariff Minimum Consumption is submitted to the Commission vide Letter No. CGM (RM)/ARR FY-19/1212 dated 17 February, 2018. The summary of the observations of the report are summarised as below:

1. Regulatory Provisions: Till the time proper implementation of two-part tariff doesn't happen, it is imperative to note that the Tariff Minimum Charges shouldn't be withdrawn. Ref: Provisions under the Electricity Act & National Tariff Policy; and provisions of the MPERC Tariff Regulation, 2015 regarding Tariff Minimum Charges.
2. Internal Analysis by Distribution Licensees: Based on the analysis carried out, it can be clearly concluded that:
   i. The recovery of Fixed Charges as a percentage of Fixed Costs in FY 2015-16 in case of East, West and Central Discom is merely 19%, 23% and 20% respectively.
   ii. The recovery of Fixed Charges as a percentage of Fixed Costs in FY 2016-17 in case of East, West and Central Discom is merely 18%, 23% and 19% respectively.

   The Petitioners requested the Commission, to continue billing TMM Charges till the time the Fixed Charges recovered are in line with the Fixed Costs of Discoms

.**Commission's observations/ directions:**
The Commission has noted the submissions made by the Petitioners.

7.7 Segregation of Technical and Commercial losses

Commission's Directives:
The Commission is not convinced with the submissions of Discoms and directs them to carry out a detailed study with representative sample size along with next tariff filing.

Consolidated submission:
The study of technical and commercial losses is very cumbersome and exhaustive task. However, a preliminary study has been conducted considering sample feeders to ascertain the methodology of segregation of technical and commercial losses. Further, the petitioners have submitted that, a comprehensive study will be submitted to Commission by September 2018.

Commission's observations/ directions:
The Commission has noted the submission of Discoms. The Commission directs the Discoms to submit the report on the subjected study by 30th September, 2018.

7.8 Trading Margin petition

Commission's Directives:
The Commission is not convinced with the submission of MPPMCL and directs them to file the petition for determination of Trading Margin with appropriate Commission before next filing of the Tariff Petition for FY 2018-19.

MPPMCL submission:
As per item No.8 (ii) of State Govt. Notification No.2260-F-3-24-2009-XIII dt. 19/03/2013, M.P. Power Management Company Limited has been supplying power to the Discoms at the tariff determined/approved by MPERC and its own expenses are being distributed on actual basis in proportion to the energy drawn by respective Discoms.

MPPMCL has been operating on “No Profit and No Loss” basis. Therefore, till now at the end of each financial year, all the credits received by MPPMCL which formed the part of income of MPPMCL (shown as “other income” in Form S-1) were being passed on to the Discoms in proportion to the energy drawl by respective Discoms as a part of their Power Purchase Costs.

Commission’s observations/ directions:
The Commission has noted the Petitioners submissions.

7.9 Transfer of funds to Pension and Terminal Benefit Trust Fund

Commission’s Directives:
The Commission has directed the Petitioners to file within 3 months the mechanism along with detailed conditions with regards to management of funds.

Consolidated submission:
The regulation 3 (1) of the MPERC (Terms and Conditions for Allowing Pension & Terminal Benefits Liabilities of Personnel of Board and Successor Entities) Regulations'2012 (G-38 of 2012) as under:

> *“the funding of pension and other terminal benefits in respect of personnel including existing pensioners of the Board and the Pensioners of its Successor entities shall be allowed in the manner provided in these Regulations through tariff to be determined by the Commission for the Successor entities from time to time.”*

Further regulation 3((3) provides that:

> *“the liabilities referred to in sub-clause (2)(i) above related to the existing pensioners namely those who have retired from service up to 01-06-2005 onwards on a year to year basis as per the actuarial analysis undertaken by the Madhya Pradesh Power Transmission Co. Ltd. from time to time as per the directions of the Commission.”*

Thus, the Commission in the above manner has safeguarded the interests of all the personnel including existing pensioners of the Board and the Pensioners of its Successor entities. The regulation of the Commission is taking care of all the employees and there has been no default till date.
Further, since all the three Discoms of MP are in state of financial loss and the regular terminal benefits of all the employees are met through the retail tariff, it would not be rational to fund the TBT by further burdening the retail consumers. Any additional contribution on this part would be borrowed at higher interest rate and at the same time it would yield nominal interest by investing the funds of TBT.

Thus, whenever the companies will be in a state of financial surplus the aforesaid directive of the Commission shall be complied with by contributing funds to the TBT.

Commission’s observations/ directions:
The Commission is not satisfied by the submission of the Discoms as the fund has been allowed for TBT which is a part of ARR admitted by the Commission for FY 2017-18 and therefore the

petitioners need to submit a compliance report on transfer of funds to TBT in line with admitted ARR for 2017-18 latest by 30th September 2018.

Fresh Directives:

7.10 Replacement of Stopped and Defective Meters

Commission's Directives:
The Commission has notified the timeline for replacement of stopped and defective meters. However, it has been observed that number of stopped and defective meters is showing an increasing trend over the past few years thereby defeating the very objective of 100% meterization as emphasized by the Commission. Hence, the Commission directs the Licensees to carry out the age-wise analysis of stopped and defective meters and submit an action plan for replacement to the Commission by 31st July, 2018. The Commission has observed that many feeder meters are also lying defective which needs immediate replacement for proper energy audit/accounting.

7.11 Capital Expenditure and Capitalisation details

Commission's Directives:
The Petitioners are directed to prepare and submit asset register to the Commission by next tariff filing and re-submit Capital expenditure and capitalization details in the below format reconciled with the Audited Accounts.

Sr.No.	Scheme	Name of funding agency		Source of Funding						Capex			Capitalisation					
			Project Cost Approved By MPERC	Revised Project cost	Loan	Equity	Consumer Contribution	Grant	Total	Up to FY 2016-17	FY 2017-18 (April-Dec)	Balance to be incurred in Subsequent Years	Up to FY 2016-17	FY 2017-18 (April-Dec)	Balance to be incurred in Subsequent Years	Actual COD	Anticipated COD	Reasons for delay if any
1																		

Annexure-1 (List of Stakeholders)

LIST OF OBJECTORS OF EAST DISCOM - TARIFF FY 2018-19

Sl. No.	Name/ Designation	Address
1	Shri Laxmi Narayan Agrawal	Satna
2	Shri Rajendra Agrawal	1995/A, Gyan Vihar Colony, Narmada Road, Jabalpur 408068
3	Shri D Khandelwal, Advocate	950, Napier Town, Jabalpur
4	Shri K.K. Agrawal	Gangotri Apartment, Goal Bazar, Jabalpur
5	Shri Rajnarayan Bhardwaj, Upadhyaksha	Bharat Krishak Samaj, Distt. Jabalpur
6	Shri Ramesh Patel, Adhyaksha	M/s. Bhartiya Kisan Union (Tikat), Near Mahavir Chowk, Ward No. 8, Sihora, Distt. Jabalpur
7	Shri Omnarayan Singh	Bhartiya Kishan Sangh, Near Panchvati Petrol Pump, Khutehi, Rewa
8	The General Secretary	M/s. MP Ferro Alloys Association, C/o. Ramni Power & Alloys Pvt. Ltd. Main Road, Balaghat
9	Shri Shankar Nagdeo, Chairman	M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur 482 002
10	Shri D R Jeswani	M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur 482010
11	Shri Akhil Mishra	M/s. Lordganj Vyapari Sangh, 26, S.P. Market, Lordganj, Jabalpur
12	Shri Anil Badgotri	M/s. J.K. White, Katni (Unit of JK Cement)
13	Shri R.P. Nigam	M/s. M.P.E.B. Pensioner Association, Jabalpur
14	Shri Vinay Kumar Singh Parihar	Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008
15	Shri P.G. Najpandey	Bhartiya Upbhokta Margdarshak Manch, 6/47, Ram Nagar, Aadhartal, Jabalpur
16	Shri Nikhil Kanaoujiya,	M/s. Hindu Seva Parishad, 1st Floor, Kachhiyana Road, Goalbazar, Jabalpur
17	Shri Dharmendra Singh Thakur	M/s. Hindu Seva Parishad, Village-Bisaura, Post Aamrav, Teh. & Thana Nivas Distt. Mandla
18	Shri Jabir Khan	M/s. Prism Cement Limited, Vill. Mankahari, P.O. Bathia, Distt. Satna
19	Smt. T Gujral	Madan Mahal Jabalpur
20	Shri Deepak Bajpai	M/s. Amba Shakti Ltd.

LIST OF OBJECTORS OF WEST DISCOM - TARIFF FY 2018-19

Sl. No.	Name/ Designation	Address
1	Shri Satish Verma	M/s. All India Consumer Protection Organisation, 5, Datt Gali Rasmandal, Dhar 454001
2	Shri Vasant Shriniwasan	M/s. Grasim Industries Ltd. (Chemical Div.) Birlagram, Nagda 456 331
3	Shri M.C. Rawat, Secretary	The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
4	Dr. Gautam Kothari	M/s. Electricity Consumer Society, C/o. All India Manufacturers Organisation, Industrial Estate, Pologround, Indore 452 015
5	Dr. Gautam Kothari	M/s. Pithampur Audyogik Sangthan, 231, Saket Nagar, Indore 452018
6	Shri S.M. Jain, Director	M/s. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
7	Shri S.M. Jain, President M.P. Chapter	M/s. All India Induction Furnaces Associations , M.P. Chapter, C/o. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
8	Shri Sandeep Jain, Director	M/s. Rathi Iron & Steel Industries Ltd. 103, Laxmi Tower, 576, M.G. Road, Indore 452001
9	Shri Sandeep Jain, Director	M/s. Jaideep Ispat & Alloys Pvt. Ltd. Unit-I 103, Laxmi Tower, 576, M.G. Road, Indore 452001
10	Shri Sandeep Jain, Director	M/s. Jaideep Ispat & Alloys Pvt. Ltd. Unit-II, 103, Laxmi Tower, 576, M.G. Road, Indore 452001
11	Shri Sandeep Jain, Director	M/s. Jaideep Ispat & Alloys Pvt. Ltd. (CCD), 103, Laxmi Tower, 576, M.G. Road, Indore 452001
12	Shri Sandeep Jain, Director	M/s. Rathi Iron & Steel Industries Ltd. (SMS) 103, Laxmi Tower, 576, M.G. Road, Indore 452001
13	Shri Mohit Airen	M/s. Balaji Phosphates Pvt. Ltd., 305, Utsav Avenue, IIIrd Floor, 12/5, Ushaganj, (Jaora Compound), Indore
14	Shri Mohit Airen	M/s. Chatak Agro (India) P Ltd., 305, Utsav Avenue, IIIrd Floor, 12/5, Ushaganj, (Jaora Compound), Indore
15	Shri Satish Sood	M/s. Oasis Distillries Limited, H No. 102, B-2 Metro Towers, Vijay Nagar, Indore
16	Shri Pankaj M Kataria	M/s. Ratlam Wires Pvt. Ltd., Plot No. 3, Industrial Estate, Ratlam
17	Shri Pankaj M Kataria	M/s. Kataria Wires Pvt. Ltd. 304, Jhabua Tower Block No. W-43rd Floor, R.N. Tagore Marg, Indore
18	Shri Pankaj M Kataria	M/s. Kataria Industries Pvt. Ltd., 34-38 & 44 Industrial Area, Ratlam 457 001
19	Shri Pankaj M Kataria	M/s. Kataria Industries Pvt. Ltd., Unit - II, 34-38 & 44 Industrial Area, Ratlam 457 001
20	Shri R.C. Somani	67 CH Scheme No. 74 C, Vijaynagar Indore 452010
21	Shri R.C. Somani	M/s. Kasyap Sweetners Limited, Chetanya Gram, Badnawar, Dist. Dhar (MP) – 454 660.

Sl. No.	Name/ Designation	Address
22	Shri R.C. Somani	M/s. M.B. Agribiz Pvt. Ltd., Plot No. 81-82, Sec-III, Pithampur 454774 Dist. Dhar
23	Shri Rakesh Mehata	M/s. Jaora Flour & Foods Pvt. Ltd., Ploytechnic College Road, Jaora, Distt. Ratlam
24	Shri Rakesh Mehata	M/s. Jaora Flour & Foods Pvt. Ltd., Unit-II, Ploytechnic College Road, Jaora, Distt. Ratlam
25	President	M/s. M P Ginning & Pressing Factories Association, 15/2 Old Plasia, 2nd Floor, Near Ambedkar Bridge, Indore
26	Shri Ashok Khandelia, President, Shri R.P. Agrawal	M/s. Association of Industrties, Dewas, 1/B/1, 1B/2A, I.S. Gajra Industria Area, No. 1, A.B. Road, Dewas 455001
27	Director	M/s. Masand Agro Equipment Pvt.Ltd., 70, Shastri Market, Indore 452007
28	Shri Ashwini Kumar Pandey	M/s. Vidyut Mandal Pentioners Association, Indore, 950, M.I.G. II, Scheme No. 71, Sector-B, Indore 452001
29	Shri N.K. Agrawal	M/s. Venktesh Industries, Niwali Road, Sendhwa, Distt. Barwani 451666
30	Proprietor	M/s. Navin Ginning Factory, Verla Road, Sendhwa, Distt. Barwani
31	Shri R.S. Goyal	M/s. Pradeep Cotton Pvt. Ltd., Verla Road, Sendhwa, Distt. Barwani
32	Proprietor	M/s. S.M.O. Industries, Kasarawad, Tahsil Kasarawad, Distt. Khargone
33	Shri Manjit Chawala	M/s. Harman Cotex, Bistan Road, Opp. Dejla Dewada Colony, Khargone 451 001
34	Shri R.S. Goyal	M/s. Shree Balaji Cotton, Khetia
35	Shri R.S. Goyal	M/s. Mittal Global Cot Industries, Pansemal Road, Khetia, Distt. Barwani
36	Shri Prahlad Tayal, President	M/s. Sendhwa Cotton Association, C/o, Pradeep Cotton Pvt. Ltd., Verla Road, Sendhwa, Distt. Barwani
37	Shri R.S. Goyal,	51, Pradesh Nagar, Nemawar Road, Indore 452 001
38	Shri Suresh Agrawal, Adhyaksh	M/s. Agrawal Parishad, 18, Vaibhav Chamber, 1st Floor, 7/1, Ushaganj, Indore 452 001
39	Shri Ravindra Singh Narang	M/s. Sardar Ispat Pvt. Ltd. Tejper Bridge, A.B. Road, Rajendra Nagar, Indore
40	Shri M.C. Badjatiya	M/s. Prem Textiles International Pvt. Ltd. 21-C, Sector C, Industrial Area, Sanwar Road, Indore 452015
41	Shri Vishal Mahajan	M/s. Suchita Industries, Khargone
42		M/s. Porwal Auto Components Ltd., 209, Industrial Sector, Pithampur, Distt. Dhar 454775
43	Shri Gajanan Yadav	M/s. Vedanjay Power Pvt. Ltd., Plot No. 4/F/53/Above BOI, Nai Sadak, Scheme No. 78, A.B. Road, Indore 452010
44		M/s. Freewings Power & Infra limited, "Power House"C 100, Sec-

Sl. No.	Name/ Designation	Address
		2, Devendra Nagar, Raipur-492009 (C.G)
45	Shri R.D. Kirtani MD	M/s. Gajra Differential Gears Limited, Lohar Pipaliya, Kshipra, A.B. Road, Dewas
46	Shri Alok Dave	M/s. Association of Industries Madhya Pradesh, Udyog Bhawan, Pologround, Industrial Estate, Indore
47	Shri Kailash Yadav	M/s. Kshipra Upbhokta Sangrakshan Samiti, 17/1 Durga Colony, Ankpat Marg, Ujjain 456006
48	Mohd. Zamil Ahmed Ansari	M/s. Powerloom Bunkar Sangh, Abdul Rab Seth Sahab Niwas, Chandrakala, Burhanpur
49	Shri Arun Chaturvedi	M/s. Vidyut Upbhokta Adhikar Sangrakshan Samiti, C-2/14, Mahananda Nagar, Ujjain
50	Shri Sushil Sharma	Vidyut Mandal Karmchari Union, 197, K Sector A, Scheme No. 71, Gumasta Nagar Main Road, Indore
51	Shri Manjeet Singh Chowla, Shri R.C. Somani & Shri R.S. Goyal	M/s. Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
52	Shri Harishankar Suryavanshi, Shri Shailendra Kumar Agrawal	IM/s. Indore Electric Contractor Association, 57, Kachhi Mohalla, Near Kushwah Electric, Indore
53	Shri Sanjay Agrawal	M/s. Upbhokta Hit Prahari, 970 Manak Chowk, Mhow, Distt. Indore
54	Shri Sanjay Kumar Agrawal,	Karyalay Vidhayak Pratinidhi, Shri Kailash Vijayvargiye, 970, Manak Chowk, Mhow, Distt. Indore
55	Shri Anand Mishra, Secretary	Akhil Bhartiya Grahak Panchayat, Mhowgaon, Unit-Mhow
56	Shri Mukesh Kaushal, Distt. President	Akhil Bhartiya Grahak Panchayat, (Indore Gramin), Mhow
57	Shri Vinod Singh Gurjar, President	Akhil Bhartiya Grahak Panchayat, Kishanganj Unit Mhow Distt. Indore
58	Shri Kanchan Adhmane	Consumer, Khandwa
59	Shri Praveen Jain	23/2, Shanku Marg, Freeganj, Ujjain
60	Shri Ashish Kapur	Indore
61	Shri Dharmendra Singh	Indore
62	Shri Omprakash Gupta S/o. Shri Mathuralal Gupta	Guptakunj Village Un Distt. Khargone 451440
63	Shri Premnarayan Pratap Sharma	78, Malganj, Bhagatsingh Marg, Indore
64	Shri Devchand S/o	Kundalia, Rampura, The. Manasa, Distt. Neemuch 458118

Sl. No.	Name/ Designation	Address
	Shri Bhagirathji Gurjar	
65	Shri Ashwini Kumar Pandey	301-A, Goyal Vihar, Khajrana Indore 7581801597
66	Shri Kishore Deepak Kodwani	14, Sarvodaya Nagar Indore

LIST OF OBJECTORS OF CENTRAL DISCOM - TARIFF FY 2018-19

Sl. No.	Name / Designation	Address
1	Shri Kamal Rathi	E-2/48 Arera Colony, Bhopal 462016
2	Dr. Shailendra Dube	LIG-155/D, Harshwardhan Nagar, Bhopal-3
3	Shri Alok Agrawal, Sanyojak,	Aam Aadmi Party, Madhya Pradesh, 212, 2nd Floor, Housing Board Complex, Near Subhas Fatak, Bhopal
4	Shri S. Pal., Director	M/s. Vardhman Yarns, Vardhman Textile Limited, A1-A6, Ind. Area-II, Mandideep Distt. Raisen
5	Shri Hemant Gupta	M/s. Amba Shakti Udyog Ltd., M-84, (1st Floor), Greater Kailash, Part-2, M Block Market, New Delhi 110048
6	Dr. Praveen Agrawal	M/s. Madhya Pradesh Chamber of Commerce & Industry, Chember Bhawan, Sanatan Dharm Mandir Marg, Gwalior 474009
7	Shri K.N. Mathur	M/s. HEG Limited, Mandideep, Distt. Raisen 462046
8	Ms. Shruti Bhatia	Indian Energy Exchange Ltd., Unit No. 3,4,5 & 6, Plot No. 7, Fourth Floor TDI Centre, District Centre, New Delhi
9	Shri Joy Acharjee	M/s. Oaua Open Access Users Association, A-49, 2nd Fl, Sector-8, Dwarka, New Delhi 110077
10	Dr. Anoop Hajela,	M/s. United Doctors Federation, Hajela Hospital, Geetanjli Complex, T.T. Nagar, Bhopal
11	Suhas Virani	M/s. Bhopal Hostel Owner's Association, C/o. Virsons Hostel, B-93, Kasturba Nagr, Bhopal 462 023
12	Shri M.C. Bansal	The Justices for Public Cause Foundation, E-5, 1st Floor, Arera Colony, Bhopal 462016
13	Shri Vinay Kumar Singh Parihar	Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008

TARIFF

SCHEDULES

Annexure-2 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2018-19

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

Tariff:

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

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

Monthly Consumption (units)	Energy Charge (paise per unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)
Up to 30 units	310	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	385	50 per connection	35 per connection
51 to 100 units	470	90 per connection	65 per connection

Monthly Consumption Slab (units)	**Energy Charge with telescopic benefit (paise per unit)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	**Rural areas**
101 to 300 units	600	20 for each 0.1 kW load	17 for each 0.1 kW load
Above 300 units	630	22 for each 0.1 kW load	21 for each 0.1 kW 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 fixed charges shall be levied considering every 15 units of consumption per month or part thereof equal to 0.1 kW of load. **Example**: If consumption during the month is 125 units, then the fixed charges shall be levied for 0.9 kW. In case the consumption is 350 units then the fixed charges shall be levied for 2.4 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).	830	300 for each one kW of sanctioned or connected or recorded load, whichever is the highest	250 for each one kW of sanctioned or connected or recorded load, whichever is the highest

Temporary/ 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.	830	70 for each one kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	55 for each one 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	330	NIL	NIL

Minimum Charges: Rs. 1000/- per connection per month is applicable towards energy charges for temporary connection and no minimum charges are applicable for supply through DTR meter for clusters of Jhuggi/Jhopadi.

(ii) Energy Charge and Fixed Charge for un-metered rural domestic connections having connected load upto 500 watts:

Particulars	**Units and Energy Charge to be billed per month for unmetered connections (paise per unit)**	**Monthly Fixed Charge (Rs.)**
Un-metered connection in rural areas having connected load more than 300 Watts and upto 500 watts	75 units @ 430 per unit	75 per connection
Un-metered connection in rural areas having connected load above 200 Watts and up to 300Watts(With two rooms and having Television)	60 units @ 417 per unit	50 per connection

Particulars	**Units and Energy Charge to be billed per month for unmetered connections (paise per unit)**	**Monthly Fixed Charge (Rs.)**
Un-metered connection in rural areas up to 200 Watts (upto two rooms and without Television)	50 units @ 310 per unit	45 per connection

Note: 1. Minimum charges: No minimum charges are applicable to this category of consumers.

<u>Specific Terms and Conditions for LV-1 category:</u>

a) The Energy Charges corresponding to consumption recorded in DTR meter for clusters of Jhuggi/Jhopadi 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) In case of prepaid consumers, a rebate of 25 paise per unit is applicable on the basic energy charges. All other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit.

d) Additional charge for Excess connected load or Excess demand: No extra charges are applicable on the energy/fixed charges due to the excess demand or excess connected load.

e) In case of temporary requirement for renovation/upgradation of premises, additional load is allowed to be used from existing metered connection on the same tariff applicable for permanent connection. Provided that the total load being used in the premises at a time should not exceed 130% of its sanctioned load.

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

Tariff Schedule – LV-2

NON-DOMESTIC:
LV 2.1

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

Tariff:
Tariff shall be as given in the following table:

Sub category	**Energy Charge (paise/unit)** **Urban/ Rural areas**	**Monthly Fixed Charge (Rs.)**	
		Urban areas	Rural areas
Sanctioned load based tariff (only for connected load up to 10 kW)	610	130 per kW	100 per kW
Demand based tariff **Mandatory** for Connected load above 10 kW	610	240 per kW or 192 per kVA of billing demand	200 per kW or 160 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 which is not covered in other LV categories.

Tariff:

Tariff shall be as given in the following table:

Sub category	Energy Charge (paise/unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)	
		Urban areas	Rural areas
Sanctioned load based tariff (only for connected load up to 10 kW) On all units if monthly consumption is **upto 50 units**	620	70 per kW	55 per kW
Sanctioned load based tariff (only for connected load up to 10 kW) On all units in case monthly consumption **exceeds 50 units**	740	115 per kW	100 per kW
Demand based tariff **Mandatory** for Connected load above 10 kW	640	260 per kW or 208 per kVA of billing demand	190 per kW or 152 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	850	220 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	190 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	850 (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/-)	85 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	65 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof
For X-Ray plant	Additional Fixed Charge (Rs. per machine per month)		
Single Phase	540		
Three Phase	760		
Dental X-ray machine	120		

* In case permission for organizing Mela is granted by Competent Authorities of the Government of Madhya Pradesh.

Specific Terms and Conditions for LV-2 category:

a) **Minimum consumption:** The consumer shall guarantee a minimum annual consumption of 240 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) For LV-2.1 and LV-2.2: For the consumers having connected load in excess of 10 kW, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.

d) In case of prepaid consumers, a rebate of 25 paise per unit is applicable on the basic energy charges, all other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit.

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

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	520	240	No Minimum Charges
Municipality/ Nagar Panchayat	500	230	
Gram Panchayat	490	100	
Temporary supply	1.25 times the applicable tariff		
LV 3.2 Street light			
Municipal Corporation/ Cantonment board	520	350	No Minimum Charges
Municipality/ Nagar Panchayat	500	320	
Gram Panchayat	490	100	

Specific Terms and Conditions for LV-3 category:

(a) Incentives for adopting Demand Side Management:

An **incentive** equal to 5 % of Energy Charges shall be given on installation and use of energy saving devices (such as ISI energy efficient motors for pump sets and programmable on-off/ dimmer switch with automation for street lights). **Incentive** will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Such incentive will be admissible from the month following the month in which energy saving devices are put to use and are verified by a person authorized by the Distribution Licensee. This incentive will continue to be allowed till such time these energy saving devices remain in service. The Distribution Licensee is required to arrange wide publicity of above incentive.

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

Tariff Schedule – LV-4

LT INDUSTRIAL

Applicability:

Tariff **LV-4** is applicable to light, fan and power for operating equipment used by printing press and any other industrial establishments and workshops (where any processing or manufacturing takes place including tyre re-treading). These tariffs are also applicable to cold storage, gur (jaggery) making machines, flour mills, Masala Chakkies, hullers, khandsari units, ginning and pressing units, sugar cane crushers (including sugar cane juicing machine), power looms, dal mills, besan mills, and ice factories and any other manufacturing or processing units (excluding bottling plant) producing/processing food items or processing agriculture produce for preservation/increasing its shelf life and Dairy units (where milk is processed to produce other end products of milk other than chilling, pasteurization etc.)

Tariff:

	Category of consumers	**Monthly Fixed Charge (Rs.)**		**Energy Charge (paise per unit) – Urban / Rural Area**
		Urban Areas	**Rural Areas**	
4.1	**Non seasonal consumers**			
4.1 a	Demand based tariff***** (Contract demand up to 150 HP/112kW)	285 per kW or 228 per kVA of billing demand	180 per kW or 144 per kVA of billing demand	630
4.1 b	Temporary connection	1.25 times of the applicable tariff		

*** In case of consumers having contract demand up to 20 HP, the energy charges and fixed charges shall be billed at a rate 30% less than the charges shown in above table for tariff category 4.1a.**

4.2 Seasonal Consumers (period of season shall not exceed 180 days continuously). If the declared season or off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.				
4.2 a	**During season**	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers
4.2 b	**During Off - season**	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual recorded demand, whichever is more	120 % of normal tariff as for Non-seasonal consumers

<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) Demand based tariff is mandatory for all the LT industrial consumers and the licensee shall provide Tri vector/ Bi vector Meter capable of recording Demand in kVA/ kW, kWh, kVAh and Time of Use consumption.

(c) **Minimum Consumption:** Shall be as per following:

i. **For LT Industries in rural areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 120 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 240 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 10 units per HP per month in rural area and 20 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.

(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 for **seasonal consumers**:

i. The consumer has to declare months of season and off season for the current financial year within 60 days of issue of this 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 34.5% of CD (115% of 30% of CD), the consumer will be billed under Non seasonal tariff for the whole financial year as per the tariff in force.

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

Tariff Schedule – LV - 5

AGRICULTURE AND ALLIED ACTIVITIES

Applicability:

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

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

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

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

Tariff:

S. No.	Sub-Category	Monthly Fixed charges (Rs. per HP)	Energy charges (paise per unit)
LV- 5.1			
a) (i)	First 300 units per month	35	430
(ii)	Above 300 units up to 750 units in the month	45	515
(iii)	Rest of the units in the month	45	545
b)	Temporary connections	45	559
c)	DTR metered group consumers	Nil	390
LV-5.2			
a) (i)	First 300 units per month	35	430
(ii)	Above 300 units up to 750 units in the month	45	515
(iii)	Rest of the units in the month	45	545
b)	Temporary connections	45	559

S. No.	Sub-Category	Monthly Fixed charges (Rs.)	Energy charges (paise per unit)
LV-5.3			
a)	Up to 25 HP in urban areas	90 per HP	490
b)	Up to 25 HP in rural areas	70 per HP	470
c)	Demand based tariff (Contract demand and connected load up to 150 HP) in urban areas	230 per kW or 184 per kVA of billing demand	580
d)	Demand based tariff (Contract demand and connected load up to 150 HP) in rural areas	110 per kW or 88 per kVA of billing demand	580

S.No.	Agriculture flat rate tariff exclusive of subsidy*.	Charges payable by the consumer in Rs per HP (for period of 6 months) from April to September	Charges payable by the consumer in Rs per HP (for period of 6 months) from October to March
LV-5.4			
a)	Three phase- urban	700	700
b)	Three phase- rural	700	700
c)	Single phase urban	700	700
d)	Single phase rural	700	700

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

Note: The agriculture consumers in urban area connected to a feeder other than separated agriculture feeder will be billed as per consumption recorded in the meter. Existing unmetered consumers may be billed as per flat rate till meters are installed. Discoms must ensure that meters on all such connections are installed by 31st March, 2019.

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. Energy Department GoMP vide letter No.F 05-15/2011/13 dated 14.3.2018 has conveyed that the flat rate agriculture consumers will continue to pay Rs 1400/- per HP per annum in two six monthly instalments. The state government would pay subsidy to the Discoms for the difference of applicable tariff for this category and bill payble by the flat rate consumers. The matter regarding subsidy due to revised norms was also discussed with the Principal Secretary Energy Department and flat rate consumers shall continue to pay Rs 1400 per HP per annum after revision of the normative units.

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/Rural Area	
Type of Pump/Motor	**April to Sept**	**Oct to March**
Three Phase	**95**	**170**
Single Phase	**95**	**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 website.

1.6 Minimum consumption

(i) **For Metered agricultural consumers (LV-5.1 and LV-5.2):** The consumer shall guarantee a minimum consumption of 30 units per HP or part thereof of connected load per month for the months from April to September and 90 units per HP or part thereof of connected load per month for the months from October to March irrespective of whether any energy is consumed or not during the month.

(ii) **For other than agricultural use (LV-5.3) :**

a) The consumer will guarantee a minimum annual consumption (kWh) based on 180 units/HP or part thereof of contract demand in notified rural areas and 360 units/HP or part thereof of contract demand in urban areas irrespective of whether any energy is consumed or not during the year.

b) The consumer shall be billed monthly minimum 15 units per HP per month in rural area and 30 units per HP per month in urban area in case the actual consumption is less than monthly minimum consumption (kWh).

c) **Method of billing of minimum consumption** shall be as given in the General Terms and Conditions of Low Tension Tariff.

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

1.8 **Delayed payment surcharge** in case of agriculture consumers on LV - 5.4 flat rate tariff shall be levied @ of Rs 1 every month for each block or part thereof of arrears of Rs.100/-. For other sub categories of this Tariff Schedule, the delayed payment surcharge shall be billed as specified under General Terms and Conditions of Low Tension Tariff.

1.9 **Specific conditions for DTR metered consumers:**

a. All the consumers connected to the DTR shall pay the energy charges for the units worked out based on their actual connected load.

b. The Distribution Licensee will obtain consent of such connected consumers for billing as per procedure specified in (a) above.

1.10 One CFL/ LED lamp up to 20W 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.

Tariff Schedule – LV - 6

E- VEHICLE / E-RICKSHAWS CHARGING STATIONS

Applicability:

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging stations. However, tariff for other consumers who use electricity for charging their own Vehicle / Rickshaws shall be the same as applicable for the relevant category of metered connection from which the Vehicle / Rickshaws are being charged.

Applicable Tariff:

Category	Monthly Fixed Charges	Energy Charge (Paise/unit)
Electric Vehicle/ Rickshaw charging installations	Rs 100 per kVA or 125 per kW of Billing Demand	600

a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions of Low Tension tariff.

b) For the consumers in this category, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.

c) 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. **Method of billing of minimum consumption:**

   A. **For metered agricultural consumers and other than agricultural consumers horticulture activity - LV 5.1 and LV 5.2**: The consumer shall be billed minimum monthly consumption (kWh) specified for his category for the month in which his actual consumption is less than prescribed minimum consumption.

   B. **For other consumers where applicable**:

   a. The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.

   b. During the month in which actual cumulative consumption equals or is greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year and only actual recorded consumption shall be billed.

   c. Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

6. **Additional Charge for Excess connected load or Excess Demand:** Shall be billed as per following procedure:

   a) **For demand based tariff:** The consumers availing supply at demand based tariff shall restrict their actual maximum demand within the contract demand. However, in case the actual maximum demand recorded in any month exceeds 115% of the contract demand, the tariff in this schedule shall apply to the extent of 115 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 115% of contract demand (termed as Excess Demand) at the following rates: -

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

      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 130% of the contract demand**: Fixed Charges for Excess Demand over and above the 15 % 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 130% of contract demand**: In addition to Fixed Charges in 1 above, recorded demand over and above 30 % of the contract demand shall be charged at 2 times the normal rate of Fixed Charges.

b) For connected load based tariff: The consumers availing supply at connected load based tariff shall restrict their actual connected load within the sanctioned load. However, in case the actual connected load in any month exceeds 115% of the sanctioned load, the tariff in this schedule shall apply to the extent of 115 % of the sanctioned load only. The consumer shall be charged for the connected load found in excess of 115% of the sanctioned load (termed as Excess Load) at the following rates:-

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

ii. **Fixed Charges for Excess load:** These charges shall be billed as per following, for the period for which the use of excess load is determined in condition i) above:

1. **Fixed Charges for Excess load when the connected load is found up to 130% of the sanctioned load**: Fixed Charges for Excess load over and above the 15 % 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 130% of sanctioned load**: In addition to Fixed Charges in 1 above, connected load found over and above 30 % 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.

d) 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. Incentives/Rebates:

(a) **Rebate on advance payment**: 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) **Rebate for online bill payment:** Rebate of 0.5% on the total bill amount maximum up to Rs 20 and minimum of Rs 5 will be applicable for making online payment of bill.

(d) **Load Factor incentive:** Following slabs of incentive shall be allowed for consumers billed under demand based tariff:

Load factor	Concession in energy charges
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
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
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:

$$\text{Load factor (\%)} = \frac{\text{Monthly consumption X 100}}{\text{No. of hours in the billing month X Demand (KW)}}$$

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.

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.

(e) 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.

8. Other Terms and Conditions:

(a) The Sanctioned Load or Connected Load or Contract Demand should not exceed 112kW / 150 HP except where a higher limit is specified or the category is exempted from the ceiling on connected load. If the consumer exceeds his connected load or contract demand beyond this ceiling on more than two occasions in two billing months during the tariff period, the Distribution Licensee may insist on the consumer to avail HT supply.

(b) 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.

(c) In case the cheque presented by the consumer is dishonoured, without prejudice to Distribution Licensee's rights to take recourse to such other action as may be available under the relevant law, a service charge of Rs. 200 per cheque shall be levied in addition to delayed payment surcharge

(d) Other charges as stated in Schedule of Miscellaneous Charges shall also be applicable.

(e) **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.

(f) 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.

(g) 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 .

(h) 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.

(i) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final.

(j) 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.

(k) **Delayed payment Surcharge for all categories:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date subject to a minimum of Rs.5/- per month for total outstanding bill amount up to Rs. 500/- and Rs 10/ per month for amount of bill more than Rs.500/. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be levied for the period after supply to the consumer is permanently disconnected. This provision shall not be applicable to that category where the levy of delayed payment surcharge has been prescribed separately.

(l) 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.

(m) Use of mix loads in one connection: Unless otherwise permitted specifically in the tariff category, the consumer using mix loads for different purposes shall be billed for the purpose for which the tariff is higher.

(n) Consumers in the notified Industrial Growth Centres/Industrial areas/Industrial parks receiving supply under urban discipline shall be billed urban tariff.

(o) 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.

(p) 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.

(q) If any difficulty arises in giving effect to any of the provisions of this order, the Commission may, by general or special order, direct the Licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

9. Additional conditions for Temporary Supply at LT:

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.

(a) Fixed Charge and Energy Charge for temporary supply shall be billed at 1.25 times the normal charges as applicable to relevant category if not specified otherwise specifically.

(b) 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.

(c) The Sanctioned load or connected load shall not exceed 112kW / 150 HP.

(d) 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.

(e) Connection and disconnection charges and other miscellaneous charges shall be paid separately as may be specified in the Schedule of Miscellaneous Charges.

(f) Load factor concession shall not be allowed on the consumption for temporary connection.

(g) Power factor incentive/penalty shall be applicable at the same rate as applicable for permanent connection.

10. Wherever, there is contradiction in general terms & conditions and specific terms & conditions given for any particular category, the specific terms and conditions shall prevail for that category.

Annexure-3 (Tariff Schedules for High Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2018-19

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS

Table of Contents

Tariff Schedule- HV-1

RAILWAY TRACTION:

Applicability:

This Tariff shall apply to the Railways for Traction loads only.

Tariff:

S. No.	Category of consumer	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)
1	Railway Traction on 132 kV / 220 kV	310	590

Note: A rebate of Rs. 2 per Unit in energy charges is applicable. This rebate shall be applicable up to FY 2021-22.

Specific Terms and Conditions:

(a) In order to give impetus to electrification of Railway network in the State, a rebate of 15% in energy charges for new Railway traction projects shall be allowed for a period up to FY 2021-22 for new projects. 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) 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 115% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 115% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 115% of contract demand on fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand.

(e) **Energy charges for excess demand**: No extra charges are applicable on the energy charges due to the excess demand or excess connected load.

(f) 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 130% of contract demand- Excess Demand over and above 115 % of the contract demand—at the rate of Rs. 341 per kVA

(b) When the recorded maximum demand exceeds 130% of contract demand: - In addition to fixed charges in (a) above, recorded demand over and above 30 % of the contract demand shall be charged—at the rate of Rs. 465 per kVA

While doing so, other provisions of electricity tariff (such as tariff minimum charge etc.) will also be applicable on aforesaid excess demand.

(g) 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.

(h) 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.

(i) 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	620	670	580
	33 kV supply	630	650	570
	132 kV supply	640	630	560
	220 kV supply	650	600	530

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

c. 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. This tariff shall also apply to cold storages.

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 (i) 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	330	660	600
	33 kV supply	510	650	550
	132 kV supply	610	605	525
	220/400 kV supply	620	565	500
3.2	**Non-Industrial**			
	11 kV supply	300	680	630
	33 kV supply	430	670	610
	132 kV supply	540	620	550
3.3	**Shopping Malls**			
	11 kV supply	270	680	625
	33 kV supply	375	660	590
	132 kV supply	510	600	540
3.4	**Power intensive industries**			
	33 kV supply	530	500	500
	132 kV supply	640	480	480
	220 kV supply	660	450	450

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

(c) **Rebate for supply through feeders feeding supply to predominantly rural areas**: HT consumers of this category receiving supply through rural feeders shall be entitled to 5 % rebate on Fixed Charges and 20 % reduction in Minimum Consumption (kWh) as specified above for respective voltage levels.

(d) **Rebate for existing HT connections:** A rebate of 60 paise per unit in energy charges is applicable for incremental monthly consumption w.r.t corresponding month of FY 2015-16. For any new consumer other than green field connection served during and after FY 2015-16, the **base months** for calculation of incremental monthly consumption shall be the first 12 months after availing the connection. The incremental consumption for any month shall be worked out considering the consumption of the corresponding base month.

(e) **Rebate for new HT connections:** A rebate of Rs 1/Unit or 20% whichever would be less is applicable in energy charges for new connection for the consumption recorded. The rebate shall be allowed upto FY 2021-22 from the date of connection for such new projects for which agreements for availing supply from licensee are finalized during and after FY 2016-17.

Provided these connections are served to **green field projects** only and no rebate is applicable for new connections obtain by virtue of change in ownership in existing connection. The consumer availing this rebate shall not be entitled for the rebate of incremental consumption under clause (d) above.

Note: *the green field project shall be those projects where the consumer invests in the construction of new industry/plant from the ground up and there was no prior construction/structure on that particular land.*

(f) Rebate for Captive power plant consumers:

Applicability: The rebate shall be applicable to consumers-

- **i.** Who have been meeting their demand either fully or partially during FY 2016-17 and/or FY 2017-18 through their captive power plants located in Madhya Pradesh.
- **ii.** The rebate shall be applicable upto FY 2021-22 from the date of request submitted by the consumer to the Licensee during and after FY 2017-18. The consumer shall be required to apply to the Licensee for the rebate indicating that he would be willing to avail supply from Licensee by switching consumption from his existing captive power plant.
- **iii.** The **base year** shall be the financial year preceeding the year during which the consumer has applied for switching consumption from his captive power plant to the licensee.
  e.g., If a consumer applies for switching his consumption from captive power plant to Licensee in August, 2018, then his base year for calculation of incremental consumption would be FY 2017-18.
- **iv.** Who have recorded an incremental consumption i.e., an increase in the units consumed from the Licensee in any month of the current year (FY 2018-19) compared to the same month in **base year**.
- **v.** A rebate of Rs 2 per unit shall be applicable on incremental units of the consumer subject to reduction in captive generation as per the methodology given below:-

	Base Year		**Current Financial Year (FY 2018-19)**		**Incremental Consumption from Discom**	**Reduction in Captive Generation**	**Units eligible for 60 paise rebate in energy charges as per Clause (d) of specific terms & conditions**	**Units eligible for Rs 2/ Unit rebate on incremental units**
	Consumption from Discom (Units)	Captive Generation Units	Consumption from Discom (Units)	Captive Generation (Units)	**Units**	**Units**	**Units**	**Units**
	(A1)	(B1)	(A2)	(B2)	X= A2-A1	Y = B1-B2		
Scenario 1	100	90	110	90	10	0	10	0
Scenario 2	100	90	110	80	10	10	0	10
Scenario 3	100	90	110	70	10	20	0	10
Scenario 4	100	90	100	80	0	10	0	0
Scenario 5	100	90	120	80	20	10	10	10

Note: 1) Captive power plant referred above shall be the “Captive Generating Plant” as defined in Rule 3 of the Electricity Rules, 2005.

2)For new consumers added during this tariff period who were fully meeting their demand from their captive power plants during the previous financial year then their consumption from Discom may be treated as zero for the base year.

X = the incremental consumption recorded by the captive consumer in any month of the current financial year compared to the same month of base year.

And

Y = the quantum of reduction in units consumed from captive plant (self-consumption) achieved by the captive consumer in any month of the current financial year compared to the same month in the base year.
For all other cases of incremental consumption i.e when X>Y, the existing rebate of 60 paise per unit in energy charges will be applicable on X-Y units (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3).

Scenario 1: There is no reduction in Captive Generation but only incremental consumption from Discom, hence a rebate of 60 paise in energy charges per unit is applicable on incremental consumption from Discom (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3).

Scenario 2: The incremental consumption from Discom is due to the reduction of captive consumption by same quantum of units hence it will attract a rebate of Rs 2 per unit on incremental units.

Scenario 3: There is higher reduction in Captive Generation as compared to incremental Consumption from Discom hence incremental units consumed from the Discom as shown in the table, shall qualify for a Rebate of Rs 2 per unit.

Scenario 4: There shall not be any rebate due to absence of incremental Consumption from Discom irrespective of reduction in Captive Generation.

Scenario 5: This scenario depicts higher incremental consumption from Discom (X) than reduction in Captive Generation (Y) hence units corresponding to (X-Y) shall qualify for rebate of 60 paise in energy charges per unit (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3) while units Y shall qualify for Rebate of Rs 2 per unit.

(g) Rebate for Open Access Consumers

Applicability: The rebate shall be applicable to consumers

i. Who have been availing open access during the last financial year (FY 2017-18).
ii. Who have recorded an incremental consumption i.e., an increase in the units consumed from the Licensees in any month of the current year (FY 2018-19) compared to the same month in last year (FY 2017-18).

iii. The rebate shall be applicable from the date of request submitted by the consumer to the Licensee during FY 2018-19.

iv. The consumer shall be required to apply with the Licensee for the rebate indicating that he would be willing to avail supply from Licensee by switching consumption from open access.

v. A rebate of Rs 1 per unit shall be applicable on incremental units of the consumer subject to reduction in open access consumption as per the methodology given below.

	FY 2017-18		FY 2018-19		Incremental Consumption from Discom X= A2-A1	Reduction in OA units Y = B1-B2	60 paisa rebate applicable units as per clause (d) of specific terms & conditions	1 rupee rebate applicable unit
	Consumption from Discom (A1)	Wheeled Units (B1)	Consumption from Discom (A2)	Wheeled Units (B2)				
Scenario 1	100	90	110	90	10	0	10	0
Scenario 2	100	90	110	80	10	10	0	10
Scenario 3	100	90	110	70	10	20	0	10
Scenario 4	100	90	100	80	0	10	0	0
Scenario 5	100	90	120	80	20	10	10	10

X = the incremental consumption recorded by the open access consumer in any month of the current financial year as compared to the same month of base year. And

Y = the quantum of reduction in units consumed from open access by the consumer in any month of the current financial year as compared to the same month in the base year.
For all other cases of incremental consumption i.e when X>Y, the existing rebate of 60 paise per unit in energy charges will be applicable on X-Y units (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3).

Scenario 1: There is no reduction in open access consumption but only incremental consumption from Discom, hence a rebate of 60 paise per unit in energy charges is applicable on incremental consumption from Discom (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3).

Scenario 2: The incremental consumption from Discom is due to the reduction of open access consumption by same quantum of units hence it will attract a rebate of Rs 1 per unit on incremental units.

Scenario 3: There is higher reduction in open access consumption as compared to incremental Consumption from Discom hence incremental units consumed from the Discom as shown in the table, shall qualify for a Rebate of Rs 1 per unit.

Scenario 4: There shall not be any rebate due to absence of incremental Consumption from Discom irrespective of reduction in open access consumption.

Scenario 5: This scenario depicts incremental consumption from Discom (X) and reduction in open access consumption (Y) hence units corresponding to (X-Y) shall qualify for rebate of 60 paise per unit in energy charges (as per the rebate for incremental consumption given in clause d in the Specific Terms & Conditions for HV-3) while units Y shall qualify for Rebate of Rs 1 per unit.

(h) Conversion of Existing LT Industrial/Non domestic connection to corresponding HT connection

A rebate of Rs. 1 per unit in the energy charges on the HT tariff shall be provided to those existing LT consumers who convert to HV 3 category during FY 2018-19. This rebate is applicable for FY 2018-19 for the units billed only after the commencement of HT Agreement during FY 2018-19.

(i) 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.

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	340	630	570
33 kV supply	370	620	540
During Off-Season			
11 kV supply	Rs. 340 on 10% of contract demand or actual recorded demand during the season, whichever is higher	756 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 370 on 10% of contract demand or actual recorded demand during the season, whichever is higher	744 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) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

c) The consumer has to declare months of season and off season for the current financial year within 60 days of issue of this 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.

d) The seasonal period once declared by the consumer cannot be changed during the year.

e) This tariff schedule is not applicable to composite units having seasonal and other category loads.

f) 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.

g) 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 34.5% of CD (115% of 30% of CD), the consumer will be billed under HV 3.1 Industrial tariff for the whole financial year as per the tariff in force.

h) 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	250	550
	33 kV supply	270	530
	132 kV supply	300	500
5.2	**Other than agricultural use**		
	11 kV supply	260	555
	33 kV supply	280	535
	132 kV supply	310	505

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 as 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, old age homes, day care centres for senior citizens, rescue houses and orphanages run by Govt./charitable trust**.** 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	290	585	530
	33 kV supply	310	570	510
	132 kV supply	340	530	480
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	180	580	520
	33 kV supply	185	560	500
	132 kV supply	195	520	470

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) 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.

(c) 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 OF POWER FOR GENERATORS CONNECTED TO THE GRID

Applicability:

This Tariff shall apply to those generators who are already connected to the grid and seek to avail power for synchronization with the grid.

Tariff for all voltages:

Category	Energy Charge (Paise/unit)
Generators synchronization with Grid	875

Terms and Conditions:

(a) The supply for synchronization with the grid 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 during the billing month.

(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 shall only be made available after commissioning of the plant.

(e) For the synchronization with the grid, power shall be provided for a maximum period of 2 hours on each occasion.

(f) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization with the grid incorporating the above terms and conditions.

Tariff Schedule – HV - 8

E- VEHICLE / E- RICKSHAWS CHARGING STATIONS

Applicability:

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging stations. However, tariff for other consumers who use electricity for charging their own Vehicles/Rickshaws shall be the same as applicable for the relevant category of connection from which the Vehicles/Rickshaws is being charged at such premises.

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Applicable Tariff:

Category	**Monthly Fixed Charges**	**Energy Charge (Paise/unit)**
HT Supply	Rs 120 per KVA of Billing Demand	590

d) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions for High Tension tariff.

e) For the consumers in this category, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.

f) Other terms and conditions shall be as specified under General Terms and Conditions for High Tension Tariff.

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GENERAL TERMS AND CONDITIONS OF HIGH TENSION TARIFF

The following terms and conditions shall be applicable to all HT consumer categories subject to Specific Terms and Conditions for that category as mentioned in the Tariff Schedule of respective category:

1.1 The contract demand shall be expressed in whole number only.

1.2 Character of Service: The character of service shall be as per the Madhya Pradesh Electricity Supply Code, 2013 as amended from time to time.

1.3 Point of Supply:

(a) The power will be supplied to the consumer ordinarily at a single point for the entire premises.

(b) In case of Railway Traction, the supply at each sub-station shall be separately metered and charged.

(c) In case of coal mines, the power will be supplied ordinarily at a single point for the entire premises. The power may, however, be supplied, on the request of the consumer, at more than one point subject to technical feasibility. In such cases, metering and billing will be done for each point of supply separately.

1.4 **Determination of Demand:** The **maximum demand** of the supply in each month shall be four times the largest number of kilovolt ampere hours delivered at the point of supply during any continuous 15 minutes during the month as per sliding window principle of measurement of demand.

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

Note: The billing demand shall be rounded off to the nearest integer number i.e. the fraction of 0.5 or above will be rounded off to next integer figure and the fraction of less than 0.5 shall be ignored

1.6 **Tariff minimum consumption shall be billed** as follows:

1) The consumer shall be billed for guaranteed annual minimum consumption (kWh) based on number of units per kVA of contract demand specified for his category, irrespective of whether any energy is consumed or not during the year.

2) The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.

3) During the month in which actual cumulative consumption equals or greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year.

4) Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption * (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

1.7 **Rounding off:** All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.

Incentive/ Rebate / penalties

1.8 **Power Factor Incentive:**

Power factor incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 95% and up to 96%	1.0 (one percent)
Above 96% and up to 97%	2.0 (two percent)
Above 97% and up to 98%	3.0 (three percent)
Above 98 % up to 99%	5.0 (five percent)
Above 99 %	7.0 (seven percent)

1.9 **Load factor calculation**

1) The **Load Factor** shall be calculated as per the following formula:

$$\text{Load Factor (\%)} = \frac{\text{Monthly consumption X 100}}{\text{No. of hours in the billing month X Demand (KVA) X PF}}$$

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.

1.10 **Incentive for advance payment:** 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 **Rebate for online bill payment:** Rebate of 0.5% on the total bill amount maximum up to Rs 1000 will be applicable for making online payment of bill.

1.12 **Prompt payment incentive**: 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.

1.13 **Time of Day (ToD) Surcharge / Rebate:** This scheme is applicable to the categories of consumers where it is specified. This is applicable for different periods of the day i.e. normal period, peak load and off-peak load period. The surcharge / rebate on energy charges according to the period of consumption shall be as per following table:

Sr. No.	**Peak / Off-peak Period**	**Surcharge / Rebate on energy charges on energy consumed during the corresponding period**
1.	Evening peak load period (6 PM to 10 PM)	Normal rate of Energy Charge
2.	Off peak load period (10 PM to 6 AM next day)	20 % of Normal rate of Energy Charge as Rebate

Note: Fixed charges shall always be billed at normal rates i.e. ToD Surcharge / Rebate shall not be applied on Fixed Charges

1.14 **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.

1.15 **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 115% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 115% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 115% of contract demand on fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand. The excess demand so computed, if any, in any month shall be charged at the following rates from all consumers except Railway Traction.

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

iii. **Fixed charges for Excess Demand: -** These charges shall be billed as per following:

1. **Fixed charges for Excess Demand when the recorded maximum demand is up to 130% of the contract demand:** Fixed charges for Excess Demand over and above the 15 % 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 130% of contract demand**: In addition to fixed charges in 1 above, recorded demand over and above 30 % 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 115 kVA at normal tariff.

   b) Above 115 kVA up to 130 kVA i.e. for 15 kVA at 1.3 times the normal tariff.

   c) Above 130 kVA up to 140 kVA i.e. for 10 kVA at 2 times the normal tariff.

iv. The excess demand computed in any month will be charged along with the monthly bill and shall be payable by the consumer.

v. 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.

1.16 **Delayed Payment Surcharge:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be applicable after supply to the consumer is permanently disconnected.

1.17 **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.

1.18 **Temporary supply at HT:** The character of temporary supply shall be as defined in the M.P. Electricity Supply Code, 2013. If any consumer requires temporary supply then it shall be treated as a separate service and charged subject to the following conditions:

(a) Fixed Charges and Energy Charges shall be charged at 1.25 times the normal tariff. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the monthly fixed charges. Month shall be considered as the number of total days in that calendar month.

(b) The consumer shall guarantee minimum consumption (kWh) as applicable to the permanent consumers on pro-rata basis based on number of days as detailed below:

$$\text{Minimum consumption for additional supply for temporary period} = \frac{\text{Annual minimum consumption as applicable to permanent supply X No. of days of temporary connection}}{\text{No. of days in the year}}$$

(c) The billing demand shall be the demand requisitioned by the consumer or the highest monthly maximum demand during the period of supply commencing from the month of connection ending with the billing month, whichever is higher. For example:

Month	Recorded Maximum Demand (kVA)	Billing Demand (kVA)
April	100	100
May	90	100
June	80	100
July	110	110
August	100	110
September	80	110
October	90	110
November	92	110
December	95	110
January	120	120
February	90	120
March	80	120

(d) The consumer shall pay the estimated charges in advance, before serving the Temporary Connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given on such advance payment.

(e) The consumer shall pay rental for the metering system.

(f) Connection and Disconnection Charges shall also be paid.

(g) In case of existing HT consumer, the temporary connection may be given through existing permanent HT connection on following methodology of assessment:

i. Fixed Charges shall be charged at 1.25 times the normal tariff

ii. Deemed contract demand (DCD) = CD for permanent connection + sanctioned demand for temporary connection.

iii. Billing demand and fixed charges for the month shall be worked out in the following manner :

1. When recorded MD in the month is found to be less than deemed CD for the month, fixed charges for the month shall be sum of fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charge at normal tariff on highest of **a** or **b**,

   where **a** is Recorded MD minus temporary sanctioned demand and **b** is 90% CD of permanent connection.

2. When recorded MD in the month is found to be equal to deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent connection + fixed charges at temporary tariff on 100% temporary sanctioned demand.

3. When recorded MD in the month is found to be in excess of deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent connection + fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charges on 100% excess demand over and above deemed CD at 1.2 times of temporary tariff.

4. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the monthly fixed charges. Month shall be considered as the number of total days in that calendar month.

iv. The consumption corresponding to Permanent connection i.e. (A)

during the month shall be billed in the following manner:

$$A = \frac{\text{Contract demand (Permanent)}}{\text{Deemed contract demand or actual demand whichever is higher}} \times \text{Total consumption}$$

v. The consumption corresponding to temporary sanctioned demand during the month i.e. (B) shall be billed at 1.25 times the normal energy charges and shall be billed in the following manner:

sanctioned demand for temporary connection

B= -- x total consumption

Deemed contract demand or actual demand

recorded whichever is higher.

vi. Consumption during the month corresponding to excess demand i.e. (C), if any, shall be calculated in the following manner:

C= total recorded consumption minus (consumption corresponding to permanent connection i.e. A + consumption corresponding to temporary sanctioned demand i.e. B)

vii. The demand recorded in excess of deemed contract demand shall be treated as Excess Demand. For billing purposes such Excess demand, if any, in any month shall be treated as pertaining to temporary connection load and shall be charged at 1.2 times the normal fixed charges and energy charges for 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* 1.2

Energy charges for consumption corresponding to excess demand = energy charges per unit for temporary connection * 1.2*(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:

1.19 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 3 % on the total amount of Fixed Charges and, Energy Charges billed in the month.

1.20 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 2% on the total amount of Fixed Charges and Energy Charges billed in the month.

1.21 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 1% on the total amount of Fixed Charges and Energy Charges billed in the month.

1.22 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.

1.23 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.

1.24 In case any dispute arises regarding interpretation of this tariff order and/or applicability of this tariff, the decision of the Commission shall be final and binding.

1.25 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.

1.26 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.

1.27 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.

1.28 If any difficulty arises in giving effect to any of the provisions of this order, the Commission may, by general or special order, direct the Licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

1.29 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.

1.30 Wherever, there is contradiction in general terms & conditions and specific terms & conditions given for any particular category, the specific terms and conditions shall prevail for that category.
