MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2019-20

Petition No. 08/2019

PRESENT:

Dr. Dev Raj Birdi, Chairman
Mukul Dhariwal, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2019-20 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).

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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 Charge 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 Dispatch
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
STPS	Suratgarh Thermal Power Station
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 8th Day of August, 2019)

1.1 This order is in response to the petition No. 08 of 2019 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, (First Amendment) Regulations 2015 {RG-35 (II) of 2015), notified on 7th December, 2018. (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 2019-20 latest by 31st December, 2018.

1.3 MPPMCL sought the extension of time for filing the Petition till 22nd January, 2019 vide letter dated 28th December, 2018 citing the reason that the 1st Amendment to Tariff Regulations was notified on 7th December, 2018, which has led to shortage of time for filing the petition as per revised norms. The Commission vide letter dated 29th December, 2018 granted extension of time till 22nd January, 2019.

1.4 MPPMCL sought another extension of time till 4th February, 2019, for filing the Petition vide letter dated 21st January, 2019 citing the reason that the revenue model was required to be updated due to proposed merger of rural and urban tariff. The Commission vide letter dated 22nd January 2019 granted the extension of time till 4th February, 2019.

1.5 MPPMCL and Distribution Licensees jointly filed the Petition (No.8/2019) on 30th January, 2019.

1.6 The motion hearing on the Petition was held by the Commission on 5th March, 2019. The Commission observed that the petition was incomplete and deficient on many parameters. Besides, the figures presented in petition were at variance with audited balance sheets of respective Discoms, and therefore, could not be admitted. The Petitioners, vide daily Order dated 6th March, 2019, were directed to file the revised tariff petition, incorporating the requisite information, by 26th March, 2019. Further, the Commission, vide letter dated 15th March, 2019, asked for reconciliation/correction of the aforementioned discrepancies/errors.

1.7 During the next motion hearing held on dated 28th March, 2019, the Petitioners requested the Commission to grant time extension upto 15th April, 2019, citing the reasons that the concerned officers of Petitioner are engaged with training for Election Duty and other related works. The Commission, vide daily Order dated 29th March, 2019, accepted the same. MPPMCL has again sought several extensions for filing of the petition vide their letters dated 16th April, 2019 and 8th May, 2019 and 20th May, 2019 citing the reasons that the concerned officers of Petitioner are still engaged with the Election Duty and other related works.

1.8 The Commission taking due cognizance of the fact that due to the elections the officers were engaged in the election duties and has therefore considered the requests made by the Petitioners and allowed the final time extension up to 27th May, 2019.

1.9 The petitioners filed true up petition for a gap of Rs 9288.5 Crores towards true up of FY 2013-14. The Commission allowed the True-up gap amounting to Rs 3838 Crores for MP Discoms through its order dated 30.11.2018. The petitioners filed a review petition no 14/2019 on this True-up order issued by the Commission and therefore had not considered the True-up gap amounting to Rs 3838 Crores for MP Discoms in petition for approval of retail supply tariff for FY 2019-20. The Commission vide order dated 21.05.2019 has decided the review petition and has allowed the True-up amount of Rs 3919.49 Crore for MP Discoms which was considered by the petitioners in their revised petition filed on 25th May 2019.

1.10 MPPMCL and Distribution Licensees through their revised petition filed before the Commission on 25th May, 2019 have submitted the ARR and prayed to recover a gap of Rs 4098 Crore through tariff hike of 12.03% Gist of the revised petition is given below:

Table 1 : Snapshot of the revised Petition for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	State
Revenue from sale of power as per existing tariff	10,656	13,061	10,348	34,065
Aggregate Revenue Requirement (including True-up)	11,914	14,604	11,644	38,163
Revenue gap in Income and Expenditure for FY 2019-20	**1,258**	**1,543**	**1,296**	**4,098**

1.11 The motion hearing on the revised petition was held by the Commission on 28th May, 2019. The Commission admitted the petition and, vide daily Order dated 31st May, 2019, directed the Petitioners to publish the public notice in Hindi and English in the prominent newspapers latest by 1st June 2019, for inviting objections /comments/suggestions from the stakeholders on the subject petition by 23rd June, 2019.

1.12 During scrutiny of the revised Petition, the Commission has noted some errors/discrepancies, and communicated the same to Petitioners vide letters dated 17th

June, 2019 which were replied by them vide letter dated 28th June, 2019.

1.13 Further, the Commission also held Technical Validation Session (TVS) at the Commission's office on 27th July, 2019. The clarifications/reconciliations regarding various issues have been incorporated in this Order.

1.14 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

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

Table 2: Public hearings

Sr. No.	Name of Distribution Company	Venue of Public Hearing	Date
1	M.P. Poorv Kshetra Vidyut Vitran Company Ltd., Jabalpur (East Discom)	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	2nd July, 2019
2	M.P. Paschim Kshetra Vidyut Vitran Co. Ltd., Indore (West Discom)	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	5th July, 2019
3	M.P. Madhya Kshetra Vidyut Vitran Company Ltd., Bhopal (Central Discom)	Deeksha Bhawan Sabhagrah, Bijli Nagar, Govind Pura, Bhopal	9th July, 2019

1.16 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

1.17 The Commission convened a meeting of the State Advisory Committee (SAC) on 28th June, 2019 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 2019-20.

Energy Accounting, Meterization and technical and commercial loss reduction

1.18 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, technical and other losses. 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 identify 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 and agricultural predominant DTRs up to quarter ending March, 2019 is given below:

Table 3: 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	3156702	549355	17.37%
West Discom	4176680	17180	0.41%
Central Discom	2011331	768281	38.19%
State Total	**9344713**	**1334816**	**14.27%**

Table 4: 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	91019	7368	8.10%
West Discom	143067	19772	13.82%
Central Discom	214629	58749	27.37%
State Total	**448715**	**85889**	**19.14%**

1.19 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 have 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 603 DTRs were provided with meters during the last quarter ending on 31st March, 2019, out of which 478 were provided with meters only in Central Discom. The pace of meterization is slowest in West Discom where no DTRs were meterised during the quarter and at this rate it will take years to complete 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. The Commission, therefore, directed the Discoms to expedite feeder meterization and DTR meterization on priority basis. There is also a need to segregate technical and commercial losses.

1.20 In the earlier tariff orders, the Commission directed the Petitioners to make concerted efforts to reduce the distribution losses in line with the loss trajectory specified by the Commission. The Commission has provided sufficient time to the Discoms and specified the loss reduction trajectory with doable targets. The loss reduction trajectory specified in the Tariff Regulations for a period from FY 2016-17 to FY 2019-20 is given in the following table:

Table 5: Distribution Loss Trajectory specified in the Regulations

Particulars	**FY 2016-17**	**FY 2017-18**	**FY 2018-19**	**FY 2019-20**
East Discom	18%	17%	16%	16%
Central Discom	19%	18%	17%	17%
West Discom	16%	15.50%	15%	15%

1.21 Against the aforesaid targets, the actual loss level for the year FY 2018-19 reported by the Discoms in the tariff petition is as follows:

Table 6: Actual Distribution Loss for FY 2018-19

Particulars	**FY 2018-19**
East Discom	27.05%
Central Discom	37.51%
West Discom	16.63%

1.22 The Commission has observed that except for the West Discom, the loss level in other two Discoms are much higher than the loss trajectory specified. In the Central Discom, the loss level above 37% is not acceptable and needs immediate corrective steps. The stakeholders also pointed out and shown concern over the high loss level of the Discoms in the public hearings. It was stated that the higher loss level is affecting the performance as well as services to be delivered by the Discoms. Although the Commission has allowed only normative losses in the tariff order, not to burden the consumers on account of the inefficiency of the distribution licensee, the high losses are adversely affecting the financial viability of the Discoms.

1.23 In order to bail out from high debt and to ensure financial turnaround of the Discoms, the Government of India launched UDAY. Madhya Pradesh also participated in the UDAY and committed to reducing AT&C losses in a targeted and time bound manner. However, from the loss level reported by the Discom it appears that the Central and East Discoms are failed in commitment towards AT&C loss reduction.

1.24 For reduction in technical losses, the Commission has approved the capital investment programs of the Discoms in the past years, which includes the Feeder Separation project. Government of India is also providing financial support and technological intervention to the Discoms through RAPDRP in urban towns. In rural area Government supported through DDUGJY and Saubhagya Yojana. However, it appears that the Discoms are lacking in implementation of these schemes resulted in failure in reducing the technical as well as commercial losses.

1.25 One of the reasons for high losses is unmetered connections and improper energy accounting. Large number of unmetered connections and stopped/ defective meters with slow pace of replacement is resulting in lower billing efficiency. Inadequate energy audit system at the feeder as well as DTR level is not allowing to fix the accountability and hence system is running as usual. In the last tariff order, the Commission had directed the Discoms to install meters on the remaining unmetered predominant agricultural DTRs for proper energy accounting and recording consumption by the agricultural pumps. However, the progress is this regard is still far from satisfactory. The Commission draws the attention of the State Government in this regard and emphasizes a need to make a concrete program to achieve the targeted loss level in a time bound manner for making Discom financially viable. In near future the Commission would start the process of finalising loss reduction trajectory for the next MYT period for which comments from stakeholders will also be obtained. The Commission directs that in the meantime, the Discoms in consultation with the holding company i.e. MPPMCL and the State Government should finalise a comprehensive loss reduction programme along with a plan for meterization of unmetered domestic connections, action plan for line loss reduction and meterization of pre-dominantly agricultural DTRs along with a system for monthly energy audit of the DTR meters. The Commission would monitor this on a quarterly basis.

Aggregate Revenue Requirement of Discoms

1.26 The Commission has determined the aggregate revenue requirement of the Discoms for FY 2019-20. The Commission has noted that the existing tariffs would not be sufficient to meet the ARR determined for FY 2019-20. Therefore, a tariff hike of 7% has been allowed in this Order. ARR determination takes into account the true-up of Discoms for FY 2013-14, ARR true up for MP Power Transmission Co. Ltd. (MPPTCL) for FY 2016-17 and MP Power Generating Co. Ltd. (MPPGCL) for FY 2016-17 and FY 2017-18.

1.27 The Commission has passed the orders for true-up of ARR of MPPGCL for FY 2016-17 and FY 2017-18 on 26th July, 2018 and 19th July, 2019, respectively. The Orders for true-up of MPPTCL for FY 2016-17 and true up for Discoms for FY 2013-14 have been issued on 4th May, 2018 and 30th November, 2018, respectively. The approved true-up amount has also been considered while finalizing the total ARR for FY 2019-20.

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

Table 7: ARR admitted by the Commission for FY 2019-20 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	State
Power Purchase Cost	7010.13	8892.29	5815.11	21717.53
Interstate transmission charges	468.81	533.16	530.16	1532.13
Intra state transmission charges including SLDC	822.89	1054.50	876.59	2753.97
O&M Expenses	1782.74	1824.82	1710.97	5318.54
Depreciation	133.16	110.18	183.08	426.41
Interest & Finance Charges				
On Project Loans	136.02	70.50	224.03	430.55
On Working Capital Loans	86.77	66.62	51.78	205.17
On Consumer Security Deposit	50.53	72.40	67.62	190.54
Return on Equity	251.80	186.39	348.44	786.63
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Total Expenses admitted	**10744.85**	**12812.85**	**9809.77**	**33367.47**
Other income+Non-Tariff Income	184.16	201.66	184.84	570.66
Net total Expenses	**10560.69**	**12611.19**	**9624.93**	**32796.81**
Impact of True-Up Amounts of Past Years				
Impact of True up for MP Genco for FY 16-17	21.17	25.34	20.21	66.72
Impact of True up for MPPTCL for FY 16-17	144.46	185.12	153.89	483.46
Impact of true up of MP State Discoms for FY 2013-14	1056.48	1354.00	1509.00	3919.48
Impact of True up for MPPGCL for FY 17-18	-188.88	-226.15	-180.37	-595.41
Total impact of True-Up Amounts of Past Years	**1033.22**	**1338.30**	**1502.73**	**3874.25**
Total ARR	**11593.91**	**13949.49**	**11127.66**	**36671.06**

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

1.30 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.

1.31 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.

Implementation of the order

1.32 The Distribution Licensees must take immediate steps to implement this order after giving seven (7) days Public Notice in prominent newspapers having state vide circulation, 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 17th August, 2019, until amended or modified by an order of this Commission.

1.33 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 2019-20. 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.

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

A2: PUBLIC SUGGESTIONS AND COMMENTS ON LICENSEES' PETITIONS

2.1 After admission of the ARR and Tariff proposals for FY 2019-20 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 2019-20 are given in Annexure-I.

2.2 Public Notice, comprising the gist of the ARR and tariff proposals were published by Petitioners on June 1, 2019, in the following Hindi and English newspapers requesting the stakeholder to file their objections/comments/suggestions latest by June 23, 2019.

Table 8 : List of Newspapers

Newspaper	Language
The Hitvada, Jabalpur	English
The Times of India, Bhopal	English
Free Press, Indore	English
Acharan, Sagar	Hindi
Nai Duniya, Jabalpur	Hindi
Swadesh, Bhopal	Hindi
Dabang Dunia, Indore	Hindi
Dainik Bhaskar, Satna	Hindi
Dainik Bhaskar, Ujjain	Hindi
Patrika, Gwalior	Hindi

2.3 The Commission subsequently issued a public notice inviting all stakeholders 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 9 : Numbers of suggestions received

Sr. No.	Name of Discom	Number of suggestions received on ARR & Tariff Proposal for FY 2019-20
1.	West Discom, Indore	35
2.	Central Discom, Bhopal	20
3.	East Discom, Jabalpur	19
	Total	**74**

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

Table 10 : Public hearings held:

Sr. No.	Name of Distribution Company	Venue of Public Hearing	Date
1	M.P. Poorv Kshetra Vidyut Vitran Company Ltd., Jabalpur (East Discom)	Tarang Auditorium, Shakti Bhavan, Rampur, Jabalpur	2nd July, 2019
2	M.P. Paschim Kshetra Vidyut Vitran Co. Ltd., Indore (West Discom)	Devi Ahilya Vishva Vidyalaya Auditorium, Khandwa Road, Indore	5th July, 2019
3	M.P. Madhya Kshetra Vidyut Vitran Company Ltd., Bhopal (Central Discom)	Deeksha Bhawan Sabhagrah, Bijli Nagar, Govindpura, Bhopal	9th July, 2019

2.5 As a part of the tariff exercise, a meeting of the State Advisory Committee (SAC) was convened on 28th June, 2019 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 Section, 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. COMMENTS ON PETITIONERS' PROPOSALS

ISSUE No. 1: Projection of Sales

Petitioners' Proposal

The distribution licensees, in their previous year's filing for FY 2018-19, had projected the Sales based on the actual data of FY 2016-17. Since the actual data of FY 2017-18 is now available and it has been observed that the actual sales during FY 2017-18 have variations from the sales forecasted by the Licensee and those allowed by the Hon'ble Commission during the previous filings, the licensees feel that it will be appropriate to revise the sales forecast for FY 2018-19 and thereafter project the sales for FY 2019-20.

Stakeholders Suggestions

The sales projections for the different categories are being worked out by taking different assumptions, without any solid basis. Further, actual sales for previous FYs deviate significantly from the sales forecast done in the Tariff Orders for the respective years, which indicates over-projection to justify revenue gap and PPAs for excess capacity signed by MPPMCL.

For FY 2019-20 also, Petitioners have over projected the sales of several categories, which leads to the distortion in tariff structure. Therefore, realistic projection of sales should be done, and actual sales for FY 2018-19 should be considered for projections. Further, the sales projections for Domestic and Agricultural categories are unrealistic and unachievable. Sales projection of 14,707 MU for domestic and 20,337 MU for agricultural categories should be considered for FY 2019-20. Also, six new companies are investing Rs. 4000 Crore in Madhya Pradesh. Load of these companies should also be considered while assessing the HT consumption for FY 2019-20.

Petitioners should be asked to submit demand assessment report before considering any tariff hike. Further, an independent and capable third party should be appointed to evaluate such report.

<u>Petitioners' Response</u>

The Petitioner has filed the Petition based on audited accounts of previous years, actual data till August, 2018, and projections for FY 2019-20, in accordance with applicable Regulations.

For the purpose of projection of sales, the Petitioner has considered category wise and slab wise actual data of the sale of electricity, number of consumers, connected / contracted load, etc., of the preceding four years, viz., FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18 and available data of the FY 2018-19, i.e., up to the month of July 2018.

The Petitioner, in its previous year's filing for FY 2018-19, had projected the sales based on the actual data of FY 2016-17. Since the actual data of FY 2017-18 is now available and it has been observed that the actual sales during FY 2017-18 have variations from the sales forecasted by the Petitioner and those allowed by the Commission during the previous filings, the Petitioner feels that it will be appropriate to revise the sales forecast for FY 2018-19, and thereafter, project the sales for FY 2019-20.

The sales for FY 2019-20 have been projected on the basis of the actual data of number of consumers, connected load and consumption during the last 4 years and on the basis of revised estimate for FY 2018-19.

The approach being followed is to analyze 3-year and 2-year Compound Annual Growth Rates (CAGRs) and year on year growth rate of each category and its sub-categories in respect of urban & rural consumers separately. After analysis of the data, appropriate / reasonable growth rates have been assumed for future consumer forecasts from the past CAGRs of the Category/Sub-category by the three Discoms.

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

On the whole, with accumulation of sufficient historical data and trends, this method would automatically take into account all the impact, such as energy conservation measures, efficiency drives, and increase in reliability, continuity and quality of supply.

Commission's views

In the projections for FY 2019-20 submitted by the Petitioners, the Commission observed discrepancy in the projections of load and in projections for agricultural sales. The Commission sought clarifications for the same, and thereafter, the Petitioners submitted the revised projections for FY 2019-20. After prudence check, and considering normative sales allowed by the Commission for agricultural pump connections, the Commission accepted the revised projections for FY 2019-20 submitted by the Petitioners. The same has been detailed in Section A3 of this Order.

ISSUE No. 2: Management of Surplus Energy

Petitioners' Proposal

The IEX rate for the past Twelve months (FY 2017-18) is observed to be at Paisa 326.48 per Unit. For the purpose of computation of revenue from surplus energy, the IEX rate is taken at Paisa 326.48 per Unit for FY 2019-20. The Petitioners have considered the provisional data for FY 2017-18 & FY 2018-19 (till August 18) for calculating surplus sale for FY 2017-18 to FY 2019-20.

Stakeholders Suggestions

On one hand, Petitioners have submitted that surplus energy of 13,197 MU will be sold at the cost determined by IEX, and on the other hand, an average rate is considered to compute the revenue from sale of surplus power. Considering the current power market scenario and the condition of inter-state transmission corridor, sale of this quantum of surplus power is not possible. Further, the energy cannot be sold at the prescribed rate continuously. Rather, Petitioners should sell power to industrial consumers at marginal cost concept.

Further, the revenue from sale of surplus power projection seems to be overestimated to artificially reduce ARR. Revenue from sale of surplus power should be considered at the time of true-up only.

Power purchase from IPPs is being given priority over the other cheaper sources of power by MPPMCL, instead using its right to refusal to purchase expensive power from such sources. Further, MPPMCL has proposed to add new units at Amarkantak and Sarni power stations. In view of prevailing power surplus scenario in the state, such proposal is not feasible. Rather, methods of terminating PPAs of excessive contracted capacity should be explored to reduce the burden of fixed costs, and reduce power purchase costs.

The management of surplus energy should be done on the basis of actual electricity market scenario, and Discoms should enter into PPAs with generating companies on the basis of realistic demand requirement.

Also, the surplus power should be offered to railways at an attractive tariff, which can result in increased revenue for the Discoms.

Petitioners' Response

The management of Surplus energy is being done on the basis of actual electricity market scenario and PPAs are being entered in line with substantial actual demand requirement. Further, the Petitioner has not considered the cost of power from Amarkantak and Sarni, as mentioned by the Objector for FY 2019-20

While determining the tariff, each State Electricity Regulatory Commission has to take into consideration local conditions and other relevant factors prevailing in that state. Therefore, methodologies adopted by other Commissions have no relevance. Further, for disposal of the surplus power various rebates have been proposed to increase the consumption of the consumers. Rebates have also been provided in the HV-1 tariff schedule to encourage the railways for procurement of power from the Petitioner.

Commission's views

The Commission has considered the average rate of IEX for FY 2018-19 for the sale of power in day ahead market to estimate the revenue from sale of surplus power.

The power availability and power purchase cost has been worked out as per Merit Order Dispatch, which takes care of considering cheapest power out of power available from various sources.

Considering the Petitioner's submissions and stakeholders views, the Commission has incorporated various rebates in the tariff design which may lead to increase in sales of Discoms and reduce the surplus power.

As regards tariff for HV-1 Railways, appropriate consideration has been made while designing retail tariff.

ISSUE No. 3: Proposal for removal of Urban and Rural Bifurcation

Petitioners' Proposal

The Discoms, in present scenario, are providing 24 hours supply to both Urban & Rural area. Thus, in view of equal supply hours in both urban and rural areas the Licensees proposes to remove the Urban and Rural tariff bifurcation and to apply a common tariff for both Urban and Rural Areas so as to annihilate the complexity in tariff structure.

Stakeholders Suggestions

In event of line fault, repair and maintenance crew of the Discom promptly rectifies the fault in urban areas, whereas same rectification takes days in the rural areas. Further, over-loading of transformers in rural and agricultural areas results in frequent failure of distribution transformers and poor quality of supply.

Further, in rural areas, line faults take as long as 2 days to get rectified, and damaged transformers take weeks to get replaced. Since repair and maintenance costs are separately allowed in ARR, such delay in rectification of faults is not acceptable.

Unless the effectiveness and promptness of repair and maintenance activities for rural and urban areas can be brought at par, same tariff for rural and urban areas cannot be justified.

Petitioners' Response

The Petitioner is gradually working on providing quality and reliable power supply to rural areas. Discom is also addressing rural complaints very promptly. Therefore, this proposal is justified.

The transformers are installed only after assessing the load of the region, and maintenance and load enhancement are done from time to time. In case of failure of transformers, they are replaced promptly.

Commission's views

Although 24-hour power supply is being ensured in rural areas, the Commission has taken due cognizance of objections raised by various stakeholders with regard to quality of supply in rural areas, and therefore in the present order, has decided to continue with the existing principle of differential tariff for rural and urban consumers.

ISSUE No. 4: Additional Charge for exceeding Contracted Capacity

Petitioners' Proposal

Fixed charges for Excess Demand when the recorded maximum demand exceeds 120% of contract demand: Fixed charges for recorded demand over and above 120 % of the contract demand shall be charged at 2 times the normal fixed charges.

Stakeholders' Suggestions

When recorded maximum demand is between 120% and 130%, fixed charges for recorded demand over and above 120 % of the contract demand should be charged at 1.3 times the normal fixed charges. Further, when recorded maximum demand exceeds 130%, fixed charges for recorded demand over and above 130% of the contract demand should be charged at 2 times the normal fixed charges.

Further, the additional charges of 1%, being levied for exceeding contract demand of 50,000 kVA for 132 kV consumers should be abolished.

Petitioners' Response

Billing of Fixed charges for recorded demand over and above 120 % of the contract demand shall be charged at 2 times the normal fixed charges, in line with the provision of section 126 of the Electricity Act, 2003.

Further, as per the provisions of the Supply Code, any Consumer with Contract Demand exceeding 50,000 kVA should shift to 220 kV Voltage Level. It should be noted that catering to contract demands exceeding 50,000 kVA at 132 kV voltage levels only creates constraints on the Discoms' infrastructure. Hence, the provision of continuing to avail supply for contract demand exceeding 50,000 kVA, without having to shift to 220 kV voltage level by paying a nominal additional charge of 1%, should be considered as an enabling provision instead of a penalty.

Commission's views

The Commission has made suitable changes as indicated in the relevant tariff schedule.

ISSUE No. 5: Power Factor Incentive/Surcharge

Petitioners' Proposal

To reduce the complexity of the Tariff, it is proposed that the Range of Power Factor Incentive 05% to 10% at different power factor to be reduced to three slabs – 2% (85.01%-90%), 3.5% (90.01% to 95%) and 7% (95.01% to 100%) only.

Stakeholders Suggestions

The capacitor requirement and cost for every incremental increase in Power Factor keeps on increasing, therefore, Power Factor Incentive should be increased up to 10% and reduction in number of slabs for power factor incentive should not be allowed. and should be applicable above the Power Factor of 0.8.

Petitioners' Response

In ideal situation consumers are expected to maintain unity power factor. Both Active (kWh) and Reactive (kVARh) energies are consumed simultaneously. Reactive Energy (kVARh) occupies the capacity of electricity network and reduces the useful capacity of system for generation and distribution & hence its consumption also needs to be billed.

Commission's views

Considering various stakeholders' submissions, the Commission has decided to retain the existing provisions in this matter.

ISSUE No. 6: Power Factor Surcharge

Petitioners' Proposal

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

Stakeholders' Suggestions

Maximum power factor surcharge on account of low power factor should not exceed 10%, which is at present 35% in HT Consumers, while in case of LT consumers, it is only 10%.

Power Factor Surcharge, on account of low power factor, should be computed only on actual consumption as per the provisions of Supply Code, and not on minimum monthly consumption

Petitioners' Response

The power factor penalty/incentive is the motivation for the consumers to improve their power factor, which is necessary for stability of the system. Considering the nature of the load imposed by the HT consumers, the present provision of levy of PF penalty is appropriate.

Further, both Active (kWh) and Reactive (kVARh) energies are consumed simultaneously. Reactive Energy (kVARh) occupies the capacity of electricity network and reduces the useful capacity of system for generation and distribution, and hence, its consumption also needs to be billed. In the kWh billing system, only active power is billed to the consumer. Therefore, to compensate the Discom on this account, low power factor surcharge is being levied. Further, present mechanism reduces complexity in calculation of power factor incentive.

It is also observed that the proposal of the consumer lacks prudence, as it only covers the aspect of low power factor penalty and ignores the aspect of the incentive.

Commission's View

Considering the stakeholders and Petitioners submission the Commission has retained the existing provisions for applicability of both viz. power factor surcharge and power factor incentive.

ISSUE No. 7: Cross Subsidy Surcharge and Additional Surcharge

Petitioners' Proposal

The Petitioner has proposed to increase the Cross-Subsidy Surcharge to the extent of FCA charges payable for a particular period. Further, the Petitioner has proposed to hike Additional Surcharge to Rs. 1.26/kWh.

Stakeholders Suggestions

The Petitioner should show the computation of CSS and Wheeling Charges to be levied upon OA Consumers in the Petition.

From October, 2017 to January, 2018, the Petitioners were the net purchasers of electricity from short-term market, and accordingly, it can be inferred that the stranded capacity during these months was not due to Open Access. Therefore, in computation of additional surcharge, cost of back down energy surrendered due to Open Access for months of October 2017 to January 2018 should not be considered. Further, the computation of Additional Surcharge should be done by considering the daily least fixed rate of stranded stations instead of daily average fixed rate of surrendered power.

Further, the existing Open Access Charges (CSS and Additional Surcharge) are already very high, and further hike in these charges will make procurement of power through Open Access infeasible. Further, such hike is against the spirit of The Electricity Act, 2003. Therefore, The Commission should invoke provision under Section 42(2), Sub Para 4 of the Electricity Act, 2003, and abolish CSS and Additional Surcharge.

Petitioners' Response

This proposal is in accordance with the provisions of Section 42 of the Electricity Act, 2003, read with MPERC (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) Regulations, 2005 & National Tariff Policy, 2016, issued by the Central Government.

Commission's views

The Commission has determined Additional Surcharge on the basis of actual monthly data from September, 2017 to August, 2018, without any escalation, in line with the approach adopted by the Commission in previous years' Tariff Orders. The Commission has considered weighted average of daily minimum rates for stranded generating station for computation of Additional Surcharge.

The Commission has computed Wheeling Charges and Cross-Subsidy Surcharge on the basis of projected network capacity addition during FY 2019-20 for different voltage levels, in accordance with the provisions of National Tariff Policy, 2016.

The computations for Cross-Subsidy Surcharge, Additional Surcharge and Wheeling Charge have been detailed in Section A4 of this Order.

ISSUE No. 8: Computation of Load Factor

Petitioners' Proposal

The Load Factor *shall be calculated as per the following formula:*

$$\text{Load Factor \%} = \frac{\text{Monthly Consumption x 100}}{\text{No. of Hours in the billing month X Demand (kVA) X PF}}$$

Where:

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

Stakeholders Suggestions

The formula for computation of Load Factor should be modified as under:

$$\text{Load Factor \%} = \frac{\text{Monthly Consumption x 100}}{\text{No. of Hours in the billing month X Demand (kVA)\_\_PF}}$$

Where:

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 PF in the denominator of the above formula shall be taken as higher of either:

   a) The product of max demand recorded or contract demand, whichever is more, and power factor.

OR

b) The product of max demand recorded and 0.9 or actual average monthly power factor (whichever is higher)

This formula should be adopted because incentive is given to improve Power Factor, but due to proposed formula, Load Factor will decrease as Power Factor increases.

Further, during the computation of Load Factor, rounding off to the next integer should be done, as per rounding off principle.

Petitioners' Response

The Load Factor formula provided in the Tariff Order for FY 2010-11 and FY 2011-12 unduly benefits such consumers whose maximum recorded demand is less than the Contracted Demand. Such consumers get double benefit, i.e., through of PF Incentive and through energy charges corresponding to more than 50% LF. This anomaly was rectified in the Tariff Order for FY 2013-14.

Further, it is expected from the consumers to utilize its asset at the optimum level within grid discipline. Therefore, the proposed formula is apt and reasonable.

Commission's views

Considering the stakeholders' suggestions and response of the Petitioners, the Commission has continued with existing provisions as in the retail supply order for FY 2018-19.

ISSUE No. 9: Proposal to introduce PPCA in place of FCA

Petitioners' Proposal

The Petitioners feel that the average power purchase cost should be considered instead of the variable costs only. Hence, the Distribution Licensee, in line with the above provision resubmits the following formula for computation of Power Purchase Cost Adjustment (PPCA) factor for kind consideration of Hon'ble Commission:

$$PPCA\ for\ billing\ quarter\ \left(\frac{p}{u}\right) = \frac{APPC\ (Rs. in\ Cr.)x1000}{Normative\ Sale\ (MUs)}$$

Stakeholders Suggestions

Detailed study should be carried out on this proposal of introducing PPCA in place of FCA. In Tariff Order for FY 2019-20, the Commission should continue with FCA only. PPCA can be considering for upcoming years, based on the findings of the study.

Further, the Petitioner must be asked to provide the details of incremental power purchase cost in last three years, and the head under which these costs were recovered.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

Commission's views

The Commission has considered the submissions made by the Petitioners. The Electricity Act, 2003 allows for variations during the year only in the terms of fuel surcharge to be recovered by the licensee and the same has been allowed by the Commission through FCA formula in this order. Any additional costs on this account may be considered after due prudence check at the time of true up. The Commission, therefore, decides to continue with levy of quarterly FCA charge only.

ISSUE No. 10: Proposed category: Agriculture and Other than Agriculture

Petitioners' Proposal

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. This tariff shall also apply for irrigation in fodder farming in fields associated to Gaushalas.

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. This tariff shall also apply for irrigation in fodder farming in fields associated to Gaushalas

Stakeholders Suggestions

This will have adverse effect on general economy of the concerned area due to unacceptable hike as a result of creation of this category.

Petitioners' Response

Minimum Average tariff has been proposed for this category.

Commission's views

The Commission has taken note of the stakeholders' suggestion, and appropriate view has been taken in the Tariff Schedule for FY 2019-20.

ISSUE No. 11: Rebate for CPP consumers

Petitioners' Proposal

A rebate of Rs 2 per unit shall be applicable on incremental units of the consumer subject to reduction in captive generation.
The base year shall be the financial year preceding the year during which the consumer has applied for switching consumption from his captive power plant to the licensee.

Stakeholders Suggestions

Instead of base year proposed by the Petitioner, average consumption of immediately preceding 5 years should be taken as reference for computation of the incremental units eligible for rebate, and, the period of rebate should be increased to 10 years from the day when facility was availed. Change in duration of rebate should be made applicable prospectively.

Further, this rebate should also be hiked in ratio of increase in tariff.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

Commission's views

The Commission has decided to continue with the rebate to the CPP consumers, in line with the provisions of Tariff Order for FY 2018-19.

ISSUE No. 12: Rebate for Conversion of LT Industrial/Non domestic connection to corresponding HT connection.

Petitioners' Proposal

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 2019-20 and onwards. The rebate is applicable for FY 2019-20 onwards for the units billed after commencement of the HT agreement.

Stakeholders Suggestions

In the previous Tariff Order, the rebate for conversion from LT to corresponding HT connection was provided only for FY 2018-19. For such consumers also, the rebate should be extended till FY 2021-22.

Further, Supply affording charges should not be recovered from consumers converting from LT to HT, as they have already paid the supply affording charges at the time of availing LT tariff.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

Commission's views

The Commission has decided to continue with the same provisions for rebate Conversion of LT Industrial/Non domestic connection to corresponding HT connection, as in Tariff Order for FY 2018-19.

ISSUE No. 13: Rebate for existing HT consumer

Petitioners' Proposal

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.*

<u>Stakeholders Suggestions</u>

Petitioner has proposed higher rebate of Rs. 1/kWh to Captive and OA consumers, which is a discrimination against loyal consumers. Therefore, the rebate for existing HT consumers should be increased to Rs. 1/kWh. Considering the long-term perspective, this rebate should be made applicable for 5 years.

Further, this rebate should be increased in the ratio of increase in tariff.

<u>Petitioners' Response</u>

It is not prudent to compare incremental rebate offered to existing consumers with rebate given to OA or captive consumers, as in both cases, the rebate is given on incremental units of the consumers, subject to reduction in OA and captive generation.

Further, incentive as such is the prerogative of the Petitioner to promote its business and to create the goodwill amongst the consumers, and should not be construed as the matter of right.

<u>Commission's views</u>

The Commission has taken the note of above suggestions, and has increased the rebate for existing HT consumer from 60 paisa/kWh to Rs. 1/kWh for incremental monthly consumption, as elaborated in the Tariff Schedule.

ISSUE No. 14: Rebate to New HT Consumers

<u>Petitioners' Proposal</u>

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 up to 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.

<u>Stakeholders Suggestions</u>

This rebate should be allowed from date of commencement of HT agreement for a period of 5 years, or FY 2021-22, whichever is earlier, for the projects for which the agreement for availing supply from licensee commenced from FY 2016-17, FY 2017-18 and FY 2018-19. Further, all new connections that availed supply from the licensee should be considered as new industries, and the condition of greenfield should not be a bar

<u>Petitioners' Response</u>

Rebate of Rs. 1/kWh has been proposed for green field industrial consumers. Although it is desirable to increase sales by encouraging the consumers to consume more power, mechanism of rebate cannot be allowed to be misused through intentional change in ownership, only to avail the benefit of the rebate.

Commission's views

It is pertinent to mention that the objective of this rebate is to attract new HT consumers to purchase power from Petitioner. The Commission notes that, in some cases, the condition of greenfield may restrict new consumers from availing the benefits of this rebate. However, at the same time, this rebate cannot be allowed to become an instrument of misuse through intentional change in ownership, only to avail the benefits of the rebate. Therefore, the Commission has made this rebate applicable to all new HT consumers availing supply from Discoms, provided that there is no change in ownership. Same has been detailed in Tariff Schedule.

B. PUBLIC SUGGESTIONS AND COMMENTS

ISSUE No. 1: Delayed filing of True-up Petition

Stakeholders Suggestions

The Commission, in its Order dated 30 November, 2018, had directed the Petitioners to file the Tariff Petitions for FY 2019-20 and True up Petitions for FY 2013-14. However, in the Petition dated January 30, 2019, Petitioners submitted the Revenue Gap of Rs. 550 Crore only, and intentionally withheld the True-up Petition of FY 2013-14. Petitioners had proposed the tariff hike of 1.59% to recover this Revenue Gap.

Three days after the Lok Sabha Elections, Petitioners filed the Petition for True-up for FY 2013-14 and submitted the total recoverable Revenue Gap including the impact of True-up of FY 2013-14 as Rs. 4098 Crore. Subsequently, proposed tariff hike for FY 2019-20 was revised to 12%. Petitioners intentionally withheld the Petition for True-up of FY 2013-14 for the benefit of ruling party.

Further, the true up of FY 2015-16 to FY 2017-18 is still pending, which will be a huge burden on consumers, along with carrying costs. All the regulated entities should be directed to file the pending true-ups by the end of this financial year, and the Commission is entitled to initiate Suo-moto proceedings in case of delay. Commission can even consider disallowing carrying costs if Petitioners delay the filing.

Further, this delay in filing of True-up for FY 2013-14 is violation of MPERC (Terms and conditions for determination of tariff for supply and wheeling of electricity and methods and principles for fixation of charges) Regulations, 2012 and Hon'ble APTEL's judgement in OP No. 1 of 2011 dated 11 November, 2011. Therefore, revenue gap in true-up of FY 2013-14 should not be allowed.

Petitioners' Response

Petitioners have followed all the statutory procedures during the filing of the Petition for true-up of FY 2013-14 and tariff Petition for FY 2019-20, as per relevant Regulations. Petitioners had neither intended nor attempted to provide any undue profit to anyone.

Commission's views

The revenue gap or surplus, as determined after the true-up of any year, has to be allowed to be recovered from tariff. However, losses incurred due to delayed recovery of this revenue gap due to delayed filing of True-up Petition has to be borne by the Petitioners. The Commission has not allowed any carrying cost on the revenue gap for FY 2013-14.

ISSUE No. 2: Distribution Loss

Stakeholders Suggestions

The actual distribution loss in the state is approximately 27% as against normative distribution 16.24% specified in the Commission. Reduction of distribution loss to the normative levels will reduce the revenue gap to be recovered in FY 2019-20 from Rs. 4098 Crore to Rs. 1098 Crore. Resultant tariff hike required to recover this revenue gap of Rs. 1098 Crore will be only 3% instead of proposed tariff hike of 12%. The actual distribution loss will result in actual power purchase requirement of 80,294 MU in FY 2019-20.

Further, all Discoms have different levels of distribution losses, and hence, should not be treated at par. Also, the Commission should issue guidelines to reduce actual distribution losses by systematically reducing LT consumption and increasing HT consumption.

Tariff hike only puts burden on honest consumers, and if Discoms curb the theft of electricity effectively, tariff hike will not be required. Discoms should be directed to prepare a roadmap for reduction in theft of electricity.

Under current practices, the theft of electricity is included in distribution losses. Loss of energy due to theft of electricity (in percentage terms) should be presented as a separate head and should not be adjusted in distribution losses.

Further, the Commission should set the AT&C loss reduction trajectory instead of T&D loss trajectory.

Petitioners' Response

The Petition has been filed as per normative distribution losses only, and the impact of actual distribution losses in not passed on to the consumers.

Petitioners have taken up various initiatives to reduce distribution losses and AT&C losses. Further, the Petitioners have been taking all actions as per provision of the Electricity Act, 2003 for preventing the electricity theft. However, new domestic consumers added to the Petitioners' network due to various government schemes has resulted into higher AT&C Losses

Commission's views

The Commission has taken note of the above submission, and directs the Petitioners to take appropriate steps to curb theft of electricity and reduce distribution losses.

However, for the purpose of determination of ARR and tariff, the distribution loss for FY 2019-20 are considered at the normative levels, as specified in MPERC Tariff Regulations, 2015, and the impact of higher actual distribution losses is not passed on to the consumers.

ISSUE No. 3: Off-peak hours rebate

Stakeholders Suggestions

Off-peak rebate to the industrial consumers for consumption of electricity during off-peak hours should be increased up to 40% to encourage more consumption in the off-peak hours during night. Further, off-peak hours should be changed to 9 p.m. to 7 a.m. (next day).

Petitioners' Response

The purpose of having ToD tariff is to ensure efficient utilization of electricity. Off-peak period rebate has been increased from 15% to 20% by the Commission in the Tariff order of FY 2016-17. Further, the Commission also directed the Petitioners to not levy any surcharge for consumption during peak hours, keeping in view surplus power in the state. Therefore, existing off-peak rebate is quite reasonable and suggestion further increase ToD rebate lacks merit.

Commission's View

Taking cognizance of Petitioners' response and stakeholders' submissions, the Commission has retained the existing provisions of ToD tariff. Further, the Petitioners are directed to undertake a detailed study of hourly consumption patterns of various consumer categories, based on ABT metering data, to identify which category is contributing how much to the peak consumption, which category can shift its consumption to off-peak hours, seasonal variation in the peak and off-peak consumption levels. Based on this study, the Petitioners should submit a comprehensive proposal to modify/upgrade the ToD tariff dispensation, along with its next Tariff Petition.

ISSUE No. 4: Funding of pension and other terminal benefits

Stakeholders Suggestions

As per MPERC (Terms and Conditions for Allowing Pension and Terminal Benefits Liabilities of Personnel of Board and Successor Entities) Regulations, 2012, the Petitioner is duty bound to include contribution towards Pension Fund in ARR. Further, as per the aforementioned Regulations, contribution towards Pension Fund should be approved as a separate head in the Tariff Orders for upcoming years.

Petitioners' Response

MP Vidyut Mandal Abhyanta Sangh has filed Petition No. 13/2018, which is pending before the Commission.

Commission's View

Commission has approved amount of Rs. 210 Crore for the three Discom as contribution to Terminal Benefits Trust Fund for FY 2019-20.

ISSUE No. 5: Renewable energy procurement more than RPO

Stakeholders Suggestions

Quantum of expensive power procured from Renewable sources is much more than the renewable Purchase Obligation, which has led to increase in power purchase costs. Such additional expenses should be disallowed in ARR.

Petitioners' Response

Petitioners did not respond to above objection.

Commission's View

The RPO specified in MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010, is the minimum purchase requirement. The Commission has prudently considered the cost of excess power purchase from renewables at the rate specified in last PPAs, which is lower than the weighted average cost of power purchase for renewables.

ISSUE No. 6: Revenue through CSS and Additional Surcharge

Stakeholders Suggestions

Petitioners should provide the details of revenue recovered through Cross Subsidy Surcharge and Additional Surcharge from Open Access Consumers, and the same should be adjusted in ARR.

Petitioners' Response

The details of revenue realized through recovery of Cross Subsidy Surcharge and Additional Surcharge shall be provided to the Commission, if asked.

Commission's View

CSS surcharge is levied to compensate the Discoms for loss of cross subsidy revenue when a cross subsidizing consumer migrates to open access. Therefore, revenue through CSS is intended to be utilized for subsidizing cross-subsidized group of consumers. Further, Additional Surcharge is designed to compensate the Discoms for the fixed costs of stranded capacity, as a result of migration consumers to Open Access. Therefore, revenue from CSS and Additional Surcharge shall be considered at the time of true-up, based on prudence check.

ISSUE No. 7: Minimum Monthly Charges

Stakeholders Suggestions

The use of word 'charges' in Clause 19 of HT Agreement, read in conjunction with Section 45 (2) and (3) of the Electricity Act, 2003 and Section 46 (1) of the Electricity (Supply) Act, 1948, clarifies that licensee, under the law, is only permitted to recover fixed charges and energy charges from the consumers. Therefore, recovery of 'Monthly Minimum Charges; is not permitted under law and is illegal.

Consumers should be billed only according to the actual consumption and provision for tariff minimum units should be discontinued.

Another stakeholder submitted that till the time recovery of fixed costs is met through fixed charges, uniform TMM should applicable uniformly for HT and EHT consumers, and corresponding reduction in fixed charges should be provided.

Petitioners' Response

Consumers are charged Tariff Minimum Charges to ensure guaranteed consumption for contracted demand, in order to recover fixed portion of Discoms' expenses. Further, the tariff and other charge levied are as per the Tariff Schedule of the Tariff Order issued by the Commission as per Tariff Regulations and the Electricity Act, 2003.

At present, fixed charges is not sufficient to recover the fixed cost of the licensee. Further, Regulation 42.1(d) of the MPERC Tariff Regulations, 2015, clearly states that tariff minimum charges, cannot be removed unless the fixed charges are aligned with the recovery of full fixed cost.

It is also pertinent to mention that in Tariff Order for FY 2018-19, minimum consumption for LV 4 category has been reduced from 15 units/HP/month and 30 units/HP/month to 10 units/HP/month and 20 units/HP/month for rural & urban areas, respectively.

Commission's View

Tariff Minimum Charges are intended to ensure guaranteed recovery of fixed costs of the Discoms. Further, Tariff Minimum Charges are levied only when consumption of any consumer falls below guaranteed minimum consumption for a month. Therefore, the Commission has continued with the existing provisions of Tariff Minimum Charges.

ISSUE No. 8: Assessment of agricultural consumption norms

Stakeholders Suggestions

For estimation of realistic norms of consumption for Unmetered Agricultural Consumers, Petitioners were directed to install meter on agricultural feeders, which has not been complied by the Petitioners. Agricultural DTR metering should be ensured using AMR meters.

Further, study must be carried out at interval of every three years, by independent agencies like IITs, for determination of region-wise and season wise agricultural consumption norms.

Petitioners' Response

Work of meterization of agricultural feeders in process, and progress report is submitted to the Commission from time to time.

As regards study for determination of Agricultural norms, appropriate view may be taken by the Commission.

Commission's View

The Commission, in previous Tariff Order, had direct the Petitioners to carry out a comprehensive study for determination of agricultural consumption norms, which has not been submitted. Therefore, the Commission has not increased the consumption norms for unmetered agricultural consumers and has kept at the same level as approved in previous Tariff Order, i.e., 1590 kWh/HP/year.

Further, the Commission directs the Petitioners to submit the comprehensive study for determination of agricultural pump consumption.

ISSUE No. 9: Untimely meter reading

Stakeholders Suggestions

Meter reading is not done by the Discoms on the timely basis and as a result, penalty is imposed on consumers on upcoming bill and amount of security deposit is increased. Such penalization of consumers due to inefficient meter reading by Discoms should be discontinued.

Petitioners' Response

The Petitioners undertake meter-reading in time-bound manner.

Commission's View

The Commission directs the Petitioners to improve metering, billing, and collection system through technological intervention. For the benefits of the consumers the Commission is introducing the concept of proportionate billing.

ISSUE No. 10: Tariff rationalisation for Shopping Malls

Stakeholders Suggestions

In case of Shopping Malls, the mall management carries out the work of collecting the electricity charges from the sub-units and deposits it to the Discom. Mall management invests in the creation of sub-metering arrangements and generation of electricity bills, and the Discoms do not incur any cost towards the installation of meters, and other billing related expenses, on this account.

The Clause regarding entering into tripartite agreement for availing supply under HV 3.3 category should be deleted as it is not practical to sign such agreement due to frequent changing of tenants in a shopping mall.

The overall inflation during FY 2018-19 was around 13%. Therefore, tariff hike of 15% in fixed charges and 12% in energy charges proposed by the Petitioners for shopping malls during FY 2019-20 is not justifiable. Since shopping malls are working in distressed financial condition all over the State, the tariff applicable to Shopping Malls (HV 3.3) should be reduced.

Petitioners' Response

Petitioner has proposed only a nominal hike in Tariff, based on revenue gap arising from past years, and revised projections of ARR of FY 2019-20.

Further, the Petitioner has no control over the change in the occupier of individual shops/house situated in shopping mall. As per the provision, if any occupier changes, the tripartite agreement is required to be signed again. However, this clause has been deleted from current Petition

Tariff hike has been proposed for different categories as per cross subsidy roadmap and Regulations as applicable to licensee.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial and legal aspects, and has decided to continue with the existing provisions, however, requirement of tripartite agreement is discontinued from this order.

ISSUE No. 11: Tariff rationalisation for power intensive industries

Stakeholders Suggestions

Hike of 12.77% for Power Intensive Industries is very steep, which will directly impact the cost of end products manufactured by these industries, making them unviable. Therefore, such tariff hike may force such consumers to migrate to Captive Power Plants.

Following tariff rationalization measures should be considered for power intensive industries:

a) Concession/rebate of Rs. 2/kWh to Rs. 3/kWh should be given to the power intensive industries already established in the state.
b) Power intensive industries should be allowed to purchase power directly from Power Exchange.
c) Rebate of 50% should be provided to incentivise consumption of surplus power during night hours.
d) Currently, MP Industries Promotion Policy, 2014 (Amended in 2018) provides exemption of Electricity Duty to newly set up industries only. This exemption should be extended to existing power intensive industries also.
e) Open Access Charges should be waived off.

Petitioners' Response

It is pertinent to mention that the proposed tariff for Power Intensive Industries is much lower as compared to HV 3.1 – Industrial Tariff. It may be observed that at 33kV, the energy charge for HV 3.4 (Power Intensive Industries) is 175 paise and 85 paise cheaper than HV 3.1 for below 50% load factor and above 50% load factor respectively. Similarly, for 132kV, the energy charge for HV 3.4 is 125 paise and 25 paise cheaper than HV 3.1 for below 50% load factor and above 50% load factor respectively. Hence, the submission of consumer regarding higher tariff in HV 3.4 tariff category is devoid of merit. Petitioner further stated as under:

a) Tariff proposed for HV 3.4 (Power Intensive Industries) is cheaper than other HV Industrial consumers
b) Power supply can be obtained in accordance to provisions MPERC Open Access Regulations, 2005, as amended from time to time.
c) Off-peak rebate of 20% is available and proposed in Petition
d) Levying of Electricity Duty is not the prerogative of the Petitioner.
e) As per National Tariff Policy, 2016, Cross Subsidy Surcharge and Additional Surcharge are to be levied on the consumers who are permitted Open Access.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has taken the suitable view in tariff design and tariff schedule.

ISSUE No. 12: Separate Tariff for Departmental Employees and Pensioners

Stakeholders Suggestions

Special discounted tariff category should be introduced for Departmental Employees and Pensioners, who are employed with State Power Companies

Petitioners' Response

Petitioner has not responded to this suggestion.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions and Petitioners' reply, and has decided to continue with the existing practice.

ISSUE No. 13: Meter Charges

Stakeholders Suggestions

Industrial consumers are required to pay the cost of meter upfront and still meter charges are levied on them. Therefore, meter charges should be waived off.

Petitioners' Response

Consumers are not required to pay for the price of meter, and are only required to pay meter rent. The Petitioner had filed Petitioner No. 13/2019, on which the Commission had issued Order on 18 March, 2018, for amendment of respective Regulations. Accordingly, in tariff Petition for FY 2019-20, Petitioner has not proposed recovery through Meter rent.

Presently, meter rent is levied as per applicable Regulations. Petitioner has filed Petition with the Commission to abolish meter charges and the matter is pending with the Commission.

Commission's View

The Discoms have filed the separate petition in this regard and the same is under process. Moreover, the Petitioners have not proposed any recovery from meter rent in FY 2019-20 and accordingly, the Commission has also not considered any recovery from meter rent in FY 2019-20.

ISSUE No. 14: Rebate for Online Bill Payment

Stakeholders Suggestions

Petitioner has not provided any gateway for online payments, forcing consumers to make online payments through NEFT/RTGS. However, the Petitioner does not consider payment through NEFT/RTGS as payment through online mode, resulting in loss of discount to the consumers. Commission should provide necessary directives to address the issue.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

Commission's View

The Commission has taken the cognizance of the Stakeholders' suggestion, and accordingly, payment made through NEFT/RTGS shall be eligible for the rebate applicable for online payment.

ISSUE No. 15: Power Purchase Cost

Stakeholders Suggestions

Power purchase cost in FY 2010-11 was Rs. 2.11/kWh, which has almost doubled to Rs. 4/kWh in FY 2019-20. Further, the Petitioners have not provided explanation for wide variation in variable and fixed costs of power purchase. Further, 30 MU of power purchase at Rs. 2.29/kWh from captive power plants seems to be unrealistic and should be verified.

Petitioners' Response

In the petition, power purchase expenses have been considered as per provision of the Tariff Regulations, 2015, as amended from time to time, and CERC/ MPERC Tariff Orders for respective generating stations, along with power purchase bills of previous years. It is pertinent to mention that quantum of power purchase has been calculated considering the normative distribution loss approved in the MPERC Tariff Regulations, 2015, as amended from time to time. The Commission, only after scrutinizing all the relevant records/information, determines the ARR of the licensees. All details/information regarding calculation of power purchase cost are given in the Section A4, A5 and A6 of the petition.

ISSUE No. 16: Proposed tariff hike

Stakeholders Suggestions

Petitioners have proposed 12% tariff hike, which will result in increment in revenue realization of Rs. 1150 Crore from domestic consumers, Rs. 314 Crore from non-domestic consumers, Rs. 52 Crore from coal mine, Rs. 643 Crore from industrial consumers and Rs. 10 Crore from shopping malls. Maximum increment in revenue realization is proposed from Domestic electricity consumers, which comprise of low- and medium-income groups, whereas minimum increment in revenue realization is for commercial and shopping mall consumers.

Further, the increase in energy cost has already been passed on to the consumers during FY 2018-19 by the means of FCA. Therefore, the variation in power purchase cost, which is about 80% of the ARR, has already been taken care of. This indicates that the tariff hike is not justified and the Petitioners have no control over their expenses and line losses.

Petitioners' Response

The comparison done by the Objector is not prudent. Categories of the consumers should be compared on the basis of proposed ABR. In the Petition, proposed ABR for Domestic consumers is less than that of other categories.

ARR and Tariff Petition for the Distribution & Retail Supply Business for FY 2019-20 has been filed on the basis of revenue gap analysis arising from past years, in accordance with the tariff principles laid down in the MPERC Tariff Regulations, 2015, as amended from time to time. Further, tariff for different categories is proposed in accordance with the principle of cost of supply as per Sections 61 and 62 of the Electricity Act, 2003.

ISSUE No. 17: Linking of tariff hike with power theft

Stakeholders Suggestions

Instead of hiking tariff uniformly for all consumers in a tariff category, methodology of tariff hike in the regions with high percentage of power theft should be adopted. Such mechanism will penalize the consumers guilty of power theft, whereas honest consumers will be incentivized.

Petitioners' Response

The proposal of the objector is appreciable, but difficult to implement. Fixation of different tariffs for different regions is not prudent.

ISSUE No. 18: Supply hours for agricultural consumers

Stakeholders Suggestions

Discoms are required to supply power to the agricultural consumers for 10 hours per day, which amounts to 300 hours of supply every month. However, agricultural consumers are actually supplied for only 200 hours per month.

Since MP is a power surplus state, supply hours for agricultural consumers should be increased. 10 hours of uninterrupted supply should be ensured during the day time and 6 to 8 hours of supply should be ensured during night hours. Further, during the rabi crop season, supply hours should start from 8 am instead of 6 am due to prevailing low temperatures at that time.

Petitioners' Response

The power supply to agricultural is given for 10 hours every day, and power supply to non-agricultural feeders is given for 24 hours per day. In order to prevent overloading of distribution system during peak hours, supply to agricultural feeders is divided into two time slots per day.

ISSUE No. 19: Inadequate R&M staff

Stakeholders Suggestions

There is a severe shortage of R&M staff with Discoms, and R&M works are being carried out by Discoms through outsourcing instead of hiring of new employees for R&M. Outsourced R&M employees are not efficient are unable to carry out effective repair and maintenance works, which lead poor-quality supply.

Petitioners' Response

Discoms ensures best services to consumers by utilizing the available resources. Company employs regular as well as contractual employees from time to time. Further, for pre and post monsoon maintenance works, company hires daily wage labours.

ISSUE No. 20: Incomplete Petition

Stakeholders Suggestions

According to Regulation 1.8 of MPERC (Details to be furnished and fees payable by the licensees or the generating company for determination of tariff and manner of application) Regulations, 2004, the Tariff Petition has to be accompanied in the forms specified by the Commission for the previous year, current year and ensuing year, based on audited accounts or unaudited accounts. The information sought in the forms has been provided by the Petitioners on the arbitrary manner. Therefore, determination of tariff based on such information is illegal and unsustainable in law. Hence, the Petition should be dismissed.

Petitioners' Response

Petition has been prepared based on the provisions of the MPERC Tariff Regulations, 2015, as amended from time to time.

ISSUE No. 21: Procurement of expensive power from NTPC Northern Region Stations

Stakeholders Suggestions

40.73 MW power is being procured from NTPC northern region stations at the rate of up to Rs. 8.40 per kWh. In the existing scenario where the Discoms are struggling with surplus power, consumers are being burdened with fixed costs of such stations without purchasing any power from them. Instead, ways to surrender the excess contracted capacity should be explored.

Petitioners' Response

Petitioner is committed to supply 24x7 power to all. Demand during Rabi season could not be met with the power available from all the generators. Therefore, to meet demand, power had to be available purchased at higher costs from exchange, or through cheaper sources from generators of Northern Region. Therefore, MPPMCL procures power from NTPC Northern region stations to reduce Power Purchase cost.

ISSUE No. 22: Outstanding Amount to be recovered from other States

Stakeholders Suggestions

Outstanding amount of more than Rs. 1000 Crore is recoverable from Rajasthan and other states. Commission should seek details of such outstanding amounts recoverable from various states, and same should be reduced from ARR.

Petitioners' Response

The revenue from sale of power and other Income has been considered in the ARR for FY 2019-20. Further, whatever amount is received from U.P, Rajasthan and Odisha, will be considered in the True-up of respective years.

ISSUE No. 23: Unmetered domestic category tariff should be discontinued

Stakeholders Suggestions

Petitioners have claimed that all the rural domestic unmetered connections have been metered. Therefore, provision for tariff for unmetered rural domestic consumers should be discontinued.

Petitioners' Response

Petitioner is planning to provide metered electricity connections to all unmetered domestic consumers. As these are work in progress, there is need for this category to continue.

ISSUE No. 24: Interest on Consumer Security Deposit

Stakeholders Suggestions

Interest on Consumer Security Deposit (CSD) is paid to the consumers at RBI Rate, which is only 6% to 7% p.a., whereas industries have to take working capital loan at 12-13% p.a. Therefore, the Discom should be directed to credit interest on CSD at market rate or allow facility to submit bank guarantee towards CSD.

Petitioners' Response

Appropriate view may be taken by the Commission.

ISSUE No. 25: Applicability of Fixed Charges for HV Consumers

Stakeholders Suggestions

Applicability of fixed charges for HV consumers should be revised to 80% of contract demand or actual billing demand, whichever is higher.

Petitioners' Response

Petitioners have not responded to this suggestion.

ISSUE No. 26: Bad and Doubtful Debts

Stakeholders Suggestions

The provision of bad and doubtful debt should be allowed at the time of True-up, only after verification of actual write-offs, as the surcharges and benefit of any schemes should not be allowed under this head.

Petitioners' Response

As per MPERC Tariff Regulations, 2015, the Provision for bad and doubtful debts to be allowed to the maximum upto 1% of FY revenue. Since the Commission, in previous years Tariff Order had considered provision towards bad and doubtful debts as Rs. 2 Crore, the Petitioner has claimed the expenses against bad and doubtful debts of Rs. 2 Crore for each Discom for FY 2019-20.

ISSUE No. 27: Billing Demand for temporary/standby consumers

Stakeholders Suggestions

Demand charges for Temporary/Standby should be levied on recorded demand instead of contracted demand. Further, the temporary/standby should be made applicable on hourly basis, instead of daily basis.

Petitioners' Response

Appropriate view may be taken by the Commission.

ISSUE No. 28: Category-wise cost of supply

Stakeholders Suggestions

The tariff should be determined on the basis of category-wise cost of supply, after considering the factors such as supply voltage, power factor, load factor, etc.

Petitioners' Response

Appropriate view may be taken by the Commission.

ISSUE No. 29: Ceiling demand for 33kV consumers

Stakeholders Suggestions

Ceiling demand for 33 kV consumers should be increased from 10,000 kVA to 15,000 kVA

Petitioners' Response

The proposal of stakeholder regarding increase of ceiling limits of 33 kV consumers is not the subject matter of present Petition.

ISSUE No. 30: Computation of fixed charges and energy charges

Stakeholders Suggestions

Both fixed charges and energy charges should be computed on the basis of kW only

Petitioners' Response

The above suggestion is not logical, and hence, should not be considered.

ISSUE No. 31: Cross Subsidy

Stakeholders Suggestions

As per National Tariff Policy, 2016, tariff for all categories should be brought strictly within ±20% of Average Cost of Supply. Further, the tariff of the subsidized groups of consumers should be raised to 85% of ACoS.

Petitioners' Response

Commission has been consciously making efforts over the past several years to reduce the cross-subsidy levels across all consumer categories.

ISSUE No. 32: Additional Surcharge on Captive Power Plants located outside

Stakeholders Suggestions

Additional Surcharge for consumption of power from Captive power Plant on the basis of location and mode of wheeling the energy should not be levied. Therefore, Additional Surcharge should not be made applicable for consumption of Energy Generated from Captive power plants located outside the area of consumption.

Petitioners' Response

No response is required from Discom as this query related to MPPMCL.

ISSUE No. 33: Depreciation

Stakeholders Suggestions

The Commission must ensure that Depreciation is not allowed on assets funded through Consumer Contribution. Further, the depreciation should be allowed at much lower levels than claimed in the Petition.

Petitioners' Response

The depreciation has been computed as per MPERC Tariff Regulations, 2015. The asset class-wise rate of depreciation considered by Petitioner are as notified by the Commission.

ISSUE No. 34: Determination of Tariff based on VCoS

Stakeholders Suggestions

As directed by the Commission earlier, tariff should be determined on the basis of VCoS. Accordingly, the necessary relief in tariff should be provided to HV Consumers.

Further, VCoS proposed by the Petitioner seems to be incorrect and should be verified.

Petitioners' Response

The Petitioner has proposed tariff for FY 2019-20 in accordance with the provisions of MPERC Tariff Regulations, 2015, as amended from time to time and the Electricity Act, 2003. All the components of ARR, including T&D loss, O&M Expenses, etc., have been considered on the basis of norms approved by the Commission.

Further, the 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 has been approved by the Hon'ble APTEL in the Appeal No 134/2015.

ISSUE No. 35: Tariff rationalisation for LV Domestic Category

Stakeholders Suggestions

Tariff hike proposed for consumption slab of 101-300 units is too high. Since MP is surplus state tariff rebate should be provided to consumers consuming more than 700 units by creating a separate slab to incentive higher consumption. Further, following rationalization may be considered for LV Domestic category:

a) Fixed charges should be discontinued for Domestic consumers, or should be levied in Rs. /kWh.
b) In LV 1.1 category, slab having combined load of 100 watt should be discontinued.
c) For LV 1.2 Tariff, slabs should be discontinued and uniform tariff should be made applicable.

Petitioners' Response

Petitioner has proposed Fixed Charges and Energy Charges as per the principle of two-part tariff. Further, LV1.1 category has been proposed to provide rebate to consumers consuming less than 30 units per month, as per the provisions National Tariff Policy, 2016.

ISSUE No. 36: Tariff for EHT consumers

Stakeholders Suggestions

The special status applicable to HV 3.1 category should be continued and further reduction of tariff for this category can be done due to following reasons:

a) The supply is at 132 kV and attracts very small T&D Losses.
b) Load Factor is as high as 70%
c) The Power Factor is unity
d) With direct supply from EHV Sub-station, O&M cost is minimum
e) The payment made by the consumers in this category are prompt
f) Security deposits in large amounts is available.

Therefore, for EHT consumers, demand charges should not be approved more than Rs. 600/kVA and energy charges should not be approved more than Rs. 4.00 /kWh.

Petitioners' Response

Nominal Tariff hike is proposed in 132 kV category, as compared to 11kV and 33kV supply tariff.

ISSUE No. 37: Clarity of billing of fixed/demand charges

Stakeholders Suggestions

Clarity regarding billing of fractional load and rounding off was sought.

Petitioners' Response

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 1 kW/HP, it shall be treated as 1 kW/HP

ISSUE No. 38: Interest and Finance Charges

Stakeholders Suggestions

The proposed ARR for FY 2019-20 does not take into account latest Order of RBI, wherein several banking charges are being done away with. Further, the Commission should look into the details of loans before approving the ARR and Tariff for FY 2019-20.

Petitioners' Response

Interest and Finance charges have been computed in accordance to the provision of the MPERC Tariff Regulations, 2015, and methodology adopted by the Commission in the previous Tariff Orders.

ISSUE No. 39: Investment Plan

Stakeholders Suggestions

Long term national goal of the distribution system is to cover the entire distribution network by underground cables and Aerial bunch cables. Petitioner should make the long-term plan to achieve this objective within 5 to 10 years.

Petitioners' Response

Petitioner has not responded to this Suggestion

ISSUE No. 40: Load Factor Incentive

Stakeholders Suggestions

The Load Factor Incentive for the HT consumers should be reintroduced for load factor above 50%.

Petitioners' Response

The Tariff design is such that there will be reduction in tariff with the increase in LF of the consumer. Incentive proposed is quite reasonable and fair.

ISSUE No. 41: Tariff for LV Industries

Stakeholders Suggestions

Following rationalizations in the tariff structure should be done for LV Industries:

a) The sub-categories LV 4.1 (c) and LV 4.1 (d) should be merged.
b) Telescopic Tariff should be made applicable.
c) Tariff for consumers having MD meters should not be linked with Connected Load.

Petitioners' Response

Appropriate view may be taken by the Commission.

ISSUE No. 42: Tariff Proposed for Non-Domestic Category

Stakeholders Suggestions

Petitioner has proposed more than 26% hike in tariff of LV Non-Domestic Category (Shops and Showrooms), which should not be allowed. Further, the existing discounted tariff slab, which is currently applicable for up to 50 units consumption, should be made applicable for up to 100-unit consumption.

Petitioners' Response

Petitioner has proposed lower tariff for small and medium non-domestic consumers having load up to 2 kW, as compared to other non-domestic sub-categories.

ISSUE No. 43: Demand based billing for LV Non-Domestic Consumers

Stakeholders Suggestions

Demand based billing has been made compulsory for LV2.2 Non domestic category, which can be implemented only when existing meters are replaced with MD meters. Further, levying of demand-based tariff will cause sudden tariff shock to the consumers, and hence, should not be allowed.

Petitioners' Response

Meters will be changed wherever required.

ISSUE No. 44: X-Ray Machine

Stakeholders Suggestions

Petitioner has proposed to discontinue separate fixed charges for X-Ray, which will lead to addition on fixed charges applicable on consumers, leading to increase in healthcare costs.

Petitioners' Response

Consumers will be billed only on the maximum demand recorded on the meters.

ISSUE No. 45: O&M Expenses

Stakeholders Suggestions

National or international consultants must be appointed to introduce lean manufacturing/servicing in all the companies falling under MPPMCL for reduction of O&M Expenses.

Further, the O&M expenses proposed by the Petitioner for FY 2019-20 is Rs. 1376 Crore, as compared to Rs. 1166 Crore for FY 2017-18. Such increase in O&M Expenses should not be allowed.

Petitioners' Response

O&M Expenditure has been computed as per the provision of the MPERC Tariff Regulations, 2015, as amended from time to time.

ISSUE No. 46: Other Income

Stakeholders Suggestions

Income from delayed payment surcharge should be considered as the part of Other Income. Further, Other Income has been reduced to Rs. 240 Crore as against the actual estimated other income of Rs. 591.25 Crore.

Petitioners' Response

Other Income has been computed as per the provision of the MPERC Tariff Regulations, 2015, as amended from time to time.

ISSUE No. 47: Illegal PPAs

Stakeholders Suggestions

As per Hon'ble APTEL's judgement on Appeal 44 of 2010, all the PPAs signed with private power producers, who came through MoU route, are illegal. If rate proposed rate specified in such PPA is more than Rs. 2.45/kWh, there is an option is provided to surrender the power.

Petitioners' Response

This objection is not the subject matter of present petition

ISSUE No. 48: Rebate for Industrial Consumers who pay bills on time

Stakeholders Suggestions

Discounted tariff should be levied on the consumers who pay bills on time.

Petitioners' Response

Appropriate view may be taken by the Commission

ISSUE No. 49: Proposal of abolishing Seasonal Tariff for LV Industry

Stakeholders Suggestions

Seasonal Tariff for LT Industry should not be abolished as a large number of consumers avail this tariff.

Petitioners' Response

Petitioner has not responded to this objection.

ISSUE No. 50: Special Rebate for HV Industry

Stakeholders Suggestions

HV Industry tariff must be more attractive as compared to the neighbouring states in Order to attract investments. Further. special treatment and rebate should be given to HV Industries, especially labour intensive industries.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 51: Regulatory Asset

Stakeholders Suggestions

Approved Revenue Gap for FY 2013-14 should be converted into Regulatory Asset in order to prevent steep hike in tariff.

Petitioners' Response

Petition has been filed as per the Provision of Tariff Regulations, 2015, as amended from time to time.

ISSUE No. 52: Regulatory Certainty

Stakeholders Suggestions

Well-designed framework is required to provide regulatory certainty for small consumers and investors.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 53: Return on Equity

Stakeholders Suggestions

RoE should only be allowed on the assets which have achieved CoD.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 54: Reporting of Revenue subsidy

Stakeholders Suggestions

Petitioners should be directed to submit the details of revenue subsidy at the time of filing of Petition.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 55: Review of Tariff Structure of HV 3.1 Industrial Consumes availing 11kV supply

Stakeholders Suggestions

Different energy charges applicable for consumers having Load Factor up to 50% load and for consumers having Load Factor above 50%. Consumers falling in HV 3.1 Industrial categories at 11kV because are mostly MSMEs and it is difficult for them to achieve the Load Factor of 50%.

Further, due to other multiple charges such as minimum fixed charges due to fixation of 90% contract demand, minimum energy consumption per kVA, load factor, etc., such consumers are heavily burdened.

Petitioners' Response

Tariff design is such that there will be reduction in tariff with increase in LF of the consumer Also, licensee has not proposed any ToD surcharge from 6pm to 10pm, and rebate of 20% is given for night time consumption

ISSUE No. 56: Different Tariff for HV Industrial, HV Non-Industrial and HV Power Intensive Industries.

Stakeholders Suggestions

HV 3.1, HV 3.2, HV 3.3 and HV 3.4 categories should be merged, and same tariff should be applicable to them.

Petitioners' Response

As per Section 62(3) of The Electricity Act, 2003, the Commission is fully empowered to determine different tariff for different class of consumers.

ISSUE No. 57: Seasonal Tariff for HV-4

Stakeholders Suggestions

The off-season period for seasonal consumer should be 4 months, instead of 6 months.

Petitioners' Response
Petitioner did not respond to this Suggestion.

ISSUE No. 58: Separate Tariff for CPPs

Stakeholders Suggestions
A separate category with normal should be created for consumers having Captive Power Plants for availing standby power.

Petitioners' Response
Appropriate view may be taken by the Commission in this regard.

ISSUE No. 59: Sperate Tariff for each Discom

Stakeholders Suggestions
Separate Tariff Orders should be issued for each Discom, and tariff for each Discom should be determined independently.

Petitioners' Response
Appropriate view may be taken by the Commission in this regard.

ISSUE No. 60: Tariff for Cold Storage industries

Stakeholders Suggestions
Cold Storage Industries should be considered as agro-based industry, and should be billed at Agricultural tariff.

Petitioners' Response
The tariff LV-5.1 is applicable 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. Looking to the purpose of use of power in cold storage this tariff cannot be made applicable to cold storages. In Tariff Order for FY 2018-19, the Commission included cold storage industries in the industrial category. Hence, proposal of the stakeholder lacks merit

ISSUE No. 61: Annual consumption limit for low income consumers

Stakeholders Suggestions
Annual consumption limit for low income business should be fixed on annual basis, instead monthly.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 62: Uniform tariff for small consumers

Stakeholders Suggestions

Same tariff should be made applicable for all small consumers having consumption less than 300 units and connected load of less than 10 kW across all categories.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 63: Linking of Tariff of small consumers with inflation to enable certain tariff increase

Stakeholders Suggestions

Tariff for small consumers can be linked to inflation minus 20%. LT Industrial, Non domestic and domestic categories should be differentiated (3-4 slabs) in order to implement this scheme. The Tariff for such consumers should be revised automatically at the end of each financial year based on previous year's index. The charges and escalation in tariffs should be fixed for MYT Period d FAC and additional charges should not be included. Post MYT Period, Tariff design and the charges should be evaluated and re-determined.

Petitioners' Response

Appropriate view may be taken by the Commission in this regard.

ISSUE No. 64: ToD Tariff for LT Consumers

Stakeholders Suggestions

ToD Tariff Mechanism should be applicable to LV industrial consumers to incentivize the consumption during night hours.

Petitioners' Response

At present ToD rebate is made applicable to the HT Consumer on the ground that the consumption in such industries happens round the clock, on the other hand LT Industries are small industries and generally operates in day time

ISSUE No. 65: True-up for FY 2013-14

Stakeholders Suggestions

The Petitioners have filed a review petition no. 14/2019 on True-up order dated 30.11.2018 for FY 2013-14 and hence have not considered the True-up gap amounting to Rs. 3838 Crore for MP

Discoms. The Commission, vide order dated May 21, 2019. has decided the review petition and has allowed the True-up amount of Rs 3919.49 Crore to the Petitioner, which has now been in the instant revised petition.

The True up of FY 2013-14 should not be considered until State Government expresses its view on the matter.

Petitioners' Response

True-up for FY 2013-14 has been carried out by the Commission in accordance with the provision of MPERC Tariff Regulations, 2012.

ISSUE No. 66: True-up of GENCO and TRANSCO

Stakeholders Suggestions

Impact of True-up of MPPTCL and MPPGCL is Rs. Rs. 67 Crore and Rs. 483 Crore, respectively. There is variation in True-up for costs of Genco for FY 2015-16 and FY 2016-17 claimed in the Petition and that approved in the respective True-up Orders.

Petitioners' Response

True-up amount of GENCO and TRANSCO is claimed in accordance with the respective True-up Orders issued by the Commission.

ISSUE No. 67: UDAY and its Impact

Stakeholders Suggestions

It is expected that the State Government has taken over liability of the Discoms under UDAY scheme and the present ARR reflects the position as stipulated under the UDAY Scheme

Petitioners' Response

Under UDAY Scheme loan is to be taken over by the GoMP in a phased manner through book adjustments, and no amount is to be made available by the government in cash. However, lower interest liability due to such takeover will have impact on weighted average interest rate of the Petitioner from FY 2017-18 onwards, which has already been considered in Form F3(a) of the Petition.

Petition has been filed as per provisions of the MPERC Tariff Regulations, 2015 on normative basis. Therefore, these book adjustments carried out under UDAY Scheme has no impact on the ARR except the impact on the weighted average interest rate.

ISSUE No. 68: Unauthorised Disbursement of subsidy

Stakeholders Suggestions

Petitioners paid subsidy of nearly Rs. 5000 Crore in FY 2018-19 in name of Bijli Mafi Yojna and Saral Bijli Yojna, without getting subsidy amount in advance from the GoMP. The quantum and mode of payment of these subsidies was not approved by the Commission

Petitioners' Response

This objection is not the subject matter of present petition.

ISSUE No. 69: Under-estimation of revenue realisation

Stakeholders Suggestions

Revenue has been underestimated vis-à-vis actual realization as per audited accounts. Revenue realization proposed by the Licensees requires an upward revision.

Petitioners' Response

The whole amount billed to the consumer, irrespective of realization, is considered as revenue for Discom for determination of ARR and Tariff.

ISSUE No. 70: Unscheduled load shedding

Stakeholders Suggestions

Even after being in the condition of surplus, unscheduled load shedding is still being carried out by the Petitioners

Petitioners' Response

This objection is not the subject matter of present petition.

Commission's view on Issue No. 15 to 70

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 manner 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. 2015 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 the tariff petition raised in writing as well as during the course of public hearing and Petitioners' response to them. The Commission has endeavored 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 Petition for FY 2019-20 in accordance with MPERC Tariff Regulations, 2015, as amended from time to time, and 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 2019-20, category wise and slab wise actual data of the sales, number of consumers, connected/contract load, etc. of the previous four years i.e. FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18 and revised estimate for preceding year FY 2018-19 based on the available data till month of July 2018 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 Petitioners have submitted that the projections for urban domestic connections in un-metered category have been considered as nil, since all the domestic consumers in urban areas have been metered. Further, the Petitioners have submitted that additionally with the introduction of the Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA scheme) additional 19.82 lakhs domestic households have been connected with the Discoms by October 2018. Therefore, over and above the normal growth, additional connections released under the SAUBHGYA scheme has been considered for computing the revised estimate for FY 2018-19 and projections for FY 2019-20. Increase in number of rural consumers projected to be added in FY 2019-20 by the Discoms is as shown in the Table below:

Table 11: Estimated Consumers addition and Units consumption due to SAUBHAGYA schemes during FY 2019-20

Discom	Number of Consumers	Units Consumed (MU)
East Discom	446835	145.22
West Discom	0*	0*
Central Discom	157046	58.89
Total	**603881**	**204.11**

*West Discom has already served all the connections under SAUBGHAGYA

3.4 Further, for Temporary Connections, the estimation of Consumers and Load has been carried out on monthly basis instead of directly applying the growth rate to annual figures. For un-metered temporary agriculture consumers under this category, the assessed consumption is considered as per the norms stipulated by Hon'ble Commission in the Tariff order for FY 2018-19.

3.5 Further, the petitioners have signed a contract with Railways last year for on-demand supply of electricity for the currently under-development corridor between Itarsi and Katni. With the electrification of Railway Line between Itarsi-Pipariya-Bankhedi-Gadarwada, one new connection for Central Discom is expected. Similarly, with the electrification of the Railway Line between Gadarwara-Kareli-Katni, a new connection is expected for East Discom. There is no expectation of sales to Railways from West Discom. Accordingly, the East and Central Discoms have projected approximately 55 MU for FY 2019-20 under this category.

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

Table 12: Category wise sales projected by Petitioners for FY 2019-20 (MU)

Consumer Categories	East Discom	West Discom	Central Discom	Total for the State
LT				
LV-1: Domestic	5,780	4,472	5,455	15,707
LV-2: Non-Domestic	1,212	1,214	1,011	3,437
LV-3: Public Water Works & Street Light	441	506	368	1,315
LV4: LT Industrial	451	645	355	1,451
LV 5.1: Agriculture Irrigation Pumps	6,197	9,531	5,596	21,323
LV-5.2: Agriculture related Use	6	2	5	13
LV-6: Electrical Vehicle	1	1	1	3
LT Sales (MU)	**14,088**	**16,371**	**12,791**	**43,250**
HT				
HV-1: Railway Traction	55	0	55	111
HV-2: Coal Mines	468	0	27	495
HV-3.1: Industrial	1,701	2,729	2,674	7,104
HV-3.2: Non-Industrial	273	444	427	1,145
HV-3.3: Shopping Mall*	10	71	24	104
HV-3.4: Power Intensive Industries*	691	1112	309	2,112
HV-4: Seasonal	8	13	2	23
HV-5.1: Public Water Works and Irrigation	119	704	246	1069
HV-5.2: Other Agricultural	17	10	8	35
HV-6: Bulk Residential Users	268	32	157	457
HV-7: Synchronization/ Start-up Power	1	19	2	22
HV-8: Electrical Vehicle	2	3	3	9
HT Sales (MU)	**3,614**	**5,138**	**3,934**	**12,686**
Total LT + HT Sales (MU)	**17,701**	**21,509**	**16,725**	**55,936**

Commission's Analysis

3.7 The Commission on analysis of the consumer, load and sales projections submitted by the Petitioner observed certain discrepancies in projections of load for few categories. Therefore, the Petitioner were directed to submit the revised load estimates for FY 2019-20 after correction of the discrepancies. The Petitioners submitted the revised load projections on July 30, 2019, which have been taken on record by the Commission.

3.8 The Commission has observed that the Petitioners have not considered the actual sales for full FY 2018-19 for the projection of sales for FY 2019-10, as the same was not available at the time of filing of the Petition. Further, the Commission has noted that the Petitioner has projected monthly sales for Domestic consumers added under SAUBHGYA on the basis of specific consumption of 50 units per consumer based on the monthly consumer addition. Also, it is observed that the Petitioner has considered norm of 1650 units per HP per annum for some of the permanent agricultural consumers against the norms of 1590 units per HP per annum approved by the Commission in the Tariff order for FY 2018-19.

3.9 The Commission has reviewed the sales forecast and compared the same with past trend and the actual sales for FY 2018-19. The Commission has taken due cognizance of submissions made by Discoms and various stakeholders for projection of sales for FY 2019-20. Accordingly, the Commission has admitted the sales as filed by the Petitioners for all categories except for agriculture. For agriculture category, the Commission has appropriately reckoned the revised sales considering the norm of 1590 units per HP per annum as approved in the tariff order for FY 2018-19. The Commission has admitted the category-wise sales as given in the Table below:

Table 13: Category wise sales admitted by the Commission for FY 2019-20 (MU)

Consumer Categories	East Discom	West Discom	Central Discom	Total for the State
LV-1: Domestic	5,780	4,472	5,455	15,707
LV-2: Non-Domestic	1,212	1,214	1,011	3,437
LV-3: Public Water Works & Street Light	441	506	368	1,315
LV4: LT Industrial	451	645	355	1,451
LV 5: Agriculture and allied activities	6,135	9,390	5,515	21039
LV 6: Electric Vehicle	1	1	1	3
LT Sales (MU)	**14021**	**16,227**	**12,705**	**42953**
HV-1: Railway Traction	55	0	55	111
HV-2: Coal Mines	468	0	27	495
HV-3.1: Industrial	1,701	2,729	2,674	7,104
HV-3.2: Non-Industrial	273	444	427	1,145
HV-3.3: Shopping Mall	10	71	24	104
HV-3.4: Power Intensive Industries	691	1112	309	2,112
HV-4: Seasonal	8	13	2	23
HV-5: Public Water Works and Irrigation & Other Agricultural	136	714	254	1103
HV-6: Bulk Residential Users	268	32	157	457

Consumer Categories	East Discom	West Discom	Central Discom	Total for the State
HV-7: Synchronization/ Start-up Power	1	19	2	22
HV-8: Electric Vehicle	2	3	3	9
HT Sales (MU)	**3,614**	**5,138**	**3,934**	**12,686**
Total LT + HT Sales (MU)	**17,634**	**21,365**	**16,639**	**55,638**

Energy Balance

Petitioners' Submission

3.10 The Petitioners have projected the energy requirement of 69,968 MU for catering the projected sales of 55,936 MU based on the normative losses. 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 2018-19 and FY 2019-20, the actual Intra-State Transmission Losses for FY 2017-18 of 2.71% has been considered as reported in Annual Report on Regulatory Compliance 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 of 3.48% and 2.04% (30 July 2017 to 29 July 2018), respectively for FY 2019-20. Further, from June 2018 onwards, 40.73 MW power from 29 different sources of Northern Region has been allocated to MP State from the unallocated quota of these sources. Accordingly, for Northern Region (NR), transmission losses have been considered based on 52-week average loss level of 4.04% (30 July 2017 to 29 July 2018) for FY 2019-20.

3.12 The Petitioners have projected energy requirement by grossing up the projected monthly sales by projected distribution and transmission losses. Accordingly, energy requirement for FY 2019-20 has been shown in the Table below:

Table 14: Energy requirement for FY 2019-20 as proposed by Petitioners

Particulars	Unit	East Discom	West Discom	Central Discom	MP State
Total Units sold to LT category	MU	14,088	16,371	12,791	43,250
Total Units sold to HT category	MU	3,614	5,138	3,934	12,686
Total Units Sold by Discom	MU	**17,701**	**21,509**	**16,725**	**55,936**
Distribution loss	%	16.00%	15.00%	17.00%	16.24%
Distribution loss	MU	3,361	4,026	3,461	10,849
Units Input at Distribution Interface	MU	21,063	25,535	20,187	66,784
Transmission loss	%	2.71%	2.71%	2.71%	2.71%
Transmission loss	MU	587	711	562	1,860
Input at G-T interface	MU	21,649	26,246	20,749	68,644
WR-PGCIL Losses	%	3.35%	3.35%	3.35%	3.35%
WR-PGCIL Losses	%	4.08%	4.08%	4.08%	4.08%

Particulars	Unit	East Discom	West Discom	Central Discom	MP State
ER-PGCIL Losses	%	1.98%	1.98%	1.98%	1.98%
External Losses	MU	420	502	401	1,323
Total Units to be Purchased	**MU**	**22,070**	**26,748**	**21,150**	**69,968**

Commission's Analysis

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

Table 15: Loss targets as per Regulations (in %)

Discom	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
East	18%	17%	16%	**16%**
West	16%	15.5%	15%	**15%**
Central	19%	18%	17%	**17%**

3.14 The Commission has considered the distribution losses for FY 2019-20 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 The Commission has noted that the new central generating stations from Northern Region have been allocated to MP State from the unallocated quota. Further, the Commission observed that the actual losses for FY 2018-19 is available. Accordingly, to work out PGCIL system losses, the inter-State transmission losses have been considered separately for Eastern, Western and Northern Region generating stations based on the actual transmission losses for FY 2018-19. For Western Region generating stations, average transmission losses of 3.18% have been considered based on actual losses of 52 weeks of FY 2018-19. Similarly, these losses have been considered as 1.90% for Eastern Region and 3.58% for Northern Region generating stations.

3.16 The Commission has considered actual intra-State transmission losses of FY 2018-19 at 2.71% for FY 2019-20. The energy balance / power purchase requirement on the basis of the sales admitted by the Commission for the Discoms for FY 2019-20 is presented in the following table:

Table 16: Power purchase requirement projected by the Commission for FY 2019-20

Particular	Unit	East Discom	West Discom	Central Discom	State
Total Sales	MU	17,634	21,365	16,639	55,638
Distribution loss	%	16.00%	15.00%	17.00%	15.92%
Distribution loss	MU	3,359	3,770	3,408	10,537
Input at T-D interface	MU	20,993	25,135	20,047	66,176
Transmission loss	%	2.71%	2.71%	2.71%	2.71%
Transmission loss	MU	585	700	558	1,843

Particular	Unit	East Discom	West Discom	Central Discom	State
Input at G-T interface	MU	21,578	25,836	20,605	68,019
PGCIL Losses					
WR- PGCIL Losses	%	3.18%	3.18%	3.18%	3.18%
ER- PGCIL Losses	%	1.90%	1.90%	1.90%	1.90%
NR-PGCIL Losses	%	3.58%	3.58%	3.58%	3.58%
PGCIL Losses	MU	424	506	405	1,329
Power Purchase Requirement	MU	**22,001**	**26,341**	**21,010**	**69,353**

Assessment of Energy Availability

Petitioners' Submission

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 2018-19 and FY 2019-20 by MPPGCL, Central Sector, Joint venture and by Private players awarded through competitive bidding.

(c) Northern Region Plants allocation of 40.73 MW from June 2018 onwards from 29 Plants.

(d) Impact of generation capacity allocation in WR, ER and NR.

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

Table 17: Upcoming Stations and Technical Parameters

Sr. no.	Particulars	Capacity (MW)	PLF/DE/CUF Considered (%) First 90 Days	PLF/DE/CUF Considered (%) After 90 Days	Remarks	MP Share %	MW	CoD
				New Stations				
1	**Northern Region Allocation from Unallocated Quota- (40.73 MW) from June 2018**	**18,793.02**					**40.73**	
a	NTPC Auraiya GPP	663	80.71%	80.71%	Same as NTPC Gandhar GPP	0.26%	1.72	15-Jun-90
b	NTPC Dadri GPP	830	80.71%	80.71%	Same as NTPC Gandhar GPP	0.27%	2.24	15-Apr-97
c	NTPC Anta GPP	419	80.71%	80.71%	Same as NTPC Gandhar GPP	0.27%	1.13	15-Mar-90
d	RAPP Rawabhatta	880	86.02%	86.02%	Same as TAPP Tarapur	0.21%	1.85	16-Dec-73
e	NAPP Narora	440	86.02%	86.02%	Same as TAPP Tarapur	0.25%	1.1	01-Jul-92
f	NTPC Firoz Gandhi Unchahar I	420	85.00%	85.00%	CERC Norms	0.08%	0.34	15-Mar-89
g	NTPC Firoz Gandhi Unchahar II	420	85.00%	85.00%	CERC Norms	0.27%	1.13	15-Oct-99
h	NTPC Firoz Gandhi Unchahar III	210	85.00%	85.00%	CERC Norms	0.26%	0.55	15-Sep-06
i	NTPC Firoz Gandhi Unchahar IV	500	85.00%	85.00%	CERC Norms	0.26%	1.3	15-Apr-17
j	NTPC Rihand I	1,000	85.00%	85.00%	CERC Norms	0.22%	2.2	15-Jul-89
k	NTPC Rihand II	1,000	85.00%	85.00%	CERC Norms	0.24%	2.4	15-Sep-05
l	NTPC Rihand III	1,000	85.00%	85.00%	CERC Norms	0.27%	2.7	15-Oct-13
m	NTPC NCTP Dadri II	980	85.00%	85.00%	CERC Norms	0.23%	2.25	15-Jul-10
n	NTPC Singrauli	2,000	85.00%	85.00%	CERC Norms	0.22%	4.4	15-Nov-87
o	NTPC IGPS I Jhajjar	1,500	85.00%	85.00%	CERC Norms	0.13%	1.95	15-Mar-12
p	SJVN Rampur HPS	412	70.00%	70.00%	Assumed	0.16%	0.66	16-Dec-14
q	SJVN Jhakri HPS	1,500	70.00%	70.00%	Assumed	0.18%	2.7	14-May-04
r	Tehri HPS	1,000	70.00%	70.00%	Assumed	0.18%	1.8	09-Jul-07
s	Koteshwar HPP	400	70.00%	70.00%	Assumed	0.18%	0.72	01-Apr-12

Sr. no.	Particulars	Capacity (MW)	PLF/DE/CUF Considered (%) First 90 Days	PLF/DE/CUF Considered (%) After 90 Days	Remarks	MP Share %	MW	CoD
t	Parbati III	520	70.00%	70.00%	Assumed	0.27%	1.4	15-May-14
u	NHPC Chamera II	300	70.00%	70.00%	Assumed	0.32%	0.96	31-Mar-04
v	NHPC Chamera III	231	70.00%	70.00%	Assumed	0.27%	0.62	30-Jun-12
w	NHPC Dulhasti	390	70.00%	70.00%	Assumed	0.27%	1.05	07-Apr-07
x	NHPC Dhauliganga	280	70.00%	70.00%	Assumed	0.27%	0.76	01-Nov-05
y	NHPC Sewa II	120	70.00%	70.00%	Assumed	0.26%	0.31	02-Jul-10
z	NHPC Uri II	240	70.00%	70.00%	Assumed	0.27%	0.65	01-Mar-14
aa	NHPC Kishanganga	330	70.00%	70.00%	Assumed	0.26%	0.86	24-May-18
ab	NTPC Koldam HPP I	800	70.00%	70.00%	Assumed	0.12%	0.96	18-Jul-15
ac	NTPC Singrauli Small HPP	8	70.00%	70.00%	Assumed	0.25%	0.02	15-Nov-87
2	**Central Generating Stations WR**	**3,860.00**					**1,084.92**	
a	NTPC Solapur STPS, Unit-2	660	65.00%	85.00%	First 90 Days Assumed, Thereafter CERC Norms	23.84%	157.32	1-July-19
b	NTPC Gadarwara STPS, Unit-1	800	65.00%	85.00%	First 90 Days Assumed, Thereafter CERC Norms	50.00%	400	1-July-19
c	NTPC Gadarwara STPS, Unit-2	800	65.00%	85.00%	First 90 Days Assumed, Thereafter CERC Norms	50.00%	400	31-Oct-19
d	NTPC Lara STPS, Raigarh, Unit I	800	65.00%	85.00%	First 90 Days Assumed, Thereafter CERC Norms	7.98%	63.8	1-July-19
e	NTPC Lara STPS, Raigarh, Unit II	800	65.00%	85.00%	First 90 Days Assumed, Thereafter CERC Norms	7.98%	63.8	31-Aug-19
3	**MP Genco**	**1,320.00**					**1,188.00**	
a	Shri Singaji Phase-2, Unit-1	660	63.82%	63.82%	PLF of Singaji STPS Ph 1 Considered	90.00%	594	27-Dec-18
b	Shri Singaji Phase-2, Unit-2	660	63.82%	63.82%		90.00%	594	31-Mar-19
4	**Total (1+2+3)**	**23,973.02**					**2,313.65**	

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/2018/5733 dated 28th June 2018 and from Eastern Region NTPC Kahalgaon 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21st February 2007 and Northern Region as per Northern Regional Power Committee letter No. NRPC/OPR/103/02/2018/6105-6103 dated 1st June 2018 and communication held with their concerned offices have been considered for FY 2019-20.

3.20 No Availability has been considered from Rihand, Matatila based on nil availability in last 36 months. 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 2019-20. However, in case the PPAs with DVC remains in force in FY 2018-19 & 2019-20, MPPMCL will be obligated to pay fixed charges for these stations.

3.21 During FY 2018-19, power from Essar, BLA and Sugen Torrent Generating Stations has been scheduled following MoD whereas in the Tariff Order for FY 2018-19 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 2018-19. For FY 2019-20, the availability from these plants has been considered as the PPAs with these plants remain in force.

3.22 Following table shows MPPMCL allocated existing stations as well as the new capacity additions which are expected to become operational till end of FY 2019-20:

Table 18: MPPMCL allocated stations submitted by the Petitioners for FY 2019-20

Sr. no.	Particulars	Region	Capacity (MW)	MP Share	
				%	MW
I	**Central Sector**		**33,776**		**4,716**
1	NTPC Korba	WR	2,100	22%	464
2	NTPC Korba III	WR	500	14%	68
3	NTPC Vindyachal I	WR	1,260	34%	428
4	NTPC Vindyachal II	WR	1,000	31%	306
5	NTPC Vindyachal III	WR	1,000	23%	233
6	NTPC Vindyachal IV	WR	1,000	27%	268
7	NTPC Vindyachal V Unit 1	WR	500	27%	134
8	NTPC Sipat I	WR	1,980	15%	305
9	NTPC Sipat II	WR	1,000	18%	176
10	NTPC Mouda I	WR	1,000	16%	165
11	NTPC Mouda II Unit 1	WR	660	17%	113
12	NTPC Mouda II Unit 2	WR	660	17%	113
13	NTPC Kawas GPP	WR	656	21%	140
14	NTPC Gandhar GPP	WR	657	18%	117

Sr. no.	Particulars	Region	Capacity (MW)	MP Share	
				%	MW
15	NTPC Auraiya GPP	NR	663	0%	2
16	NTPC Dadri GPP	NR	830	0%	2
17	NTPC Anta GPP	NR	419	0%	1
18	NTPC Kahalgaon 2	ER	1,500	5%	74
19	KAPP Kakrapar	WR	440	26%	113
20	TAPP Tarapur	WR	1,080	21%	230
21	RAPP Rawabhatta	NR	880	0%	2
22	NAPP Narora	NR	440	0%	1
23	NTPC Solapur STPS, Unit-1	WR	660	24%	155
24	NTPC Solapur STPS, Unit-2	WR	660	24%	157
25	NTPC Gadarwara STPS, Unit-1	WR	800	50%	400
26	NTPC Gadarwara STPS, Unit-2	WR	800	50%	400
27	NTPC Lara STPS, Raigarh, Unit I	WR	800	8%	64
28	NTPC Lara STPS, Raigarh, Unit II	WR	800	8%	64
29	NTPC Firoz Gandhi Unchahar I	WR	420	0%	0
30	NTPC Firoz Gandhi Unchahar II	NR	420	0%	1
31	NTPC Firoz Gandhi Unchahar III	NR	210	0%	1
32	NTPC Firoz Gandhi Unchahar IV	NR	500	0%	1
33	NTPC Rihand I	NR	1,000	0%	2
34	NTPC Rihand II	NR	1,000	0%	2
35	NTPC Rihand III	NR	1,000	0%	3
36	NTPC NCTP Dadri II	NR	980	0%	2
37	NTPC Singrauli	NR	2,000	0%	4
38	NTPC IGPS I Jhajjar	NR	1,500	0%	2
II	**MP GENCO (THERMAL & HYDRO)**		**6,586**		**5,777**
1	Amarkantak TPS Ph-III	State	210	100%	210
2	Satpura Phase III	State	420	100%	420
3	Satpura TPS Ph-IV	State	500	100%	500
4	SGTPS Ph-I & II	State	840	100%	840
5	SGTPS Ph-III	State	500	100%	500
6	Shri Singaji STPS, Ph-I	State	1,200	100%	1,200
7	Shri Singaji Phase-2, Unit-1	State	660	90%	594
8	Shri Singaji Phase-2, Unit-2	State	660	90%	594
9	Rani Awanti Bai Sagar, Bargi HPS	State	90	100%	90
10	Bansagar Ph I HPS (Tons)	State	315	100%	315
11	Bansagar Ph-II HPS (Silpara)	State	30	100%	30
12	Bansagar Ph-III HPS (Deolond)	State	60	100%	60
13	Bansagar Ph-IV HPS (Jhinna)	State	20	100%	20

Sr. no.	Particulars	Region	Capacity (MW)	MP Share	
				%	MW
14	Birsinghpur HPS	State	20	100%	20
15	Marhikheda HPS	State	60	100%	60
16	Rajghat HPS	State	45	50%	23
17	Gandhisagar HPS	State	115	50%	58
18	Ranapratap Sagar & Jawahar Sagar HPS	State	271	50%	136
19	Pench HPS	State	160	67%	107
III	**JV Hydel & Other Hydels**		**9,832**		**2,360**
1	NHDC Indira Sagar HPS	State	1,000	100%	1,000
2	NHDC Omkareshwar HPS	State	520	100%	520
3	Sardar Sarovar HPS	WR	1,450	57%	827
4	Rihand HPS	NR	300	0%	-
5	Matatila HPS	NR	31	0%	-
6	SJVN Rampur HPS	NR	412	0%	1
7	SJVN Jhakri HPS	NR	1,500	0%	3
8	Tehri HPS	NR	1,000	0%	2
9	Koteshwar HPP	NR	400	0%	1
10	Parbati III	NR	520	0%	1
11	NHPC Chamera II	NR	300	0%	1
12	NHPC Chamera III	NR	231	0%	1
13	NHPC Dulhasti	NR	390	0%	1
14	NHPC Dhauliganga	NR	280	0%	1
15	NHPC Sewa II	NR	120	0%	0
16	NHPC Uri II	NR	240	0%	1
17	NHPC Kishanganga	NR	330	0%	1
18	NTPC Koldam HPP I	NR	800	0%	1
19	NTPC Singrauli Small HPP	NR	8	0%	0
IV	**DVC**		**2,840**		**-**
1	DVC (MTPS & CTPS)	ER	1,840	0%	-
2	DVC DTPS, Unit 1 & Unit 2	ER	1,000	0%	-
5	**IPPs**		**9,352**		**3,414**
1	Torrent Power	WR	765	10%	75
2	BLA Power	State	90	35%	32
3	Jaypee Bina Power	State	500	70%	350
4	Lanco Amarkantak TPS Unit 1	WR	300	100%	300
5	Reliance UMPP, Sasan	WR	3,960	38%	1,485
6	Essar Power STPS	State	600	5%	30
7	Jaiprakash Power STPS, Nigri	WR	1,320	38%	495
8	MB Power STPS	WR	1,200	35%	420

Sr. no.	Particulars	Region	Capacity (MW)	MP Share	
				%	MW
9	Jhabua Power STPS, Unit-1	WR	600	35%	210
10	Captive	State	17	100%	17
6	**Renewables**		**-**		**4,349**
a	Solar	State	NA	100%	1,536
b	Other (Mini Micro)	State		100%	42
c	Other than Solar	State		100%	2,771
7	**Total**		**62,385**		**20,615**

3.23 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 2019-20, 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. 2.84 per unit, 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.

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

Table 19: Stations which are considered by the Petitioners for partial /full back down (MU)

Sr. No.	Particulars	Normative Availability	Back Down of Power	Net Availability
1	NTPC Mouda I	1,061	884	177
2	NTPC Mouda II Unit 2	970	809	162
3	NTPC Auraiya GPP	12	12	0
4	NTPC Dadri GPP	15	13	3
5	NTPC Anta GPP	8	7	1
6	NTPC Solapur STPS, Unit-1	1,115	929	186
7	NTPC Solapur STPS, Unit-2	566	566	0
8	NTPC Gadarwara STPS, Unit-1	1,440	1,440	0
9	NTPC Gadarwara STPS, Unit-2	502	502	0
10	NTPC Lara STPS, Raigarh, Unit I	230	230	0
11	NTPC Lara STPS, Raigarh, Unit II	155	155	0

Sr. No.	Particulars	Normative Availability	Back Down of Power	Net Availability
12	NTPC Firoz Gandhi Unchahar I	2	2	0
13	NTPC Firoz Gandhi Unchahar II	8	7	1
14	NTPC Firoz Gandhi Unchahar III	4	3	1
15	NTPC Firoz Gandhi Unchahar IV	9	8	2
16	NTPC NCTP Dadri II	16	13	3
17	NTPC IGPS I Jhajjar	14	14	0
18	Marhikheda HPS	90	16	74
19	Torrent Power	593	593	0
20	Jaypee Bina Power	2,366	1,956	410
21	Essar Power STPS	21	17	3
22	**Total**		**8,175**	

3.25 The following table shows the overall 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 20: Total Availability of Energy submitted by the Petitioners for FY 2019-20 (MU)

Particulars	Energy Availability
Energy available from all Stations allocated to MPPMCL	90,932
Less: Energy backed down	8,175
Total	**82,757**

Commission's Analysis

3.26 The Commission has considered the CGS allocation for FY 2019-20 as provided by Western Regional Power Committee in their letter No. WRPC/Comml-I/6/Alloc/2018/5733 dated 28th June 2018 and from Eastern Region NTPC Kahalgaon 2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21st February 2007 and Northern Region as per Northern Regional Power Committee letter No. NRPC/OPR/103/02/2018/6105-6103 dated 01st June 2018. Further, the Commission has considered the allocation of remaining generating stations as per notification no. 2211/F-3-13/2016/XIII dated 21st March, 2016, Energy Dept., Govt. of Madhya Pradesh. The Commission has further distributed the generating capacities among the Discoms as per their energy requirement.

3.27 The Commission in order to project energy availability for FY 2019-20 has analysed the following:

(i) Actual average scheduled energy for previous three years i.e. FY 2016-17 to FY

2018-19 as per State Energy Account;

(ii) Actual availability of Central Generating Stations as per Regional Energy Account for FY 2018-19;

(iii) Actual availability submitted by the Petitioner for FY 2018-19;

(iv) Energy availability at normative Plant Availability Factor;

(v) Projections made by NTPC (new plants), NHDC, NVDA and MPPGCL for FY 2019-20.

3.28 With regard to energy availability from Central Thermal Power Generating Stations, the Commission observed that the actual energy availability for FY 2018-19 submitted by the Petitioner in reply to additional data gaps is in line with the actual availability as per Regional Energy Account for FY 2018-19 and average of the scheduled energy in previous three years. Accordingly, the Commission has considered the availability for these stations as submitted by the Petitioner for FY 2018-19. Further, with regards to Central Thermal Generating Stations allocated to MP State Discoms in June 2018 from the unallocated quota, energy availability for FY 2019-20 has been considered as per the actual availability in FY 2018-19 as per Regional Energy Account.

3.29 Further, the Commission has considered energy availability from the Central Hydro Generating Stations as per the actual power purchase made by the Petitioner in FY 2018-19.

3.30 For NPCIL generating stations the Commission has considered energy availability based on the following:

(i) Kakrapar Nuclear Power Plant: As the plant was not operational due to shutdown for last few years and started operation in FY 2018-19 only, the energy availability data for previous three years is not available. Hence, the Commission has considered the projected energy availability for FY 2019-20 as submitted by the Petitioner.

(ii) Tarapur Nuclear Power Plant: Based on actual power purchase made by the Petitioner in FY 2018-19 as the same is in line with average of the actual scheduled energy for previous three years;

(iii) Narora and Rawabhata Nuclear Power Plant: Computed based on actual power purchase made by the Petitioner during FY 2018-19 as the share in these plants has been allocated to MPPMCL in FY 2018-19 only.

3.31 The Commission has considered the energy availability of MPPGCL thermal generating stations and hydro generating stations for FY 2019-20 based on the projections submitted by the MPPGCL vide letter No. 07-12/CS-MPPGCL/MPERC/Ex-Bus Generation/FY-20/866 dated 26 July, 2019 as the same is in line with the actual availability in previous years. It is observed that MPPGCL has not submitted the availability from RP Sagar HPS as it is being operated by Rajasthan Authority. Therefore, in absence of the details of past availability the Commission has considered the energy availability as submitted by the Petitioner from Gandhi Sagar and RP Sagar hydro.

3.32 As regard availability projections in respect of Indira Sagar Power Station (ISPS), Omkareshwar (OSP) and Sardar Sarovar Project (SSP) the Commission has considered the projection submitted by NHDC and NVDA for FY 2019-20 based on the actual availability for previous years.

3.33 With regard to new NTPC stations i.e. Gadarwara, Lara and Solapur Thermal Power Stations, the Commission has obtained the details of their CODs from NTPC and accordingly projected the energy availability.

3.34 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, 2019 and MPERC Generation Tariff Regulations, 2015 on case to case basis.

3.35 In view of the Commission's orders dated 22 May, 2015 and 25 July, 2015 in Petition Nos. 16/2014 and 36/2015, respectively, the Commission has been disallowing the availability and the cost of generation from Unit No. 1 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. The aforesaid order has been challenged by the Commission before the Hon'ble Supreme Court in Civil Appeal No. 5733 of 2018 and the same has been admitted and is presently sub-judice before the Hon'ble Supreme Court. The petition for determination of tariff for Unit no. 2 of M/s BLA Power plant was filed by M/s BLA Power before the Commission, but the proceeding in the same has been adjourned since the issue in this petition are commonly sub-judice in the aforesaid Civil Appeal. Therefore, the tariff for Unit No. 2 of M/s BLA power plant has not been determined by the Commission. In view of aforesaid status, the availability and the cost of generation from Unit No. 1&2 of M/s BLA Power plant as filed by the Petitioner has not been considered in this order.

3.36 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 Commission with a separate petition in this regard. Also, 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.

3.37 Month wise and generating station wise details of projected availability for FY 2019-20 is indicated in the table below:

Table 21 : Month wise energy availability projection for FY 2019-20 (MUs)

Sr. No.	Generating Stations	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
	Central Sector													
1	NTPC Korba Stage-I &II	311	304	297	258	249	282	295	284	256	288	281	321	**3,427**
2	NTPC Korba Stage-III	47	47	45	45	43	42	46	45	46	46	42	46	**540**
3	NTPC Vindyachal Stage- I	281	236	245	217	208	247	283	295	300	251	217	277	**3,059**
4	NTPC Vindyachal Stage- II	213	181	143	96	154	191	191	220	206	199	187	221	**2,202**
5	NTPC Vindyachal Stage-III	176	166	162	155	146	131	142	157	149	160	153	176	**1,873**
6	NTPC Vindyachal Stage-IV	166	174	188	165	99	174	180	197	198	174	163	196	**2,074**
7	NTPC Vindyachal Stage-V Unit 1	93	89	86	78	77	90	91	90	92	73	38	90	**988**
8	NTPC Sipat Stage-I	201	185	188	162	206	203	185	175	198	207	173	204	**2,286**
9	NTPC Sipat Stage-II	127	128	124	127	105	126	129	123	124	107	93	112	**1,425**
10	NTPC Mouda Stage-I	49	57	44	68	91	96	106	104	123	113	70	89	**1,010**
11	NTPC Mouda Stage-II Unit 1	46	57	39	64	60	90	117	96	79	91	59	87	**885**
12	NTPC Mouda Stage-II Unit 2	68	70	68	70	70	68	70	68	70	70	66	70	**828**
13	NTPC Kawas GPP	47	89	68	50	54	144	139	128	87	90	92	81	**1,069**
14	NTPC Gandhar GPP	73	72	52	60	65	88	77	71	89	73	58	78	**854**
15	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	**10**
16	NTPC Dadri GPP	2	2	2	2	2	2	2	2	2	2	2	2	**23**
17	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	**12**
18	NTPC Kahalgaon Stage-2	51	40	26	26	42	36	50	53	60	46	39	49	**518**

Sr. No.	Generating Stations	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
19	KAPP Kakrapar	51	53	51	53	53	51	53	51	53	53	49	53	**620**
20	TAPP Tarapur	161	112	98	137	115	112	130	139	145	173	151	173	**1,644**
21	RAPP Rawabhatta	1	1	1	1	1	1	1	1	1	1	1	1	**11**
22	NAPP Narora	1	1	1	1	1	1	1	1	1	1	1	1	**8**
23	NTPC Solapur STPS, Unit-1	103	106	103	106	106	103	106	103	106	106	99	106	**1,256**
24	NTPC Solapur STPS, Unit-2	103	106	103	106	106	103	106	103	106	106	99	106	**1,256**
25	NTPC Gadarwara STPS, Unit-1	0	0	0	251	251	243	251	243	251	251	235	251	**2,228**
26	NTPC Gadarwara STPS, Unit-2	0	0	0	0	0	0	8	243	251	251	235	251	**1,239**
27	NTPC Lara STPS, Raigarh, Unit I	0	0	0	0	0	39	40	39	40	40	37	40	**275**
28	NTPC Lara STPS, Raigarh, Unit II	0	0	0	0	0	0	0	0	0	0	0	0	**0**
29	NTPC Firoz Gandhi Unchahar Stage-I	0	0	0	0	0	0	0	0	0	0	0	0	**3**
30	NTPC Firoz Gandhi Unchahar Stage-II	1	1	1	1	1	1	1	1	1	1	1	1	**9**
31	NTPC Firoz Gandhi Unchahar Stage-III	0	0	0	0	0	0	0	0	0	0	0	0	**4**
32	NTPC Firoz Gandhi Unchahar Stage-IV	0	0	0	0	0	0	0	0	0	0	0	0	**2**
33	NTPC Rihand Stage-I	1	1	1	1	1	1	1	1	1	1	1	1	**16**
34	NTPC Rihand Stage-II	1	2	1	2	2	1	2	1	2	2	1	2	**18**
35	NTPC Rihand Stage-III	2	2	2	2	2	2	2	2	2	2	2	2	**21**
36	NTPC NCTP Dadri Stage-II	1	1	1	1	1	1	1	1	1	1	1	1	**17**
37	NTPC Singrauli	3	3	3	3	3	3	3	3	3	3	3	3	**32**
38	NTPC IGPS I Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	**13**

Sr. No.	Generating Stations	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
	SUB TOTAL	**2,384**	**2,290**	**2,147**	**2,310**	**2,318**	**2,674**	**2,813**	**3,043**	**3,045**	**2,983**	**2,652**	**3,092**	**31,751**
B. State Generating Stations														
I	**THERMAL**													
39	Amarkantak TPS Ph-III	139	143	134	86	129	124	133	129	133	133	124	133	**1,538**
40	Satpura Phase II & III	286	244	209	282	278	256	266	257	266	266	159	75	**2,844**
41	Satpura TPS Ph-IV	322	171	158	128	281	297	321	311	321	321	300	321	**3,253**
42	SGTPS Ph-I & II	401	330	260	292	325	331	435	421	435	435	407	435	**4,506**
43	SGTPS Ph-III	285	227	302	268	0	315	333	322	333	333	311	333	**3,360**
44	Shri Singaji STPS, Ph-I	599	333	293	379	508	756	784	759	784	784	734	784	**7,498**
45	Shri Singaji Phase-2, Unit-1	213	244	158	379	346	400	427	413	427	427	399	427	**4,259**
46	Shri Singaji Phase-2, Unit-2	213	244	158	379	346	400	427	413	427	427	399	427	**4,259**
	SUB TOTAL	**2,458**	**1,936**	**1,672**	**2,192**	**2,215**	**2,878**	**3,125**	**3,024**	**3,125**	**3,125**	**2,834**	**2,935**	**31,518**
II	**HYDEL**													
	INTERSTATE													
47	Gandhisagar HPS	0	0	2	0	0	0	0	21	30	30	25	17	**127**
48	Ranapratap Sagar & Jawahar Sagar HPS	0	0	0	0	18	8	39	67	65	65	56	40	**359**
49	Pench HPS	5	2	1	7	4	11	33	5	5	2	1	5	**81**
50	Rajghat HPS	0	0	0	2	4	4	3	8	5	8	5	0	**40**
	SUB TOTAL	**5**	**3**	**3**	**10**	**26**	**23**	**75**	**101**	**105**	**105**	**88**	**63**	**607**
	INTRA STATE													
51	Rani Awanti Bai Sagar, Bargi HPS	12	9	9	33	63	65	32	19	25	55	15	13	**349**
52	Birsinghpur HPS	0	0	1	9	13	9	0	0	0	0	0	0	**32**
53	Bansagar Ph I HPS (Tons)	93	101	50	46	128	142	27	21	48	38	30	26	**748**

Sr. No.	Generating Stations	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
54	Bansagar Ph-II HPS (Silpara)	7	9	5	23	0	25	38	0	0	0	0	0	**107**
55	Bansagar Ph-III HPS (Deolond)	0	5	25	4	0	3	3	3	6	5	4	4	**61**
56	Bansagar Ph-IV HPS (Jhinna)	4	3	3	3	1	8	7	11	13	12	10	10	**84**
57	Marhikheda HPS	9	9	4	3	0	6	5	8	12	10	9	9	**84**
	SUB TOTAL	**126**	**136**	**97**	**120**	**205**	**257**	**112**	**61**	**103**	**119**	**68**	**61**	**1,465**
	JV HYDELS and OTHER HYDELS													
58	NHDC Indira Sagar HPS	84	96	44	92	123	168	150	172	171	159	124	146	**1,528**
59	NHDC Omkareshwar HPS	44	43	18	58	58	82	76	89	85	83	61	74	**772**
60	Sardar Sarovar HPS	25	21	23	50	288	338	63	84	103	97	80	77	**1,249**
61	Rihand HPS	3	4	5	5	8	13	14	5	9	10	8	6	**91**
62	Matatila HPS	0.14	1.64	0.01	1.02	1.84	3.29	5.39	5.70	3.78	4.23	3.40	1.88	**32**
63	SJVN Rampur HPS	0.26	0.27	0.26	0.27	0.27	0.26	0.27	0.26	0.27	0.27	0.25	0.27	**3**
64	SJVN Jhakri HPS	0.95	0.98	0.95	0.98	0.98	0.95	0.98	0.95	0.98	0.98	0.92	0.98	**12**
65	Tehri HPS	0.75	0.78	0.75	0.78	0.78	0.75	0.78	0.75	0.78	0.78	0.73	0.78	**9**
66	Koteshwar HPP	0.31	0.33	0.31	0.33	0.33	0.31	0.33	0.31	0.33	0.33	0.30	0.33	**4**
67	Parbati Stage-III	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.15	**2**
68	NHPC Chamera Stage-II	0.37	0.38	0.37	0.38	0.38	0.37	0.38	0.37	0.38	0.38	0.35	0.38	**4**
69	NHPC Chamera Stage-III	0.22	0.23	0.22	0.23	0.23	0.22	0.23	0.22	0.23	0.23	0.21	0.23	**3**
70	NHPC Dulhasti	0.45	0.47	0.45	0.47	0.47	0.45	0.47	0.45	0.47	0.47	0.44	0.47	**6**
71	NHPC Dhauliganga	0.24	0.25	0.24	0.25	0.25	0.24	0.25	0.24	0.25	0.25	0.23	0.25	**3**
72	NHPC Sewa Stage-II	0.25	0.26	0.25	0.26	0.26	0.25	0.26	0.25	0.26	0.26	0.24	0.26	**3**
73	NHPC Uri Stage-II	0.17	0.18	0.17	0.18	0.18	0.17	0.18	0.17	0.18	0.18	0.16	0.18	**2**

Sr. No.	Generating Stations	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
74	NHPC Kishanganga	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.12	**1**
75	NTPC Koldam HPP Stage-I	0.35	0.36	0.35	0.36	0.36	0.35	0.36	0.35	0.36	0.36	0.34	0.36	**4**
76	NTPC Singrauli Small HPP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**
	SUB TOTAL	161	171	95	211	484	609	313	360	376	358	281	310	**3,728**
	IPP													
77	Jaypee Bina Power	119	122	83	75	79	110	177	173	142	139	102	115	**1,436**
78	Lanco Amarkantak TPS Unit 1	211	210	184	167	94	129	172	175	215	192	189	196	**2,135**
79	Reliance UMPP, Sasan	1,030	957	942	870	808	829	910	1,011	996	1,036	941	1,007	**11,338**
80	Jaiprakash Power STPS, Nigri	300	331	305	232	304	288	335	312	197	272	244	241	**3,362**
81	MB Power STPS	146	209	135	147	155	150	158	252	178	192	185	233	**2,142**
82	Jhabua Power STPS, Unit-1	28	52	37	37	41	83	78	109	84	105	70	109	**833**
83	Captive	2	3	2	3	3	2	3	2	3	3	2	3	**30**
	SUB TOTAL	**1,838**	**1,884**	**1,688**	**1,531**	**1,484**	**1,592**	**1,834**	**2,035**	**1,815**	**1,940**	**1,732**	**1,903**	**21,277**
	RENEWABLES													
84	Solar	245	254	245	254	254	245	254	245	254	254	237	254	**2,993**
85	Other (Mini Micro)	4	4	4	4	4	4	4	4	4	4	4	4	**46**
86	Other than Solar	377	390	377	390	390	377	390	377	390	390	365	390	**4,605**
	SUB TOTAL	**627**	**647**	**627**	**647**	**647**	**627**	**647**	**627**	**647**	**647**	**606**	**647**	**7,644**
	Grand Total	**7,598**	**7,068**	**6,327**	**7,021**	**7,379**	**8,660**	**8,919**	**9,251**	**9,217**	**9,279**	**8,260**	**9,011**	**97,989**

Assessment of Power Purchase Cost

Petitioners' Submission

3.38 Details of the fixed cost and variable charges of MPPMCL allocated stations as submitted by the Petitioner are mentioned in the table below:

Table 22 : Fixed cost and Variable charges of MPPMCL allocated stations submitted by the Petitioners for FY 2019-20

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
I	**Central Sector**				
1	NTPC Korba Stage-I & II	93	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	124	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
2	NTPC Korba Stage-III	28	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	132	& Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
3	NTPC Vindyachal Stage-I	99	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	167	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
4	NTPC Vindyachal Stage-II	62	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	156	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
5	NTPC Vindyachal Stage-III	80	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	153	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
6	NTPC Vindyachal Stage-IV	129	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	154	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
7	NTPC Vindyachal Stage-V Unit 1	64	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	157	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
8	NTPC Sipat Stage-I	119	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	121	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
9	NTPC Sipat Stage-II	66	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17-Oct 18)	130	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
10	NTPC Mouda Stage-I	52	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	333	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
11	NTPC Mouda Stage-II Unit 1	34	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	284	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
12	NTPC Mouda Stage-II Unit 2	34	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	284	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
13	NTPC Kawas GPP	35	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	237	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
14	NTPC Gandhar GPP	33	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	266	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
15	NTPC Auraiya GPP	0	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	413	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
16	NTPC Dadri GPP	0	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	364	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
17	NTPC Anta GPP	0	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	366	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
18	NTPC Kahalgaon Stage-II	23	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	226	Energy Charge as per last 12 Month Avg (Sep 18- Oct 18)
19	KAPP Kakrapar	-	Fixed Charge as per Weighted Avg 2-month Bill (Sep 18 - Oct 18)	246	Energy Charge as per last 2 Month Avg (Nov 17- Oct 18) in absence of supply in previous months
20	TAPP Tarapur	-	Fixed Charge as per Weighted Avg 12-month Bill (Nov 17- Oct 18)	307	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
21	RAPP Rawabhatta	-	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18	405	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
22	NAPP Narora	-	Fixed Charge as per Weighted Avg 12	320	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
			month Bill (Nov 17- Oct 18		
23	NTPC Solapur STPS, Unit-1	181	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18	376	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
24	NTPC Solapur STPS, Unit-2	137	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately	376	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately
25	NTPC Gadarwara STPS, Unit-1	262	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately	376	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately
26	NTPC Gadarwara STPS, Unit-2	109	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately	376	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately
27	NTPC Lara STPS, Raigarh, Unit I	13	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately	376	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately
28	NTPC Lara STPS, Raigarh, Unit II	8	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately	376	As per Solapur STPS Unit 1 (Nov 17- Oct 18) Proportionately
29	NTPC Firoz Gandhi Unchahar Stage-I	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	289	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
30	NTPC Firoz Gandhi Unchahar Stage-II	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	289	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
31	NTPC Firoz Gandhi Unchahar Stage-III	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	290	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
32	NTPC Firoz Gandhi Unchahar Stage-IV	-	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	290	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
33	NTPC Rihand Stage-I	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	133	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
34	NTPC Rihand Stage-II	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	133	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
35	NTPC Rihand Stage-III	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	135	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
36	NTPC NCTP Dadri II	1	Fixed Charge as per Weighted Avg 5	348	Energy Charge as per last 5 Month Avg (Jun 18- Oct

Sr. No.	**Station**	**Fixed Charge (Rs. Crore)**	**Remark**	**Energy Charge (Paise / Unit))**	**Remark**
			month Bill (Jun 18- Oct 18)		18)in absence of supply in previous months
37	NTPC Singrauli	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	141	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
38	NTPC IGPS I Jhajjar	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18- Oct 18)	884	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
II	**MP GENCO (THERMAL & HYDRO)**				
1	Amarkantak TPS Ph-III	217	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	159	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
2	Satpura Phase III	260	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	259	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
3	Satpura TPS Ph-IV	707	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	206	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
4	SGTPS Ph-I & II	387	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	216	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
5	SGTPS Ph-III	389	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	201	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
6	Shri Singaji STPS, Ph-I	999	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	262	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
7	Shri Singaji Phase-2, Unit-1	494	As per Shri Singaji STPS Phase I Proportinately	262	As per Shri Singaji STPS Phase I Proportinately
8	Shri Singaji Phase-2, Unit-2	494	As per Shri Singaji STPS Phase I Proportinately	262	As per Shri Singaji STPS Phase I Proportinately
9	Rani Awanti Bai Sagar, Bargi HPS	9	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	62	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
10	Bansagar Ph I HPS (Tons)	53	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	81	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
11	Bansagar Ph-II HPS (Silpara)	5	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	82	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
12	Bansagar Ph-III HPS (Deolond)	12	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	172	Energy Charge as per last 12 Month Avg (Nov 17-Oct 18)
13	Bansagar Ph-IV HPS (Jhinna)	8	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	113	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
14	Birsinghpur HPS	1	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	93	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
15	Marhikheda HPS	14	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	269	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
16	Rajghat HPS	2	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	141	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
17	Gandhisagar HPS	4	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	68	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
18	Ranapratap Sagar & Jawahar Sagar HPS	-	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	151	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
19	Pench HPS	10	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	46	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
III	**JV Hydel & Other Hydels**				
1	NHDC Indira Sagar HPS	367	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	137	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
2	NHDC Omkareshwar HPS	271	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	203	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
3	Sardar Sarovar HPS	163	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17-Oct 18)	122	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
4	SJVN Rampur HPS	0	Fixed Charge as per Weighted Avg 5	161	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
			month Bill (Jun 18-Oct 18)		in absence of supply in previous months
5	SJVN Jhakri HPS	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	122	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
6	Tehri HPS	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	135	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
7	Koteshwar HPP	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	91	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
8	Parbati Stage-III	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	274	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
9	NHPC Chamera Stage-II	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	92	Energy Charge as per last 5 Month Avg (Jun 18-Oct 18) in absence of supply in previous months
10	NHPC Chamera Stage-III	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	212	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
11	NHPC Dulhasti	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	275	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
12	NHPC Dhauliganga	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	122	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
13	NHPC Sewa Stage-II	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	54	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months
14	NHPC Uri Stage-II	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	237	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
15	NHPC Kishanganga	0	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	197	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18)in absence of supply in previous months
16	NTPC Koldam HPP Stage-I	1	Fixed Charge as per Weighted Avg 5 month Bill (Jun 18-Oct 18)	249	Energy Charge as per last 5 Month Avg (Jun 18- Oct 18) in absence of supply in previous months

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
17	NTPC Singrauli Small HPP	-	As per NTPC Koldam HPP I Proportinately	249	As per NTPC Koldam HPP I Proportinately
IV	**IPPs**				
1	Torrent Power	67	Fixed Charge as per Weighted Avg 12 month Bill (Aug 17- Jul 18)	511	Energy Charge as per last 12 Month Avg (Aug 17- Jul 18)
2	BLA Power	24	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	150	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
3	Jaypee Bina Power	472	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	301	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
4	Lanco Amarkantak TPS Unit 1	224	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	210	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
5	Reliance UMPP, Sasan	172	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	140	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
6	Essar Power STPS	-	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	350	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
7	Jaiprakash Power STPS, Nigri	631	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	60	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
8	MB Power STPS	438	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	224	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
9	Jhabua Power STPS, Unit-1	182	Fixed Charge as per Weighted Avg 12 month Bill (Nov 17- Oct 18)	247	Energy Charge as per last 12 Month Avg (Nov 17- Oct 18)
10	Captive	-		229	As approved by the Hon'ble Commission in FY 19 Tariff Order
V	**Renewables**				
1	Solar	-		487	As per Weighted Avg of all Solar generators with whom PPAs are existing
2	Other (Mini Micro)	-		381	As per Weighted Avg of all other Mini Micro generators with whom PPAs are existing

Sr. No.	Station	Fixed Charge (Rs. Crore)	Remark	Energy Charge (Paise / Unit))	Remark
3	Other than Solar	-		529	As per Weighted Avg of all Non-Solar generators with whom PPAs are existing

3.39 The Merit Order Dispatch (MOD) applied for FY 2019-20 as submitted by the Petitioners is given in the following table:

Table 23 : MOD for FY 2019-20 as submitted by the Petitioners

Sr. no	Particulars	Variable Charge (Paise/kWh)	Availability (MUs)
1	KAPP Kakrapar	246	620
2	TAPP Tarapur	307	1,528
3	RAPP Rawabhatta	405	12
4	NAPP Narora	320	7
5	Solar	487	2,993
6	Other (Mini Micro)	381	46
7	Other than Solar	529	4,605
8	Pench HPS	46	219
9	NHPC Sewa Stage-II	54	0
10	Jaiprakash Power STPS, Nigri	60	2,615
11	Rani Awanti Bai Sagar, Bargi HPS	62	332
12	Gandhisagar HPS	68	168
13	Bansagar Ph I HPS (Tons)	81	852
14	Bansagar Ph-II HPS (Silpara)	82	70
15	Koteshwar HPP	91	1
16	NHPC Chamera Stage-II	92	1
17	Birsinghpur HPS	93	28
18	Bansagar Ph-IV HPS (Jhinna)	113	77
19	NTPC Sipat Stage-I	121	2,330
20	SJVN Jhakri HPS	122	19
21	NHPC Dhauliganga	122	1
22	Sardar Sarovar HPS	122	1,283
23	NTPC Korba Stage-I&II	124	3,472
24	NTPC Sipat Stage-II	130	1,392
25	NTPC Korba Stage-III	132	529
26	NTPC Rihand Stage-II	133	17
27	NTPC Rihand Stage-I	133	15

Sr. no	Particulars	Variable Charge (Paise/kWh)	Availability (MUs)
28	NTPC Rihand Stage-III	135	19
29	Tehri HPS	135	2
30	NHDC Indira Sagar HPS	137	2,156
31	Reliance UMPP, Sasan	140	9,632
32	NTPC Singrauli	141	31
33	Rajghat HPS	141	29
34	BLA Power	150	89
35	Ranapratap Sagar & Jawahar Sagar HPS	151	359
36	NTPC Vindyachal Stage-III	153	1,819
37	NTPC Vindyachal Stage-IV	154	2,080
38	NTPC Vindyachal Stage-II	156	2,249
39	NTPC Vindyachal Stage-V Unit 1	157	876
40	Amarkantak TPS Ph-III	159	1,545
41	SJVN Rampur HPS	161	5
42	NTPC Vindyachal Stage-I	167	3,069
43	Bansagar Ph-III HPS (Deolond)	172	88
44	NHPC Kishanganga	197	1
45	SGTPS Ph-III	201	3,439
46	NHDC Omkareshwar HPS	203	986
47	Satpura TPS Ph-IV	206	2,653
48	Lanco Amarkantak TPS Unit 1	210	2,195
49	NHPC Chamera III	212	1
50	SGTPS Ph-I & II	216	4,385
51	MB Power STPS	224	1,765
52	NTPC Kahalgaon Stage-II	226	522
53	Captive	229	30
54	NTPC Kawas GPP	237	1,014
55	NHPC Uri Stage-II	237	1
56	Jhabua Power STPS, Unit-1	247	884
57	NTPC Koldam HPP Stage-I	249	1
58	NTPC Singrauli Small HPP	249	0
59	Satpura Phase Stage-III	259	2,175
60	Shri Singaji STPS, Ph-I	262	6,229
61	Shri Singaji Phase-2, Unit-1	262	3,138
62	Shri Singaji Phase-2, Unit-2	262	3,138
63	NTPC Gandhar GPP	266	810
64	Marhikheda HPS	269	90

Sr. no	Particulars	Variable Charge (Paise/kWh)	Availability (MUs)
65	Parbati Stage-III	274	1
66	NHPC Dulhasti	275	1
67	NTPC Mouda Stage-II Unit 1	284	1,086
68	NTPC Mouda Stage-II Unit 2	284	970
69	NTPC Firoz Gandhi Unchahar Stage-I	289	2
70	NTPC Firoz Gandhi Unchahar Stage-II	289	8
71	NTPC Firoz Gandhi Unchahar Stage-III	290	4
72	NTPC Firoz Gandhi Unchahar Stage-IV	290	9
73	Jaypee Bina Power	301	2,366
74	NTPC Mouda Stage-I	333	1,061
75	NTPC NCTP Dadri Stage-II	348	16
76	Essar Power STPS	350	21
77	NTPC Dadri GPP	364	15
78	NTPC Anta GPP	366	8
79	NTPC Solapur STPS, Unit-1	376	1,115
80	NTPC Solapur STPS, Unit-2	376	566
81	NTPC Gadarwara STPS, Unit-1	376	1,440
82	NTPC Gadarwara STPS, Unit-2	376	502
83	NTPC Lara STPS, Raigarh, Unit I	376	230
84	NTPC Lara STPS, Raigarh, Unit II	376	155
85	NTPC Auraiya GPP	413	12
86	Torrent Power	511	593
87	NTPC IGPS I Jhajjar	884	14
88	**Total**		**90,932**

3.40 The table below shows the details of the fixed costs and variable costs generating station wise for FY 2019-20 as submitted by the Petitioner.

Table 24 : Fixed cost and Variable cost as filed for FY 2019-20 (Rs. Crore)

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
I	**Central Sector**	**1,667**	**3,700**	**5,367**
1	NTPC Korba Stage-I&II	93	429	522
2	NTPC Korba Stage-III	28	70	97
3	NTPC Vindyachal Stage-I	99	513	612
4	NTPC Vindyachal Stage-II	62	350	412
5	NTPC Vindyachal Stage-III	80	279	359

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
6	NTPC Vindyachal Stage-IV	129	321	449
7	NTPC Vindyachal V Unit 1	64	138	202
8	NTPC Sipat Stage-I	119	283	402
9	NTPC Sipat Stage-II	66	181	247
10	NTPC Mouda Stage-I	52	59	111
11	NllTPC Mouda Stage-II Unit 1	34	51	85
12	NTPC Mouda Stage-II Unit 2	34	46	80
13	NTPC Kawas GPP	35	180	214
14	NTPC Gandhar GPP	33	36	69
15	NTPC Auraiya GPP	0	-	0
16	NTPC Dadri GPP	0	1	1
17	NTPC Anta GPP	0	0	1
18	NTPC Kahalgaon Stage-II	23	88	112
19	KAPP Kakrapar	-	152	152
20	TAPP Tarapur	-	469	469
21	RAPP Rawabhatta	-	5	5
22	NAPP Narora	-	2	2
23	NTPC Solapur STPS, Unit-1	181	34	215
24	NTPC Solapur STPS, Unit-2	137	-	137
25	NTPC Gadarwara STPS, Unit-1	262	-	262
26	NTPC Gadarwara STPS, Unit-2	109	-	109
27	NTPC Lara STPS, Raigarh, Unit I	13	-	13
28	NTPC Lara STPS, Raigarh, Unit II	8	-	8
29	NTPC Firoz Gandhi Unchahar Stage-I	0	0	0
30	NTPC Firoz Gandhi Unchahar Stage-II	0	0	1
31	NTPC Firoz Gandhi Unchahar III	0	0	0
32	NTPC Firoz Gandhi Unchahar Stage-IV	-	0	0
33	NTPC Rihand Stage-I	1	2	3
34	NTPC Rihand Stage-II	0	2	3
35	NTPC Rihand Stage-III	1	3	4
36	NTPC NCTP Dadri Stage-II	1	1	2
37	NTPC Singrauli	1	4	5
38	NTPC IGPS I Jhajjar	0	-	0
II	**MP GENCO (THERMAL & HYDRO)**	**4,066**	**3,911**	**7,976**
1	Amarkantak TPS Ph-III	217	246	463
2	Satpura Phase III	260	340	600
3	Satpura TPS Ph-IV	707	547	1,255
4	SGTPS Ph-I & II	387	796	1,183
5	SGTPS Ph-III	389	693	1,081
6	Shri Singaji STPS, Ph-I	999	677	1,676
7	Shri Singaji Phase-2, Unit-1	494	253	747

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
8	Shri Singaji Phase-2, Unit-2	494	153	647
9	Rani Awanti Bai Sagar, Bargi HPS	9	21	29
10	Bansagar Ph I HPS (Tons)	53	69	122
11	Bansagar Ph-II HPS (Silpara)	5	6	11
12	Bansagar Ph-III HPS (Deolond)	12	15	27
13	Bansagar Ph-IV HPS (Jhinna)	8	9	17
14	Birsinghpur HPS	1	3	4
15	Marhikheda HPS	14	4	18
16	Rajghat HPS	2	4	6
17	Gandhisagar HPS	4	11	15
18	Ranapratap Sagar & Jawahar Sagar HPS	-	54	54
19	Pench HPS	10	10	20
III	**JV Hydel & Other Hydels**	**805**	**657**	**1,462**
1	NHDC Indira Sagar HPS	367	295	662
2	NHDC Omkareshwar HPS	271	200	471
3	Sardar Sarovar HPS	163	157	320
4	SJVN Rampur HPS	0	1	1
5	SJVN Jhakri HPS	1	2	3
6	Tehri HPS	1	0	1
7	Koteshwar HPP	0	0	0
8	Parbati Stage-III	0	0	0
9	NHPC Chamera Stage-II	0	0	0
10	NHPC Chamera Stage-III	0	0	0
11	NHPC Dulhasti	1	0	1
12	NHPC Dhauliganga	0	0	0
13	NHPC Sewa Stage-II	0	0	0
14	NHPC Uri Stage-II	0	0	1
15	NHPC Kishanganga	0	0	0
16	NTPC Koldam HPP Stage-I	1	0	1
17	NTPC Singrauli Small HPP	-	0	0
IV	**DVC**	**-**	**-**	**-**
1	DVC (MTPS & CTPS)	-	-	-
2	DVC DTPS, Unit 1 & Unit 2	-	-	-
V	**IPPs**	**2,210**	**2,554**	**4,764**
1	Torrent Power	67	-	67
2	BLA Power	24	13	38
3	Jaypee Bina Power	472	119	591
4	Lanco Amarkantak TPS Unit 1	224	452	676
5	Reliance UMPP, Sasan	172	1,348	1,519
6	Essar Power STPS	-	1	1
7	Jaiprakash Power STPS, Nigri	631	157	788

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
8	MB Power STPS	438	296	734
9	Jhabua Power STPS, Unit-1	182	163	345
10	Captive	-	5	5
VI	**Renewables**	**-**	**3,911**	**3,911**
1	Solar	-	1,456	1,456
2	Other (Mini Micro)	-	17	17
3	Other than Solar	-	2,437	2,437
VII	**Gross Total**	**8,749**	**14,732**	**23,480**

Commission's Analysis

Determination of Variable Cost

Central, State and other Generating Stations

3.41 The Commission has considered variable charges for FY 2019-20 on the basis of actual energy charges based on the provisional power purchase statement for FY 2018-19 submitted by the MPPMCL in reply to data gaps.

Captive Generation

3.42 For Captive Generation, the Petitioners have filed availability of 30 MU @ Rs. 2.29/ kWh during FY 2019-20. The Commission directs 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."

The Commission has considered the availability and cost of captive generation as proposed by the Petitioner subject to fulfilment of the provisions in the Regulations.

Renewable sources

3.43 For renewable sources, the Commission has considered power purchase quantum of 2993 MUs and 5081 MUs from Solar and Non-solar, respectively based on the RPO specified by the Commission for FY 2019-20. As regards rate of solar power, weighted average rate of Rs 5.69/ kWh and for Non-Solar, weighted average rate of Rs 5.28/ kWh for existing capacities as submitted by the Petitioner have been considered.

New/ other generating stations

3.44 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

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

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

3.47 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 stations

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

Table 25: Basis of Fixed and Variable charges for the generating stations during FY 2019-20

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
	Central Sector				
1	NTPC Korba Stage-I&II	221.51	CERC Order 24-02-2017 in P.no. 323/GT/2014 for 01-04-2014 to 31-03-2019	124	Average of FY 2018-19
2	NTPC Korba Stage-III	66.69	CERC Order 03-03-2017 in P.no. 340/GT/2014 for 01-04-2014 to 31-03-2019	132	Average of FY 2018-19
3	NTPC Vindyachal Stage-I	248.67	CERC Order 24-02-2017 in P.no. 338/GT/2014 for 01-04-2014 to 31-03-2019	167	Average of FY 2018-19
4	NTPC Vindyachal Stage-II	149.61	CERC Order 06-02-2017 in P.no. 327/GT/2014 for 01-04-2014 to 31-03-2019	156	Average of FY 2018-19
5	NTPC Vindyachal Stage-III	171.90	CERC Order 24-02-2017 in P.no. 342/GT/2014 for 01-04-2014 to 31-03-2019	153	Average of FY 2018-19

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
6	NTPC Vindyachal Stage-IV	295.86	CERC Order 10-03-2017 in P.no. 339/GT/2014 for 01-04-2014 to 31-03-2019	154	Average of FY 2018-19
7	NTPC Vindyachal Stage-V Unit 1	155.81	CERC Order 31-08-2016 in P.no. 234/GT/2015 for 30-10-2015 to 31-03-2019	157	Average of FY 2018-19
8	NTPC Sipat Stage-I	281.38	CERC Order 29-03-2017 in P.no. 337/GT/2014 for 01-04-2014 to 31-03-2019	121	Average of FY 2018-19
9	NTPC Sipat Stage-II	153.52	CERC Order 21-03-2017 in P.no. 322/GT/2014 for 01-04-2014 to 31-03-2019	130	Average of FY 2018-19
10	NTPC Mouda Stage-I	188.77	CERC Order 01-02-2017 in P.no. 328/GT/2014 for 01-04-2014 to 31-03-2019	328	Average of FY 2018-19
11	NTPC Mouda Stage-II Unit 1	132.17	CERC Order 05-04-2017 in P.no. 142/GT/2014 for 01-04-2014 to 31-03-2019	294	Average of FY 2018-19
12	NTPC Mouda Stage-II Unit 2	123.56	CERC Order 05-04-2017 in P.no. 142/GT/2014 for 01-04-2014 to 31-03-2019	294	Average of FY 2018-19
13	NTPC Kawas GPP	86.91	CERC Order 24-03-2017 in P.no. 341/GT/2017 for 01-04-2014 to 31-03-2019	275	Average of FY 2018-19
14	NTPC Gandhar GPP	89.92	CERC Order 10-04-2017 in P.no. 325/GT/2014 for 01-04-2014 to 31-03-2019	215	Average of FY 2018-19
15	NTPC Auraiya GPP	0.64	CERC Order 18-04-2017 in P.no. 285/GT/2014 for 01-04-2014 to 31-03-2019	399	Average of FY 2018-19
16	NTPC Dadri GPP	0.95	CERC Order 01-02-2017 in P.no. 328/GT/2014 for 01-04-2014 to 31-03-2019	339	Average of FY 2018-19
17	NTPC Anta GPP	0.59	CERC Order 19-09-2017 in P.no. 287/GT/2014 for 01-04-2014 to 31-03-2019	324	Average of FY 2018-19
18	NTPC Kahalgaon Stage-II	56.35	CERC Order 21-01-2017 in P.no. 283/GT/2014 for 01-04-2014 to 31-03-2019	216	Average of FY 2018-19
19	KAPP Kakrapar	0.00	-	247	Average of FY 2018-19
20	TAPP Tarapur	0.00	-	312	Average of FY 2018-19

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
21	RAPP Rawabhatta	0.00	-	405	Average of FY 2018-19
22	NAPP Narora	0.00	-	320	Average of FY 2018-19
23	NTPC Solapur STPS, Unit-1	180.82	As per Petitioner Submission	400	As per NTPC submission
24	NTPC Solapur STPS, Unit-2	137.41	As per Petitioner Submission	400	As per NTPC submission
25	NTPC Gadarwara STPS, Unit-1	262.28	As per Petitioner Submission	319	As per NTPC submission
26	NTPC Gadarwara STPS, Unit-2	109.22	As per Petitioner Submission	319	As per NTPC submission
27	NTPC Lara STPS, Raigarh, Unit I	13.08	As per Petitioner Submission	270	As per NTPC submission
28	NTPC Lara STPS, Raigarh, Unit II	0.00	Power projection from this unit not considered as the COD of the unit is projected as 31.03.2020 as NTPC submission.	0	-
29	NTPC Firoz Gandhi Unchahar Stage-I	0.23	CERC Order dated 22.03.2017 in P. No. 319/GT/2014	298	Average of FY 2018-19
30	NTPC Firoz Gandhi Unchahar Stage-II	0.69	CERC Order dated 31.03.2017 in P. No. 289/GT/2014	298	Average of FY 2018-19
31	NTPC Firoz Gandhi Unchahar Stage-III	0.46	CERC Order dated 19.04.2017 in P. No. 373/GT/2014	296	Average of FY 2018-19
32	NTPC Firoz Gandhi Unchahar Stage-IV	0.46	Taken as same for Unchahar III, as order not issued	284	Average of FY 2018-19
33	NTPC Rihand Stage-I	1.29	CERC Order dated 23.08.2016 in P. No. 291/GT/2014	134	Average of FY 2018-19

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
34	NTPC Rihand Stage-II	1.19	CERC Order 01-12-2016 in P.no. 318/GT/2014 for 01-04-2014 to 31-03-2019	133	Average of FY 2018-19
35	NTPC Rihand Stage-III	2.75	CERC Order 06-02-2017 in P.no. 372/GT/2014 for 01-04-2014 to 31-03-2019	136	Average of FY 2018-19
36	NTPC NCTP Dadri Stage-II	2.12	CERC Order 02-05-2017 in P.no. 324/GT/2014 for 01-04-2014 to 31-03-2019	358	Average of FY 2018-19
37	NTPC Singrauli	1.99	CERC Order 28-07-2016 in P.no. 290/GT/2014 for 01-04-2014 to 31-03-2019	140	Average of FY 2018-19
38	NTPC IGPS I Jhajjar	2.04	CERC Order 09-03-2017 in P.no. 266/GT/2014 for 01-04-2014 to 31-03-2019	334	Average of FY 2018-19
	MP Genco Power Station				
39	Amarkantak TPS Ph-III	211.32	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	138	Average of FY 2018-19
40	Satpura Phase II&III	407.73	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	260	Average of FY 2018-19
41	Satpura TPS Ph-IV	672.84	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	225	Average of FY 2018-19
42	SGTPS Ph-I & II	360.28	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	214	Average of FY 2018-19
43	SGTPS Ph-III	385.99	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	187	Average of FY 2018-19
44	Shri Singaji STPS, Ph-I	1,176.14	MPERC Order dated 14.07.2016 in P. No. 08 of 2016	276	Average of FY 2018-19
45	Shri Singaji Phase-2, Unit-1	596.22	MPERC Order dated 7.03.2019 Petition No. 31 of 2018 and IA No. 7 of 2018	276	Average of FY 2018-19
46	Shri Singaji Phase-2, Unit-2	596.22	MPERC Order dated 18.06.2019 in IA no. 1 of 2019	276	Average of FY 2018-19

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
47	Rani Awanti Bai Sagar, Bargi HPS	13.80	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	Average of FY 2018-19
48	Bansagar Ph I HPS (Tons)	124.78	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
49	Bansagar Ph-II HPS (Silpara)		MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
50	Bansagar Ph-III HPS (Deolond)		MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
51	Bansagar Ph-IV HPS (Jhinna)	15.40	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
52	Birsinghpur HPS	4.62	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
53	Marhikheda HPS	32.67	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
54	Rajghat HPS	6.17	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
55	Gandhisagar HPS	5.52	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
56	Ranapratap Sagar & Jawahar Sagar HPS	4.66	As per Tariff Order for FY 2018-19 taken same as Gandhisagar.	0	-
57	Pench HPS	11.63	MPERC MYT Order dated 14.07.2016 in P. No. 08 of 2016	0	-
	JV Hydel & Other Hydels				
58	NHDC Indira Sagar HPS	502.78	CERC order dated: 31.5.2016, Petition No.265/GT/2014	0	-
59	NHDC Omkareshwar HPS	395.45	CERC order dated: 26.5.2016, Petition No.264/GT/2014	0	-
60	Sardar Sarovar HPS	205.20	MPERC Order dated August 6,2013 in P. No. 18 of 2013	0	-

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
61	Rihand HPS	0.32	As per Tariff Order for FY 2018-19	0	-
62	Matatila HPS	0.18		0	-
63	SJVN Rampur HPS	0.96	CERC Order dated 15.02.2017 in P. No. 184/GT/2014 for FY 2014-15 to FY 2015-16	0	-
64	SJVN Jhakri HPS	3.08	CERC Order dated 15.03.2017 in P. No. 8/GT/2016 for 2009-10 to 2014-15	0	-
65	Tehri HPS	4.04	CERC Order dated 29.03.2017 in P. No. 178/GT/2015 for FY 2014-15 to FY 2018-19	0	-
66	Koteshwar HPP	1.49	CERC Order dated 09.10.2018 in P. No. 117/GT/2018	0	-
67	Parbati Stage-III	0.31	As no tariff Order issued after FY 2013-14. For FY 2013-14 AFC was approved for 7 days. For all units AFC available for 2 days. So same has been prorated for 366 days	0	-
68	NHPC Chamera Stage-II	0.90	CERC Order dated 17.6.2016 in P. No. 233/GT/2014	0	-
69	NHPC Chamera Stage-III	1.08	CERC Order dated 6.2.2017 in P. No. 194/GT/2015	0	-
70	NHPC Dulhasti	2.85	CERC Order dated 30.8.2016 in P. No. 231/GT/2014	0	-
71	NHPC Dhauliganga	0.70	CERC Order dated 26.4.2016 in P. No. 230/GT/2014	0	-
72	NHPC Sewa Stage-II	1.08	CERC in Order dated 27.01.2017 in P. No. 251/GT/2014	0	-
73	NHPC Uri Stage-II	1.11	CERC Tariff Order 22.07.2016 in P. No. 250/GT/2014	0	-

Sr. No.	Generating Stations	Fixed Charges based on projected availability (Rs. Crore)	Basis	Energy Charges (Paise/kWh)	Basis
74	NHPC Kishanganga	0.92	CERC Tariff Order 07.08.2018 in P. No. 43/GT/2018 for Unit-I and Unit-II	0	-
75	NTPC Koldam HPP Stage-I	1.94	CERC order dated 05.04.2018 in P. No. 107/GT/2015 upto FY 2018-19	0	-
76	NTPC Singrauli Small HPP	0.00	As per Petitioner submission	0	-
	IPPs				
77	Jaypee Bina Power	504.75	MPERC Order dated 08.08.2016 in P. No. 05 of 2016	325	Average of FY 2018-19
78	Lanco Amarkantak TPS Unit 1	223.81	As per Petitioner submission	246	Average of FY 2018-19
79	UMPP, Sasan	171.73	As per Petitioner submission	140	Average of FY 2018-19
80	Jaiprakash Power STPS, Nigri	709.17	MPERC Order in Petition No. 7 of 2018 dated 29.11.2018	54	Average of FY 2018-19
81	MB Power STPS	409.06	MPERC Order dated 29.07.2015 in Petition No. 31 of 2015 and MPERC order dated 29.11.2018 in Petition No. 10 of 2018	228	Average of FY 2018-19
82	Jhabua Power STPS, Unit-1	166.50	MPERC Order dated 30.11.2018 in Petition No. 28 of 2018	250	Average of FY 2018-19
83	Captive	-		229	As per Petitioner submission

3.49 With regard to cost of power purchase from renewable energy sources, the Commission sought details of the actual source wise energy purchase for FY 2018-19, which were submitted by the Petitioner. Accordingly, based on the same, the Commission has considered the weighted average cost of power purchase for FY 2018-19 from Renewable sources which is shown in the table below. Further, 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	569
Renewable Energy Non-Solar	529
Others (Mini Micro)	381

3.50 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 2019-20, as shown in the table below:

Table 26 : MOD on allocated generating stations for FY 2019-20

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Energy charge (Paise /kWh)
1	KAPP Kakrapar	1	247
2	TAPP Tarapur	1	312
3	RAPP Rawabhatta	1	405
4	NAPP Narora	1	320
5	Rani Awanti Bai Sagar, Bargi HPS	0	0
6	Bansagar Ph I HPS (Tons)	0	0
7	Bansagar Ph-II HPS (Silpara)	0	0
8	Bansagar Ph-III HPS (Deolond)	0	0
9	Bansagar Ph-IV HPS (Jhinna)	0	0
10	Birsinghpur HPS	0	0
11	Marhikheda HPS	0	0
12	Rajghat HPS	0	0
13	Gandhisagar HPS	0	0
14	Ranapratap Sagar & Jawahar Sagar HPS	0	0
15	Pench HPS	0	0
16	NHDC Indira Sagar HPS	0	0
17	NHDC Omkareshwar HPS	0	0
18	Sardar Sarovar HPS	0	0
19	Rihand HPS	0	0
20	Matatila HPS	0	0
21	SJVN Rampur HPS	0	0
22	SJVN Jhakri HPS	0	0
23	Tehri HPS	0	0
24	Koteshwar HPP	0	0
25	Parbati Stage-III	0	0
26	NHPC Chamera Stage-II	0	0
27	NHPC Chamera Stage-III	0	0

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Energy charge (Paise /kWh)
28	NHPC Dulhasti	0	0
29	NHPC Dhauliganga	0	0
30	NHPC Sewa Stage-II	0	0
31	NHPC Uri Stage-II	0	0
32	NHPC Kishanganga	0	0
33	NTPC Koldam HPP Stage-I	0	0
34	NTPC Singrauli Small HPP	0	0
35	Solar	1	569
36	Other (Mini Micro)	1	381
37	Other than Solar	1*	529
38	Jaiprakash Power STPS, Nigri	0	54
39	NTPC Sipat Stage-I	0	128
40	NTPC Sipat Stage-II	0	132
41	NTPC Rihand Stage-II	0	133
42	NTPC Rihand Stage-I	0	134
43	NTPC Korba Stage-III	0	134
44	NTPC Rihand Stage-III	0	136
45	NTPC Korba	0	136
46	Amarkantak TPS Ph-III	0	138
47	NTPC Singrauli	0	140
48	Reliance UMPP, Sasan	0	140
49	NTPC Vindyachal Stage-V Unit 1	0	159
50	NTPC Vindyachal Stage-III	0	171
51	NTPC Vindyachal Stage-IV	0	171
52	NTPC Vindyachal Stage-II	0	173
53	NTPC Vindyachal Stage-I	0	181
54	SGTPS Ph-III	0	187
55	SGTPS Ph-I & II	0	214
56	NTPC Gandhar GPP	0	215
57	NTPC Kahalgaon Stage-II	0	216
58	Satpura TPS Ph-IV	0	225
59	MB Power STPS	0	228
60	Captive	0	229
61	Lanco Amarkantak TPS Unit 1	0	246
62	Jhabua Power STPS, Unit-1	0	250
63	Satpura Phase II&III	0	260
64	NTPC Lara STPS, Raigarh, Unit I	0	270

Sr No.	Generating Stations	Dispatch Type (Must Run=1, Others =0)	Energy charge (Paise /kWh)
65	NTPC Kawas GPP	0	275
66	Shri Singaji STPS, Ph-I	0	276
67	Shri Singaji Phase-2, Unit-1	0	276
68	Shri Singaji Phase-2, Unit-2	0	276
69	NTPC Firoz Gandhi Unchahar Stage-IV	0	284
70	NTPC Mouda Stage-II Unit 1	0	294
71	NTPC Mouda Stage-II Unit 2	0	294
72	NTPC Firoz Gandhi Unchahar Stage-III	0	296
73	NTPC Firoz Gandhi Unchahar Stage-I	0	298
74	NTPC Firoz Gandhi Unchahar Stage-II	0	298
75	NTPC Gadarwara STPS, Unit-1	0	319
76	NTPC Gadarwara STPS, Unit-2	0	319
77	NTPC Anta GPP	0	324
78	Jaypee Bina Power	0	325
79	NTPC Mouda Stage-I	0	328
80	NTPC IGPS I Jhajjar	0	334
81	NTPC Dadri GPP	0	339
82	NTPC NCTP Dadri Stage-II	0	358
83	NTPC Auraiya GPP	0	399
84	NTPC Solapur STPS, Unit-1	0	400
85	NTPC Solapur STPS, Unit-2	0	400

* Except other renewable energy/cogeneration plants with capacity above 2 MW as per Seventh Amendment to MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010

3.51 The Commission directs the Petitioners to not unduly restrict supply to any category of consumers during the tariff period.

3.52 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. It is expected that various rebates given to HT consumers would encourage them to utilise some of this surplus power. The Commission directs the Petitioners to sell this remaining 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 27: Total Availability of Energy worked out by the Commission for FY 2019-20

Particulars	MU
Energy Available from all Stations allocated to MPPMCL	97,989

Less: Energy backed down having variable rate above Rs 3.85/Unit *	2,522
Total Energy Available for Scheduling (including for sale on the Exchange	**95,467**

**Basis for considering Rs 3.85/Unit has been detailed in Section- "Management of surplus power"*

Fixed Cost

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

Table 28 : Total fixed costs of all generating stations allocated among Discoms (Rs Crore)

Sr. No.	Particulars	Fixed Cost (Rs. Crore)			
		East	West	Central	State
1	KAPP Kakrapar	0.00	0.00	0.00	0.00
2	TAPP Tarapur	0.00	0.00	0.00	0.00
3	RAPP Rawabhatta	0.00	0.00	0.00	0.00
4	NAPP Narora	0.00	0.00	0.00	0.00
5	NTPC Lara STPS, Raigarh, Unit II	0.00	0.00	0.00	0.00
6	Rani Awanti Bai Sagar, Bargi HPS	4.37	5.25	4.18	13.80
7	Bansagar Ph I HPS (Tons)	31.69	38.07	30.28	100.04
8	Bansagar Ph-II HPS (Silpara)	4.55	5.46	4.34	14.35
9	Bansagar Ph-III HPS (Deolond)	3.29	3.95	3.14	10.39
10	Bansagar Ph-IV HPS (Jhinna)	4.88	5.86	4.66	15.40
11	Birsinghpur HPS	1.46	1.76	1.40	4.62
12	Marhikheda HPS	10.35	12.43	9.89	32.67
13	Rajghat HPS	1.95	2.35	1.87	6.17
14	Gandhisagar HPS	1.75	2.10	1.67	5.52
15	Ranapratap Sagar & Jawahar Sagar HPS	1.48	1.77	1.41	4.66
16	Pench HPS	3.68	4.43	3.52	11.63
17	NHDC Indira Sagar HPS	159.26	191.33	152.18	502.78
18	NHDC Omkareshwar HPS	125.27	150.49	119.69	395.45
19	Sardar Sarovar HPS	65.00	78.09	62.11	205.20
20	Rihand HPS	0.10	0.12	0.10	0.32
21	Matatila HPS	0.06	0.07	0.05	0.18
22	SJVN Rampur HPS	0.31	0.37	0.29	0.96
23	SJVN Jhakri HPS	0.98	1.17	0.93	3.08
24	Tehri HPS	1.28	1.54	1.22	4.04

Sr. No.	**Particulars**	**Fixed Cost (Rs. Crore)**			
		East	**West**	**Central**	**State**
25	Koteshwar HPP	0.47	0.57	0.45	1.49
26	Parbati Stage-III	0.10	0.12	0.09	0.31
27	NHPC Chamera Stage-II	0.28	0.34	0.27	0.90
28	NHPC Chamera Stage-III	0.34	0.41	0.33	1.08
29	NHPC Dulhasti	0.90	1.09	0.86	2.85
30	NHPC Dhauliganga	0.22	0.27	0.21	0.70
31	NHPC Sewa Stage-II	0.34	0.41	0.33	1.08
32	NHPC Uri Stage-II	0.35	0.42	0.33	1.11
33	NHPC Kishanganga	0.29	0.35	0.28	0.92
34	NTPC Koldam HPP Stage-I	0.62	0.74	0.59	1.94
35	NTPC Singrauli Small HPP	0.00	0.00	0.00	0.00
36	Solar	0.00	0.00	0.00	0.00
37	Other Mini Micro	0.00	0.00	0.00	0.00
38	Other than Solar	0.00	0.00	0.00	0.00
39	Jaiprakash Power STPS, Nigri	224.64	269.87	214.65	709.17
40	NTPC Sipat Stage-I	89.13	107.08	85.17	281.38
41	NTPC Sipat Stage-II	48.63	58.42	46.47	153.52
42	NTPC Rihand Stage-II	0.38	0.45	0.36	1.19
43	NTPC Rihand Stage-I	0.41	0.49	0.39	1.29
44	NTPC Korba Stage-III	21.13	25.38	20.19	66.69
45	NTPC Rihand Stage-III	0.87	1.05	0.83	2.75
46	NTPC Korba Stage-I&II	70.17	84.29	67.05	221.51
47	Amarkantak TPS Ph-III	66.94	80.42	63.96	211.32
48	NTPC Singrauli	0.63	0.76	0.60	1.99
49	Reliance UMPP, Sasan	54.40	65.35	51.98	171.73
50	NTPC Vindyachal Stage-V Unit 1	49.35	59.29	47.16	155.81
51	NTPC Vindyachal Stage-III	54.45	65.42	52.03	171.90
52	NTPC Vindyachal Stage-IV	93.72	112.59	89.55	295.86
53	NTPC Vindyachal Stage-II	47.39	56.93	45.28	149.61
54	NTPC Vindyachal Stage-I	78.77	94.63	75.27	248.67
55	SGTPS Ph-III	122.27	146.89	116.83	385.99
56	SGTPS Ph-I & II	114.13	137.11	109.05	360.28
57	NTPC Gandhar GPP	28.48	34.22	27.22	89.92

Sr. No.	Particulars	Fixed Cost (Rs. Crore)			
		East	West	Central	State
58	NTPC Kahalgaon 2	17.85	21.45	17.06	56.35
59	Satpura TPS Ph-IV	213.13	256.05	203.65	672.84
60	MB Power STPS	129.58	155.67	123.82	409.06
61	Captive	0.00	0.00	0.00	0.00
62	Lanco Amarkantak TPS Unit 1	70.90	85.17	67.74	223.81
63	Jhabua Power STPS, Unit-1	52.74	63.36	50.40	166.50
64	Satpura Phase II&III	129.16	155.16	123.41	407.73
65	NTPC Lara STPS, Raigarh, Unit I	4.14	4.98	3.96	13.08
66	NTPC Kawas GPP	27.53	33.07	26.31	86.91
67	Shri Singaji STPS, Ph-I	372.57	447.58	355.99	1,176.14
68	Shri Singaji Phase-2, Unit-1	188.87	226.89	180.46	596.22
69	Shri Singaji Phase-2, Unit-2	188.86	226.89	180.46	596.22
70	NTPC Firoz Gandhi Unchahar Stage-IV	0.15	0.18	0.14	0.46
71	NTPC Mouda Stage-II Unit 1	41.87	50.30	40.01	132.17
72	NTPC Mouda Stage-II Unit 2	39.14	47.02	37.40	123.56
73	NTPC Firoz Gandhi Unchahar Stage-III	0.15	0.18	0.14	0.46
74	NTPC Firoz Gandhi Unchahar Stage-I	0.07	0.09	0.07	0.23
75	NTPC Firoz Gandhi Unchahar Stage-II	0.22	0.26	0.21	0.69
76	NTPC Gadarwara STPS, Unit-1	83.08	99.81	79.39	262.28
77	NTPC Gadarwara STPS, Unit-2	34.60	41.57	33.06	109.22
78	NTPC Anta GPP	0.19	0.22	0.18	0.59
79	Jaypee Bina Power	159.89	192.08	152.78	504.75
80	NTPC Mouda Stage-I	59.80	71.84	57.14	188.77
81	NTPC IGPS I Jhajjar	0.65	0.78	0.62	2.04
82	NTPC Dadri GPP	0.30	0.36	0.29	0.95
83	NTPC NCTP Dadri Stage-II	0.67	0.81	0.64	2.12
84	NTPC Auraiya GPP	0.20	0.24	0.19	0.64
85	NTPC Solapur STPS, Unit-1	57.28	68.81	54.73	180.82
86	NTPC Solapur STPS, Unit-2	43.53	52.29	41.59	137.41
87	**Total**	**3,509**	**4,215**	**3,353**	**11,076**

Variable Cost

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

Table 29: Station wise admitted variable cost of scheduled energy for Discoms

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
1	KAPP Kakrapar	48.74	57.87	46.54	153.14
2	TAPP Tarapur	163.13	194.51	155.30	512.94
3	RAPP Rawabhatta	1.39	1.65	1.32	4.35
4	NAPP Narora	0.77	0.92	0.74	2.43
5	Rani Awanti Bai Sagar, Bargi HPS	0.00	0.00	0.00	0.00
6	Bansagar Ph I HPS (Tons)	0.00	0.00	0.00	0.00
7	Bansagar Ph-II HPS (Silpara)	0.00	0.00	0.00	0.00
8	Bansagar Ph-III HPS (Deolond)	0.00	0.00	0.00	0.00
9	Bansagar Ph-IV HPS (Jhinna)	0.00	0.00	0.00	0.00
10	Birsinghpur HPS	0.00	0.00	0.00	0.00
11	Marhikheda HPS	0.00	0.00	0.00	0.00
12	Rajghat HPS	0.00	0.00	0.00	0.00
13	Gandhisagar HPS	0.00	0.00	0.00	0.00
14	Ranapratap Sagar & Jawahar Sagar HPS	0.00	0.00	0.00	0.00
15	Pench HPS	0.00	0.00	0.00	0.00
16	NHDC Indira Sagar HPS	0.00	0.00	0.00	0.00
17	NHDC Omkareshwar HPS	0.00	0.00	0.00	0.00
18	Sardar Sarovar HPS	0.00	0.00	0.00	0.00
19	Rihand HPS	0.00	0.00	0.00	0.00
20	Matatila HPS	0.00	0.00	0.00	0.00
21	SJVN Rampur HPS	0.00	0.00	0.00	0.00
22	SJVN Jhakri HPS	0.00	0.00	0.00	0.00
23	Tehri HPS	0.00	0.00	0.00	0.00
24	Koteshwar HPP	0.00	0.00	0.00	0.00
25	Parbati Stage-III	0.00	0.00	0.00	0.00
26	NHPC Chamera Stage-II	0.00	0.00	0.00	0.00
27	NHPC Chamera Stage-III	0.00	0.00	0.00	0.00
28	NHPC Dulhasti	0.00	0.00	0.00	0.00
29	NHPC Dhauliganga	0.00	0.00	0.00	0.00
30	NHPC Sewa Stage-II	0.00	0.00	0.00	0.00
31	NHPC Uri Stage-II	0.00	0.00	0.00	0.00
32	NHPC Kishanganga	0.00	0.00	0.00	0.00
33	NTPC Koldam HPP Stage-I	0.00	0.00	0.00	0.00
34	NTPC Singrauli Small HPP	0.00	0.00	0.00	0.00
35	Solar	542.02	643.56	517.60	1,703.19

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
36	Other (Mini Micro)	5.53	6.57	5.28	17.38
37	Other than Solar	775.65	920.95	740.70	2,437.30
38	Jaiprakash Power STPS, Nigri	57.52	68.20	54.99	180.70
39	NTPC Sipat Stage-I	88.39	104.76	84.27	277.41
40	NTPC Sipat Stage-II	134.83	160.00	128.60	423.43
41	NTPC Rihand Stage-II	59.04	70.04	56.49	185.57
42	NTPC Rihand Stage-I	22.66	26.91	21.63	71.20
43	NTPC Korba Stage-III	0.77	0.92	0.74	2.43
44	NTPC Rihand Stage-III	0.70	0.83	0.67	2.20
45	NTPC Korba	0.90	1.07	0.86	2.84
46	Amarkantak TPS Ph-III	67.80	80.48	64.64	212.92
47	NTPC Singrauli	1.40	1.67	1.34	4.41
48	Reliance UMPP, Sasan	506.43	602.66	483.12	1,592.22
49	NTPC Vindyachal Stage-V Unit 1	91.36	108.40	87.11	286.87
50	NTPC Vindyachal Stage-III	101.61	121.20	97.14	319.94
51	NTPC Vindyachal Stage-IV	108.91	129.86	103.88	342.65
52	NTPC Vindyachal Stage-II	49.43	58.57	47.34	155.34
53	NTPC Vindyachal Stage-I	162.38	193.62	155.32	511.31
54	SGTPS Ph-III	198.78	238.50	189.84	627.12
55	SGTPS Ph-I & II	294.04	352.75	280.93	927.72
56	NTPC Gandhar GPP	47.03	56.87	45.10	148.99
57	NTPC Kahalgaon Stage-II	29.28	35.60	28.12	92.99
58	Satpura TPS Ph-IV	186.24	227.07	178.42	591.73
59	MB Power STPS	121.34	148.10	116.47	385.90
60	Captive	1.43	1.77	1.38	4.58
61	Lanco Amarkantak TPS Unit 1	114.59	141.30	110.04	365.93
62	Jhabua Power STPS, Unit-1	49.01	61.02	47.08	157.12
63	Satpura Phase III	114.64	144.68	110.88	370.20
64	NTPC Lara STPS, Raigarh, Unit I	19.85	24.96	19.02	63.84
65	NTPC Kawas GPP	48.10	60.88	46.39	155.37
66	Shri Singaji STPS, Ph-I	155.99	192.84	144.58	493.41
67	Shri Singaji Phase-2, Unit-1	12.26	15.35	11.20	38.81
68	Shri Singaji Phase-2, Unit-2	0.00	0.00	0.00	0.00
69	NTPC Firoz Gandhi Unchahar Stage-IV	0.00	0.00	0.00	0.00
70	NTPC Mouda Stage-II Unit 1	0.00	0.00	0.00	0.00
71	NTPC Mouda Stage-II Unit 2	0.00	0.00	0.00	0.00
72	NTPC Firoz Gandhi Unchahar Stage-III	0.00	0.00	0.00	0.00

Sr. No.	Particulars	Variable Cost (Rs. Crore)			
		East	West	Central	State
73	NTPC Firoz Gandhi Unchahar Stage-I	0.00	0.00	0.00	0.00
74	NTPC Firoz Gandhi Unchahar Stage-II	0.00	0.00	0.00	0.00
75	NTPC Gadarwara STPS, Unit-1	0.00	0.00	0.00	0.00
76	NTPC Gadarwara STPS, Unit-2	0.00	0.00	0.00	0.00
77	NTPC Anta GPP	0.00	0.00	0.00	0.00
78	Jaypee Bina Power	0.00	0.00	0.00	0.00
79	NTPC Mouda Stage-I	0.00	0.00	0.00	0.00
80	NTPC IGPS I Jhajjar	0.00	0.00	0.00	0.00
81	NTPC Dadri GPP	0.00	0.00	0.00	0.00
82	NTPC NCTP Dadri Stage-II	0.00	0.00	0.00	0.00
83	NTPC Auraiya GPP	0.00	0.00	0.00	0.00
84	NTPC Solapur STPS, Unit-1	0.00	0.00	0.00	0.00
85	NTPC Solapur STPS, Unit-2	0.00	0.00	0.00	0.00
86	**Total**	**4,384**	**5,257**	**4,185**	**13,826**

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' Submission

3.55 The Petitioners have submitted that in view of the RPO targets as specified under Fifth Amendment to MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 [ARG-33(I)(v)of 2015] vide notification dated October 02nd, 2015 & Tariff Policy, 2016, they had made an arrangement under various PPA for its compliance. However, the Commission in the Sixth Amendment to MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 defined a percentage of RPO excluding hydro sources of power. Accordingly, there is over achievement in compliance of Solar RPO and under achievement of Non-Solar RPO.

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

Table 30: Renewable Purchase Obligation for FY 2019-20

Renewable Purchase Obligation Computations	**Units**	**FY 2019-20**
Solar	%	4.00%
Other than Solar	%	8.00%
Ex-bus renewable energy requirement to fulfill RPO		
Solar	MU	2,529
Other than Solar	MU	5,058

Renewable Purchase Obligation Computations	Units	FY 2019-20
Total	MU	**7,587**
Energy Available from existing Renewable Sources		
Solar	MU	2,993
Other than Solar	MU	4,650
Total	MU	**7,644**
Shortfall		
Solar	MU	0
Other than Solar	MU	408
Total	MU	**408**
Extra Surplus available after meeting RPO obligations	MU	**408**
IEX rate	Rs/unit	3.26
Additional revenue from sale of surplus due to RPO obligation	Rs Crore	133
Renewable Energy Purchase Rates		
Solar	Rs./unit	4.87
Other than Solar	Rs./unit	5.28
Additional Cost due to RPO Obligation		
Solar	Rs. Crore	0.00
Other than Solar	Rs. Crore	215
Net Additional Cost to be borne for shortage of RPO	**Rs. Crore**	**82**

Commission's Analysis

3.57 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 02 October, 2015. The Commission has considered procurement of power from renewable energy sources through PPA or through short term market to ensure RPO compliance.

3.58 The Commission had notified Sixth Amendment to the said Regulation as per which minimum purchase quantum of electricity from Renewable sources of energy is 4.00% from Solar and 8.00% from Non-Solar sources for FY 2019-20. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2019-20 excluding consumption met through hydro sources of power, as shown in the table below:

Table 31: Renewable Purchase Obligation computed by the Commission (MU)

Particulars	East	West	Central	State
RPO Solar	4.00%	4.00%	4.00%	4.00%
RPO Non-Solar	8.00%	8.00%	8.00%	8.00%
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	806	965	770	2,540
RPO Non-Solar	1,612	1,930	1,539	5,081

Particulars	East	West	Central	State
Total (MU)	**2,418**	**2,895**	**2,309**	**7,621**
Energy available from existing Renewable Sources (MU)				
Solar	950	1,137	907	2,993
Other than Solar (including Mini Micro Hydro power)	1475	1766	1409	4650
Total	**2,425**	**2,903**	**2,316**	**7,644**
Shortfall				
Solar	0	0	0	0
Other than Solar	136	163	130	430
Total	136	163	130	430

3.59 The Commission has observed that the Petitioner is already in power surplus scenario and additional purchase of Non-Solar Power for fulfilment of the RPO will again lead to increase of surplus power. Therefore, the Commission finds it appropriate to allow fulfilment of Non Solar RPO through purchase of Non-Solar Renewable Energy Certificates. The Commission has considered average rate of the Non-Solar REC of Rs. 1.24/kWh in FY 2018-19 as per details available at IEX. Accordingly, the worked-out cost of renewable energy certificate for the fulfilment of the Non-Solar RPO for FY 2019-20 is as shown in the table below:

Table 32: RE power purchase cost to fulfill RPO for FY 2019-20

Particulars	East	West	Central	State
Power Purchase Rate (paisa/kWh)				
Solar from existing sources	569	569	569	569
Non-Solar (including cost of Other Mini Micro)	528	528	528	528
A- RE Power Purchase Cost from existing sources to fulfill RPO (Rs Crore)				
Solar	459	549	438	1,445
Non-Solar (including Mini Micro Hydro power)	779	932	744	2,455
Sub-Total	**1,237**	**1,481**	**1,182**	**3,900**
B- Additional Cost due to RPO Obligation to be met through purchase of Non-Solar REC (Average Rate of FY 2018-19 i.e. Rs. 1.24/kWh) (Rs. Crore)				
Solar	0	0	0	0
Non-Solar	17	20	16	53
Sub-Total	**17**	**20**	**16**	**53**
Total (A+B)	**1,254**	**1,502**	**1,198**	**3,953**

Management of Surplus Energy

Petitioners' Submission

3.60 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 the ensuing year. Currently, MPPMCL sells surplus power through Power Exchange (IEX) at prevailing rates.

3.61 The Petitioners have further submitted that the average IEX rate for the past twelve months (FY 2017-18) is Rs 3.26 per unit. Hence, for the purpose of computation of revenue from surplus energy, the average rate has been considered as Rs 3.26 per unit.

3.62 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 33: Management of Surplus Energy (MU)

Sr. No	Particulars	FY 2019-20
1	Ex-Bus Availability	90,932
2	Back down of Power including Surplus Sale of Power	8,175
3	Energy Available after Back down	82,757
4	Ex-Bus Energy Required by Discom's	69,968
5	Ex-Bus Energy Required by Discom's including UI Adjustment	69,968
6	Surplus Units available for Sale	12,789
7	Additional surplus due to RPO obligation	408
8	Total Units Available	13,197
11	IEX Rate (Paisa/kWh)	326
12	Revenue from Sale of Surplus Power (Rs Crores)	4,308
13	Purchase Cost of Surplus Power- Variable (Rs Crores) including Renewables	3,529
14	Total saving in variable cost of surplus energy from sale of surplus energy (Rs Crore)	779

Commission's Analysis

3.63 The Commission has considered the average rate of Rs. 3.85 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 FY 2018-19. As sale of surplus energy has been considered at Rs 3.85 /kWh, stations having variable rate more than Rs 3.85/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.

3.64 Further, the Commission has observed that the MPPMCL has entered into Bulk Power Supply agreement with MPIDC (Erstwhile MPAKVN) for supply of 50 MW power. Further, the MPIDC has been purchasing the remaining requirement of energy from MPPMCL only. Therefore, the Commission has reduced the energy sale to MPIDC from the available surplus energy. Accordingly, the details of saving in power purchase cost through sale of surplus power has been shown in the table below:

Table 34 : Details of saving in power purchase cost through sale of Surplus energy

Sr. No.	Particulars	Unit	Reference	Admitted
1	Total energy availability	MU	A	97,989
2	Total energy requirement of Discoms	MU	B	69,353
3	Total Surplus energy available	MU	C=A-B	28,636
4	Surplus energy available at variable rate below Rs 3.85/kWh	MU	D	26,114
5	Sale of power to MPIDC	MU	E	457
6	Net surplus energy available for sale at variable rate below Rs. 3.85/kWh	MU	F=D-E	25,657
5	Variable cost of surplus energy having variable rate below Rs 3.85	Rs. Crore	G	7,380
6	Per unit cost of sale of surplus power	Rs./kWh	H	3.85
7	Revenue from sale of surplus power	Rs. Crore	I=F*H	9,888
8	Fixed cost of surplus energy	Rs. Crore		4,325
9	**Total saving in fixed cost of surplus energy from sale of surplus energy (below Rs 3.85 per Unit)**		**J=I-G**	**2508**

3.65 Discom-wise distribution of revenue from sale of surplus power (below Rs 3.85 per Unit) is shown in the table below:

Table 35 : Discom-wise distribution of revenue from sale of surplus power (below Rs 3.85 per Unit) (Rs. Crore)

Particulars	East	West	Central	Total
Revenue from sale of surplus power (below Rs 3.85 per Unit)	3,007	3,129	3,752	9,888

3.66 Further, Considering the Petitioner’s submissions and stakeholders views, the Commission has incorporated various rebates in the tariff design which may lead to increase in sales of Discoms and reduce the surplus power.

Inter State Transmission Charges associated with existing capacities

Petitioners Submissions

3.67 The Petitioners have submitted that inter-state transmission charges consist of the charges for transmission system of WR, NR and ER. The Petitioners have considered Inter-State Transmission Charges for FY 2017-18 as per provisional figures from power purchase statement for FY 2017-18.

3.68 The Petitioners have further submitted that the estimated Inter-state transmission charges for FY 2019-20 amounts to Rs. 1,532.21 Crore. Estimated Inter-state transmission costs have then been allocated to Discoms based on energy allocation from Central Generating Stations and availability at State Boundary as follows:

Table 36: Inter-state transmission charges filed by Discoms for FY 2019-20 (Rs. Crore)

Particulars	PGCIL Costs
East Discom	468.81
West Discom	533.16
Central Discom	530.24
Total	**1532.21**

Commission's Analysis

3.69 PGCIL charges consist of charges to be paid for transmission systems of Western Region, Eastern Region and Northern Region. The Commission has reviewed inter-state transmission charges as per the actual bills available for FY 2015-16, FY 2016-17 and FY 2017-18 and the claims filed by the Petitioners. The Commission has observed that the Petitioners have considered same inter State transmission charges paid for FY 2017-18 also for FY 2019-20. Accordingly, the Commission has found the claim of the petitioner appropriate and has admitted the same towards Inter State transmission charges. These charges have been further allocated amongst Discoms, based on past trend of actual cost as submitted by the Petitioners in the following Table:

Table 37: PGCIL charges admitted for FY 2018-19 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total
Inter-State Transmission charges	468.81	533.16	530.16	1532

Intra - State Transmission and SLDC Charges

Petitioners' Submission

3.70 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.

3.71 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).

3.72 Further the Petitioners have allocated intra-state transmission charges including SLDC charges and terminal benefits for FY 2019-20 to three Discoms as per past trend as indicated in the table below:

Table 38: Intra-State Transmission Charges including SLDC charges filed by Petitioners for FY 2019-20 (Rs. Crore)

Particulars	FY 2019-20
East Discom	812.38
West Discom	1041.04
Central Discom	865.40
Total	**2,718.82**

Commission's Analysis

3.73 The Petitioners have projected the intra-state transmission charges (including SLDC charges) of Rs. 2718.82 Crore for FY 2019-20. However, the Commission has considered intra-state transmission charges of Rs. 2740.21 Crore as projected in the transmission tariff order dated 10 June, 2016.

3.74 Towards levy and collection of SLDC charges for FY 2019-20, the Commission has considered Rs. 13.75 Crore from the latest available tariff order dated 07.03.2019 in Petition No. 48 of 2018.

3.75 Accordingly, intra–state transmission charges for FY 2019-20 including SLDC charges have been admitted as given in the table below:

Table 39 : Intra State Transmission charges including SLDC charges admitted for FY 2019-20 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom	Total for State
Intra–State Transmission charges including SLDC charges and terminal benefits	823	1,054	877	2,754

3.76 The Commission has allowed the terminal benefits and pension expenses on "pay as you go" principle payable to MP Transco. 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' Submission

3.77 The Petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. (-) 309 Crore for FY 2019-20 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 40: Expenses of MPPMCL as filed for FY 2019-20 (Rs Crore)

Particulars	Amount
Purchase of Power from Other Sources	273
Inter State Transmission Charge	55
Depreciation & Amortization Expenses	9
Interest & Finance Charges	80
Repairs & Maintenance	2
Employee Costs	68
Administration & General Expenses	44
Other Expenses	4
Expenses	**535**
Less-Revenue Other Income	844
(Profit)/Loss for the Period	(309)

Table 41: MPPMCL Costs allocated to Discoms as filed for FY 2019-20 (Rs Crore)

Particulars	Amount
East Discom	(98)
West Discom	(118)
Central Discom	(94)
Total	**(309)**

Commission's Analysis

3.78 The Petitioners have filed Rs. 535 Crore as MPPMCL expenses for FY 2019-20. 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. In this regard, the Commission in data gaps sought justification for claiming the power purchase cost of MPPMCL separately inspite of the Commission view in Tariff Order for FY 2018-19 to include the said expense under the Discoms power purchase expense.

3.79 The Petitioner in reply submitted that they have considered cost of power purchase for FY 2017-18 as Rs. 225.23 crores for banking of energy, which is not included in the regular power purchase bills of Discoms. For FY 2018-19 and 2019-20 the petitioners have considered an escalation rate of 10% for each year which works out to Rs. 273 Crore for FY 2019-20.

3.80 The Commission has observed that the MPPMCL has been doing exchange/banking of energy with third parties outside the State of Madhya Pradesh whereby during availability of surplus power in the State, energy is supplied to the parties having requirement of power and in case of power deficit in the Sate the banked energy is taken by the Company. It is also observed that the MPPMCL has not been able to return the power drawn from banked energy in the same year and therefore has been booking liability in financial terms against the banking liability. The Commission is of the opinion that such transaction does not involve any expense except the open access charges which as per the direction in previous tariff order are required to be booked under the head of power exchange. Therefore, the Commission has not admitted power purchase expense under MPPMCL cost.

3.81 Further, the Commission has admitted expenses of Rs. 114 Crore towards O&M expenses only and Rs. 844 Crore as other income, as filed by the Petitioners. Net MPPMCL cost admitted in this Order is Rs. (-) 730 Crore, which 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 2019-20, after prudence check.

Table 42: MPPMCL Costs allocated to Discoms by the Commission for FY 2019-20 (Rs Crore)

Particulars	Amount
East Discom	(230)
West Discom	(279)
Central Discom	(221)
Total	**(730)**

Summary of Power Purchase Cost

Petitioners' Submission

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

Table 43: Total Power Purchase Cost as filed for FY 2019-20

Total Power Purchase Cost		Units	East Discom	West Discom	Central Discom	State
A	Ex-bus Units to be Purchased	MU	22,070	26,748	21,150	69,968
B	Fixed Cost	Rs. Crore	2,799	3,557	2,393	8,749
C	Variable Cost	Rs. Crore	4,406	5,645	3,902	13,953
D	MPPMCL costs	Rs. Crore	(98)	(118)	(94)	(309)
E = B+C+D	Total Power Purchase Cost - Ex Bus	Rs. Crore	7,107	9,084	6,201	22,392
F=E/A*10	Rate of Power Purchase	Rs./kWh	3.22	3.40	2.93	3.31
G	External Losses	MU	420	502	401	1.323
H	Inter -State Transmission Cost	Rs. Crore	487	581	465	1,532
I = (A-G)	Energy to be Purchased at State Periphery	MU	21,649	26,246	20,749	68,644
J= (E+H)	Total Power Purchase Cost at State Boundary	Rs. Crore	7,594	9,665	6,665	23,924
K=J/I*10	Rate of Power Purchase at State Boundary	Rs./kWh	3.51	3.68	3.21	3.49
L	Intra State Transmission Loss	MU	587	711	562	1,860

Total Power Purchase Cost		Units	East Discom	West Discom	Central Discom	State
M	Intra State Transmission Cost – MPPTCL including SLDC	Rs. Crore	812	1041	865	2,719
N= I-L	Total units purchased at Discom interface	MU	21,063	25,535	20,187	66,784
O = (J+M)	Total Power Purchase cost at Discom interface	Rs. Crore	8,406	10,706	7,531	26.643
P=O/N *10	Rate of Power Purchase at Discom Boundary	Rs./kWh	3.99	4.19	3.73	3.99

Commission's Analysis

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

Table 44 : Total power purchase cost admitted for FY 2019-20 (Rs Crore)

Particulars	East	West	Central	State
Total Fixed Charges	3,508.62	4,215.10	3,352.56	11,076.27
Total Variable Charges (including surplus energy cost)	6,721.60	8,065.24	6,418.76	21,205.61
Total Power Purchase cost	10,230.22	12,280.34	9,771.32	32,281.88
Additional RE cost for RPO compliance	16.92	20.26	16.16	53.35
less: Revenue from sale of surplus power	3,006.78	3,129.20	3,751.72	9,887.70
MPPMCL Cost	-230.23	-279.11	-220.66	-730.00
Total Power Purchase cost	**7,010.13**	**8,892.29**	**5,815.11**	**21,717.53**
PGCIL Charges	468.81	533.16	530.16	1,532.13
MPPTCL Charges	822.89	1,054.50	876.59	2,753.97
Grand Total	**8,301.83**	**10,479.94**	**7,221.86**	**26,003.63**
Power purchase rate at ex-bus (Rs/Unit)	3.19	3.38	2.77	3.13
Power purchase rate at State Periphery (Rs/Unit)	3.47	3.65	3.08	3.42
Power purchase rate at Discom Periphery (Rs/Unit)	3.95	4.17	3.60	3.93
Power purchase per unit sales (Rs/Unit)	4.71	4.91	4.34	4.67

Pooled Power Purchase Cost

3.84 The Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 have stipulated the provision for determining the pooled cost of power purchase for the purpose of computing the Floor and Forbearance price of Renewable

Energy Certificates. The relevant provision of the Regulation is reproduced below:

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

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

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

Table 45 : Pooled Power Purchase cost for FY 2019-20

Particulars	FY 2019-20
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	61,709.46
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	17,559.65
Pooled Power Purchase Cost (Rs/kWh)	**2.85**

Capital Expenditure Plans/ Capitalization of Assets

Petitioners Submission

Investments

3.86 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 sub-stations, 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, replacement of service lines, etc.

3.87 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 upgradation 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.

3.88 Details of Discom wise capital investment plans under various schemes for FY 2019-20 as filed are indicated below:

Table 46 : Capital Investment plan for FY 2019-20 (Rs. Crore)

Discoms	Amount
East	1,056
West	989
Central	983
Total for the State	**3,028**

Capitalization and CWIP

3.89 Discom wise capitalization plan and the status of capital works in progress (CWIP) as filed by the Petitioners for FY 2019-20 are indicated below:

Table 47 : Discom wise proposed capitalization and bifurcation of CWIP (Rs. Crore)

Particulars	East	West	Central
Opening Balance of CWIP	2,973	3,409	2,619
Fresh Investment during the year	1,056	989	983
Investment capitalized	535	851	675
Closing Balance of CWIP	**3,495**	**3,547**	**2,927**

Commission's Analysis on Asset Capitalization

3.90 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.

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

3.92 The Commission has observed that there has been a change in the Accounting Standard of the Petitioners and 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.

3.93 Accordingly, the Commission directed the Petitioners to submit the reconciliation of the Capitalisation claimed in the Petition for FY 2016-17 and FY 2017-18 as per GAAP accounting standard in line with the approach followed by the Commission in previous orders. The Petitioners submitted the GFA reconciliation for FY 2016-17 and FY 2017-18 as per GAAP as follows:

Table 48 : GFA as per GAAP submitted by East Discom for FY 2016-17 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening as at 1st April 2016	Direct Additions/ during the year	Disposal	Closing as at 31st March 2017
A	Tangible Assets				
1	Land	2.28			2.3
2	Building	50.46	0.93		51.39
3	Other Civil Works	12.41	0.83		13.24
4	Plant & equipment	3,050.27	258.06		3,308.34
5	Lines, Cables & network	2,984.99	398.64		3,383.63
6	Vehicle	2.99	2.23		5.22
7	Office and IT equipment	65.58	91.99		157.57
	Total tangible Assets	6,168.98	752.68	-	6,921.68
B	Intangible Assets				
	Intangible Assets	-	70.63		70.63
	Total Intangible Assets	-	70.63	-	70.63
C	**Grand Total (A+B)**	**6,168.98**	**823.31**	**-**	**6,992.31**

Table 49 : GFA as per GAAP submitted by East Discom for FY 2017-18 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening As at 1st April 2017	Direct Additions/ during the year	Disposal	Closing as at 31st March 2018
A	**Tangible Assets**				
1	Land	2.3		(0.02)	2.28
2	Building	51.39	0.45	-	51.84
3	Other Civil Works	13.24	1.23	-	14.47
4	Plant & equipment	3,308.34	132.05	-	3,440.39
5	Lines, Cables & network	3,383.63	348.26	-	3,731.89
6	Vehicle	5.22	0.51	-	5.73
7	Office and IT equipment	157.57	2.67	-	160.24
	Total tangible Assets	6,921.68	485.17	(0.02)	7,406.83
B	Intangible Assets				
	Intangible Assets	70.63		-	70.63
	Total Intangible Assets	70.63	-	-	70.63
C	**Grand Total (A+B)**	**6,992.31**	**485.17**	**(0.02)**	**7477.46**

Table 50 : GFA as per GAAP submitted by West Discom for FY 2016-17 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening as at 1st April 2016	Direct Additions/ during the year	Disposal	Closing as at 31st March 2017
A)	**Tangible 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	0.1	5.24
7	Furniture and Fixtures	5.86	0.71		6.56
	Capital Spares		141.69	12.41	129.28
8	Office Equipment.	50.03	7.12		57.14
9	RGGVY / C.C ASSETS	640.69	112.14		752.83
B)	**Intangible Assets**				-
1	Computer Software	31.55	9.45		41
C)	**Grand Total (A + B)**	**5,368.86**	**590.24**	**32.19**	**5,926.92**

Table 51 : GFA as per GAAP submitted by West Discom for FY 2017-18 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening as at 1st April 2016	**Direct Additions/ during the year**	**Disposal**	**Closing as at 31st March 2017**
A)	**Tangible assets**				
1	Land and Land Rights.	0.00			0.00
	i) Leasehold Land	1.32	0.06		1.38
	ii) Freehold Land	4.25			4.25
2	Buildings.	96.55	31.61		128.16
3	Other Civil Works.	12.51	0.85		13.36
4	Plant and Machinery.	2007.15	102.44	(22.07)	2131.65
5	Lines and Cable Net Works.	2813.09	118.03	25.62	2905.49
6	Vehicles.	5.24	0.00	0.08	5.16
7	Furniture and Fixtures	6.56	0.42		6.98
8	Capital Spares	129.28	10.16		139.44
9	Office Equipment.	57.14	14.86		72.00
10	RGGVY / C-C ASSETS	752.83	325.52		1078.35
	i) Line & Cables	0.00			0.00
	ii) Distribution Transformer	0.00			0.00
	iii) Meter	0.00			0.00
	iv) Substation	0.00			0.00
	v) Building	0.00			0.00
B)	**Intangible Assets**				
1	Computer Software	41.00			41.00
C)	**Grand Total (A + B)**	**5926.92**	**603.94**	**3.63**	**6527.23**

Table 52 : GFA as per GAAP submitted by Central Discom for FY 2016-17 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening As at 1st April 2016	**Direct Additions/ during the year**	**Addition through CWIP**	**closing as at 31st March 2017**
A	Tangible Assets				
1	Land	8.96	-	-	8.96
2	Building	104.68	-	16.83	121.52
3	Other Civil Works	6.67	-	-	6.67
4	Hydraulic Works	12.2	-	-	12.2
5	Plant & Machinery	2,837.00	0.04	207.57	3,044.61

Sr. No.	Assets Group	Gross Block			
		Opening As at 1st April 2016	Direct Additions/ during the year	Addition through CWIP	closing as at 31st March 2017
6	Lines, Cables & network	3,546.78	26.31	411.24	3,984.33
7	Office Equipment	129.7	13.55	-	143.25
8	Vehicle	3.48	-	-	3.48
9	Furniture & Fixtures	3.47	0.13	-	3.6
10	Capital Stores & Spares	-	150.39	-	150.39
11	RGGVY Assets	555.53	-	261.8	817.33
12	Supervision Assets	246.36	105.58	-	351.95
	Total tangible Assets	7,454.83	296	897.44	8,648.27
B	Intangible Assets				
	Intangible Assets	11.67	8.26	-	19.93
C	**Grand Total (A+B)**	**7,466.51**	**304.26**	**897.44**	**8668.21**

Table 53 : GFA as per GAAP submitted by Central Discom for FY 2017-18 (Rs. Crore)

Sr. No.	Assets Group	Gross Block			
		Opening As at 1st April 2017	Direct Additions/ during the year	Addition through CWIP	closing as at 31st March 2018
A	Tangible Assets				
1	Land	8.96	-	-	8.96
2	Building	121.52	-	19.97	141.49
3	Other Civil Works	6.67	-	-	6.67
4	Hydraulic Works	12.2	-		12.2
5	Plant & Machinery	3,044.61	0.01	111.73	3,156.34
6	Lines, Cables & network	3,984.33	28.61	357.51	4,370.45
7	Office Equipment	143.25	3.65		146.89
8	Vehicle	3.48	-	-	3.48
9	Furniture & Fixtures	3.6	0.03	-	3.63
10	Capital Stores & Spares	150.39	-3.68	-	146.71
11	RGGVY Assets	817.33	-	167.29	984.62
12	IPDS Assets	-	-	6.16	6.16
13	Supervision Assets	351.95	145	-	496.94
	Total tangible Assets	8,648.27	173.61	662.67	9,484.55
B	Intangible Assets				
	Intangible Assets	19.93	0.17	-	20.11
C	**Grand Total (A+B)**	**8668.21**	**173.79**	**662.67**	**9504.66**

3.94 The asset addition by the Discoms as per audited accounts from FY 2015-16 to FY 2017-18 are given in the Table below:

Table 54 : Asset capitalization during FY 2015-16 to FY 2017-18 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2015-16	134.63	487.79	897.06
FY 2016-17*	823.31	558.05	1201.70
FY 2017-18*	485.15	600.31	836.46
Average	**481.03**	**548.72**	**978.41**

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

3.95 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 2018-19 and FY 2019-20 are lower than the average capitalisation added during the past 3 years except for Central Discom. Considering asset capitalisation of Rs 836.46 Crore during FY 2017-18 by Central Discom, the Commission has provisionally admitted the projections of Rs. 654 Crore and Rs. 674 Crore as envisaged by Central Discoms for FY 2018-19 and FY 2019-20 respectively. For East and West Discom, the Commission has considered the lower of the claimed and the average capitalisation for last three years as shown in the table below:

Table 55: Asset capitalization admitted for FY 2018-19 and FY 2019-20 (Rs. Crore)

Particulars	East Discom	West Discom	Central Discom
FY 2018-19	481.03	548.72	654.00
FY 2019-20	481.03	548.72	674.00

Operations and Maintenance Expenses

Petitioners' Submission

3.96 The Petitioners have submitted that Operation and Maintenance (O&M) expenses are projected on the basis of the 1st amendment to Tariff Regulations, 2015 notified on 07.12.2018. Component wise O&M expenses have been discussed below.

Employee Expenses

3.97 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 has been considered as per the norms specified in Tariff Regulations for FY 2019-20.

b) For computation of Dearness allowance, percentage increase has been considered as per 7th Pay for FY 2019-20, as shown in the table below:

Table 56: DA as a percentage of Basic Salary Proposed

Particulars (as per 7th Pay)	FY 2017-18	FY 2018-19	FY 2019-20
DA as percentage of Basic for 1st quarter - April to June	4%	7%	11%
DA as percentage of Basic for 2nd and 3rd quarter - July to December	5%	9%	15%
DA as percentage of Basic for 4th quarter - January to March	7%	11%	17%

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

d) 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.

e) 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.

3.98 Accordingly, employee expenses have been claimed as Rs 1,239 Crore, Rs 1,376 Crore and Rs 1,231 Crore by East, West and Central Discoms, respectively.

A&G Expenses

3.99 Petitioners have claimed the A&G expenses as per the Regulation 34.6 of the 1st Amendment to Tariff Regulations, 2015 as Rs 209 Crore, Rs 174 Crore and Rs 122 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. 183 Crore, Rs. 165 Crore and Rs. 234 Crore for East, West and Central Discoms, respectively for FY 2019-20.

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

Table 57: O&M expenses claimed for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central
Employee Cost (including arrears, DA and others)	1,239	1,376	1,231
A&G Expenses	209	174	122
R&M expenses	183	165	234
Total O&M expenses	**1,631**	**1,715**	**1,587**

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 2019-20 have been specified in the 1st amendment to the Tariff Regulations, 2015 notified on 07.12.2018. Accordingly, the same has been approved by the Commission for FY 2019-20. Further, Tariff Regulations provides for approval of R&M expenses as 2.3% of opening GFA for the FY 2019-20. These norms exclude pension, terminal benefits and incentive to be paid to employees, taxes payable to the Government and fee payable to MPERC.

3.103 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 2019-20, which is same as allowed in the tariff order for FY 2018-19. The Commission directs the Discoms to file the mechanism along with detailed conditions with regards to management of funds.

3.105 Further, the Commission has considered it appropriate to allow DA @ 12% for April to June, @ 15% for July to December and @ 18% for January to March of the Basic salary in accordance to GoMP order dated 14.06.2019.

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 observed that the Petitioner has not claimed the 7th pay arrear in accordance to the Tariff Order for FY 2018-19. However, the Commission in line with the view taken in Tariff Order for FY 2018-19 has admitted the Arrear on account of the 7th Pay Commission as Rs. 164.67 Crore.

3.108 Accordingly, the admitted employee expenses for FY 2019-20 by the Commission is as shown in the table below:

Table 58: Employee Expenses as admitted for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	Total
Employee expenses				
Basic Salary	1,080	1,133	1,009	3,222
DA	162.00	169.95	151.35	483.30
Leave encashment	0.00	43.64	43.16	86.80
NPS Employer Contribution	9.77	12.33	22.33	44.43
PF/CFA/GTIS/Annuity	15.24	20.22	10.90	46.36
7th Pay Arrears	57.06	55.43	52.17	164.67
Total Employee expenses	**1,324.07**	**1,434.56**	**1,288.92**	**4,047.55**

3.109 The Commission has considered the A&G expenses as specified in the Tariff Regulations and has also approved the fees paid to the Commission as claimed by the Petitioners. Details of A&G expenses and fees paid to the MPERC as admitted are given in the table below:

Table 59: A&G Expenses as admitted for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	Total
A&G expenses	205	157	118	480
MPERC fees	0.63	0.51	0.40	1.55
Total A&G expenses	**205.63**	**157.51**	**118.40**	**481.55**

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

Table 60: R&M Expenses as admitted for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	Total
Opening GFA as on 1st April, 2019	7958.47	7075.94	10158.67	23395.18
% as R&M of opening GFA as specified in Tariff Regulations	2.3%	2.3%	2.3%	2.3%
Total R&M expenses	**183.04**	**162.75**	**233.65**	**579.44**

3.111 Total O&M expenses admitted by the Commission for FY 2019-20, have been summarized in the table below:

Table 61: O&M Expenses as admitted for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	State
Employee Expenses	1,324.07	1,434.56	1,288.92	4,047.55
A&G Expenses	205.63	157.51	118.40	481.55
R&M Expenses	183.04	162.75	233.65	579.44
Terminal Benefits Provision	70.00	70.00	70.00	210.00
Total O&M expenses	**1,782.74**	**1,824.82**	**1,710.97**	**5,318.54**

Depreciation

Petitioners' Submission

3.112 The Petitioners have submitted that they have worked-out detailed depreciation based on rates specified by the Commission in Annexure-II of 1st Amendment to Tariff Regulations, 2015. The depreciation worked out for FY 2019-20 is shown in Table below:

Table 62: Depreciation claimed by Petitioners for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central
Land under Lease	0	0	0
Building	0	6	3
Hydraulic Works	2	0	0
Other Civil Works	0	0	0
Plant and Machinery	164	121	122
Line Cable Networks etc.	172	147	163
Vehicles	0	0	0
Furniture and fixtures	0	0	0
Office Equipment's	20	12	10
RGGVY	0	47	42
Intangible Assets	0	6	0
Supervision Assets	0	0	21
Capital Stores & Spares	0	0	18
Total	**358**	**340**	**381**

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, 2019. 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, 2019 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2019 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 considered the asset addition for FY 2017-18 and FY 2018-19 as admitted in previous section. Further, Consumer contribution, grants and subsidies towards Capital Assets has been considered in proportion to the admitted GFA for the respective years. The Consumer contribution, grants and subsidies towards Capital Assets during the respective year have been reduced from GFA for arriving at net GFA for FY 2019-20. Net GFA has been considered for allowing depreciation for FY 2019-20 on the basis of opening GFA for FY 2019-20 plus half of asset addition during FY 2019-20 net of the consumer contribution.

3.116 The Commission has observed that the Asset Register submitted by the Petitioner in reply to data gaps lacks information required to substantiate their claim of depreciation. The Commission has also called a meeting of the Discoms on 27.07.2019 where the concerned officers of the Discoms were convinced that Register submitted by them lacks details required for working out the Depreciation as per Tariff Regulations. The Commission directs the Petitioner to submit the proper Fixed Asset Register in the desired format along with the next tariff Petition. The Commission has therefore, considered the depreciation rates i.e. 2.44%, 2.81%, and 2.44% for East, West and Central Discoms for FY 2019-20, as considered in the tariff order for FY 2018-19. 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 2019-20 shall be duly considered at the time of truing up of the ARR for FY 2019-20 subject to scrutiny of Asset Register.

3.117 The depreciation admitted for FY 2019-20 is given in the following table:

Table 63: Depreciation admitted for FY 2019-20 (Rs. Crore)

Particular	East	West	Central	Total
Opening GFA as on 1st April, 2014	**4,268.10**	**3,136.31**	**4345.59**	**11,750.00**
Add: Addition during FY 2014-15	692.89	566.19	1164.71	2,423.79
Less: Consumer Contribution 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**	**5,232.23**	**13,295.98**
Add: Addition during FY 2015-16	134.63	487.79	897.06	1,519.48
Less: Consumer Contribution in FY 2015-16	134.63	458.87	213.56	807.06
Opening GFA as on 1st April, 2016	**4,610.06**	**3482.61**	**5915.73**	**14,008.40**

Particular	East	West	Central	Total
Add: Addition during FY 2016-17	823.30	590.24	1201.70	2,615.24
Less: Consumer Contribution in FY 2016-17	239.21	411.66	146.15	797.02
Opening GFA as on 1st April, 2017	**5194.15**	**3661.19**	**6971.28**	**15,826.62**
Add: Addition during FY 2017-18	485.17	603.94	836.46	1,925.57
Less: Consumer Contribution in FY 2017-18	304.42	517.45	328.97	1,150.84
Opening GFA as on 1st April, 2018	**5374.90**	**3747.68**	**7478.77**	**16,601.36**
Add: Addition during FY 2018-19	481.03	548.72	654.00	1,683.75
Less: Consumer Contribution in FY 2018-19	316.46	202.13	605.18	1,123.77
Opening GFA as on 1st April 2019	**5539.47**	**4094.27**	**7527.59**	**17,161.34**
Add: Addition during FY 2019-20	481.03	548.72	675.00	1,704.75
Less: Consumer Contribution in FY 2019-20	331.19	141.30	605.18	1,077.67
Closing GFA as on 31st March 2020	**5689.31**	**4501.69**	**7597.41**	**17,788.41**
Average GFA	5297.98	4301.94	7562.50	17,474.87
Rate of Depreciation	**2.44%**	**2.81%**	**2.44%**	
Depreciation	**136.99**	**120.77**	**184.53**	**442.29**

Interest and Finance Charges

Petitioner submission

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 2018-19 has been adopted for projecting the interest and finance charges on project loans for FY 2019-20.

East Discom

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

Table 64: Interest cost claimed by East Discom (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	948
70% of addition to net GFA considered as funded through Loan net of consumer contribution	117
Debt Repayment due during the year (equal to the depreciation claim)	358
Closing balance of GFA identified as funded through debt	707
Average of loan balances	827
Weighted average rate of interest (%) on all loans	**1.16%***

Particulars	Amount
Total interest on project loans	**10**
Finance charge	20
Discount to consumer on timely repayment	**2**
Total Interest on Project loans & Finance Charge	**32**

*East Discom submitted revised interest rate of 6.77% in reply to data gaps

West Discom

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

Table 65: Interest cost claimed by West Disom (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	548*
70% of addition to net GFA considered as funded through Loan net of consumer contribution	559*
Debt Repayment due during the year (equal to the depreciation claim)	340*
Closing balance of GFA identified as funded through debt	767*
Average of loan balances	657*
Weighted average rate of interest (%) on all loans	**6.25%***
Total interest on project loans	**41***
Finance charge	11*
Discount to consumer on timely repayment	4*
Total Interest on Project loans & Finance Charge	**56***

*West Discom submitted revised Format 3 in reply to data gaps

Central Discom

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

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

Particulars	Amount
Addition to GFA during the year	675*
Consumer contribution during the year	47*
Net addition to GFA during the year	628*
30% of addition to net GFA considered as funded through equity	188*
Balance addition to net GFA during the year funded through debt	440*
Debt Repayment due during the year (equal to the depreciation claim)	381*
Debt associated with GFA as per tariff order FY 14-15 (Rs. 1634.34 crore as on 31st March 2014 +addition in GFA funded through loan - debt	69*

Particulars	Amount
repayment)and for subsiquent years projected as per method adopted in tariff order of FY 13-14	
Weighted average rate of interest % on all loans	6.83%
Total Interest on project loans (9=7*8)	**5***
Finance Charges	**27***
Total Interest on project loan and Finance charges	**32***

*Central Discom submitted revised Format 3 in reply to data gaps

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 on scrutiny observed that the interest rate computation submitted by the East and Central Discom in Form 3a was not correct. Accordingly, the Commission in TVS dated 27.07.2019 directed the Petitioners to submit the revised Form 3a, which was submitted by the Petitioners.

3.125 The Commission has worked out the interest cost for FY 2019-20 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 2018-19 and FY 2019-20 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 revised submissions made by the Petitioners in Format 3a.

f) Other finance costs for FY 2019-20 have been admitted as per actual from the audited accounts for FY 2017-18 submitted by the Petitioners.

g) Discount to consumers claimed as part of interest charges has not been considered as the same has been paid by the Distribution Licensee encouraging the consumers for timely payment at its own behest.

3.126 Accordingly, interest and finance charges admitted for FY 2019-20 are given in the following table:

Table 67: Interest and finance charges admitted for FY 2019-20 (Rs. Crore)

Particular	East Discom	West Discom	Central Discom	State
FY 2014-15				
Debt identified with GFA as on 1st April, 2014 (closing approved in last true up)	1,629.69	763.07	1,669.50	4,062.27
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	116.85	317.75
Debt identified with GFA as on 31st March, 2015	1,760.76	892.65	2,173.30	4,826.70
FY 2015-16				
Debt identified with GFA as on 1st April, 2015	1,760.76	892.65	2,173.30	4,826.70
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	136.01	345.95
Debt identified with GFA as on 31st March, 2016	1,648.27	815.44	2,515.74	4,979.45
FY 2016-17				
Debt identified with GFA as on 1st April, 2016	1,648.27	815.44	2,515.74	4,979.45
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	408.86	125.01	738.88	1,272.75
Debt repayment	119.61	100.37	157.22	377.20

Particular	East Discom	West Discom	Central Discom	State
Debt identified with GFA as on 31st March, 2017	1,937.52	840.08	3,097.41	5,875.00
FY 2017-18				
Debt identified with GFA as on 1st April, 2017	1,937.52	840.08	3,097.41	5,875.00
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	126.53	60.54	355.24	542.31
Debt repayment	128.94	104.09	176.29	409.33
Debt identified with GFA as on 31st March, 2018	1,935.10	796.52	3,276.36	6,007.99
FY 2018-19				
Debt identified with GFA as on 1st April, 2018	1,935.10	796.52	3,276.36	6,007.99
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	115.20	242.61	34.17	391.99
Debt repayment	133.16	110.18	183.08	426.41
Debt identified with GFA as on 31st March, 2019	1,917.15	928.96	3,127.46	5,973.56
FY 2019-20				
Debt identified with GFA as on 1st April 2019	1,917.15	930.67	3,127.46	5,973.56
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	104.89	285.19	48.87	438.95
Debt repayment	136.99	120.77	184.53	442.29
Debt identified with GFA as on 31st March, 2020	1,885.05	1093.38	2,991.81	5,970.23
Average debt	1,901.10	1011.17	3,059.63	5,971.89
Weighted average rate of interest (%) on all loans as per Petitioner	6.77%	6.25%	6.54%	
Interest on Project Loans	128.70	63.19	200.22	392.11
Other Finance cost	7.32	7.31	23.81	38.44
Interest cost admitted on project loans	**136.02**	**70.50**	**224.03**	**430.55**

Interest on Working Capital

Petitioners Submission

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

Table 68: Interest on Working Capital as filed for 2019-20 (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	1	9	10
2	O&M expenses			
2.1	R&M expenses	183	162	234
2.2	A&G expense	209	174	122
2.3	Employee expenses	1239	1,376	1,231
2.4	Total of O&M expenses	1631	1,712	1,587
2.5	1/12th of total O&M expenses	136	143	132
3	Receivables			
3.1	Annual Revenue from wheeling charges	0	3	1
3.2	Receivables equivalent to 2 months average billing of wheeling charges	0	1	0
4	Total Working capital (1+2.5+3.2)	137	153	142
5	Rate of Interest	13.75%	13.75%	13.75%
6	Interest on Working capital (Wheeling)	19	21	20
	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	10,683	13,047	10,343
2.2	Receivables equivalent to 2 months average billing	1,780	2,175	1,724
3	Power Purchase expenses	7,079	9,027	6,648
3.1	1/12th of power purchase expenses	590	752	554
4	Consumer Security Deposit	881	1,265	1,154
5	Total Working capital (1+2.2-3.1-4)	309	160	18
6	Rate of Interest	13.75%	13.75%	13.75 %
7	Interest on Working capital (Retail Sales)	43	22	2
	Net Interest on Working Capital	**61**	**43**	**22**

Commission's Analysis of Interest on Working Capital

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

3.129 The Commission has considered the opening Gross block of FY 2019-20 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.

3.130 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, 2019 stands at 13.80%. Accordingly, the normative interest rate for working capital loans to Discoms would be limited to 13.80%. The interest on working capital admitted by the Commission for wheeling and retail sales activity combined together is shown in the table below:

Table 69: 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	10.61	9.43	13.54
B) i)	Total of O&M expenses		1,782.74	1,824.82	1,710.97
B) ii)	1/12th of total	1.00	148.56	152.07	142.58
C)	Receivables				
C) i)	Annual Revenue from wheeling charges		0.34	7.65	0.74
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	2.00	0.06	1.28	0.12
D)	Total Working capital		159.23	162.78	156.25
	(A), B) ii), C) ii))				
E)	Rate of Interest		13.80%	13.80%	13.80%
F)	**Interest on Working capital**		**21.97**	**22.46**	**21.56**
For Retail Sales activity					
A)	1/6th of annual requirement of inventory for previous year	2.00	2.65	2.36	3.39
B)	Receivables				
B) i)	Annual Revenue from Tariff and charges		11,593.91	13,941.84	11,127.66
B) ii)	Receivables equivalent to 2 months average billing	2.00	1,932.32	2,323.64	1,854.61

For wheeling activity					
Sr. No.	**Particulars**	**Months**	**East Discom**	**West Discom**	**Central Discom**
C)	Power Purchase expenses		7,010.13	8,892.29	5,815.11
C) i)	1/12th of power purchase expenses	1.00	584.18	741.02	484.59
D	Consumer Security Deposit		881.29	1,265.00	1,154.41
E)	Total Working capital (A+B ii) - C i) - D)		469.50	319.97	218.99
F)	Rate of Interest		13.80%	13.80%	13.80%
G)	**Interest on Working capital**		**64.79**	**44.16**	**30.22**
	Summary				
	For wheeling activity		21.97	22.46	21.56
	For Retail Sales activity		64.79	44.16	30.22
	Total Interest on working Capital		**86.77**	**66.62**	**51.78**
	Total Interest on working Capital admitted		**86.77**	**66.62**	**51.78**

Interest on Consumer Security Deposit

Petitioners Submission

3.131 Discoms have submitted that interest on consumer security deposit is payable to the consumers according to relevant Regulations. They have further submitted that interest on consumer security deposit has been calculated for FY 2019-20 as per the RBI Bank Rate of 6.25%.

Table 70: Interest on Consumer Security Deposit as per Regulations for FY 2019-20 (Rs. Crore)

Particulars	**East Discom**	**West Discom**	**Central Discom**
Interest on Consumer Security Deposit	59	85	78

Commission's Analysis of Consumer Security Deposit

3.132 The Commission has computed the interest on consumer security deposit as per the norms of the Tariff Regulations at RBI latest Bank Rate of 6.00% and admitted the same as shown in the table below:

Table 71: Interest on Consumer Security Deposit (CSD) admitted for FY 2019-20 (Rs. Crore)

Particular	**East**	**West**	**Central**
Interest on Consumer Security Deposit	**50.53**	**72.40**	**67.72**

Return on Equity

Petitioners submission

3.133 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 72: Return on Equity for 2018-19 (Rs. Crore)

Particulars	East	West	Central
Opening balance of GFA identified as funded through equity	1,628	1,286	1,980
Normative additional equity (30% of Capitalisation net consumer contribution)	50	240	202
Closing balance of GFA identified as funded through equity	1,678	1,526	2,182
Average Equity	1,653	1,406	**2,081**
Return on Equity (16% on Average Equity)	**265**	**225**	**333**

Commission's Analysis of Return on Equity

3.134 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 2019-20. 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 2019-20 is tabulated below.

Table 73: Return on Equity admitted for FY 2019-20 (Rs. Crore)

Particular	East	West	Central
FY 2014-15			
Total Equity identified with GFA as on 31st March, 2013 (Closing from last True-up)	1217.05	929.53	1230.47
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	1496.46
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	1701.51
FY 2016-17			
30% of addition to net GFA considered as funded through equity net of consumer contribution	175.23	53.57	316.66
Total Equity identified with GFA as on 31st March, 2017	1494.86	1086.99	2018.17

Particular	East	West	Central
FY 2017-18			
30% of addition to net GFA considered as funded through equity net of consumer contribution	54.23	25.95	152.25
Total Equity identified with GFA as on 31st March, 2018	1549.09	1112.94	2170.42
FY 2018-19			
30% of addition to net GFA considered as funded through equity net of consumer contribution	49.37	103.98	14.65
Total Equity identified with GFA as on 31st March, 2019	1598.46	1216.91	2185.07
FY 2019-20			
30% of addition to net GFA considered as funded through equity net of consumer contribution	44.95	122.22	20.95
Total Equity identified with GFA as on 31st March, 2020	1643.41	1339.14	2206.01
Average Equity	1620.94	1278.03	2195.54
RoE @16% of FY 2019-20	**259.35**	**204.48**	**351.29**

Other items of ARR

3.135 Apart from the expense components discussed above, there are certain other items which form part of the ARR of the Discoms. These include provision for bad debts, and other (non-tariff) income. These are detailed below:

Bad and doubtful debts

Petitioners' submission

3.136 The Petitioners have submitted that the Tariff Regulations, 2015 and its amendment provides methodology for computation of Provision for Bad and Doubtful Debts, wherein it is stated that it is allowed to the maximum of 1% of revenue. Since, the Commission in previous Tariff Orders has considered Rs. 2 Crore for Bad and Doubtful debts, same has been claimed for FY 2019-20.

Table 74: Provision for Bad and Doubtful Debts for FY 2019-20 as per Regulations (Rs Crore)

Particulars	East	West	Central
Bad and Doubtful Debts	2	2	2

Commission's Analysis on Bad and Doubtful debts

3.137 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.

3.138 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.

3.139 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.

3.140 Accordingly, the Commission admits the expenses against the bad and doubtful debts to the tune of Rs 2 Crore for each Discom as per Petitioner submission, subject to true up.

Other Income

Petitioners' submission

3.141 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. Miscellaneous charges have been projected as a percentage of tariff income.

3.142 The Petitioner have projected their Other Income & Non-Tariff Income for FY 2018-19 and FY 2019-20 based on some percentage increase in line item including adjustment for the income received during the previous years. Further, the Petitioners have proposed for abolishing the recovery of metering charges/ Meter Rent from consumer. The Petitioner have requested the Commission to allow suitable adjustment in tariff by increasing the fixed charges to compensate the recovery of meter rent/ metering charges. Further, the Petitioners have requested the Commission to make suitable adjustment in Madhya Pradesh Electricity Regulatory Commission (Recovery of Expenses and other charges for providing electric line or plant used for the purpose of giving supply) Regulation (Revision-I), 2009. Accordingly, the Other Income & Non-Tariff Income as filed by the Petitioners is as shown below:

Table 75: Other Income for FY 2019-20 (Rs Crore)

Particulars	East	Central	West
Income from Investment, Fixed & Call Deposits	4	10	36
Interest on loans and Advances to staff	0	0	0
Interest on Advances to Suppliers / Contractors	5	0	-
Income/Fee/Collection against staff welfare activities	0	0	
Miscellaneous receipts	14	5	7
Misc. charges from consumers (meter rent, etc)	0	14	0
Deferred Income (Consumer Contribution)	0	0	0
Wheeling charges	0	1	3
Income from Trading other than Power (i.e sale of scrape, tender form)	73	35	9
Supervision charges	5		16
Recovery from theft	3	0	0

Particulars	East	Central	West
Others			
Total	**104**	**65**	**71**

Commission's Analysis on Other Income

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

Table 76: Total actual other income as per audited accounts (Rs Crore)

Discoms	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
East Discom	141.17	209.05	169.90	211.00
West Discom	214.23	303.56	202.06	201.99
Central Discom	159.63	231.74	204.48	165.22

3.144 Based on the above actual other income received as per audited accounts for FY 2014-15 to FY 2017-18, the Commission has considered other income which includes interest on deposits, sale of scrap, other miscellaneous receipts etc., excluding recovery from theft as per the Commission view in order for True up of FY 2013-14. The admitted other income for FY 2019-20 by the Commission is as tabulated below:

Table 77: Other Income admitted for FY 2019-20 (Rs. Crore)

Particulars	East	West	Central	State
Other Income	184.16	201.66	184.84	**570.66**

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

Table 78: Aggregate Revenue Requirement (ARR) as admitted (Rs Crore)

Particulars	East	West	Central	State
Power Purchase Cost	7010.13	8892.29	5815.11	21717.53
Inter State transmission charges	468.81	533.16	530.16	1532.13
Intra state transmission charges including SLDC	822.89	1054.50	876.59	2753.97
O&M Expenses	1782.74	1824.82	1710.97	5318.54
Depreciation	133.16	110.18	183.08	426.41
Interest & Finance Charges				
On Project Loans	136.02	70.50	224.03	430.55
On Working Capital Loans	86.77	66.62	51.78	205.17
On Consumer Security Deposit	50.53	72.40	67.62	190.54
Return on Equity	251.80	186.39	348.44	786.63
Bad & Doubtful Debts	2.00	2.00	2.00	6.00

Particulars	East	West	Central	State
Total Expenses admitted	**10744.85**	**12812.85**	**9809.77**	**33367.47**
Other income+Non Tariff Income	184.16	201.66	184.84	570.66
Net total Expenses	**10560.69**	**12611.19**	**9624.93**	**32796.81**
Impact of True-Up Amounts of Past Years				
Impact of True up for MP Genco for FY 16-17	21.17	25.34	20.21	66.72
Impact of True up for MPPTCL for FY 16-17	144.46	185.12	153.89	483.46
Impact of true up of MP State Discoms of FY 2013-14	1056.48	1354.00	1509.00	3919.48
Impact of True up for MPPGCL for FY 17-18	(188.88)	(226.15)	(180.37)	(595.41)
Total impact of True-Up Amounts of Past Years	**1033.22**	**1338.30**	**1502.73**	**3874.25**
Total ARR	**11593.91**	**13949.49**	**11127.66**	**36671.06**

Segregation of admitted ARR between Wheeling and Retail Sales activities

3.146 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.

3.147 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.

3.148 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

3.149 On the basis of above, the ARR for FY 2019-20 for all the three Discoms is segregated as under:

Table 79: Total ARR as admitted (Rs. Crore)

Particulars	East	West	Central	Total
Power Purchase Cost including MPPMCL cost	7010.13	8892.29	5815.11	21717.53
PGCIL charges	468.81	533.16	530.16	1532.13
Transco Charges (MP TRANSCO) including Terminal Benefits	822.89	1054.50	876.59	2753.97
Total impact of True-Up Amounts of Past Years	1033.22	1338.30	1502.73	3874.25
(A) Sub Total- Power Purchase Cost	**9335.05**	**11818.25**	**8724.58**	**29877.88**
Wheeling Activity				
O&M cost	1782.74	1824.82	1710.97	5318.54
Depreciation	133.16	110.18	183.08	426.41
Interest on Project Loans	136.02	70.50	224.03	430.55
Return on Equity	251.80	186.39	348.44	786.63
Interest on Working Capital – Wheeling	21.97	22.46	21.56	66.00
(B) Sub Total- Wheeling ARR for FY 2019-20 as approved	**2325.70**	**2214.35**	**2488.08**	**7028.13**
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	50.53	72.40	67.62	190.54
Interest on Working Capital – Retail	64.79	44.16	30.22	139.17
Less: Other Income - Retail & Wheeling	184.16	201.66	184.84	570.66

Particulars	East	West	Central	Total
(C) Sub Total- Retail ARR for FY 2019-20 as approved	**(66.84)**	**(83.10)**	**(85.00)**	**(234.95)**
Total ARR for FY 2019-20	**11593.91**	**13949.49**	**11127.66**	**36671.06**

Revenue from existing tariffs

3.150 The consumer category wise revenue including rebate/incentives at existing tariff, admitted for FY 2019-20 is presented in the table below:

Table 80: Revenue including rebate/incentives at existing tariffs in FY 2019-20 (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	5,780	3,503	4,472	2,684	5,455	3,389	15,707	9,577
LV-2: Non-Domestic	1,212	1,028	1,214	1,117	1,011	933	3,437	3,078
LV-3: Public Water Works & Street Light	441	250	506	301	368	224	1,315	775
LV-4: Industrial	451	359	645	542	355	285	1,451	1,186
LV-5 Agriculture and Other allied use	6,135	3,078	9,390	4,818	5,515	2,893	21,039	10,789
LV-6 E-Vehicle/E-Rickshaws	1	1	1	1	1	1	3	2
HV: Categories								
HV-1: Railway Traction	55	27	-	-	55	27	111	54
HV-2: Coal Mines	468	366	-	-	27	24	495	390
HV-3.1: Industrial	1,701	1,257	2,729	2,040	2,674	1,899	7,104	5,195
HV-3.2: Non-Industrial	273	237	444	348	427	276	1,145	861
HV-3.3: Shopping mall	10	7	71	57	24	16	104	81
HV-3.4: Power Intensive Industries	691	453	1,112	679	309	168	2,112	1,300
HV-4: Seasonal and Non-Seasonal	8	8	13	11	2	2	23	20
HV-5: Irrigation, PWW and other than Agriculture	136	88	714	419	254	141	1,103	648
HV-6: Bulk Residential Users	268	170	32	20	157	98	457	288
HV-7: Synchronization/ Start-up Power	1	4	19	17	2	2	22	22

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)
HV-8: E-Vehicle/E-Rickshaws	2	1	3	2	3	2	9	6
Total	**17,634**	**10,839**	**21,365**	**13,055**	**16,639**	**10,376**	**55,638**	**34,270**

Gap / surplus at existing tariffs:

3.151 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 81: Final ARR and revenue from existing tariffs (Rs Crore)

Particulars	East	West	Central	State
Total ARR for FY 2019-20 (A)	**10560.69**	**12611.19**	**9624.93**	**32796.81**
Impact of True up for MP Genco for FY 16-17	21.17	25.34	20.21	66.72
Impact of True up for MPPTCL for FY 16-17	144.46	185.12	153.89	483.46
Impact of true up of MP State Discoms of FY 2013-14	1056.48	1354.00	1509.00	3919.48
Impact of True up for MPPGCL for FY 17-18	-188.88	-226.15	-180.37	-595.41
Total True-up (B)	**1033.22**	**1338.30**	**1502.73**	**3874.25**
Total ARR for FY 2018-19 (A+B=C)	**11593.91**	**13949.49**	**11127.66**	**36671.06**
Revenue at existing Tariffs (D)	**10838.56**	**13055.30**	**10376.44**	**34270.30**
Uncovered Gap/Surplus (D-C=E)	**755.35**	**894.19**	**751.22**	**2400.76**
Revenue at Proposed Tariffs (F)	**11593.91**	**13949.49**	**11127.66**	**36671.06**
Uncovered Gap/Surplus (F-C=G)	**0.00**	**0.00**	**0.00**	**0.00**

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 2019-20, the expenditure towards wheeling activity for all the Discoms is Rs. 7,028.13 Crore, as admitted in previous section (Table-79).

Segregation of costs among voltage levels

4.3 The costs of distribution 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, they are not directly connected to the distribution system. Certain costs 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 82 : Voltage-wise Cost Break-up of Sub transmission & Distribution Lines

Voltage level of Lines	East (ckt-kms)	West (ckt-kms)	Central (ckt-kms)	State (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crore)
33KV	19,002.21	17,020.00	17,756.76	53,778.97	14.37	7,730.59
Below 33 KV						

Voltage level of Lines	East (ckt-kms)	West (ckt-kms)	Central (ckt-kms)	State (ckt-kms)	Per unit cost (Lakh Rs./ckt-km)	Total Cost of lines (Rs. Crore)
(a) 11 KV	1,36,642.25	1,32,811.00	1,76,562.34	4,46,015.59	13.61	60,723.01
(b) LT	1,25,971.24	1,69,212.00	1,47,070.61	4,42,253.85	7.09	31,360.35
(c) Sub-Total	2,62,613.49	3,02,023.00	3,23,632.95	8,88,269.44		92,083.37
Total	**2,81,615.70**	**3,19,043.00**	**3,41,389.71**	**9,42,048.41**		**99,813.96**

Table 83 : Total cost of transformer voltage level

Transformer Voltage Level	East (MVA)	West (MVA)	Central (MVA)	State (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11KV Transformer	9,715.45	11,893.28	11,000.60	32,609.33	43.74	14,348.10
11/0.4KV Transformer	9,077.17	15,499.00	14,337.75	38,913.92	2.95 per 100 KVA	11,479.61
Total	**18,792.62**	**27,392.28**	**25,338.35**	**71,523.25**		**25,827.71**

4.7 Data for length of lines and transformation capacity expected to be added during FY 2019-20 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 11kV network and the power transformers of 33/11 kV to be a part of the 33kV network. Based on this method, the asset values at different voltage levels work out to:

Table 84 : Identification of value of network at each voltage level (Rs. Crore)

Voltage level	Cost of Lines	Cost of Transformation	Total Cost
33KV	7,730.59	14,348.10	22,078.69
Below 33 KV	92,083.37	11,479.61	1,03,562.97
Total	**99,813.96**	**25,827.71**	**1,25,641.66**

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

Table 85 : 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	22,078.69	17.57%	7,028.13	1,235.04

Voltage level	Assets value (Rs. Crore)	Assets value Ratio (%)	Total wheeling cost (Rs Crore)	Allocation of Wheeling Cost (Rs Crore)
Below 33 KV	1,03,562.97	82.43%		5,793.10
Total	**1,25,641.66**	**100.00%**		**7,028.13**

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 86 : Allocation of wheeling cost over distribution system users

Sr. No.	Particulars	Units	Amount
A	Wheeling Cost at 33 kV (Rs. Crore)	Rs. Crore	1,235.10
B	Sales at 33 kV (MU)	MU	7,416.99
C	Total Sales (MU) {excluding sales at 132 kV}	MU	51,197.84
D	Proportion of 33 kV sales to total sales (%)	%	14.49%
	Cost allocation		
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D) (Rs Crore)**	**Rs. Crore**	**178.92**

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 87 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs. /kWh)
EHT	-	-	-
33 kV	178.93	7,416.99	0.24

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) <u>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:</u>

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 28th 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 88 : 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	69,354.14	21,717.53	3.13

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 89 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	4.55%
33 kV (only 33 kV system)	5.89%

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 2019-20 are worked out as under:

Table 90 : Transmission Charges

Particulars	Unit	Quantity
PGCIL Charges	Rs. Crore	1,532.13
MPPTCL Charges	Rs. Crore	2,753.97
Total Charges	**Rs. Crore**	**4,286.10**
Units to be handled by MPPTCL	MU	69,353.12
Transmission Charges	**Rs/kWh**	**0.62**

4.20 Finally, the term in the Tariff Policy formula 'T', Average Tariff for each category, is derived from their expected revenue for FY 2019-20.

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

4.22 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV, under various scenarios, is 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 2019-20, 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 91 : 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	3.13	3.33	3.49	0.62	0.24	4.35
2	3.13		3.28	0.62		3.90

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]
3	3.13		3.28	0.62		3.90
4	3.13	3.33	3.49		0.24	3.73

Table 92 : 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	4.89	0.98	0.99*	0.98
HV- 2: Coal Mines	8.48	1.70	4.13	1.70
HV- 3.1: Industrial	7.86	1.57	3.51	1.57
HV- 3.2: Non-Industrial	8.08	1.62	3.74	1.62
HV-3.3: Shopping Malls	8.15	1.63	3.81	1.63
HV-3.4: Power Intensive Industries	6.50	1.30	2.16	1.30
HV-4: Seasonal	9.35	1.87	5.01	1.87
HV- 5: Public Water Works	6.49	1.30	2.15	1.30
HV- 6:Bulk Residential Users	6.65	1.33	2.31	1.33

* CSS for HV-1: Railway Traction is applicable as per Scenario-3

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' submission

4.24 The Petitioners submitted that the Tariff Policy, 2016 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 Commissions 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 National Tariff Policy, 2016 on the basis of latest data for previous 12 months commencing from September 2017 to August 2018.

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 93 : 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-17	5,822.73	5,422.71	400.02	1.73	19.48	3.36
Oct-17	6,256.12	5,953.44	302.68	1.31	24.24	3.18
Nov-17	6,295.19	5,902.03	393.16	0.70	27.07	1.90
Dec-17	6,871.89	6,093.52	778.37	0.86	21.31	1.83
Jan-18	7,052.35	6,334.72	717.63	1.02	28.54	2.91
Feb-18	6,321.45	5,447.66	873.79	1.31	34.15	4.46
Mar-18	7,031.77	6,376.39	655.38	1.41	30.59	4.30
Apr-18	6,970.42	6,327.55	642.87	1.23	27.68	3.40
May-18	6,745.01	6,312.31	432.69	1.45	30.66	4.43
Jun-18	7,298.50	6,210.57	1087.93	1.14	25.53	2.91
Jul-18	6,480.29	5,890.34	589.95	1.51	31.61	4.78
Aug-18	6,840.58	6,075.33	765.25	1.39	23.77	3.31

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)
Total	**79,986.30**	**72,346.57**	**7,639.73**		**324.63**	**40.79**
Additional Surcharge on OA Consumers (Rs./Unit) (6)/(5)*10						**1.26**

4.29 The Petitioners have thus determined the additional surcharge of Rs 1.26 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 submission 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 National 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 2019-20 on the basis of latest data made available by Petitioners for previous 12 months commencing from September 2017 to August 2018. 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 94 : Determination of additional surcharge

Sr. No	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**	**4**	**5=3-4**	**6**	**7**	**8=(7*6)**
1	Sep-17	5822.73	5422.71	400.02	0.59	19.48	2.23
2	Oct-17	6256.12	5953.44	302.68	0.65	24.24	3.17
3	Nov-17	6295.19	5902.03	393.16	0.69	27.07	1.28
4	Dec-17	6871.89	6093.52	778.37	0.73	21.31	1.27
5	Jan-18	7052.35	6334.72	717.63	0.67	28.54	1.85
6	Feb-18	6321.45	5447.66	873.79	0.57	34.15	2.37
7	Mar-18	7031.77	6376.39	655.38	0.69	30.59	2.24
8	Apr-18	6970.42	6327.55	642.87	0.76	27.68	1.86
9	May-18	6745.01	6312.31	432.69	0.87	30.66	1.73
10	Jun-18	7298.50	6210.57	1087.93	0.59	25.53	1.77

Sr. No	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**	**4**	**5=3-4**	**6**	**7**	**8=(7*6)**
11	Jul-18	6480.29	5890.34	589.95	0.65	31.61	2.40
12	Aug-18	6840.58	6075.33	765.25	0.69	23.77	2.06
Total		**79986.30**	**72346.57**	**7639.73**		**324.63**	**24.23**
Additional Surcharge on OA Consumers (Rs./Unit) (8)/(5)*10							**0.746**

4.32 The Commission has thus determined the additional surcharge of Rs 0.746 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

Petitioners' 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 submitted that average power purchase cost should be considered instead of the variable costs only, and proposed the following formula:

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

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 be 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 by 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, 2015, as amended from time to time, 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 Tariff Orders of respective generating stations, as 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 95: 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 Order, 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 96: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

Month/Year	**PGCIL Losses***		**MPPTCL Losses****	**Distribution Losses*****
	Region	**%**	**%**	**%**
January-2019	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
	N. R.	5.35%		
February-2019	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
	N.R.	5.35%		
March-2019	W.R.	3.57%	2.71%	15.91%
	E.R.	2.29%		
	N.R.	5.35%		
April-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
May-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
June-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
July-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
August-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
September-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		

Month/Year	**PGCIL Losses***		**MPPTCL Losses****	**Distribution Losses*****
	Region	**%**	**%**	**%**
October-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
November-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
December-2019	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
January-2020	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
February-2020	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		
March-2020	W.R.	3.18%	2.71%	15.92%
	E.R.	1.90%		
	N.R.	3.58%		

* PGCIL Losses: % PGCIL loss is based on input separately from E.R., N.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 2019-20 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, National 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 13th February, 2019, uniform retail supply tariffs for each consumer category in all the three Discoms shall be continued for FY 2019-20.

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, etc., 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 2019-20 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 97: 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	4,441	7,417	43,781	55,638
Technical and Commercial losses submitted by the Petitioner	%	4.55%	5.89%	14.00%	20.06%
Energy input submitted	MU	4,652	8,257	57,059	69,968
Energy input admitted	MU	4,618	8,174	56,562	69,353
Energy lost admitted (Technical up to 33kV and 11 kV + LT- technical and commercial)	MU	177	757	12,781	13,715
Commercial loss assumed as 50% of 11kV and LT overall losses	MU			6,390	6,390
Balance 50% commercial losses for all voltage in proportion to sales	MU	510	852	5,028	6,390
Net energy loss admitted	MU	687	1,609	11,419	13,715
Net energy input	MU	5,128	9,026	55,200	69,353
Power Purchase Costs - allocated based on voltage-wise net energy input	Rs. Crore	1,908	3,398	20,697	26,004
Other costs - allocated based on voltage-wise sales	Rs. Crore	605	960	5,799	7,364
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	46	75	449	571
Recoveries of Past	Rs. Crore	310	522	3,042	3,874
Total Costs (ARR requirement)	Rs. Crore	2,777	4,805	29,089	36,671
Voltage-wise Cost of Supply	**Rs. /unit**	**6.25**	**6.48**	**6.64**	**6.59**

6.9 Consumer category wise approximate cross-subsidy, worked out based on voltage wise cost of supply, for FY 2019-20 is shown in the table below:

Table 98: Cross-subsidy based on voltage wise cost of supply for FY 2019-20 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			
LV-1: Domestic Consumers	6.64	6.41	96%
LV-2: Non-Domestic	6.64	9.40	141%
LV-3: Public Water Works	6.64	6.34	95%
LV-4: Industrial	6.64	8.78	132%
LV-5. Agriculture	6.64	5.59	84%
LV-6 EV Charging Station	6.64	6.02	91%
HV-Category			
HV-1: Railway Traction	6.25	4.89	78%
HV-2: Coal Mines	6.38	8.48	133%
HV-3.1: Industrial	6.39	7.86	123%
HV-3.2: Non-Industrial	6.52	8.08	124%
HV-3.3 Shopping mall	6.49	8.15	126%
HV-3.4 Power Intensive	6.41	6.50	101%
HV-4 Seasonal & Non-seasonal	6.50	9.35	144%
HV-5: Irrigation, PWW and Agriculture & allied activities	6.40	6.49	102%
HV-6: Bulk Residential Users	6.49	6.65	102%
Total	**6.59**	**6.59**	**100%**

6.10 While determining the tariffs for FY 2019-20, 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 2019-20 works out to Rs. 6.59 per unit as against Rs. 6.03 per unit for FY 2018-19. The table below shows the cost coverage (Average realization in percentage of Average cost of supply) on account of tariff for FY 2019-20, as compared to the cost coverage in the tariff order for FY 2018-19:

Table 99: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2018-19 (as per tariff order)	FY 2019-20 (achieved as per this tariff order)
LV categories		
Domestic	101%	97%
Non-domestic	139%	143%

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2018-19 (as per tariff order)	**FY 2019-20 (achieved as per this tariff order)**
Public water works & Street Light	95%	96%
Industrial	132%	133%
Agriculture	84%	85%
HV categories		
Railways	92%	74%
Coal Mines	126%	129%
Industrial	117%	119%
Non-industrial	133%	123%
Irrigation, PWW and Other than agriculture	103%	99%
Bulk residential users	103%	101%

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.

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 2019-20. These changes are mentioned in following paragraphs:

i. **Consumption slab restructuring for LV 1.2:** The 51 to 100 units slab and 101 to 300 units slab have been restructured as 51 to 150 units and 151 to 300 units consumption slabs, respectively.

ii. **Merger of sub-categories:** To reduce the complexity in tariffs, the Commission has merged the following sub-categories:

a. In LV 3 Public Water Works and Street Light category, the sub-categories LV 3.1 Public Water Works and LV 3.2 Street Light, have been merged.

iii. **Additional fixed charge for X-Ray Plants:** In LV 2 Non-Domestic category, additional fixed charges applicable for X-Ray plants (single phase and three phase) and dental X-Ray machine have been discontinued.

iv. **Billing of LV 5.4 Agriculture flat rate consumers**: Taking into account subsidy for agriculture category, consumers having load below 10 HP will be billed only Rs. 700 per HP per annum. The consumers above 10 HP will continue to be billed at Rs. 1400 per HP per month.

v. **Pumps for fodder farming at Gaushalas:** The pumps for fodder farming in gaushalas has been included in LV 5.1 & 5.4 Agriculture and allied services category.

vi. **Tariff for E-vehicles/E-Rickshaw charging stations**: The tariff for LV and HV e-vehicles / e-rickshaw charging stations has been retained at same level with no increase.

vii. **Fixed charges for Excess load:** Both HV and LV consumers, having demand-based tariff, shall restrict their maximum demand in any month to 120% of the contract demand, instead of 115%. If maximum demand of the consumer in any month is between 120% to 130% of contracted demand, excess demand shall be charged at 1.3 times the normal fixed charges. If maximum demand during the month more than 130%, of contracted demand, consumer will be charged 2 times the normal tariff for excess demand.

viii. **Incentive for prompt payment:** Incentive for prompt payment for LT Consumer category has been increased from 0.25% to 0.5% of the billed amount for that month. The rebate has been extended to consumers having minimum billed amount of Rs. 10,000 as against minimum billed amount of Rs. 1,00,000.

ix. **Online Payment Rebate:** The bill paid through RTGS/NEFT transaction shall also be eligible for the online bill payment rebate.

x. **Prorating of consumption for billing:** The Commission has allowed the Discoms to pro-rate the consumption for days when consumption recorded is for the duration other than the respective days of the month, so as to safeguard against the disadvantages due to slab-wise billing.

xi. **Tariff for HV 1 Railway Traction:** The tariff for HV 1 Railway Traction has not been changed.

xii. **Rebate to existing HV 3 category consumers (all sub-categories):** The rebate for incremental consumption for HV -3 category consumers (Industrial, Non -industrial, Shopping Malls and Power Intensive) has been increased from 60 paisa/kWh to Rs. 1/kWh for the incremental consumption.

xiii. **Rebate to new HV 3 category consumers (all sub-categories):** The condition has been suitably revised.

xiv. **Other rebates for HV 3 category consumers:** The duration of rebate for captive power plant consumers, open access consumers and rebate for conversion of existing LT Industrial/Non-domestic connection to corresponding HT connection has been extended for FY 2019-20.

xv. **Tripartite Agreement for Shopping Malls:** For HV 3.3 Shopping Malls category, the clause regarding tripartite agreement between end-user, mall management and Discom has been discontinued.

xvi. For HV consumers availing higher demand than the limit specified in the MP Supply Code, 2013, surcharge will be billed on incremental units, proportionate to enhanced recorded demand, and demand charge will be billed on the enhanced demand, at the rates specified in the General Conditions for HT consumers.

A7: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2018-19

The response submitted by Discoms on the directives issued by the Commission in the Retail Supply tariff order for FY 2018-19 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 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.

East Discom submission:
Compliance of directives has been submitted vide letter no.EZ/CGM/COMM/TRAC/96 dated 08/01/2019.

Central Discom submission:
The Quarterly reports of meterization is being submitted to MPERC regularly. The meterization plan of Central Discom for agriculture predominant DTR and Rural DLF is as follows: -

Sr. no.	Particulars	Unit	Total	Balance for meterisation	Proposed Quarterly Plan for Meterisation					
					Dec.'18	Mar.'19	June'19	Sept.'19	Dec.'19	Mar.'20
1	Agriculture predominant DTR	No.	2,57,955	1,71,446	28500	28500	28500	28500	28500	28946
2	DLF Un-metered	No.	8,25,888	8,25,888	140000	140000	140000	140000	140000	125888

West Discom submission:
The meterization of predominantly agricultural DTRs has already been incorporated in the Capex plan of the Discom and the same has already been submitted before Hon'ble commission. It involves an expenditure of around Rs 273 crores to complete the meterization of such DTRs. Discom would execute the work as per availability of financial assistance from appropriate agencies. During the meeting held in Hon'ble MPERC, Discom has raised concern over implementation of meterization of agriculture DTRs. Accordingly it was decided that a team comprising officers of Hon'ble MPERC, Discoms and MPPMCL may be deputed to visit other states such as West Bengal and Gujarat and based on feedback of the visit further methodology would be decided

Commission's observations/ directions:

The Commission has noted the submission of Discoms and has obtained the latest reports from the Discoms for Quarter ending March-2019. The Commission has observed that the progress of the Discoms regarding DTR meterization for the FY 2018-19 is not satisfactory. The Commission further directs the Discoms to take all necessary steps to achieve 100% meterization of pre-dominant Agricultural DTRs and submit the progress report to the Commission on quarterly basis. The Commission further directs the Discoms to expedite feeder meterization and DTR meterization on priority basis and submit the action plan by 30th November, 2019.

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:
East Discom printed Tariff Booklets for FY 2018-19 and has arranged to provide the same to HT Consumers. For LT consumers' message regarding no hike in tariff for FY 2018-19 has been delivered in Hindi through consumer bill.

Central Discom submission:
The Petitioner submitted that information related to tariff of different categories for FY 2018-19 has been provided to the consumers through tariff cards for LT Consumers and Tariff schedule booklets for all HT Consumers.

West Discom submission:
The Petitioner hereby submit that the detailed information related to tariff of different LT categories for FY 2018-19 was provided to the consumers. Further, tariff schedule booklets for all HT Consumers were provided to the consumers.

Commission's observations/ directions:
The Commission has noted the submission of Discoms and directs that the practice of providing tariff cards based on new tariff 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 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.

East Discom submission:

A comprehensive report on this issue has been submitted to the Commission vide letter no 2201 dated 29th December, 2018.

Central Discom submission:
The petitioner submitted that the report is under progress. This report would be submitted soon to the Commission.

West Discom submission:
A comprehensive report on this issue has been submitted to the Hon'ble Commission vide letter no MD/WZ/05/COM/TRAC/1452 dated 19th January, 2019.

Commission's observations/ directions:
The Commission has noted the submissions of Discoms and directs Discoms to submit a comprehensive report to the Commission by 30th November, 2019 including consumer wise and category wise increase/decrease in sales and revenue, for each rebate/incentives/surcharge based on new tariff structure 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 by 30th Sep, 2018.

Consolidated submission:
Detailed technical study of distribution network to ascertain the voltage wise cost of supply is associated with the study of segregation of technical and commercial losses. The study of Segregation of Technical and Commercial losses has been carried out by the consultant on the selected feeders proposed from each Discom and a comprehensive report has been prepared. The Central Discom has submitted the study report to the Commission, whereas the East and the West Discoms are analysing the data and shall be submitted the report shortly. Further, once the Commission approves the recommendations of the said report, a comprehensive study regarding ascertaining of voltage wise cost of supply will be taken by the Discoms.

Commission's observations/ directions:
The Commission noted the submission of Discoms. The Commission is not satisfied with the progress made by Discoms towards carrying out the technical studies to ascertain voltage-wise cost of supply. As the Consultant has already submitted the report on segregation of technical and commercial losses to Discoms, the Commission directs the Discoms to submit the report on the subjected study taking into consideration the Consultant's report on segregation of losses by 30th November, 2019.

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

Commission's Directives:
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.

Consolidated submission:
Petitioner submitted that a comprehensive report on this issue, duly linked with excel sheet, has been submitted by MPPMCL to the Commission vide letter no CGM (RM)/COD TO FY-19/1027, dated 2nd January, 2019.

Commission's observations/ directions:

The Commission has taken note on the submission made by Discoms.

7.6 Segregation of Technical and Commercial losses

Commission's Directives:
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.

East Discom submission:
Petitioner submitted that it has carried out the technical analysis through CYMDIST software and average technical losses calculated for the network is mentioned as under:

Summary of Technical loss details at Sub-transmission and distribution level		
Sr. No	**Particulars**	**% Technical loss**
1	33kV Network (include PTR loss)	5.7%
2	33/11 KV Substation (Excluding PTR loss i.e. 0.7%)	1.0%
3	11 kV Network (inclusive of DTR loss i.e. 2.6 %)	6.9%
5	LT Network	1.3%
6	Service Cable	2.3%
7	Hotspot, joints and LT bushing to LT DB etc.	1.5%
Total Technical loss %		18.7%

A copy of the detailed report on segregation of technical and Commercial losses has been submitted by East Discom vide letter no. EZ/CGM/Comm/TRAC/1014 dated 20th May,.2019, the soft copy of the same was submitted as Annex-3(iii)EZ to the Petition.

Central Discom submission

The Petitioner submitted that a study has been carried out on the selected feeders from Central Discom and a comprehensive report has been prepared. The said report has been submitted by the Central Discom to the Commission vide letter No.MD/CZ/R.A./2007 dtd 28th December,.2018.

West Discom submission

The desired study has been submitted before the Commission by the MPPMCL, Jabalpur, vide letter no. CGM (RM)/COD TO FY-19/1261 Jabalpur dated 11th March, 2019.

Commission's observations/ directions:

The Commission has noted the submission of Discoms.

7.7 Transfer of funds to Pension and Terminal Benefit Trust Fund

Commission's Directives:

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.

Consolidated submission:

The MP Vidyut Abhiyanta Sangh has filed a petition (13/2018) before the Commission. PMCL/Discom has filed its reply before Commission. The matter is under adjudication before the Commission.

Commission's observations/ directions:

The Commission has taken note of the submission and the separate proceedings are in progress on this matter.

7.8 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.

East Discom submission:

The Petitioner submitted that the 61,917 stopped/defective meters were replaced under IPDS scheme till November, 2018 and 1,48,133 stopped/defective meters were attended departmentally from November 2018 to December 2018.

The Discom is working on meterization plan approved by Energy Department GoMP on dated 3rd November, 2018. As per this plan 100% meterization has to be achieved by March,2020.

West Discom submission

The Petitioner submitted that the replacement of Stopped/defective meters is a continuous process and. 40,800 stopped/defective meters has been replaced upto September, 2018. The Discom has prepared comprehensive meterization plan and is working on the same.

Central Discom Submission

The petitioner submits that the status of Stop defective meters as on Sept.2018 & action plan for replacement thereof is as follows: -

Consumers with defective meters as on Sept' 2018	**Proposed Meterization Plan**						
	Nov-Dec'18	**Jan-Mar'19**	**Apr-Jun'19**	**Jul - Sep'19**	**Oct-Dec'19**	**Jan-Mar'20**	**Total**
238015	39798	39774	39618	39618	39618	39589	238015

The Status of Energy Audit Metering at 33/11 KV levels as on September, 2018 is tabulated below:

S.No.	**Particulars**	**33KV Feeders**	**11KV Feeder**
1	No. of feeders (Points)	1911	5239
2	No. of feeders which are provided with energy audit metering	1911	5239
3	Out of Sr.No.2 above, the no. of feeders where energy audit meters are lying defective	2*	42*
4	No. of feeders on which energy audit meters are yet to be provided	0	0

Commission's observations/ directions:

The Commission has taken note of the submission. The Commission directs the Discoms to submit the progress report to the Commission on quarterly basis and submit the action plan for 100% meterization by 30th November, 2019.

7.9 Alignment of R15 statement as per the tariff slabs defined in tariff schedule of Retail Supply tariff order for FY 2018-19

Commission's Directives:

The Petitioners are directed to align of R15 statement as per the tariff slabs defined in tariff schedule of Retail Supply tariff order for FY 2018-19.

East Discom submission:

The software modifications for LT system have been completed and the R-15 for the month of February, 2019 has been uploaded on the R-15 website. The generation and uploading of tariff-wise HT R-15 is under Testing by Tata Consultancy Services and will be made available from April, 2019 onwards.

Central Discom submission:

The petitioner submitted that the alignment of R15 as per the tariff slabs defined in tariff schedule of retail supply tariff order for FY 2018-19 is in process. It will be aligned within two months.

West Discom submission:

All three Discoms are working on this direction and East Discom is acting as nodal company for this task. East Discom vide letter no CGM/COMM/TRAC/2056 dated 3.12.2018 has submitted action plan to the Commission.

Commission's observations/ directions:

The Commission has noted the Petitioners' submission and has observed that R-15 submitted by the Petitioners is still not aligned with categories, sub-categories and slabs in the tariff Schedule. The Commission hereby directs the Petitioners to align R-15 strictly with the categories, sub-categories and slabs of the Tariff Schedule as per the new Tariff structure at the time of filing next tariff petition.

7.10 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.

East Discom submission:

The Petitioner stated that the Capital expenditure and Capitalization details have been submitted to the Commission vide EZ letter no.1300 dtd 23rd July, 2018. Asset register in notepad format has been submitted to the Commission on 15th March, 2018 during the meeting conducted by the Commission at Bhopal regarding GFA issue w.r.t. filling of ARR of FY 2018-19. The Commission vide email dated 22nd October, 2018 has directed to provide asset register in Excel Format, development of same is under progress and will be submitted to the Commission on completion.

West Discom submission:

Assets Register generated via ERP System of the Company, showing full details of Assets, according to assets class wise duly tallied with Audited Account up to FY 2016-17, has already been submitted to the Commission at the time of ARR of 2018-19. The Assets register up to FY 2017-18 shall be submitted as per the instructions of the Commission.

With regard to scheme wise detail of capital expenditure Petitioner submitted that such bifurcated scheme wise detail is not available in the audited accounts. However, the format in which the

Commission has desired assets register shall be submitted in further course of time and for this the Board of Directors of the Company has also directed Civil and works sections of company to make initially it on pilot basis of one circle. Thus, the preparation of Assets Register in the format of the Commission is in process.

Central Discom submission:

Petitioner submitted that the asset register in Central Discom is maintained at a Division Level. As the ERP for Central Discom is still under implementation, the Discom requested the Commission for time extension

Commission's observations/ directions:

The Commission has noted the submissions of Petitioner. The Commission is not satisfied with the progress made by Discoms in preparing and updating the Fixed Asset Register in the format prescribed by the Commission. This issue was also discussed during the Technical Validation Session held on 27th July, 2019 during which the Discoms officials agreed that the Fixed Asset Register prepared by them is not in accordance with the format and the provisions of Tariff Regulations. The Commission once again directs the Discoms to prepare the Fixed Asset Register strictly in accordance with the format prescribed by the Commission and the provisions of Tariff Regulations and submit the same to the Commission by 30th November, 2019.

7.11 Submission of report to ascertain the consumption of irrigational pumps

Commission's Directives:

The Commission with regard to approval of revised normative units for permanent agricultural pumps connections in FY 2018-19 had directed as follows:

> *"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 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."*

In the matter, the Commission during the course of review meeting held on 23.10.2018, 25.10.2018 and 29.10.2018 with East West and Central Discom respectively has again directed the Discoms to carry out the studies based on the representatives sample sizes of agricultural DTRs /feeders to ascertain the consumption of irrigational pumps. During the review meeting, the Commission has accorded approval to West Discom proposal for spearheading a study through a team of officers drawn from other two Discoms/MPPMCL to learn the best practices adopted in States viz. West Bengal & Gujarat for measuring agricultural consumption through DTR metering in agricultural predominant area and furnish the findings to the Commission thereafter, preferably in one month time.

East Discom submission:

M/s RECPDCL have been awarded the work of providing consultancy services for analysis of losses in Narsinghpur circle of East Discom. The analysis has been conducted by M/s RECPDCL during the Off-Peak season. As per the technical and commercial analysis report submitted by the RECPDCL the losses in Agriculture feeder has been worked out as - Technical losses in the tune of 2.10 to 21.10%, AT&C losses is in the tune of 54.06 to 81.98% similarly in domestic feeder - Technical losses in the tune of 7.38 to 26.15%, Commercial losses is in the tune of 16 to 61%.

The Difference between units sanctioned by MPERC and actual consumption by consumer is analysed as below:

- During Off Peak Season**:** The average consumption of units/HP/month was around 214 units/HP/month for feeders sampled, which is 150% higher than the sanctioned unit of 80 units/HP/month indicating over consumption of units by the connected pumps.
- During On Peak Season**:** The average consumption of units/HP/month was around 257 units/HP/month for feeders sampled, which is 51% higher than the sanctioned unit of 170 units/HP/month indicating over consumption of units by the connected pumps.

The report submitted by RECPDCL is under finalization therefore the above salient points of the report is submitted for kind perusal please. M/s RECPDCL is working on the comments / observation made on reports by MPPKVVCL.

West Discom submission:

Under the West Discom, a meeting of Standing committee was held on 20/03/2019 to take decision on various matters, in this meeting it was decided that installation of 100% DTR Meter on Agriculture predominant DTR will have huge cost impact and arrangement of fund for 100% DTR meterization of agriculture pre-dominant DTR will not be easy. So the Standing committee recommended a plan for sampling of DTR on Agriculture feeders. Further, as per recommendation West Discom has identified 42 nos. Agriculture feeders having connected 1365 nos. DTR which are catering agriculture load. Therefore, the West Discom has prepared a plan for meterization of 1365 nos. of Agriculture DTR of 42 feeders. For installation of 1365 nos. of Agriculture DTR approx. cost will be around Rs. 3.25 Crore.

The West Discom has contemplated to carryout DTR meterization on OPEX Model with provision of maintenance of DTR meters for five year and providing the meter reading to Discom by the Turnkey Contractor. Bid preparation for same is under process.

Central Discom submission:

The petitioner hereby submits that the petitioner is in the process of gathering the data from 60 Feeders from 12 circles of Central Discom for the purpose of verifying the actual consumption per HP of the connection during the Kharif and Rabi Seasons. The data for per unit consumption in Oct-18 and Nov-18 has already been submitted on 15.04.2019. It can be seen from the data that the average Per HP consumption comes out to be 363 Units per HP per Month which is more than the specified normative 170 Units. It is further stated that the petitioners is in the process of creating a detailed report on the justification of the revised norm based on the actual consumption during the Kharif season which will be submitted to the Hon'ble commission in a short time.

Commission's observations/ directions:

The Commission has observed that none of the Discoms has submitted the report to ascertain the consumption of irrigational pumps with the tariff Petition as per the direction of the Commission in the last tariff order. The Commission once again directs the Petitioner to submit the report to ascertain the consumption of irrigational pumps based on 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.

New Directives

7.12 Action plan for Line Loss reduction

Commission's Directives

The Commission directs that the Discoms, in consultation with the holding company, i.e., MPPMCL, and the State Government, should finalise a comprehensive loss reduction programme along with a plan for meterization of unmetered domestic connections, action plan for line loss reduction and meterization of pre-dominantly agricultural DTRs and a system for monthly energy audit of the DTR meters. The Commission would monitor this on a quarterly basis.

7.13 Meterization of unmetered agricultural and domestic consumers

Commission's Directives:

As regards urban flat rate unmetered consumers and urban agricultural consumers connected to a feeder other than separate feeder, the Petitioners are directed to directed to complete the metrerization within FY 2019-20 only. No further extension will be granted for the same.

Annexure-1 (List of Stakeholders)

LIST OF STAKEHOLDERS- CENTRAL DISCOM - TARIFF FY 2019-20

Sl. No.	Name/ Designation of Objector	Address of Objector
1	Shri Ashwini Chitnish	M/s. Prayas, Unit III A, Devgiri, Joshi Railway Museum Lane, Kothrud Industrial Are, Kothrud, Pune 411 038
2	Ms. Shruti Bhatia	Indian Energy Exchange Ltd., Unit No. 3,4,5 & 6, Plot No. 7, Fourth Floor TDI Centre, District Centre, New Delhi
3	Dr. R.S. Goswani	M/s. Fedreation of Madhya Pradesh Chamber of Commerce & Industry, Udyog Bhawan, 2nd Floor, 129-A, Malviya Nagar, Bhopal
4	Shri S. Pal., Director	M/s. Vardhman Yarns, Vardhman Textile Limited, A1-A6, Ind. Area-II, Mandideep Distt. Raisen
5	Shri Amarjeet Singh	M/s. Govindpura Industries Association Bhopal, Association Complex, Industrial Area, Govindpura, Bhopal
6	1. Shri Hemant Gupta 2. Shri Dinesh Singhal	M/s. Amba Shakti Udyog Ltd., Plot No. 44 & 47, A.B. Road, Industrial Area, Banmor Distt. Morena 476 444
7	Shri K.N. Mathur	M/s. HEG Limited, Mandideep, Distt. Raisen 462046
8	Shri Vipin Kumar Jain	M/s. M.P.Small Scale Industries Organisation, E-2
9	Dr. Praveen Agrawal	M/s. Madhya Pradesh Chamber of Commerce & Industry, Chember Bhawan, Sanatan Dharm Mandir Marg, Gwalior 474009
10	Shri Triveni Datt Tripathi	Rastriya Kisan Majdur Mahasangh, H-1, 62, Mayuri Parisar, Ayodhya Byapass, Bhopal
11	Shri B.L. Jaonwar	EWS 11, Sector-H, Ayodhya Nagar, Bhopal 462041
12	Shri Vinay Kumar Singh Parihar	Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008
13	State General Secretary	M/s. MP Vidyut Mandal Pensioners Association, A-54, Sainath Nagar, Kolar Road, Bhopal, 462 042
14	Shri M.C. Bansal	The Justices for Public Cause Foundation, E-5, 1st Floor, Arera Colony, Bhopal 462016
15	Shri Triveni Tripathi	Rastriya Kisan Majdur Mahasangh, H-1, 62, Mayuri Parisar, Ayodhya Byapass, Bhopal
16	Shri Avaneesh Shukla	M/s. New & Renewable Energy, NRED, Bhopal
17	Shri Vikash Bondriya	BJP, Professional Cell
18	Shri Anil Kathale	M/s. Sagar Man. Pvt. Ltd.
19	Shri Dhruv Singh Tomar	Rastriya Kisan Majdur Mahasangh, Jila Sanyojak, Distt. Gwalior

Sl. No.	Name/ Designation of Objector	Address of Objector
20	Shri Ravidat Singh	Rastriya Kisan Majdur Mahasangh, Near Panchvati Petrol Pump, Kutehi, Distt. Rewa

LIST OF STAKEHOLDERS- WEST DISCOM - TARIFF FY 2019-20

Sl. No.	Name/ Designation	Address
1	Shri Pawan Singhaniya	1. M/s. Rathi Iron & Steel Industries Ltd. 103, Laxmi Tower, 576, M.G. Road, Indore 452001
2	Shri Pawan Singhaniya	M/s. Jaideep Ispat & Alloys Pvt. Ltd. Unit-I, 103, Laxmi Tower, 576, M.G. Road, Indore 452001
3		M/s. Grasim Industries Ltd. (Chemical Div.) Birlagram, Nagda 456 331
4	1. Shri S.M. Jain 2. R.S. Goyal	M/s. Venus Alloys Pvt. Ltd., 67, Industrial Area, Mandsaur - 458001 (M.P.)
5	Shri Manjit Chawala	M/s. Harman Cotex, Bistan Road, Opp. Dejla Dewada Colony, Khargone 451 001
6	Shri P.L. Nene	The Electricity Consumer Society, C/o. The Madhya Pradesh Textile Mills, 56/1, South Tukaganj, Indore 452 015
7	1. Shri Ashok Khandelia 2. 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
8	1. Shri R.D. Kirtani 2. Shri K.K. Kanani	M/s. Gajra Differential Gears Limited, Lohar Pipaliya, Kshipra, A.B. Road, Dewas
9	1. Shri Madan Lal Kataria 2. Shri R.C. Somani	M/s. Kataria Industries Pvt. Ltd., 34-38 & 44 Industrial Area, Ratlam 457 001
10	1. Shri Madan Lal Kataria 2. Shri R.C. Somani	M/s. Kataria Industries Pvt. Ltd., Unit - II, 34-38 & 44 Industrial Area, Ratlam 457 001
11	1. Shri Ashok Kataria 2. Shri R.C. Somani	M/s. Kataria Wires Pvt. Ltd. 310-13, Industrial Estate, Ratlam
12	1. Shri Pankaj Kataria 2. Shri R.C. Somani	M/s. Ratlam Wires Pvt. Ltd., Plot No. 3, Industrial Estate, Ratlam
13	1. Shri Sohan Agrawal 2. Shri R.S. Goyal	M/s. Agrawal Ginning Factory, Niwali Road, Pansemal, Distt.Barwani
14	1. Shri Rakesh Mehata 2. Shri R.S. Goyal	M/s. Jaora Flour & Foods Pvt. Ltd., Ploytechnic College Road, Jaora, Distt. Ratlam
15	1. Shri Mahesh Khandelwal 2. Shri R.S. Goyal	M/s. Shri Ginning Udhyog, Jalgaon Road, Pansemal, Distt. Barwani
16	Shri R.S. Goyal	Shriram Industires, Ginning, Pressing & Oil Mill Unit, Jalgaon Road, Pansemal, Distt. Barwani 451770

Sl. No.	Name/ Designation	Address
17	Shri R.C. Somani	M/s. Oasis Distillries Limited, H No. 102, B-2 Metro Towers, Vijay Nagar, Indore
18	Shri R.C. Somani	M/s. Kasyap Sweetners Limited, Chetanya Gram, Badnawar, Dist. Dhar (MP) – 454 660.
19	Shri R.C. Somani	M/s. Masand Agro Equipment Pvt.Ltd., 70, Shastri Market, Indore 452007
20	Shri R.C. Somani	67 CH Scheme No. 74 C, Vijaynagar Indore 452010
21	Shri R.S. Goyal,	51, Pradesh Nagar, Nemawar Road, Indore 452 001
22	Shri Hansmukh Gandhi	M/s. Cold Chain Association, MP Cold Storage Association,211, Devghar Complex, Chhavani, Indore
23	Shri Kailash Yadav	M/s. Kshipra Upbhokta Sangrakshan Samiti, 17/1 Durga Colony, Ankpat Marg, Ujjain 456006
24	1. Shri Manjit Chawala 2. Shri R.S. Goyal	M/s. Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
25	Shri Ashwini Pandey	M/s. Vidyut Mandal Pentioners Association, Indore, Urja Parisar, Pologround, Indore 452 003
26	1. Shri Sachin Agrawal 2. Shri R.S. Goyal	M/s. Agrawal Parishad, 18, Vaibhav Chamber, 1st Floor, 7/1, Ushaganj, Indore 452 001
27	1. Shri M.C. Rawat 2. Shri Gautam Kothari	The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
28	1. Shri Alok Dave 2. R.C. Somani	M/s. Association of Industries Madhya Pradesh, Udyog Bhawan, Pologround, Industrial Estate, Indore
29	Shri Gautam Kothari	M/s. Pithampur Audyogik Sangthan, 231, Saket Nagar, Indore 452018
30	Shri Sanjay Agrawal	970 Manak Chowk, Mhow, Distt. Indore
31	The Director	Bhartiya Vimanpatan Pradhikaran, Devi Ahilyabai Holder Vimanpatan, Indore
32	Shri Asheesh Singh	The Commissioner, Indore Municipal Corporation, Indore
33	Shri Govind Sharma	Mhow Congress Committee, Mhow
34	Shri Mukesh Kaushal	Grahak Panchayat, Mhow
35	Shri Shushil Sharma	M/s. Vidyut Mandal Karmchari Union, 197 K Sector A, Schim No. 71, Gumasta Nagar, Main Road, Indore

LIST OF STAKEHOLDERS- CENTRAL DISCOM - TARIFF FY 2019-20

Sl. No.	Name / Designation	Address
1	Shri D R Jeswani	M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur 482010
2	Shri Akhil Mishra	M/s. Lardganj Vyapari Sangh, 26, S.P. Market, Lordganj, Jabalpur
3	1. Shri Anil Badgotri 2. Shri Ashish Asopa	M/s. J.K. White, Katni (Unit of JK Cement)
4	Authorised Signatory	M/s. Prism Johnson Limited, Makahari, Distt. Satna 485111
5	Shri Arjun Jain	M/s. FMPCCI Bhopal, Simplex Estate, Nagpur Road, Jabalpur,
6	1. Shri Shankar Nagdeo, 2. Shri Ravi Gupta	M/s. Mahakoshal Chamber of Commerce & Industry, Chamber Bhawan, Civic Centre, Marhatal, Jabalpur 482 002
7	Shri Ravidat Singh	Rastriya Kisan Majdur Mahasangh, Near Panchvati Petrol Pump, Kutehi, Distt. Rewa
8	Shri Rajendra Agrawal	1995/A, Gyan Vihar Colony, Narmada Road, Jabalpur 408068
9	Authorised Signatory	1. M/s. Ramnik Power & Alloys Pvt. Ltd. Main Road, Balaghat 2. M/s. MP Ferro Alloys Association, C/o. Ramni Power & Alloys Pvt. Ltd. Main Road, Balaghat
10	Authorised Signatory	M/s. Jabalpur Entertainment Complexes Pvt. Ltd.,South Avenue Mall, Adjoining Perfect Pottery, Narmada Road, Jabapur 482 008
11	Shri Dhiraj Gyanchandani	M/s. Hindu Seva Parishad, 4th Floor, Near Jabalpur Hospital, Jabalpur
12	Shri D Khandelwal, Advocate	950, Napier Town, Jabalpur
13	Shri Shubhdeep Khare	Rastriya Kisan Majdur Mahasangh, Shahdol, Distt. Shahdol
14	Shri K.K. Agrawal	Bharat Krishak Samaj, Shri Shanti Shah Kisan Karyalaya, Gangotri Apartment, Gol Bajar, Distt. Jabalpur

Sl. No.	Name / Designation	Address
15	Shri Rajnarayan Bhardwaj	Plot No. 453, Sanjeevni Nagar, Gadha, Near Patel Aata Chakki, Jabalpur, Vill. Mahgawan, Teh. Patan, Distt. Jabalpur
16	Shri Vinay Kumar Singh Parihar	Madhya Pradesh Vidyut Mandal Abhiyanta Sangh, Shade No.13, Vidyut Nagar P.O., Rampur, Jabalpur-482008
17	Shri P.G. Najpandey	1. M/s. Nagrik Upbhokta Margdarsak Manch, 6/47, Ramnagar, Adhartal, Jabalpur 2. M/s. Aam Nagrik Mitra Mandal, Behind Gorakhpur Thane, Jabalpur
18	Shri Ramesh Patel	Bhartiya Kisan Union,
19	Ms. Pushpa Ben	Jabalpur

TARIFF

SCHEDULES

Annexure-2 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2019-20

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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	325	NIL

(b) Minimum Charges: Rs. 45 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	405	60 per connection	45 per connection
51 to 150 units	495	100 per connection	80 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**
151 to 300 units	630	23 for each 0.1 kW load	20 for each 0.1 kW load
Above 300 units	650	25 for each 0.1 kW load	23 for each 0.1 kW load

Minimum Charges: <u>Rs. 70 per connection</u> per month as minimum charges towards energy charges are applicable for above categories.

<u>Notes:</u>

1) 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.

2) In cases where the readings are recorded for the duration other than the respective days of the month, the consumption shall be prorated for the month so as to arrive at the proportionate units eligible for different slabs in a particular billing month.

<u>Illustration</u>
Previous Meter Reading: 5th June 2019
Next Meter Reading: 10th July 2019
Consumption period: 36 days
Consumption: 450 units

Slab-wise consumption to be considered for billing:

Slab	**Computation of Consumption on Pro-rata basis**	**Units to be considered for billing (kWh)**
0-50	50 units/30 days*36 days	60
51-150	100 units/30 days *36 days	120
151-300	150 units /30 days *36 days	180
Above 300	Balance Units	90
Total		450

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) (Mandatory Demand Based)	820	250 for each one kW of sanctioned or connected or recorded load, whichever is the highest	200 for each one kW of sanctioned or connected or recorded load, whichever is the highest
Temporary 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	355	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 upto 500 watts	75 units @ 500 per unit	80 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)	630	150 per kW	120 per kW
Demand based tariff **Mandatory** for Connected load above 10 kW	630	270 per kW or 216 per kVA of billing demand	230 per kW or 184 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	80 per kW	65 per kW
Sanctioned load based tariff (only for connected load up to 10 kW) On all units in case monthly consumption **exceeds 50 units**	765	135 per kW	115 per kW
Demand based tariff (**Mandatory** for Connected load above 10 kW)	675	290 per kW or 232 per kVA of billing demand	210 per kW or 168 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

* 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 /Bivector 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** 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, 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 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.

Tariff:

<table>
<tr><th>Category of consumers/area of applicability</th><th>Energy Charge (paise per unit)</th><th>Monthly Fixed Charge (Rs. per kW)</th><th>Minimum Charges (Rs)</th></tr>
<tr><td>LV 3</td><td></td><td></td><td></td></tr>
<tr><td>Municipal Corporation/ Cantonment board /Municipality / Nagar Panchayat</td><td>550</td><td>300</td><td rowspan="3">No Minimum Charges</td></tr>
<tr><td>Gram Panchayat</td><td>520</td><td>130</td></tr>
<tr><td>Temporary supply</td><td colspan="2">1.25 times the applicable tariff</td></tr>
</table>

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:

S. No.	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)	320 per kW or 256 per kVA of billing demand	205 per kW or 164 per kVA of billing demand	660
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 36% of CD (120% 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, irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle and pump connections for the purpose of fodder farming associated to Gaushalas.

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, irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle to whom flat rate tariff is applicable and pump connections for the purpose of fodder farming associated to Gaushalas.

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	45	460
(ii)	Above 300 units up to 750 units in the month	55	560
(iii)	Rest of the units in the month	60	585
b)	Temporary connections	60	585
c)	DTR metered group consumers	Nil	450
LV-5.2			
a) (i)	First 300 units per month	45	460
(ii)	Above 300 units up to 750 units in the month	55	560
(iii)	Rest of the units in the month	60	585

S. No.	Sub-Category	Monthly Fixed charges (Rs. per HP)	Energy charges (paise per unit)
b)	Temporary connections	60	585
LV-5.3			
a)	Up to 25 HP in urban areas	100 per HP	520
b)	Up to 25 HP in rural areas	80 per HP	500
c)	Demand based tariff (Contract demand and connected load up to 150 HP) (Mandatory above 25 HP) in urban areas	250 per kW or 200 per kVA of billing demand	590
d)	Demand based tariff (Contract demand and connected load up to 150 HP) (Mandatory above 25 HP) in rural areas	130 per kW or 104 per kVA of billing demand	590

For Agriculture flat rate consumers having load upto 10 HP

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	350	350
b)	Three phase- rural	350	350
c)	Single phase- urban	350	350
d)	Single phase- rural	350	350

For Agriculture flat rate consumers having load more than 10 HP

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 the end of the current financial year.

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 13.2.2019 has conveyed that the flat rate agriculture consumers having load upto 10 HP will pay Rs 700/- per HP per annum and flat rate agriculture consumers having load more than 10 HP will pay Rs 1400/- per HP per annum in two six monthly equal instalments. The State Government would pay subsidy to the Discoms for the difference of applicable tariff for this category and bill payable by the flat rate consumers.

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

S. No.	Particulars of Energy Saving Devices	Rate of rebate
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 /Bivector 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 120% of the contract demand, the tariff in this schedule shall apply to the extent of 120 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 120% 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 120 % 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 130 % 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 120% of the sanctioned load, the tariff in this schedule shall apply to the extent of 120 % of the sanctioned load only. The consumer shall be charged for the connected load found in excess of 120% 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 120 % 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 130 % 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 kilovolt-ampere 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 @0.50% of the bill amount (excluding arrears, security deposit, meter rent, any subsidy given by Government 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. Ten Thousand. The consumers in arrears shall not be entitled for this incentive.

(c) **Rebate for online bill payment:** Rebate of 0.50% 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.

All the rebates/incentives shall be calculated on amount excluding Government Subsidy.

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) 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 connections other than e (1) above**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 .

(f) Levy of 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.

(g) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final.

(h) 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.

(i) **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.

(j) 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.

(k) 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.

(l) Consumers in the notified Industrial Growth Centres/Industrial areas/Industrial parks receiving supply under urban discipline shall be billed urban tariff.

(m) 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.

(n) 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.

(o) 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 2019-20

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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 120% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 120% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 120% 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:

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	660	715	630
33 kV supply		705	610
132 kV supply		685	590
220 kV supply		665	570

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	340	700	600
	33 kV supply	560	690	590
	132 kV supply	650	650	550
	220/400 kV supply	650	610	510
3.2	**Non-Industrial**			
	11 kV supply	320	730	640
	33 kV supply	460	710	620
	132 kV supply	550	670	560
3.3	**Shopping Malls**			
	11 kV supply	330	710	635
	33 kV supply	380	700	600
	132 kV supply	510	650	580
3.4	**Power intensive industries**			
	33 kV supply	560	530	530
	132 kV supply	660	510	510
	220 kV supply	660	500	500

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 Rs 1/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 that no rebate shall be applicable for connections obtained by virtue of change in ownership in existing connection or by reconnection.

Provided also that new connection on the permanently disconnected premises shall only be eligible for such rebate, if, the application for new service connection on such premises is received not before the expiry of six months from the date of its permanent disconnection.

The consumer availing this rebate shall not be entitled for the rebate of incremental consumption under clause (d) above.

(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 and/or FY 2018-19 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 preceding 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 2019-20) 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**		**Incremental Consumption from Discom**	**Reduction in Captive Generation**	**Units eligible for Rs 1/unit 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 Rs 1/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 Rs 1/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 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 Rs 1/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 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 2018-19).
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 2019-20) compared to the same month in last year (FY 2018-19).

iii. The rebate shall be applicable from the date of request submitted by the consumer to the Licensee during FY 2019-20.

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	Applicable units for rebate as per clause (d) of specific terms & conditions	Rs 1/unit rebate on incrementa l units of Open Access
	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 Rs 1/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 Rs 1/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 Rs 1/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 2019-20. This rebate is applicable for FY 2019-20 for the units billed only after the commencement of HT Agreement during FY 2019-20.

(i) Additional specific terms and conditions for shopping mall

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.

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	360	680	580
33 kV supply	400	660	560
During Off-Season			
11 kV supply	Rs. 360 on 10% of contract demand or actual recorded demand during the season, whichever is higher	816 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 400 on 10% of contract demand or actual recorded demand during the season, whichever is higher	792 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 36.0% of CD (120% 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:

<table>
<tr><th>No.</th><th>Sub-Category</th><th>Monthly Fixed Charge (Rs. / kVA of billing demand per month)</th><th>Energy Charge (paise per unit)</th></tr>
<tr><td>5.1</td><td colspan="3">Public Water Works, Group Irrigation and Lift Irrigation Schemes</td></tr>
<tr><td></td><td>11 kV supply</td><td rowspan="3">320</td><td>590</td></tr>
<tr><td></td><td>33 kV supply</td><td>575</td></tr>
<tr><td></td><td>132 kV supply</td><td>540</td></tr>
<tr><td>5.2</td><td colspan="3">Other than agricultural use</td></tr>
<tr><td></td><td>11 kV supply</td><td rowspan="3">320</td><td>580</td></tr>
<tr><td></td><td>33 kV supply</td><td>570</td></tr>
<tr><td></td><td>132 kV supply</td><td>530</td></tr>
</table>

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	320	610	550
	33 kV supply		600	530
	132 kV supply		580	510
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	200	610	550
	33 kV supply		600	530
	132 kV supply		540	500

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	935

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.

Applicable Tariff:

Category	Monthly Fixed Charges	Energy Charge (Paise/unit)
HT Supply	Rs 120 per KVA of Billing Demand	590

Terms and Conditions:

a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions for High 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 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.

The provisions regarding additional charges for excess demand shall be applicable as per clause 1.15 of these conditions.

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 120% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 120% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 120% 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 120 % 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 130 % 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 120 kVA at normal tariff.

   b) Above 120 kVA up to 130 kVA i.e. for 10 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 All the rebates/incentives shall be calculated on amount excluding Government Subsidy.

1.18 **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.

1.19 **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 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 existing HT consumer requires temporary supply for the purpose of addition and/or alteration within the premises of existing HT connection, then the consumer is allowed to avail the same through its existing permanent connection to the extent of its Contract Demand and such consumer shall be billed at applicable tariff for permanent connection. Excess demand, if any, shall be treated as per the provisions in clause 1.15 above.

(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:

1.20 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 %. This additional charge of 3% shall be applicable for enhanced demand recorded for fixed charges and incremental units proportionate to enhanced demand recorded for energy charges.

1.21 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%. This additional charge of 2% shall be applicable for enhanced demand recorded for fixed charges and incremental units proportionate to enhanced demand recorded for energy charges.

1.22 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% . This additional charge of 1% shall be applicable for enhanced demand recorded for fixed charges and incremental units proportionate to enhanced demand recorded for energy charges.

1.23 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.

1.24 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.

1.25 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.

1.26 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.

1.27 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.

1.28 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.

1.29 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.

1.30 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.

1.31 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.