MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2021-22

Petition No. 05/2021

PRESENT:

S.P.S Parihar, Chairman
Mukul Dhariwal, Member
Shashi Bhushan Pathak, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Retail Supply Tariff for FY 2021-22 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 Cable	Aerial Bunched Cable
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	Compounded 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
DTR	Distribution Transformer
DVC	Damodar Valley Corporation
EA 2003	Electricity Act, 2003
EHT	Extra High Tension
ER	Eastern Region
FCA	Fuel Cost Adjustment
FY	Financial Year
GAAP	Generally Accepted Accounting Principles
GC	Group Captive
GFA	Gross Fixed Asset
GoI	Government of India
GoMP	Government of Madhya Pradesh
GPP	Gas Power Plant
GST	Goods and Service Tax
GTIS	Group Term Insurance Scheme
HP	Horse Power
HPS	Hydro Power Station

HT	High Tension
IDC	Interest During Construction
IEX	Indian Energy Exchange
IND-AS	Indian Accounting Standards
ISPS	Indira Sagar Power Station
IPDS	Integrated Power Development Scheme
IPP	Independent Power Producer
KAPS	Kakrapar Atomic Power Station
kV	kilo Volt
kVA	kilo Volt Ampere
kVAh	kilo Volt Ampere hour
kW	kilo Watt
kWh	kilo Watt hour
LED	Light Emitting Diode
LT	Low Tension
MD	Maximum Demand
MOD	Merit Order Despatch
MP	Madhya Pradesh
MPERC	Madhya Pradesh Electricity Regulatory Commission
MPPGCL or MP Genco	Madhya Pradesh Power Generating 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
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 Despatch Centre
SSP	Sardar Sarovar Project
STPS	Super Thermal Power Station
TP	Tariff Policy
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 30 th Day of June, 2021)

1.1 This order is in response to the Petition No. 05 of 2021 jointly filed by Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited, Jabalpur, Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited, Indore, and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited, Bhopal (hereinafter individually referred to as East DISCOM, West DISCOM and Central DISCOM, respectively, and collectively referred to as DISCOMs or Distribution Licensees or Licensees or the Petitioners), and MP Power Management Company Limited, Jabalpur (hereinafter referred as the MPPMCL or collectively with DISCOMs referred to as the Petitioners) before Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). This Petition has been filed under the provisions of Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2015 {RG-35 (II) of 2015) (hereinafter referred to as the MYT Regulations, 2015 and its amendments thereof), and the first, second and third amendments issued in the said Regulation (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 2021-22 latest by the 31st December, 2020.

1.3 MPPMCL and the Distribution Licensees sought time extension for filing of the Petition upto 15th January, 2021. Considering the plea of the Petitioners, the Commission granted time extension upto 15th January, 2021.

1.4 MPPMCL and Distribution Licensees jointly filed the Petition (No.05/2021) on 15th January, 2021.

1.5 The motion hearing on the Petition was held by the Commission on 9th February, 2021 vide which the Commission admitted the Petition and directed the Petitioners to submit draft public notice for approval of the Commission.

1.6 Subsequently, the Commission directed the Petitioners to publish the public notice as approved by the Commission in Hindi and English in the prominent newspapers of the State latest by 12th February, 2021 for inviting objections /comments/suggestions from the stakeholders on the subject Petition by 8th March, 2021. Accordingly, the Petitioners published the public notice on 12th February, 2021 in the following newspapers as shown in the table below:

Table 1 : List of Newspapers- Public Notice published by the Petitioners'

Newspaper	Language
Free Press, Indore	English
Pradesh Today, Indore	Hindi
The Hitavada, Jabalpur	English
Dainik Bhaskar, Jabalpur	Hindi
Dainik Bhaskar, Sagar	Hindi

Newspaper	Language
Peoples Samachar, Bhopal	Hindi
Raj Express, Gwalior	Hindi

1.7 In response of the public notice, the Commission received 50 comments (East DISCOM: 14 Nos., Central DISCOM: 8 Nos., West DISCOM: 28 Nos.) from different stakeholders. The Commission scheduled the Public Hearing on 9th March, 2021 through video conferencing and heard the objections/comments/suggestions of the stakeholders.

1.8 MPPMCL and Distribution Licensees through their Petition filed before the Commission on 15th January, 2021, have submitted the ARR and prayed to recover a gap of Rs 2,629 Crore through a tariff hike of 6.23%. Gist of the Petition is given below:

Table 2 : Snapshot of the Petition for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Revenue from sale of power as per existing tariff	12,679	16,191	13,315	42,185
Aggregate Revenue Requirement	13,479	17,173	14,162	44,814
Revenue Gap in Income and Expenditure for FY 2021-22	**801**	**982**	**846**	**2,629**

1.9 On the basis of scrutiny of the Petition, the Commission vide letter dated 11th February, 2021 sought clarification/ information / data, based on the data gaps / discrepancies observed in the Petition. MPPMCL and the DISCOMs vide letter dated 23rd February, 2021 submitted response to the data gaps/ clarification/ information etc.

1.10 In reply to data gaps, the Petitioners submitted revised ARR. A snapshot of the revised ARR and Revenue gap is shown in the following table:

Table 3: Snapshot of the revised ARR and Revenue Gap for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Revenue from sale of power as per existing tariff	12,679	16,191	13,315	42,185
Aggregate Revenue Requirement	13,479	17,173	13,941	44,593
Revenue gap for FY 2021-22	**801**	**982**	**626**	**2,409**

1.11 The Commission received written objections/ suggestions from various stakeholders. Details of objections/ suggestions received, response from the Petitioners and views of the Commission thereof are given in the Chapter ‘A7: Public Objections/ suggestions and Comments on Petition’ of this order.

State Advisory Committee

1.12 The Commission convened a meeting of the State Advisory Committee (SAC) on 18th March, 2021 through video conferencing and sought advice on the Petition. SAC members provided several valuable suggestions regarding sales projections, treatment of surplus energy, terms and conditions of tariff, etc. SAC members also highlighted the plight of Industrial consumers on account of lockdown imposed following the COVID-19 situation, by the State / Central Government. The Commission has taken due cognisance of these issues while determining the ARR and Tariff for FY 2021-22.

Energy Accounting, Meterisation and technical & commercial loss reduction

1.13 The Commission has been emphasising the importance of energy accounting and meterisation 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. Meterisation 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% meterisation of the domestic connections in urban area but the progress in DTR metering and consumer metering in rural areas is not satisfactory. There appears to be substantial progress with regard to feeder meterisation, while meterisation of agricultural DTRs remains neglected by DISCOMs. With regard to individual un-metered domestic connections in rural areas, the West DISCOM has completed the metering, whereas, East and Central DISCOMs have unmetered Domestic Rural connections upto the level of 10.88% and 17.08%, respectively. The Commission has also observed that there are number of existing feeder meters, which are lying defective and which need prompt replacements. The status as per periodic reports submitted by DISCOMs with regard to meterisation of un-metered rural domestic connections and agricultural predominant DTRs up to March, 2021 is given below:

Table 4: Status of meterisation of un-metered rural domestic consumers

DISCOMs	Domestic Rural		
	Total no. of connections	No. of un-metered connections	Percentage (%) Un-metered
East	33,04,364	3,59,358	10.88%
West	22,92,076	36,927	1.61%
Central	20,52,552	3,50,474	17.08%
State Total	**76,48,992**	**7,46,759**	**9.76%**

Table 5: Status of meterisation of agricultural DTRs

DISCOMs	Agricultural DTR		
	Total no. of Pre-Dominant Agricultural DTRs	No. of DTRs provided with meters	Percentage (%) of DTRs provided with meters
East	1,05,258	11,849	11.26%
West	1,73,046	26,831	15.51%
Central	2,69,689	60,195	22.32%

DISCOMs	Agricultural DTR		
	Total no. of Pre-Dominant Agricultural DTRs	No. of DTRs provided with meters	Percentage (%) of DTRs provided with meters
State Total	**5,47,993**	**98,875**	**18.04%**

1.14 The Commission would like to emphasize that the directive for meterisation of agricultural predominant DTRs is an interim arrangement till meters on all individual agricultural connections are provided. The Commission is of the firm view that all consumers should be metered individually. The present regime of billing on benchmark consumption to either domestic or agriculture consumers provides no incentive for energy saving by the consumers and it is also not possible to work out the actual energy loss. The Commission has noted that the rate of meterisation of Agricultural DTRs is extremely slow and rapid rate of meterisation is required. Without proper metering system in place, it is not possible to assess the demand and perform energy audit of the agriculture consumers. The Commission, therefore, directed the DISCOMs to expedite feeder meterisation including replacement of defective meters and DTR meterisation on priority basis. There is also a need to segregate Technical and Commercial losses.

1.15 The purpose of providing meters on agriculture DTRs is to assess the consumption of flat rate agriculture consumers and perform energy audit in order to have a proper data of T&D losses. The Commission has observed that the DISCOMs should perform energy audit on the agriculture DTRs where the meters have already been installed.

1.16 With regard to the Domestic unmetered consumers in rural areas, the Commission observes that the West DISCOM has completed the metering of Rural Domestic consumers. For East and Central DISCOMs, the Commission has taken a serious note on the poor progress of meterisation in this category and is of the opinion that concerted efforts need to be made to account for the energy at all stages including the Rural Domestic connections. The first step to do so is to meterise all the remaining connections. The energy accounting needs to be carried out on a system driven approach on regular basis.

1.17 In the earlier Tariff Orders, the Commission had 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 achievable targets. The loss reduction trajectory specified in the Tariff Regulations for the period from FY 2016-17 to FY 2021-22 is given in the following table:

Table 6: Distribution Loss Trajectory specified in the Regulations

DISCOMs	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
East	18%	17%	16%	16%	16%	16%
West	16%	15.50%	15%	15%	15%	14%
Central	19%	18%	17%	17%	17%	17%

1.18 Against the aforesaid targets, the actual loss level for FY 2016-17 to FY 2020-21 reported by the DISCOMs in the Tariff Petition is as follows:

Table 7: Actual Distribution Loss for FY 2016-17 to FY 2020-21

DISCOMs	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
East	22.64%	27.05%	30.57%	22.52%	29.19%
West	17.89%	16.63%	16.89%	11.10%	12.71%
Central	31.99%	37.51%	37.00%	28.03%	28.28%

1.19 The Commission appreciates the performance of West DISCOM with regard to reduction in T&D losses, wherein, they have surpassed the loss trajectory specified by the Commission. On the other hand, 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 and East DISCOMs, the loss level is far above normative and needs immediate corrective steps. The stakeholders, in their objections, have also pointed out and shown concern over the high loss level of the DISCOMs. It was stated that the higher loss level is adversely affecting the financial viability of DISCOMs as well as services to be delivered to their consumers. Although the Commission has allowed only normative losses in the Tariff Order, so that consumers are not burdened on account of the inefficiencies of the Distribution Licensees.

1.20 In order to bail out the DISCOMs from high debt and to ensure financial turnaround of the DISCOMs, the Government of India launched Ujwal DISCOM Assurance Yojana (UDAY). Madhya Pradesh also participated in the UDAY scheme and committed to reducing AT&C losses in a targeted and time bound manner. However, from the loss levels reported by the DISCOMs, it appears that the Central and East DISCOMs have failed in their commitment towards AT&C loss reduction.

1.21 For reduction in technical and commercial losses through various schemes, the Commission had approved the capital investment programs of the DISCOMs in the past years. The Government of India is also providing financial and technological support to the DISCOMs through various schemes. However, it appears that the Central and East DISCOMs are lacking in implementation of these schemes resulting in failure to reduce the distribution losses to the desired levels.

1.22 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 in this regard is still far from satisfactory. The East and Central DISCOMs also need to focus on meterisation of rural unmetered Domestic connections. The Commission would like to draw the attention of the State Government in this regard and emphasizes a need to implement a concrete program to achieve the targeted loss level in a time bound manner for making the DISCOMs financially viable.

Aggregate Revenue Requirement of DISCOMs

1.23 The Commission has determined the ARR of the DISCOMs for FY 2021-22. The Commission while approving the ARR for FY 2021-22 has also considered the impact of true ups approved as follows:

(i) True Up of ARR of FY 2014-15 to FY 2017-18 of DISCOMs approved vide order dated 24th May, 2021

(ii) True Up of ARR of FY 2018-19 of DISCOMs approved vide order dated 24th May, 2021

(iii) True Up of ARR of FY 2018-19 of MP Power Transmission Company Ltd. approved vide order dated 8th February, 2021.

(iv) True Up of ARR of FY 2018-19 of MP. Power Generating Company Ltd. approved vide order dated 29th April, 2021.

1.24 Further, the Commission has noted that the revenue from existing tariffs would be short by Rs 263.83 Cr to meet the ARR determined for FY 2021-22. Thus to meet their revenue requirement a marginal tariff hike of 0.63% has been allowed in this Order.

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

Table 8: ARR admitted by the Commission for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Power Purchase Cost	7,361.16	13,407.12	7,012.87	27,781.15
Inter-State transmission charges	845.95	1,109.59	918.61	2,874.15
Intra-State Transmission Charges including SLDC Charges	1,204.83	1,446.06	1,434.79	4,085.68
O&M Expenses	1,536.68	1,379.64	1,487.35	4,403.67
Depreciation	209.76	127.60	268.38	605.73
Interest & Finance Charges				
On Project Loans	262.48	144.87	327.23	734.58
On Working Capital Loans	92.74	0.00	119.86	212.60
On Consumer Security Deposit	39.88	57.94	43.33	141.14
Return on Equity	360.92	217.64	407.38	985.95
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Total Expenses admitted	**11,916.39**	**17,892.46**	**12,021.81**	**41,830.66**
Less: Other income + Non Tariff Income	290.20	150.30	314.46	754.97
ARR Admitted	**11,626.19**	**17,742.16**	**11,707.34**	**41,075.69**
Revenue Gap of MP Transco True-up of FY 2018-19	242.04	310.16	257.83	810.03
Revenue Surplus of MP Genco on True-up of FY 2018-19	(109.82)	(137.27)	(145.12)	(392.21)
Revenue Gap for True-up of FY 2014-15 to FY 2017-18	1,237.19	(2,401.10)	2,387.70	1,223.79
Revenue Gap for True-up of FY 2018-19	356.32	(1,290.49)	619.31	(314.86)
ARR admitted including True ups	**13,351.92**	**14,223.46**	**14,827.07**	**42,402.44**
Revenue at Existing Tariff	**12,413.50**	**16,448.36**	**13,276.77**	**42,138.62**
Revenue Gap at Existing Tariff	**938.43**	**(2,224.90)**	**1,550.30**	**263.83**

1.26 The Commission has continued with the prescribed mechanism for recovery of Fuel Cost Adjustment (FCA) on quarterly basis so that uncontrollable costs on account of variations in the variable charges of thermal generating stations are adjusted timely in accordance with the provisions of the Electricity Act, 2003. 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.

1.27 In compliance of directives given in the Judgment by Hon'ble APTEL, the Commission has determined the ratio of Average Billing Rate to the voltage-wise cost of supply for various consumer categories 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. In absence of requisite data the voltage-wise cost of supply vis-a-vis cross subsidy percentage worked out in this Tariff Order is only indicative in nature.

Implementation of the Order

1.28 The Distribution Licensees must take immediate steps to implement this order after giving seven (7) days Public Notice in prominent newspapers having State wide 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 8th July 2021, until amended or modified by an order of this Commission.

1.29 The detailed order provides for the grounds and reasons of determining the ARR, discusses the functional and financial performance of the three DISCOMs 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/objections and comments received from the stakeholders on the ARR and Tariff proposal. The Commission directs the 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 DISCOMs are permitted to issue bills to the consumers in accordance with the provisions of this Tariff Order and applicable Regulations.

-sd-	-sd-	-sd-
(Shashi Bhushan Pathak)	**(Mukul Dhariwal)**	**(S.P.S. Parihar)**
Member	**Member**	**Chairman**

A2: AGGREGATE REVENUE REQUIREMENT FOR PETITIONERS

Sales forecast as projected by the Petitioners

2.1 The Petitioners have submitted that for projection of sales for FY 2021-22, 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 2016-17, FY 2017-18, FY 2018-19, and FY 2019-20 and available data till month of October 2020 have been used.

2.2 The Petitioners have further submitted that the approach being followed is to analyse 3-years and 2-years Compounded Annual Growth Rates (CAGR) and year on year growth rate of each category and its sub-categories in respect of urban and rural consumers separately. After analysis of the data, appropriate / reasonable growth rates have been assumed for future consumer forecasts from the past CAGR of the Category/Sub-category by the three DISCOMs. The past CAGR on sales per consumer, sales per kW and connected load have 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.

2.3 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 the number of connections to be served under Suabhagya Scheme has been completed and no additional impact has been included.

2.4 Further, for temporary and permanent metered connections under LV-5.1 applicable for Agriculture category of consumers, 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 category, assessed consumption is considered as per the norms stipulated by the Commission in the Tariff order for FY 2020-21.

2.5 The West DISCOM has submitted that with the conversion of most of the Agricultural Temporary Connections to Permanent Unmetered Connections under Mukhya Mantri Sthayi Krishi Pump Yojna (MMSKPY) introduced in 2016, the Petitioner has considered zero growth in FY 2021-22.

2.6 Further, the Petitioners have signed a contract with Railways for on-demand supply of electricity for the currently under-development corridor between Itarsi and Katni. With the electrification of Railway Section between Itarsi-Pipariya-Bankhedi-Gadarwada, one new connection under Central DISCOM is expected. Similarly, with the electrification of the Railway Line between Gadarwara-Kareli-Katni, a new connection is expected under East DISCOM. Sales are not expected to Railways from West DISCOM. Accordingly, the East and Central DISCOMs have projected approximately 55 MU sales each for FY 2021-22 under this category.

2.7 Details of the category-wise sales as projected by the Petitioners, is given in the table as follows:

Table 9: Category wise sales projected by Petitioners for FY 2021-22 (MU)

Consumer Categories	East DISCOM	West DISCOM	Central DISCOM	Total for the State
LT				
LV-1: Domestic	6,432	5,803	6,095	18,330
LV-2: Non-Domestic	1,103	1,363	1,153	3,619
LV-3: Public Water Works & Street Light	386	430	431	1,247
LV4: LT Industrial	402	683	371	1,455
LV 5.1: Agriculture Irrigation Pumps	7,470	9,967	7,691	25,128
LV-5.2: Agriculture related Use	8	2	5	15
LV-6: Electrical Vehicle	1	1	1	3
LT Sales (MU)	**15,802**	**18,249**	**15,746**	**49,797**
HT				
HV-1: Railway Traction	55	-	55	111
HV-2: Coal Mines	501	-	34	534
HV-3.1: Industrial	1,616	2,972	2,933	7,522
HV-3.2: Non-Industrial	244	459	424	1,128
HV-3.3: Shopping Mall	2	57	56	116
HV-3.4: Power Intensive Industries	826	1,362	594	2,782
HV-4: Seasonal	9	10	2	21
HV-5.1: Public Water Works and Irrigation	23	307	26	356
HV-5.2: Other than Agricultural	139	741	254	1,134
HV-6: Bulk Residential Users	281	28	172	480
HV-7: Synchronization/ Start-up Power	0	15	1	16
HV-8: Electrical Vehicle	2	1	3	6
HT Sales (MU)	**3,698**	**5,952**	**4,554**	**14,204**
Total LT + HT Sales (MU)	**19,500**	**24,201**	**20,300**	**64,001**

Commission's Analysis

2.8 The Commission has observed that the Petitioners have considered the actual sales upto October 2020 for the projection of sales for FY 2021-22. Accordingly, the Commission has reviewed the sales forecast submitted by the DISCOMs and compared the same with the past trend, i.e., actual sales for FY 2017-18, FY 2018-19, FY 2019-20 and upto February of FY 2020-21 as per R15 report. Following table shows comparison of category wise actual sales of FY 2017-18 to FY 2020-21 as per annual R15 along with the sales claimed by the Petitioners for FY 2021-22:

Table 10: Actual Sales for FY 2017-18 to FY 20120-21 (MUs)

Tariff Category	Actual Sales as per R15				Claimed by Petitioners
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21*	Projection of Sales for FY 2021-22
LT					
LV-1: Domestic Consumers	11,792.26	12,681.93	14,703.88	16,333.17	18,330.15
LV-2: Non Domestic Consumers	2,887.82	2,961.69	3,223.54	2,967.14	3,618.60
LV-3: PWW & SL	1,209.20	1,161.52	1,146.56	1,197.09	1,247.27
LV-4: LT Industrial	1,212.13	1,244.10	1,305.96	1,245.39	1,455.21

Tariff Category	Actual Sales as per R15				Claimed by Petitioners
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21*	Projection of Sales for FY 2021-22
LV-5: Agriculture	18,059.60	19,859.90	22,517.95	25,136.15	25,142.72
LV-6: LT EV Charging	0.00	0.00	0.00	0.00	2.94
LT Total	**35,161.01**	**37,909.13**	**42,897.90**	**46,878.93**	**49,796.90**
HT					
HV-1: Railway Traction	0.00	0.00	0.00	0.00	110.65
HV-2: Coal Mines	479.54	492.56	502.92	487.55	534.46
HV-3: HT Industrial	8,964.81	10,430.89	10,796.53	9,692.90	11,546.28
HV-4: Seasonal	21.76	21.04	19.76	22.57	21.46
HV-5: Irrigation, Public Water Works and Other than Agricultural	894.74	1,000.57	1,159.04	1,276.17	1,488.70
HV-6: Bulk Residential Users	451.01	442.88	441.07	435.58	480.26
HV-7: Generator Sync to Grid	14.34	14.33	13.40	6.02	15.68
HV-8: HT EV Charging	0.00	0.00	0.56	0.92	6.31
HT Total	**10,826.19**	**12,402.28**	**12,933.29**	**11,921.71**	**14,203.78**
State DISCOMs Total	**45,987.20**	**50,311.41**	**55,831.19**	**58,800.64**	**64,000.68**

* **Actual Sales upto Feb, 2021 and March, 2021 figures projected based on last 2 years average.**

2.9 From above, it can be observed that the sales in some of the categories like LV-2, LV-4, HV-2, HV-3 were impacted in FY 2020-21, which reported reduced sales in FY 2020-21 as compared to actual sales in FY 2019-20 due to imposition of state wide lockdown owing to spread of COVID-19 pandemic. Apart from these categories, in majority of categories, the sales have increased in FY 2020-21 in line with the growth observed in previous years. As the actual sales for aforesaid categories in FY 2020-21 is not a usual scenario, it would not be appropriate to compare these sales with the sales projected for FY 2021-22. Therefore, the Commission in order to analyse the sales projections has not considered the unusual dip in the sales during FY 2020-21. The Commission has analysed the trend of category wise sales on year on year basis and accordingly considered the projections.

2.10 Further, the Commission has been directing the Petitioners to align their R15 reports with the tariff schedule approved by the Commission in Retail Supply Tariff Orders, however, the Petitioners are yet to comply with the direction. In absence of actual data of number of consumers, connected load and sales as per the categories, sub-categories and slabs approved in the tariff schedule approved by the Commission, it is not possible to project slab wise and category wise sales accurately. However, the Commission has broadly analysed the sales submitted by the Petitioner for FY 2021-22 based on the sales available as per existing R15 reports. The following table shows comparison of growth rate of previous three years computed based on the actual sales for FY 2017-18 to FY 2019-20:

Table 11: Percentage increase in actual sales in FY 2017-18 to FY 2020-21 (%)

Tariff Category	Y-o-Y (Actual-FY 2018-19-Actual-FY 2017-18)	Y-o-Y (Actual-FY 2019-20-Actual-FY 2018-19)	Y-o-Y (Actual-FY 2020-21-Actual-FY 2019-20)	2 Year CAGR (Actual FY 2019-20-Actual FY 2017-18)	2 Year CAGR (Claimed in FY 2021-22 Vs Actual FY 2019-20)
LT					
LV-1: Domestic Consumers	7.54%	15.94%	11.08%	11.67%	11.65%
LV-2: Non-Domestic Consumers	2.56%	8.84%	(7.95%)	5.65%	5.95%
LV-3: PWW & SL	(3.94%)	(1.29%)	4.41%	(2.62%)	4.30%
LV-4: LT Industrial	2.64%	4.97%	(4.64%)	3.80%	5.56%
LV-5: Agriculture	9.97%	13.38%	11.63%	11.66%	5.67%
LT Total	**7.82%**	**13.16%**	**9.28%**	**10.46%**	**7.74%**
HT					
HV-1: Railway Traction	0.00%	0.00%	0.00%	0.00%	0.00%
HV-2: Coal Mines	2.72%	2.10%	(3.06%)	2.41%	3.09%
HV-3: HT Industrial	16.35%	3.51%	(10.22%)	9.74%	3.41%
HV-4: Seasona	(3.31%)	(6.05%)	14.21%	(4.69%)	4.20%
HV-5: Irrigation, Public Water Works and Other than Agricultural	11.83%	15.84%	10.11%	13.82%	13.33%
HV-6: Bulk Residential Users	(1.80%)	(0.41%)	(1.25%)	(1.11%)	4.35%
HV-7: Generator Sync to Grid	(0.06%)	(6.51%)	(55.08%)	(3.34%)	8.19%
HT Total	**14.56%**	**4.28%**	**(7.82%)**	**9.30%**	**4.80%**
State DISCOMs Total	**9.40%**	**10.97%**	**5.32%**	**10.18%**	**7.07%**

2.11 Based on the above, the Commission has analysed the category wise sales submitted by the Petitioners which is detailed as below:

LV-1: Domestic

2.12 On analysis of the past trend, it is observed that there has been consistent increase in sales for the said category on yearly basis to the extent of 7.54% in FY 2018-19, 15.94% in FY 2019-20 and 11.08% in FY 2020-21. Also, 2 years CAGR depicted the increase in sales at 11.67%. Therefore, the Commission has considered it appropriate to admit the sales growth of 11.65% claimed by the Petitioner.

LV-2: Non-Domestic

2.13 On analysis of the past trend, it is observed that except for FY 2020-21, wherein a dip of sales upto (-)7.95% was recorded due to unprecedented conditions prevailing in the State owing to spread of COVID-19 pandemic, there has been increase in sales in past years to the extent of 2.56% in FY 2018-19, 8.84% in FY 2019-20, and 2 years CAGR has shown an increase of 5.65% (FY 2017-18 to FY 2019-20). Since, the sales growth of 5.95% claimed by the Petitioner is approximately same as 2 years CAGR, the

Commission has considered it appropriate to admit the sales submitted by the Petitioner.

LV-3: Public Water Works and Street lights

2.14 Although there was decrease in sales observed in FY 2018-19 and FY 2019-20, considerable increase in sales of 4.41% has been recorded in FY 2020-21. It is observed that adverse situation prevailing in FY 2020-21 due to COVID-19 pandemic has not impacted the sales for the said category, rather it has increased. This increase may be due to the reason that these are necessary civic services and continuous supply is needed. Therefore, the Commission has considered it appropriate to admit the sales growth of 4.30% as claimed by the Petitioner.

LV-4: LT Industrial

2.15 On analysis of the past trend, it is observed that except for FY 2020-21, wherein a dip of sales upto (4.64%) was recorded due to unprecedented conditions prevailing in the State due to spread of COVID-19 pandemic, gradual increase in growth of sales has been observed in previous years, wherein the sales in FY 2018-19 increased by 2.64% and sales for FY 2019-20 increased by 4.97%. Therefore, considering that prior to occurrence of pandemic, continuous rise in growth rate of sales was observed, the Commission has considered it appropriate to admit the sales growth of 5.56% as claimed by the Petitioner.

LV-5: Agriculture and Allied Activities

2.16 It is observed that sales for agricultural category has consistently increased by around 10% to 12% in past years, whereas the Petitioner has projected the sales at a CAGR (Estimated for FY 2021-22 and Actual of FY 2019-10) of 5.67%. However, it is also observed that the Petitioner has considered nominal growth of 10% by East DISCOM, 3.52% by Central DISCOM and 1% by West DISCOM. Further, the West DISCOM has also submitted that the conversion of most of the Agricultural Temporary Connections to Permanent Flat Rate Connections under Mukhya Mantri Sthayi Krishi Pump Yojna (MMSKPY) introduced in 2016, has been completed therefore the Petitioner has considered zero growth in FY 2021-22. The Commission therefore considering the aforesaid submission made by the Petitioners, deems it appropriate to allow growth in sales claimed by the Petitioners. However, the Commission while analysing the sales, has recasted the sales projected by the Petitioners considering the connected load and the norms specified by the Commission in Retail Tariff Order for FY 2018-19, which led to increase in sales projections of LV-5 category by 310 MUs over and above the claim of the Petitioners.

LV-6: E- Vehicle / E-Rickshaws Charging Stations

2.17 As the past details of the actual sales is not available for previous years, the Commission has considered the sales as projected by the Petitioner envisaging growth in electric mobility being major focus area of the Government.

HV-1: Railway Traction

2.18 It is observed from the actual figures of the past year that presently there was no sale under this category. However, the Petitioners have submitted that they have signed a contract with Railways for on-demand supply of electricity for the under-developed corridor between Itarsi and Katni. With the electrification of Railway Section between Itarsi-Pipariya-Bankhedi-Gadarwada, one new connection under Central DISCOM is expected. Similarly, with the electrification of the Railway Line between Gadarwara-Kareli-Katni, a new connection is expected under East DISCOM. Accordingly, based on the Petitioners submission, the Commission has considered the sales as projected by the Petitioners for FY 2021-22.

HV-2: Coal Mines

2.19 On analysis of the past trend, it is observed that except for FY 2020-21, wherein a decrease of sales upto (3.06%) was recorded due to unprecedented conditions prevailing in the State due to spread of COVID-19 pandemic. There has been increase in sales in past years to the extent of 2.72% in FY 2018-19, 2.10% in FY 2019-20- and 2 years CAGR has shown an increase of 2.41% (FY 2017-18 to FY 2019-20). On further analysis it was observed that West DISCOM has not reported any sale under this category, whereas East and Central DISCOMs have projected an increase in sale at 2 years CAGR of 2.41% and 15.50%, respectively.

2.20 For East DICOM, the actual sales in previous years have increased at an average rate of 2.62%, which is in line with the projections made by the Petitioner, therefore, the Commission consider it appropriate to admit the sale as projected by East DISCOM. For Central DISCOM, it is observed that the sales have been showing decreasing trend in previous years, wherein the sales reduced from 26.21 MU in FY 2017-18 to 25.49 in FY 2019-20. Further, there is no increase in number of consumers and connected load in past three years. Therefore, the Commission has considered the sales, connected load and number of consumers at the levels of FY 2019-20 with no increase for Central DISCOM.

HV-3 Industrial, Non-Industrial and Shopping Malls

2.21 It is observed from past data of sales for HV-3 category that there has been steep increase in sales by 16.35% for FY 2017-18 with respect to previous year, whereas the same has increased at a nominal rate of 3.51% in FY 2019-20. The sales in this category has decreased by (10.22%) in FY 2020-21 due to the lockdown situation owing to COVID-19 pandemic. As the sales growth projected by the Petitioner by 3.41% is commensurate with the increase in actual sales in FY 2019-20, the Commission has therefore considered it appropriate to admit the same as claimed by the Petitioners.

HV-4 Seasonal Industries

2.22 The Commission has observed that the sales in FY 2018-19 and FY 2019-20 has decreased by (3.31%) and (6.05%), respectively, whereas, it has increased by14.21% in FY 2020-21. Since, there has not been any definite pattern of sales noted in previous years in the seasonal industrial category, the Commission has deemed it appropriate to consider the sales as projected by the Petitioner, i.e. at nominal growth rate of 4.20%

(2 Years CAGR) with respect to actual sales of FY 2019-20.

HV-5 Irrigation, Public Water Works and Other than Agricultural

2.23 On analysis of the past trend, it is observed that there has been consistent increase in sales for the said category on yearly basis to the extent of 11.83% in FY 2018-19, 15.54% in FY 2019-20 and 10.11% in FY 2020-21. Also, 2 years CAGR depicted increase in sales by 13.82%. The Commission has observed that the sales growth of 13.33% claimed by the Petitioner is approximately same as 2 years CAGR and therefore has admitted the sales projections made by the Petitioners.

HV-6: Bulk Residential Users

2.24 On analysis of the past data, it is observed that even though there is consistent growth in number of consumers and connected load, the sales has been decreasing over the years whereas the Petitioners have projected an increase in sales in coming years. There is no cogent reason elaborated by the Petitioners about the decrease in sales in this category and projections of sales. Therefore, considering the decreasing trend in the sales, the Commission is not inclined to admit the projections made by the Petitioners and has recasted the connected load and sales projections for FY 2021-22 to keep at the same levels of FY 2019-20.

HV-7: Synchronization of Power for Generators Connected to the Grid

2.25 This category pertains to generators who are already connected with the grid and have specific requirements for synchronisation purpose time to time. Therefore, in view of intermittent consumption recorded in this category, the Commission considers it appropriate to not to go to the past trend in sales and admits the sales as projected by the Petitioner.

HV-8: E- Vehicle / E- Rickshaws Charging Stations

2.26 As the past details of the actual sales is not available for previous years, the Commission has considered the sales as projected by the Petitioner envisaging growth in electric mobility being major focus area of the Government.

2.27 Accordingly, based on the above the sales admitted by the Commission for FY 2021-22 is as follows

Table 12: Category wise sales admitted by the Commission for FY 2021-22 (MUs)

Consumer Categories	East DISCOM	West DISCOM	Central DISCOM	Total for the State
LV-1: Domestic	6,432.33	5,802.82	6,095.00	**18,330.15**
LV-2: Non-Domestic	1,102.77	1,362.54	1,153.29	**3,618.60**
LV-3: Public Water Works & Street Light	386.37	430.37	430.53	**1,247.27**
LV4: LT Industrial	401.95	682.69	370.89	**1,455.53**
LV 5: Agriculture and allied activities	7,477.87	10,280.21	7,694.45	**25,452.53**
LV 6: Electric Vehicle	1.02	0.94	0.98	**2.94**
LT Sales (MU)	**15,802.32**	**18,559.57**	**15,745.13**	**50,107.02**
HV-1: Railway Traction	55.33	0.00	55.33	**110.65**

Consumer Categories	East DISCOM	West DISCOM	Central DISCOM	Total for the State
HV-2: Coal Mines	500.76	0.00	25.49	**526.24**
HV-3.1: Industrial	1,616.23	2,972.26	2,933.07	**7,521.56**
HV-3.2: Non-Industrial	243.77	459.09	424.01	**1,126.87**
HV-3.3: Shopping Mall	2.46	57.15	56.17	**115.78**
HV-3.4: Power Intensive Industries	826.41	1,362.07	593.59	**2,782.07**
HV-4: Seasonal	8.54	10.42	2.49	**21.45**
HV-5.1: Public Water Works and Irrigation	144.24	1,039.79	268.81	**1,452.84**
HV 5.2 Other than Agriculture use	17.11	7.89	10.87	**35.86**
HV-6: Bulk Residential Users	259.21	27.28	154.59	**441.07**
HV-7: Synchronization/ Start-up Power	0.22	15.06	0.40	**15.68**
HV-8: Electric Vehicle	2.18	0.68	3.45	**6.31**
HT Sales (MU)	**3,676.45**	**5,951.69**	**4,528.25**	**14,156.39**
Total (LT + HT) Sales (MU)	**19,478.78**	**24,511.26**	**20,273.38**	**64,263.42**

Energy Balance

Petitioners' Submission

2.28 For projecting the energy requirement for FY 2021-22, the Petitioners have considered normative distribution losses specified by the Commission through 3rd amendment to MYT Regulations, 2015 and its amendments thereof, of 16.00%, 14.00% and 17.00% for East, West, and Central DISCOMs, respectively. Further, the Petitioners have submitted that they have considered the Intra-State Transmission Losses of 2.59% for FY 2019-20 as reported by MPPTCL to MPPMCL, for projecting the energy requirement for FY 2021-22.

2.29 Based on the above, the Petitioners had projected the energy requirement of 79,653 MU for catering the projected sales of 64,001 MU based on the normative losses. The Petitioners have projected energy requirement by grossing up the projected sales by normative distribution losses and projected transmission losses, as shown in the table below:

Table 13: Energy Requirement for FY 2021-22 as proposed by Petitioners

Particulars	Unit	East DISCOM	West DISCOM	Central DISCOM	MP State
LT Sales	MU	15,802	18,249	15,746	49,797
HT Sales	MU	3,698	5,952	4,554	14,204
Total Sales	MU	19,500	24,201	20,300	64,001
Distribution loss	%	**16.00%**	**14.00%**	**17.00%**	**15.87%**
Distribution loss	MU	3,665	4,222	4,188	12,076
Units Input at Distribution Interface	MU	23,165	28,423	24,488	76,076
Transmission loss	%	**2.59%**	**2.59%**	**2.59%**	**2.59%**
Transmission loss	MU	616	756	651	2,023
Input at G-T interface	MU	23,781	29,179	25,139	78,099

Particulars	Unit	East DISCOM	West DISCOM	Central DISCOM	MP State
WR-PGCIL Losses	%	2.78%	2.78%	2.78%	2.78%
NR-PGCIL Losses	%	3.56%	3.56%	3.56%	3.56%
ER-PGCIL Losses	%	1.72%	1.72%	1.72%	1.72%
External Losses	MU	476	577	501	1554
Total Units to be Purchased	**MU**	**24,257**	**29,756**	**25,641**	**79,653**

Commission's Analysis

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

Table 14: Loss targets as per Regulations (in %)

DISCOM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
East	18%	17%	16%	16%	16%	**16%**
West	16%	15.5%	15%	15%	15%	**14%**
Central	19%	18%	17%	17%	17%	**17%**

2.31 The Commission has considered the distribution losses for FY 2021-22 as specified in the MYT Regulations, 2015 and its amendments thereof, for projecting the energy requirement for FY 2021-22. For arriving at the total quantum of energy requirement, the Commission has considered annual sales grossed up by specified loss levels as per the calculations shown in subsequent paragraphs/ tables.

2.32 Further, the Commission has considered the inter-State transmission losses as per actual PGCIL losses. Accordingly, to work out the inter-State transmission losses, the Commission has considered the PGCIL losses separately for Eastern, Western and Northern Region generating stations based on the actual regional transmission losses for the period of October 2019 till October 2020. For Western Region generating stations, average transmission losses of 2.77% have been considered based on regional losses of October 2019 to October 2020 (52-weeks data). Similarly, these losses have been considered as 1.74% for Eastern Region and 3.52% for Northern Region generating stations.

2.33 The Commission has also considered actual Intra-State transmission losses of 2.59% during FY 2019-20, which is according to information obtained by the Petitioners from the Transmission company. The energy balance / power purchase requirement based on sales and losses admitted by the Commission for FY 2021-22 is presented in the following table:

Table 15: Energy requirement estimated by the Commission for FY 2021-22

Sr. No	Particular	Unit	East DISCOM	West DISCOM	Central DISCOM	State
A	Total Sales	MU	19,478.78	24,511.26	20,273.38	64,263.42
	Distribution loss	**%**	**16.00%**	**14.00%**	**17.00%**	**15.57%**
B	Distribution loss	MU	3,710.24	3,990.20	4,152.38	11,852.83
C	Input at T-D interface	MU	23,189.02	28,501.46	24,425.76	76,116.24
	Transmission loss	**%**	**2.59%**	**2.59%**	**2.59%**	**2.59%**
D	Transmission loss	MU	616.56	757.82	649.45	2,023.83

Sr. No	Particular	Unit	East DISCOM	West DISCOM	Central DISCOM	State
F	Input at G-T interface	MU	23,805.58	29,259.28	25,075.21	78,140.07
	PGCIL Losses					
	WR- PGCIL Losses	**%**	**2.77%**	**2.77%**	**2.77%**	**2.77%**
	ER- PGCIL Losses	**%**	**1.74%**	**1.74%**	**1.74%**	**1.74%**
	NR-PGCIL Losses	**%**	**3.52%**	**3.52%**	**3.52%**	**3.52%**
G	PGCIL Losses	MU	416.79	512.08	438.93	1,367.80
H	**Power Purchase Requirement**	**MU**	**24,222.37**	**29,771.36**	**25,514.14**	**79,507.87**

Assessment of Energy Availability

Petitioners' Submission

2.34 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 FY 2020-21 and FY 2021-22 by MPPGCL, Central Sector, Joint venture and by Private players awarded through competitive bidding.

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

2.35 Allocation of power to the State of MP from Central Sector stations is as per Western Regional Power Committee in their letter No. WRPC/Comml-I/6/Alloc/2020/9876 dated 6th Nov'2020 and from Eastern Region NTPC Kahalgaon-2 vide GoI MoP letter no. 5/31/2006 dated 21st February 2007 and Northern Region as per Northern Regional Power Committee letter no. NRPC/OPR/103/02/2020/6084/6111 dated 25th June 2020 and communication held with their concerned office. Allocation from MP Genco and other sources have been considered based on inputs provided and latest updates from their concerned office**.**

2.36 MPPMCL has already decided to foreclose the PPAs with DVC for 400 MW (MTPS & CTPS) and 100 MW (DTPS) w.e.f. 01st March, 2018 & 15th May, 2017, respectively. Hence, no power is being scheduled from these stations after the said date. The costs of such plants have not been considered while calculating the power purchase cost for 2021-22. However, in case the PPAs with DVC remain in force in 2021-22, MPPMCL will be obligated to pay fixed charges for these stations.

2.37 During FY 2020-21, power from Essar, BLA and Sugen Torrent Generating Stations has been scheduled following MoD whereas in the Tariff Order for FY 2020-21, 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 2020-21. For FY 2021-22, the availability from these plants has been considered as the PPAs with these plants remain in force.

2.38 Further, the Petitioners have submitted that new Central Generating stations are scheduled to commence generation during FY 2020-21 and FY 2021-22 as follows:

Table 16: Upcoming Stations and Technical Parameters

Sr. No.	Particulars	Capacity (MW)	MP Share		CoD
			(%)	(MW)	
1	NTPC Gadarwara STPS, Unit-2	1x800	50%	400	October 2020
2	NTPC Lara STPS, Raigarh Unit -2	1x800	8%	64	October 2020
3	NTPC Khargone STPS, Unit-2	1x660	50%	330	April 2020
4	**TOTAL**	**2260**		**794**	

2.39 Following table shows MPPMCL allocated existing stations as well as the new capacity additions, which are expected to become operational:

Table 17: MPPMCL allocated stations submitted by the Petitioners for FY 2021-22

Sr. No.	Particulars	Region	Capacity (MW)	FY 2021-22	
				%	MW
I	**Central Sector**		**35,976**		**5,110**
1	NTPC Korba	WR	2,100	22%	467
2	NTPC Korba III	WR	500	14%	70
3	NTPC Vindhyachal I	WR	1,260	34%	431
4	NTPC Vindhyachal II	WR	1,000	31%	309
5	NTPC Vindhyachal III	WR	1,000	24%	236
6	NTPC Vindhyachal IV	WR	1,000	27%	272
7	NTPC Vindhyachal V Unit 1	WR	500	27%	135
8	NTPC Sipat I	WR	1,980	16%	312
9	NTPC Sipat II	WR	1,000	18%	178
10	NTPC Mouda I	WR	1,000	17%	166
11	NTPC Mouda II Unit 1	WR	1,320	17%	231
12	NTPC Solapur STPS	WR	1,320	24%	315
13	NTPC Gadarwara STPS, Unit-1	WR	800	51%	412
14	NTPC Lara STPS, Raigarh, Unit I	WR	800	11%	85
15	NTPC Khargone STPS, Unit-I	WR	660	51%	340
16	NTPC Kawas GPP	WR	656	21%	140
17	NTPC Gandhar GPP	WR	657	18%	117
18	KAPP Kakrapar	WR	440	-	-
19	TAPP Tarapur	WR	1,080	-	-
20	NTPC Gadarwara STPS, Unit-2	WR	800	50%	400
21	NTPC Lara STPS, Raigarh, Unit II	WR	800	8%	64
22	NTPC Khargone STPS, Unit-II	WR	660	50%	330
23	NTPC Auraiya GPP	NR	663	-	2
24	NTPC Dadri GPP	NR	830	-	2
25	NTPC Anta GPP	NR	419	-	1

Sr. No.	Particulars	Region	Capacity (MW)	FY 2021-22	
				%	MW
26	NTPC Firoz Gandhi Unchahar I	NR	420	-	0
27	NTPC Firoz Gandhi Unchahar II	NR	420	-	1
28	NTPC Firoz Gandhi Unchahar III	NR	210	-	1
29	NTPC Firoz Gandhi Unchahar IV	NR	500	-	1
30	NTPC Rihand TPS-I	NR	1,000	-	2
31	NTPC Rihand TPS-II	NR	1,000	-	2
32	NTPC Rihand TPS-III	NR	1,000	-	3
33	NTPC NCTP Dadri II	NR	980	-	2
34	NTPC Singrauli	NR	2,000	-	4
35	NTPC IGPS I Jhajjar	NR	1,500	-	2
36	MEJA Urja Nigam	NR	660	-	1
37	NTPC Tanda	WR	660	-	1
38	RAPP Rawatbhata	NR	440	-	2
39	NAPP Narora	NR	440	-	1
40	NTPC Kahalgaon II	ER	1,500	5%	74
II	**MP GENCO (THERMAL & HYDRO)**		**6,586**		**5,487**
1	Amarkantak TPS Ph-III	State	210	100%	210
2	Satpura TPS Ph-II & III	State	830	-	-
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 Phase-I	State	1,200	100%	1,200
7	Shri Singaji STPS Phase-II	State	1,320	100%	1,320
8	Rani Awanti Bai Sagar, Bargi HPS	State	90	100%	90
9	Bansagar Ph I HPS (Tons)	State	315	100%	315
10	Bansagar Ph-II HPS (Silpara)	State	30	100%	30
11	Bansagar Ph-III HPS (Deolond)	State	60	100%	60
12	Bansagar Ph-IV HPS (Jhinna)	State	20	100%	20
13	Birsinghpur HPS	State	20	100%	20
14	Madikheda HPS	State	60	100%	60
15	Rajghat HPS	State	45	50%	23
16	Gandhisagar HPS	State	115	50%	58
17	Ranapratap Sagar HPS	State	172	50%	86
18	Jawahar Sagar HPS	State	99	50%	50
19	Pench HPS	State	160	67%	107
III	**JV Hydel & Other Hydels**		**9,832**		**2,413**
1	NHDC Indira Sagar HPS	State	1,000	100%	1,000
2	NHDC Omkareshwar HPS	State	520	100%	520

Sr. No.	Particulars	Region	Capacity (MW)	FY 2021-22	
				%	MW
3	NVDA Sardar Sarovar HPS	WR	1,450	57%	827
4	Rihand HPS	NR	300	15%	45
5	Matatila HPS	NR	31	33%	10
6	SJVN Rampur HPS	NR	412	-	1
7	SJVN Jhakri HPS	NR	1,500	-	2
8	Tehri HPS	NR	1,000	-	2
9	Koteshwar HPP	NR	400	-	1
10	NHPC Parbati III	NR	520	-	1
11	NHPC Chamera II	NR	300	-	1
12	NHPC Chamera III	NR	231	-	1
13	NHPC Dulhasti	NR	390	-	1
14	NHPC Dhauliganga	NR	280	-	1
15	NHPC Sewa II	NR	120	-	0
16	NHPC Uri II	NR	240	-	1
17	NHPC Kishanganga	NR	330	-	1
18	NTPC Koldam HPP I	NR	800	-	1
19	NTPC Singrauli Small HPP	NR	8	-	0
IV	**DVC**		**2,840**		**-**
1	DVC (MTPS & CTPS)	ER	1,840	-	-
2	DVC (DTPS)	ER	1,000	-	-
V	**IPPs**		**10,318**		**3,427**
1	Torrent Power	WR	1,148	7%	75
2	BLA Power, Unit-I & II	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	1,200	5%	60
7	Jaiprakash Power STPS, Nigri	State	1,320	38%	495
8	MB Power STPS, Unit-I	State	600	35%	210
9	MB Power STPS, Unit- II	State	600	35%	210
10	Jhabua Power STPS, Unit-1	State	600	35%	210
VI	**Renewables**		**-**		**5,878**
1	Renewable Energy (Solar)	State	NA	100%	3,438
2	Renewable Energy (other than Solar)	State		100%	2,405
3	Renewable Energy (mini micro)	State		100%	35
VII	**Total**		**65,551**		**22,315**

2.40 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 projected variable costs for FY 2021-22, after considering all generating stations allocated to MPPMCL. The Petitioners have considered the actual data for FY 2019-20 and FY 2020-21 (till October 20) for calculating normative availability including backing down of power for FY 2021-22.

2.41 The Petitioners have projected partially back down units/stations, which are higher up in the MoD by an average rate of energy sale at IEX during the past 12 months, i.e., at Rs. 3.10/kWh for FY 2021-22, during those periods when their operation 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 benefits of reduced power procurement cost or selling at a higher rate, whichever the case may be, is in turn passed on to the consumers.

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

Table 18: Stations which are considered by the Petitioners for partial /full back down (MU)

Sr. No.	Particulars	Normative Availability	Net Availability	Back Down
I	**Central Sector**	**35,222**	**26,502**	**8,720**
1	NTPC Korba	3,245	3,245	
2	NTPC Korba III	490	490	
3	NTPC Vindyachal I	2,918	2,918	
4	NTPC Vindyachal II	2,165	2,165	
5	NTPC Vindyachal III	1,653	1,653	
6	NTPC Vindyachal IV	1,902	1,902	
7	NTPC Vindyachal V Unit 1	948	948	
8	NTPC Sipat I	2,188	2,188	
9	NTPC Sipat II	1,249	1,249	
10	NTPC Mouda I	1,162	-	1,162
11	NTPC Mouda II Unit 1	1,620	-	1,620
12	NTPC Solapur STPS	2,211	1,406	805
13	NTPC Gadarwara STPS, Unit-1	2,889	2,651	237
14	NTPC Lara STPS, Raigarh, Unit I	598	598	
15	NTPC Khargone STPS, Unit-I	2,383	202	2,181
16	NTPC Kawas GPP	718	718	
17	NTPC Gandhar GPP	601	496	105
18	KAPP Kakrapar	-	-	
19	TAPP Tarapur	-	-	
20	NTPC Gadarwara STPS, Unit-2	2,807	2,576	231
21	NTPC Lara STPS, Raigarh, Unit II	448	448	
22	NTPC Khargone STPS, Unit-II	2,316	-	2,316
23	NTPC Auraiya GPP	11	1	10

Sr. No.	Particulars	Normative Availability	Net Availability	Back Down
24	NTPC Dadri GPP	14	13	1
25	NTPC Anta GPP	7	7	1
26	NTPC Firoz Gandhi Unchahar I	2	-	2
27	NTPC Firoz Gandhi Unchahar II	7	-	7
28	NTPC Firoz Gandhi Unchahar III	3	-	3
29	NTPC Firoz Gandhi Unchahar IV	9	-	9
30	NTPC Rihand TPS-I	14	14	
31	NTPC Rihand TPS-II	15	15	
32	NTPC Rihand TPS-III	17	17	
33	NTPC NCTP Dadri II	16	-	16
34	NTPC Singrauli	29	29	
35	NTPC IGPS I Jhajjar	13	-	13
36	MEJA Urja Nigam	5	5	
37	NTPC Tanda	7	7	1
38	NTPC Badarpur	-	-	
39	Rajasthan (NPCIL)	12	12	
40	NARORA (NPCIL)	7	7	
41	NTPC Kahalgaon II	519	519	
II	**MP GENCO (THERMAL & HYDRO)**	**31,264**	**22,793**	**8,471**
1	Amarkantak TPS Ph-III	1,446	1,446	
2	Satpura TPS Ph-II & III	-	-	
3	Satpura TPS Ph-IV	3,411	3,411	
4	SGTPS Ph-I & II	4,655	4,655	
5	SGTPS Ph-III	3,510	3,510	
6	Shri Singaji STPS Phase-I	7,433	5,073	2,360
7	Shri Singaji STPS Phase-II	8,170	2,059	6,111
8	Rani Awanti Bai Sagar, Bargi HPS	344	344	
9	Bansagar Ph I HPS (Tons)	1,082	1,082	
10	Bansagar Ph-II HPS (Silpara)	100	100	
11	Bansagar Ph-III HPS (Deolond)	140	140	
12	Bansagar Ph-IV HPS (Jhinna)	104	104	
13	Birsinghpur HPS	50	50	
14	Madikheda HPS	120	120	
15	Rajghat HPS	53	53	
16	Gandhisagar HPS	115	115	
17	Ranapratap Sagar HPS	201	201	
18	Jawahar Sagar HPS	147	147	
19	Pench HPS	183	183	
III	**JV Hydel & Other Hydels**	**5,232**	**5,231**	**1**
1	NHDC Indira Sagar HPS	2,343	2,343	
2	NHDC Omkareshwar HPS	1,038	1,038	
3	NVDA Sardar Sarovar HPS	1,696	1,696	
4	Rihand HPS	82	82	
5	Matatila HPS	29	29	

Sr. No.	Particulars	Normative Availability	Net Availability	Back Down
6	SJVN Rampur HPS	2	2	
7	SJVN Jhakri HPS	9	9	
8	Tehri HPS	6	6	
9	Koteshwar HPP	2	2	
10	NHPC Parbati III	3	3	
11	NHPC Chamera II	3	3	
12	NHPC Chamera III	2	2	
13	NHPC Dulhasti	4	3	1
14	NHPC Dhauliganga	3	3	
15	NHPC Sewa II	1	1	0
16	NHPC Uri II	2	2	
17	NHPC Kishanganga	3	3	
18	NTPC Koldam HPP I	3	3	
19	NTPC Singrauli Small HPP	0	-	0
IV	**DVC**	**-**	**-**	**-**
1	DVC (MTPS & CTPS)	-	-	
2	DVC (DTPS)	-	-	
V	**IPPs**	**23,587**	**20,764**	**2,823**
1	Torrent Power	256	256	
2	BLA Power, Unit-I & II	188	158	30
3	Jaypee Bina Power	2,372	-	2,372
4	Lanco Amarkantak TPS Unit 1	2,033	2,033	
5	Reliance UMPP, Sasan	10,422	10,422	
6	Essar Power STPS	421	-	421
7	Jaiprakash Power STPS, Nigri	3,474	3,474	
8	MB Power STPS, Unit-I	1,474	1,474	
9	MB Power STPS, Unit-II	1,474	1,474	
10	Jhabua Power STPS, Unit-1	1,474	1,474	
VI	**Renewables**	**8,293**	**8,293**	**-**
1	Renewable Energy (Solar)	4,114	4,114	
2	Renewable Energy (other than Solar)	4,149	4,149	
3	Renewable Energy (mini micro)	30	30	
VII	**Total**	**103,599**	**83,584**	**20,015**

2.43 The following table shows the overall availability of all the stations after application of merit order dispatch and backing-down for the period FY 2021-22 as submitted by the Petitioners:

Table 19: Total Availability of Energy submitted by the Petitioners for FY 2021-22 (MU)

Sr. No.	Particulars	FY 2021-22
1.	Ex-Bus Availability	103,599
2.	Backdown of Power excluding Sale of Surplus Power	20,015
3.	Energy Available after Backdown	83,584
4.	Ex-Bus Energy Required by DISCOMs	79,653

Sr. No.	Particulars	FY 2021-22
5.	Surplus Units available for Sale	3,930

Commission's Analysis

2.44 The Commission has considered the CGS allocation for FY 2021-22 as provided by Western Regional Power Committee in their letter No. WRPC/Comml-I/6/Alloc/2021/2501 dated 26th February, 2021 and from Eastern Region NTPC Kahalgaon-2 vide GoI MoP letter no. 5/31/2006- dated 21st February, 2007 and Northern Region as per Northern Regional Power Committee letter no. NRPC/OPR/103/02/2020/10081/10108 dated 16th October, 2020. 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 Deptt. Govt. of Madhya Pradesh. The Commission has further distributed the generating capacities among the DISCOMs as per their energy requirement.

2.45 The Commission has considered allocation for MPPMCL existing stations and new capacity additions as shown in the following table:

Table 20: Allocation of Generating Station considered by the Commission for FY 2021-22

Sr. No	Generating Stations	Region	Installed Capacity (MW)	Availability (in MW)	Allocation to State (%)
I	**Central Generating Stations**		**35951**	**5198**	
1	NTPC Korba	WR	2100	472	22.49%
2	NTPC Korba III	WR	475	71	14.94%
3	NTPC Vindyachal I	WR	1260	433	34.38%
4	NTPC Vindyachal II	WR	1000	310	31.05%
5	NTPC Vindyachal III	WR	1000	237	23.75%
6	NTPC Vindyachal IV	WR	1000	273	27.33%
7	NTPC Vindyachal V Unit 1	WR	500	136	27.26%
8	NTPC Sipat I	WR	1980	316	15.98%
9	NTPC Sipat II	WR	1000	180	17.99%
10	NTPC Mouda I	WR	1000	168	16.79%
11	NTPC Mouda II Unit 1	WR	1320	234	17.72%
12	NTPC Kawas GPP	WR	656.2	140	21.36%
13	NTPC Gandhar GPP	WR	657.39	117	17.83%
14	NTPC Auraiya GPP	NR	663	2	0.25%
15	NTPC Dadri GPP	NR	830	2	0.26%
16	NTPC Anta GPP	NR	419	1	0.26%
17	NTPC Kahalgaon 2	ER	1500	74	4.93%
18	KAPP Kakrapar	WR	440	0	0.00%
19	TAPP Tarapur	WR	1080	0	0.00%
20	RAPP Rawabhatta	NR	440	1	0.26%

Sr. No	Generating Stations	Region	Installed Capacity (MW)	Availability (in MW)	Allocation to State (%)
21	NAPP Narora	NR	440	1	0.25%
22	NTPC Solapur STPS, Phase-1	WR	1320	317	24.04%
23	NTPC Gadarwara STPS, Unit-1	WR	800	415	51.83%
24	NTPC Gadarwara STPS, Unit-2	WR	800	415	51.83%
25	NTPC Lara STPS, Raigarh, Unit I	WR	800	88	11.03%
26	NTPC Lara STPS, Raigarh, Unit II	WR	800	88	11.03%
27	NTPC Firoz Gandhi Unchahar I	NR	420	0	0.08%
28	NTPC Firoz Gandhi Unchahar II	NR	420	1	0.26%
29	NTPC Firoz Gandhi Unchahar III	NR	210	1	0.25%
30	NTPC Firoz Gandhi Unchahar IV	NR	500	1	0.26%
31	NTPC Rihand I	NR	1000	2	0.21%
32	NTPC Rihand II	NR	1000	2	0.23%
33	NTPC Rihand III	NR	1000	3	0.25%
34	NTPC NCTP Dadri II	NR	980	2	0.23%
35	NTPC Singrauli	NR	2000	4	0.21%
36	NTPC IGPS I Jhajjar	NR	1500	2	0.13%
37	NTPC Khargone STPS, Unit-I	WR	660	342	51.83%
38	NTPC Khargone STPS, Unit-II	WR	660	342	51.83%
39	NTPC MEJA Urja Nigam	NR	660	1	0.13%
40	NTPC Tanda	NR	660	1	0.17%
II	**MP Genco Power Station(Thermal & Hydro)**		**6586**	**5487**	
41	Amarkantak TPS Ph-III	State	210	210	100.00%
42	Satpura Phase III	State	830	0	0.00%
43	Satpura TPS Ph-IV	State	500	500	100.00%
44	SGTPS Ph-I & II	State	840	840	100.00%
45	SGTPS Ph-III	State	500	500	100.00%
46	Shri Singaji STPS, Ph-I	State	1200	1200	100.00%
47	Shri Singaji Phase-2, Unit-1	State	660	660	100.00%
48	Shri Singaji Phase-2, Unit-2	State	660	660	100.00%
49	Rani Awanti Bai Sagar, Bargi HPS	State	90	90	100.00%
50	Bansagar Ph I HPS (Tons)	State	315	315	100.00%
51	Bansagar Ph-II HPS (Silpara)	State	30	30	100.00%
52	Bansagar Ph-III HPS (Deolond)	State	60	60	100.00%
53	Bansagar Ph-IV HPS (Jhinna)	State	20	20	100.00%
54	Birsinghpur HPS	State	20	20	100.00%
55	Marhikheda HPS	State	60	60	100.00%
56	Rajghat HPS	State	45	23	50.00%

Sr. No	Generating Stations	Region	Installed Capacity (MW)	Availability (in MW)	Allocation to State (%)
57	Gandhisagar HPS	State	115	58	50.00%
58	Ranapratap Sagar & Jawahar Sagar HPS	State	271	136	50.00%
59	Pench HPS	State	160	107	66.69%
III	**JV Hydel & Other Hydels**		**9832**	**2414**	
60	NHDC Indira Sagar HPS	State	1000	1000	100.00%
61	NHDC Omkareshwar HPS	State	520	520	100.00%
62	Sardar Sarovar HPS	WR	1450	827	57.00%
63	Rihand HPS	NR	300	45	15.00%
64	Matatila HPS	NR	30.6	10	32.68%
65	SJVN Rampur HPS	NR	412.02	1	0.16%
66	SJVN Jhakri HPS	NR	1500	3	0.17%
67	Tehri HPS	NR	1000	2	0.17%
68	Koteshwar HPP	NR	400	1	0.17%
69	Parbati III	NR	520	1	0.25%
70	NHPC Chamera II	NR	300	1	0.31%
71	NHPC Chamera III	NR	231	1	0.26%
72	NHPC Dulhasti	NR	390	1	0.26%
73	NHPC Dhauliganga	NR	280	1	0.26%
74	NHPC Sewa II	NR	120	0	0.26%
75	NHPC Uri II	NR	240	0	0.00%
76	NHPC Kishanganga	NR	330	1	0.26%
77	NTPC Koldam HPP I	NR	800	1	0.12%
78	NTPC Singrauli Small HPP	NR	8	0	0.26%
IV	**IPPs**		**10318**	**3260**	
79	Torrent Power	WR	1148	0	0.00%
80	BLA Power	State	90	0	0.00%
81	Jaypee Bina Power	State	500	350	70.00%
82	Lanco Amarkantak TPS Unit 1	WR	300	300	100.00%
83	Reliance UMPP, Sasan	WR	3960	1485	37.50%
84	Essar Power STPS	State	1200	0	0.00%
85	Jaiprakash Power STPS, Nigri	WR	1320	495	37.50%
86	MB Power STPS	WR	1200	420	35.00%
87	Jhabua Power STPS, Unit-1	WR	600	210	35.00%
V	**Renewables**		**5879**	**5879**	
88	Solar		3438	3438	100.00%
89	Other Mini Micro		2405	2405	100.00%
90	Other than Solar		36	36	100.00%

2.46 The Commission in order to project energy availability for FY 2021-22 has analysed the following:

(i) Actual average scheduled energy for previous three years, i.e., FY 2018-19 to FY 2020-21 (Upto February 2021) as per State Energy Accounts;

(ii) Actual availability of Central Generating Stations as per Regional Energy Account for FY 2018-19 and FY 2019-20.;

(iii) Availability submitted by the Petitioner based on availability in FY 2018-19 and FY 2020-21 (till October);

(iv) Projections made by NHDC, NVDA for FY 2020-21 and MPPGCL for FY 2021-22.

2.47 With regard to the energy availability from Central Thermal Power Generating Stations, the Commission observed that the actual availability for FY 2019-20 is in line with the average of the scheduled energy in previous three years and with the Petitioner submission. Accordingly, the Commission has considered the availability for these stations as per actual plant availability in FY 2019-20.

2.48 Further, the Commission has considered energy availability from the Central Hydro Generating Stations as per the actual plant availability in previous years given in the Hydro Performance Review 2018-19 published by CEA.

2.49 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 September, 2018 only, the energy availability data for previous three years is not available. Hence, the Commission has considered the zero energy availability for FY 2021-22 as submitted by the Petitioner.

(ii) **Tarapur Nuclear Power Plant:** Based on Petitioner’s submission the energy availability has been considered as zero;

(iii) **Narora and Rawatbhata Nuclear Power Plant:** As the share in these plants have been allocated to MPPMCL in FY 2018-19 only, the availability from these generating stations have been considered same as projected by the Petitioner, which is in line with the actual energy scheduled after its allocation to MPPMCL.

2.50 The Commission has considered the energy availability of MPPGCL thermal generating stations based on the actual availability of the MP Genco power plants during FY 2019-20. Further, it is observed that the MPPGCL is not scheduling any energy from Satpura Phase-III considering the proposal of MP Genco for decommissioning of the plant sent to the State Government. Accordingly, the Commission has also not considered availability from the said generating station for FY 2021-22. Availability, if any, from Satpura Phase-III generating stations may be considered at actual at the time of truing up of FY 2021-22.

2.51 The Commission has considered the energy availability of MPPGCL Hydro generating stations based on the availability provided by MP Genco to the Commission for FY 2021-22. It is also observed that MPPGCL has not submitted the availability from Rana Pratap Sagar HPS, as it is being operated by Rajasthan Authority. Therefore, in the absence of the details of past availability, the Commission has considered the energy availability as submitted by the Petitioner.

2.52 As regards availability projections in respect of Indira Sagar Power Station (ISPS), Omkareshwar (OSP) and Sardar Sarovar Project (SSP), the Commission has considered the projections as approved in the Tariff Order for FY 2020-21.

2.53 With regard to new NTPC Stations, i.e., Gadarwara Unit-2 and Lara Unit-2 Thermal Power Stations, the Commission has considered the availability at normative availability of 85%. Further, with regards to NTPC Meja Urja Nigam and NTPC Tanda generating stations, as these generating stations has been allocated to MPPMCL in FY 2020-21 only, in absence of data, availability from these generating stations has been considered as submitted by the Petitioners.

2.54 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 cost of power procured from Unit No. 1 of M/s BLA Power. In Appeal No. 201 of 2017, Hon'ble APTEL vide Order dated 19.04.2018 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 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, however, the proceeding in the aforesaid petition was adjourned since one of the issues related to fuel supply arrangement in this Petition has been commonly sub-judice in the aforesaid Civil Appeal. M/s BLA Power has approached the Commission in March 2020 for determination of tariff for Unit 2 of its power plant in light of subsequent developments related to provisional allocation of coal linkage under Para B(ii) of SHAKTI Policy of Government of India. After admission on 05.11.2020, this Petition is now under detailed examination with the Commission. In view of aforesaid status, the availability and 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.

2.55 Further, 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 2021-22 has not been considered in this Order. Also, the Commission has not considered the availability and the cost there on for the Sugen Torrent Generating Station in view of past practice followed by the Commission in its Retail Supply Tariff Orders from 2016-17 onwards, since, the Petitioners could not respond satisfactorily to the Commission's queries through separate communications with regard to PPA. However, the Petitioner is at liberty to approach the Commission with a separate Petition in this regard.

2.56 Month-wise and generating station-wise details of projected availability for FY 2021-22 is indicated in the following table:

Table 21 : Month wise energy availability projection for FY 2021-22 (MU)

Sr. No.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
I	**Central Generating Stations**	**3,269**	**3,530**	**3,112**	**3,400**	**3,084**	**3,160**	**3,160**	**3,234**	**3,224**	**3,273**	**3,160**	**3,191**	**38,798**
1	NTPC Korba	302	297	294	301	288	245	274	294	265	288	270	318	3,436
2	NTPC Korba III	44	45	44	39	36	40	44	45	45	44	42	45	513
3	NTPC Vindyachal I	243	257	230	272	233	211	239	256	271	285	266	248	3,010
4	NTPC Vindyachal II	197	195	145	131	186	181	185	212	168	198	196	187	2,180
5	NTPC Vindyachal III	140	166	151	166	157	152	164	141	138	147	134	122	1,779
6	NTPC Vindyachal IV	191	192	168	193	153	159	186	193	181	150	139	179	2,084
7	NTPC Vindyachal V Unit 1	87	107	93	106	95	90	94	105	98	82	68	88	1,112
8	NTPC Sipat I	202	197	177	191	181	171	175	193	207	209	189	210	2,303
9	NTPC Sipat II	121	128	119	127	114	106	106	113	105	96	93	120	1,350
10	NTPC Mouda I	106	142	98	160	66	100	136	125	125	149	108	78	1,392
11	NTPC Mouda II Unit 1	168	247	154	173	86	105	101	137	145	163	154	95	1,729
12	NTPC Kawas GPP	99	132	72	47	63	181	104	100	83	77	68	107	1,133
13	NTPC Gandhar GPP	74	86	73	149	88	131	10	13	47	40	204	44	960
14	NTPC Auraiya GPP	1	0	0	0	3	1	5	3	0	0	0	0	13
15	NTPC Dadri GPP	1	1	1	1	1	2	1	1	2	1	2	3	17
16	NTPC Anta GPP	0	1	1	1	0	0	0	3	0	1	1	0	8
17	NTPC Kahalgaon 2	42	42	37	49	38	32	42	47	52	48	57	53	538
18	RAPP Rawabhatta	1	1	1	1	1	1	1	1	1	1	1	1	12
19	NAPP Narora	1	1	1	1	1	1	1	1	1	1	1	1	7
20	NTPC Solapur STPS, Phase-1	204	211	204	211	211	204	211	204	211	211	191	211	2,487
21	NTPC Gadarwara STPS, Unit-1	267	276	267	276	276	267	276	267	276	276	249	276	3,250
22	NTPC Gadarwara STPS, Unit-2	240	248	240	248	248	240	248	240	248	248	224	248	2,918
23	NTPC Lara STPS, Raigarh, Unit I	52	54	52	54	54	52	54	52	54	54	48	54	631
24	NTPC Lara STPS, Raigarh, Unit II	51	53	51	53	53	51	53	51	53	53	48	53	621
25	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	3
26	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	9
27	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
28	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	10
29	NTPC Rihand I	1	1	1	1	1	1	1	1	1	1	1	1	15

Sr. No.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
30	NTPC Rihand II	1	1	1	1	1	1	1	1	1	1	1	1	17
31	NTPC Rihand III	2	2	2	2	2	2	2	2	2	2	2	2	21
32	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	17
33	NTPC Singrauli	3	3	3	3	3	3	3	3	3	3	2	3	31
34	NTPC IGPS I Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	15
35	NTPC Khargone STPS, Unit-I	226	234	226	234	234	226	234	226	234	234	211	234	2,754
36	NTPC Khargone STPS, Unit-II	198	204	198	204	204	198	204	198	204	204	185	204	2,407
37	NTPC MEJA Urja Nigam	0	0	0	0	0	0	0	0	0	0	0	0	5
38	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	7
II	**MP Genco Power Station(Thermal & Hydro)**	**2,444**	**2,241**	**2,099**	**2,460**	**1,900**	**1,768**	**1,873**	**2,535**	**3,576**	**3,587**	**3,502**	**2,844**	**30,830**
39	Amarkantak TPS Ph-III	140	150	134	62	107	140	142	139	148	146	136	133	1,577
40	Satpura TPS Ph-IV	310	276	259	243	222	228	258	328	341	319	309	313	3,406
41	SGTPS Ph-I & II	486	482	382	371	361	297	328	360	450	468	461	377	4,823
42	SGTPS Ph-III	288	199	259	294	187	241	300	324	314	318	267	289	3,279
43	Shri Singaji STPS, Ph-I	552	539	460	530	383	425	514	801	923	763	799	520	7,209
44	Shri Singaji Phase-2, Unit-1	271	237	228	377	162	51	0	161	579	677	671	521	3,935
45	Shri Singaji Phase-2, Unit-2	271	237	228	377	162	51	0	161	579	677	671	521	3,935
46	Rani Awanti Bai Sagar, Bargi HPS	20	15	15	20	50	50	50	40	40	40	40	30	408
47	Bansagar Ph I HPS (Tons)	70	70	90	90	100	100	100	100	90	80	70	70	1,027
48	Bansagar Ph-II HPS (Silpara)	7	7	7	10	15	15	15	15	10	7	7	7	120
49	Bansagar Ph-III HPS (Deolond)	0	0	5	25	30	30	30	0	0	0	0	0	118
50	Bansagar Ph-IV HPS (Jhinna)	5	5	5	5	14	14	14	14	12	12	5	5	107
51	Birsinghpur HPS	0	0	0	8	10	10	10	5	5	4	0	0	50
52	Marhikheda HPS	0	0	0	5	15	20	15	13	12	10	5	5	97
53	Rajghat HPS	0	0	0	3	6	9	9	9	9	3	3	3	52
54	Gandhisagar HPS	1	2	5	8	10	15	15	15	15	15	15	12	127
55	Ranapratap Sagar & Jawahar Sagar HPS	17	18	18	23	49	50	42	29	27	28	24	23	349
56	Pench HPS	7	6	7	10	20	23	33	23	23	23	20	16	211
III	**JV Hydel & Other Hydel**	**172**	**175**	**284**	**139**	**527**	**1,083**	**546**	**306**	**428**	**407**	**333**	**290**	**4,691**

Sr. No.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
57	NHDC Indira Sagar HPS	74	82	96	41	200	416	208	106	155	145	105	129	1,757
58	NHDC Omkareshwar HPS	42	46	63	32	102	185	103	59	78	78	60	70	916
59	Sardar Sarovar HPS	49	35	114	50	209	460	210	127	177	163	150	77	1,821
60	Rihand HPS	4	5	7	10	9	11	15	5	11	15	12	9	111
61	Matatila HPS	0	3	0	0	2	6	6	7	4	4	5	3	40
62	SJVN Rampur HPS	0	0	1	0	0	0	0	0	0	0	0	0	3
63	SJVN Jhakri HPS	1	1	1	1	1	1	1	1	1	1	1	1	11
64	Tehri HPS	0	0	0	0	1	1	0	0	0	0	0	0	4
65	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	2
66	Parbati III	0	0	1	1	1	0	0	0	0	0	0	0	3
67	NHPC Chamera II	0	0	1	1	1	0	0	0	0	0	0	0	4
68	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	3
69	NHPC Dulhasti	0	0	1	1	1	1	1	0	0	0	0	0	4
70	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
71	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
72	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
73	NTPC Koldam HPP I	0	0	1	1	1	0	0	0	0	0	0	0	4
74	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0
IV	**IPPs**	**1,981**	**2,276**	**2,066**	**1,948**	**1,774**	**1,688**	**2,084**	**2,107**	**1,945**	**2,026**	**1,968**	**1,944**	**23,807**
75	Jaypee Bina Power	246	376	318	185	179	115	205	189	148	154	177	87	2,378
76	Lanco Amarkantak TPS Unit 1	172	193	178	176	152	96	193	163	184	182	167	181	2,038
77	Reliance UMPP, Sasan	972	991	965	904	897	917	965	981	970	972	923	1,017	11,474
78	Jaiprakash Power STPS, Nigri	266	326	320	220	262	303	333	326	281	313	238	294	3,483
79	MB Power STPS	258	280	179	302	204	163	253	288	224	279	291	235	2,956
80	Jhabua Power STPS, Unit-1	67	110	106	161	80	95	135	159	137	126	172	130	1,478
V	**Renewables**	**581**	**600**	**581**	**647**	**647**	**719**	**743**	**719**	**743**	**743**	**745**	**825**	**8,293**
81	Solar	237	245	237	292	292	376	388	376	388	388	425	470	4,114
82	Other Mini Micro	2	3	2	3	3	2	3	2	3	3	2	3	30
83	Other than Solar	341	352	341	352	352	341	352	341	352	352	318	352	4,149
VI	**Total**	**8,447**	**8,823**	**8,142**	**8,595**	**7,932**	**8,419**	**8,406**	**8,901**	**9,917**	**10,036**	**9,709**	**9,095**	**1,06,420**

Assessment of Power Purchase Cost

Petitioners’ Submission

2.57 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 as submitted by the Petitioners for FY 2021-22

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
I: Central Sector					
1	NTPC Korba	244.83	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.48	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
2	NTPC Korba III	78.25	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.45	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
3	NTPC Vindyachal I	258.87	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.86	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
4	NTPC Vindyachal II	160.63	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.84	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
5	NTPC Vindyachal III	175.72	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.81	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
6	NTPC Vindyachal IV	301.40	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.83	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
7	NTPC Vindyachal V Unit 1	157.41	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.84	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
8	NTPC Sipat I	298.21	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.51	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
9	NTPC Sipat II	178.29	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	1.54	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
10	NTPC Mouda I	220.71	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	3.66	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
11	NTPC Mouda II Unit 1	242.83	Fixed Charge as per Weighted Avg of 12 month Bill (Nov-19 to Oct-20)	3.54	Energy Charge as per Last 12 months Avg (Nov-19 to Oct-20)
12	NTPC Solapur STPS	386.68	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.95	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
13	NTPC Gadarwara STPS, Unit-1	569.10	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.80	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
14	NTPC Lara STPS, Raigarh, Unit I	118.75	Fixed Charge as per Weighted Average of 12	2.28	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
			month Bill (Nov-19 to Oct-20)		
15	NTPC Khargone STPS, Unit-I	771.67	Fixed Charge as per Weighted Average of Last 9 month Bill (Feb-20 to Oct-20)	3.03	Energy Charge as per Last 9 months Average (Feb-20 to Oct-20)
16	NTPC Kawas GPP	88.04	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.13	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
17	NTPC Gandhar GPP	89.33	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.87	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
18	KAPP Kakrapar	0.00	-	1.43	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
19	TAPP Tarapur	0.00	-	4.83	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
20	NTPC Gadarwara STPS, Unit-2	569.10	As per NTPC Gadarwara STPS, Unit-1	2.80	As per NTPC Gadarwara STPS, Unit-1
21	NTPC Lara STPS, Raigarh, Unit II	118.75	As per NTPC Lara STPS, Raigarh, Unit I	2.28	As per NTPC Lara STPS, Raigarh, Unit I
22	NTPC Khargone STPS, Unit-II	771.67	As per NTPC Khargone STPS, Unit-I	3.03	As per NTPC Khargone STPS, Unit-I
23	NTPC Auraiya GPP	0.77	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.00	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
24	NTPC Dadri GPP	0.88	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.77	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
25	NTPC Anta GPP	0.56	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.67	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
26	NTPC Firoz Gandhi Unchahar I	0.23	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.18	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
27	NTPC Firoz Gandhi Unchahar II	0.70	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.23	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
28	NTPC Firoz Gandhi Unchahar III	0.46	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.29	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
29	NTPC Firoz Gandhi Unchahar IV	1.36	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.16	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
30	NTPC Rihand TPS-I	0.96	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.44	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
31	NTPC Rihand TPS-II	2.10	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.43	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
32	NTPC Rihand TPS-III	3.15	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.41	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
33	NTPC NCTP Dadri II	2.28	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.86	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
34	NTPC Singrauli	1.93	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.38	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
35	NTPC IGPS I Jhajjar	2.21	-	3.36	Energy charges as per last 4 months Average Bill (July-20 to Oct-20)
36	MEJA Urja Nigam	0.79	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.57	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
37	NTPC Tanda	1.18	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.63	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
38	RAPP Rawatbhata	0.00	-	3.51	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
39	NAPP Narora	0.00	-	2.74	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
40	NTPC Kahalgaon II	49.36	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.36	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
II:MP GENCO (THERMAL & HYDRO)					
1	Amarkantak TPS Ph-III	214.39	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.73	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
2	Satpura TPS Ph-II & III	0.00	NIL due to decommissioning of plant	0.00	NIL due to decommissioning of plant
3	Satpura TPS Ph-IV	731.75	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.37	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
4	SGTPS Ph-I & II	451.52	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.50	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
5	SGTPS Ph-III	418.57	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.02	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
6	Shri Singaji STPS Phase-I	1186.65	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.93	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
7	Shri Singaji STPS Phase-II	921.04	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.97	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
8	Rani Awanti Bai Sagar, Bargi HPS	8.69	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.49	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
9	Bansagar Ph I HPS (Tons)	46.70	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.71	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
10	Bansagar Ph-II HPS (Silpara)	5.90	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.53	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
11	Bansagar Ph-III HPS (Deolond)	12.05	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.61	Energy charges as per Weighted Average of past 12 months Bills (Sep-18 to Aug-19) in accordance with the ARR Petition for FY 2020-21
12	Bansagar Ph-IV HPS (Jhinna)	9.03	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.01	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
13	Birsinghpur HPS	2.43	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.59	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
14	Madikheda HPS	17.60	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.79	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
15	Rajghat HPS	7.07	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.72	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
16	Gandhisagar HPS	5.52	Fixed Charge as per Weighted Average of 12 months Bill (Sept-18 to Aug-19)	0.77	Energy Charge as per Last 12 months Average (Sept-18 to Aug-19)
17	Ranapratap Sagar HPS	4.66	Considered as per the Tariff Order FY 2019-20	1.51	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
18	Jawahar Sagar HPS	0.00	-	1.51	As per the RP Sagar

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
19	Pench HPS	10.93	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.47	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
III: JV Hydel & Other Hydels					
1	NHDC Indira Sagar HPS	285.09	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.79	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
2	NHDC Omkareshwar HPS	198.60	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.29	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
3	NVDA Sardar Sarovar HPS	178.14	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.82	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
4	Rihand HPS	0.00	-	0.40	Energy Charge as per Last 12 months Average (Sept-15 to Aug-16) in absence of supply in previous months
5	Matatila HPS	0.00	-	0.40	Energy Charge as per Last 12 months Average (Sept-15 to Aug-16) in absence of supply in previous months
6	SJVN Rampur HPS	0.82	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.73	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
7	SJVN Jhakri HPS	1.47	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.98	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
8	Tehri HPS	1.18	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.38	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
9	Koteshwar HPP	0.49	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.57	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
10	NHPC Parbati III	0.74	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.54	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
11	NHPC Chamera II	0.18	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.01	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
12	NHPC Chamera III	0.59	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.83	Energy Charge as per Last 11 month Average (Dec-19 to Oct-20)
13	NHPC Dulhasti	1.40	Fixed Charge as per Weighted Average of 12	2.65	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
			month Bill (Nov-19 to Oct-20)		
14	NHPC Dhauliganga	0.58	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.21	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
15	NHPC Sewa II	0.42	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.70	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
16	NHPC Uri II	0.22	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.04	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
17	NHPC Kishanganga	0.49	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.97	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
18	NTPC Koldam HPP I	1.09	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.24	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
19	NTPC Singrauli Small HPP	0.00	-	6.44	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
IV	**DVC**				
1	DVC (MTPS & CTPS)	0.00	-	0.00	0.00
2	DVC (DTPS)	0.00	-	0.00	0.00
V	**IPPs**				
1	Torrent Power	45.44	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.53	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
2	BLA Power, Unit-I & II	20.05	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.83	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
3	Jaypee Bina Power	274.15	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	3.87	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
4	Lanco Amarkantak TPS Unit 1	245.07	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.05	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
5	Reliance UMPP, Sasan	174.11	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	1.43	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
6	Essar Power STPS	0.00	-	4.01	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)

Sr. no.	Particulars	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
7	Jaiprakash Power STPS, Nigri	510.71	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	0.72	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
8	MB Power STPS, Unit-I	253.02	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.40	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
9	MB Power STPS, Unit-II	210.54	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.07	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
10	Jhabua Power STPS, Unit-1	255.64	Fixed Charge as per Weighted Average of 12 month Bill (Nov-19 to Oct-20)	2.36	Energy Charge as per Last 12 months Average (Nov-19 to Oct-20)
VI	**Renewables**				
1	Renewable Energy (Solar)	0.00	-	4.06	As per Weighted Average of all Solar generators with whom PPAs are existing
2	Renewable Energy (other than Solar)	0.86	-	5.50	As per Weighted Average of all Non-Solar generators with whom PPAs are existing
3	Renewable Energy (mini micro)	0.00	-	4.43	As per Weighted Average of other mini micro generators with whom PPAs are existing

2.58 The Merit Order Dispatch (MOD) applied for FY 2021-22 as submitted by the Petitioners is given in the following table:

Table 23 : MOD for FY 2021-22 as submitted by the Petitioners

Sr.no	Particulars	Variable Charge (Paisa/kWh)	Availability (MU)
1	RAPP Rawatbhata	351	12
2	NAPP Narora	274	7
3	Renewable Energy (Solar)	406	4,114
4	Renewable Energy (other than Solar)	550	4,149
5	Renewable Energy (mini micro)	443	30
6	Rihand HPS	40	82
7	Matatila HPS	40	29
8	Pench HPS	47	183
9	Rani Awanti Bai Sagar, Bargi HPS	49	344
10	Bansagar Ph-II HPS (Silpara)	53	100
11	Torrent Power	53	256
12	Birsinghpur HPS	59	50
13	Bansagar Ph I HPS (Tons)	71	1,082
14	Rajghat HPS	72	53
15	Jaiprakash Power STPS, Nigri	72	3,474

Sr.no	Particulars	Variable Charge (Paisa/kWh)	Availability (MU)
16	Gandhisagar HPS	77	115
17	NVDA Sardar Sarovar HPS	82	1,696
18	SJVN Jhakri HPS	98	9
19	NHPC Chamera II	101	3
20	Bansagar Ph-IV HPS (Jhinna)	101	104
21	NHPC Uri II	104	2
22	NHPC Dhauliganga	121	3
23	Tehri HPS	138	6
24	NTPC Singrauli	138	29
25	NTPC Rihand TPS-III	141	17
26	Reliance UMPP, Sasan	143	10,422
27	NTPC Rihand TPS-II	143	15
28	NTPC Rihand TPS-I	144	14
29	NTPC Korba III	145	490
30	NTPC Korba	148	3,245
31	Ranapratap Sagar HPS	151	201
32	Jawahar Sagar HPS	151	147
33	NTPC Sipat I	151	2,188
34	NHPC Parbati III	154	3
35	NTPC Sipat II	154	1,249
36	Koteshwar HPP	157	2
37	Bansagar Ph-III HPS (Deolond)	161	140
38	Amarkantak TPS Ph-III	173	1,446
39	SJVN Rampur HPS	173	2
40	NHDC Indira Sagar HPS	179	2,343
41	Madikheda HPS	179	120
42	NTPC Vindyachal III	181	1,653
43	NHPC Chamera III	183	2
44	NTPC Vindyachal IV	183	1,902
45	NTPC Vindyachal II	184	2,165
46	NTPC Vindyachal V Unit 1	184	948
47	NTPC Vindyachal I	186	2,918
48	NHPC Kishanganga	197	3
49	SGTPS Ph-III	202	3,510
50	Lanco Amarkantak TPS Unit 1	205	2,033
51	MB Power STPS, Unit-II	207	1,474
52	NTPC Kawas GPP	213	718
53	NTPC Koldam HPP I	224	3
54	NTPC Lara STPS, Raigarh, Unit I	228	598
55	NTPC Lara STPS, Raigarh, Unit II	228	448
56	NHDC Omkareshwar HPS	229	1,038
57	NTPC Kahalgaon II	236	519
58	Jhabua Power STPS, Unit-1	236	1,474
59	Satpura TPS Ph-IV	237	3,411
60	MB Power STPS, Unit-I	240	1,474

Sr.no	Particulars	Variable Charge (Paisa/kWh)	Availability (MU)
61	SGTPS Ph-I & II	250	4,655
62	MEJA Urja Nigam	257	5
63	NTPC Tanda	263	7
64	NHPC Dulhasti	265	4
65	NTPC Anta GPP	267	7
66	NHPC Sewa II	270	1
67	NTPC Dadri GPP	277	14
68	NTPC Gadarwara STPS, Unit-1	280	2,889
69	NTPC Gadarwara STPS, Unit-2	280	2,807
70	BLA Power, Unit-I & II	283	188
71	NTPC Gandhar GPP	287	601
72	Shri Singaji STPS Phase-I	293	7,433
73	NTPC Solapur STPS	295	2,211
74	Shri Singaji STPS Phase-II	297	8,170
75	NTPC Auraiya GPP	300	11
76	NTPC Khargone STPS, Unit-I	303	2,383
77	NTPC Khargone STPS, Unit-II	303	2,316
78	NTPC Firoz Gandhi Unchahar IV	316	9
79	NTPC Firoz Gandhi Unchahar I	318	2
80	NTPC Firoz Gandhi Unchahar II	323	7
81	NTPC Firoz Gandhi Unchahar III	329	3
82	NTPC IGPS I Jhajjar	336	13
83	NTPC Mouda II Unit 1	354	1,620
84	NTPC Mouda I	366	1,162
85	NTPC NCTP Dadri II	386	16
86	Jaypee Bina Power	387	2,372
87	Essar Power STPS	401	421
88	NTPC Singrauli Small HPP	644	0
89	**Total**		**103,599**

2.59 The table below shows the details of the fixed costs and variable costs generating station-wise for FY 2021-22 as submitted by the Petitioner:

Table 24 : Fixed cost and Variable cost as filed for FY 2021-22 (Rs. Crore)

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
I	**Central Sector**	**5,869**	**5,084**	**10,953**
1	NTPC Korba	245	481	726
2	NTPC Korba III	78	71	149
3	NTPC Vindyachal I	259	544	803
4	NTPC Vindyachal II	161	399	559
5	NTPC Vindyachal III	176	300	476
6	NTPC Vindyachal IV	301	349	650
7	NTPC Vindyachal V Unit 1	157	175	332
8	NTPC Sipat I	298	331	629

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
9	NTPC Sipat II	178	193	371
10	NTPC Mouda I	221	-	221
11	NTPC Mouda II Unit 1	243	-	243
12	NTPC Solapur STPS	387	198	585
13	NTPC Gadarwara STPS, Unit-1	569	743	1,312
14	NTPC Lara STPS, Raigarh, Unit I	119	137	255
15	NTPC Khargone STPS, Unit-I	772	-	772
16	NTPC Kawas GPP	88	153	241
17	NTPC Gandhar GPP	89	123	212
18	KAPP Kakrapar	-	-	-
19	TAPP Tarapur	-	-	-
20	NTPC Gadarwara STPS, Unit-2	569	638	1,207
21	NTPC Lara STPS, Raigarh, Unit II	119	102	221
22	NTPC Khargone STPS, Unit-II	772	-	772
23	NTPC Auraiya GPP	1	-	1
24	NTPC Dadri GPP	1	4	5
25	NTPC Anta GPP	1	2	2
26	NTPC Firoz Gandhi Unchahar I	0	-	0
27	NTPC Firoz Gandhi Unchahar II	1	-	1
28	NTPC Firoz Gandhi Unchahar III	0	-	0
29	NTPC Firoz Gandhi Unchahar IV	1	-	1
30	NTPC Rihand TPS-I	1	2	3
31	NTPC Rihand TPS-II	2	2	4
32	NTPC Rihand TPS-III	3	2	6
33	NTPC NCTP Dadri II	2	-	2
34	NTPC Singrauli	2	4	6
35	NTPC IGPS I Jhajjar	2	-	2
36	MEJA Urja Nigam	1	1	2
37	NTPC Tanda	1	2	3
38	NTPC Badarpur	-	-	-
39	RAPP Rawatbhata	-	4	4
40	NAPP Narora	-	2	2
41	NTPC Kahalgaon II	49	122	172
II	**MP GENCO (THERMAL & HYDRO)**	**4,054**	**4,511**	**8,566**
1	Amarkantak TPS Ph-III	214	250	464
2	Satpura TPS Ph-II & III	-	-	-
3	Satpura TPS Ph-IV	732	807	1,539
4	SGTPS Ph-I & II	452	1,090	1,542
5	SGTPS Ph-III	419	708	1,126
6	Shri Singaji STPS Phase-I	1,187	1,031	2,217
7	Shri Singaji STPS Phase-II	921	395	1,316

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
8	Rani Awanti Bai Sagar, Bargi HPS	9	17	26
9	Bansagar Ph I HPS (Tons)	47	77	124
10	Bansagar Ph-II HPS (Silpara)	6	5	11
11	Bansagar Ph-III HPS (Deolond)	12	23	35
12	Bansagar Ph-IV HPS (Jhinna)	9	10	19
13	Birsinghpur HPS	2	3	5
14	Madikheda HPS	18	22	39
15	Rajghat HPS	7	4	11
16	Gandhisagar HPS	6	9	14
17	Ranapratap Sagar HPS	5	30	35
18	Jawahar Sagar HPS	-	22	22
19	Pench HPS	11	9	20
III	**JV Hydel & Other Hydels**	**672**	**808**	**1,480**
1	NHDC Indira Sagar HPS	285	420	705
2	NHDC Omkareshwar HPS	199	238	436
3	NVDA Sardar Sarovar HPS	178	139	317
4	Rihand HPS	-	3	3
5	Matatila HPS	-	1	1
6	SJVN Rampur HPS	1	0	1
7	SJVN Jhakri HPS	1	1	2
8	Tehri HPS	1	1	2
9	Koteshwar HPP	0	0	1
10	NHPC Parbati III	1	0	1
11	NHPC Chamera II	0	0	1
12	NHPC Chamera III	1	0	1
13	NHPC Dulhasti	1	1	2
14	NHPC Dhauliganga	1	0	1
15	NHPC Sewa II	0	0	1
16	NHPC Uri II	0	0	0
17	NHPC Kishanganga	0	1	1
18	NTPC Koldam HPP I	1	1	2
19	NTPC Singrauli Small HPP	-	-	-
IV	**DVC**	**-**	**-**	**-**
1	DVC (MTPS & CTPS)	-	-	-
2	DVC (DTPS)	-	-	-
V	**IPPs**	**1,989**	**3,206**	**5,195**
1	Torrent Power	45	14	59
2	BLA Power, Unit-I & II	20	42	62
3	Jaypee Bina Power	274	-	274
4	Lanco Amarkantak TPS Unit 1	245	416	661
5	Reliance UMPP, Sasan	174	1,487	1,662

Sr. No.	Particulars	Fixed Charge	Variable Charge	Total
6	Essar Power STPS	-	-	-
7	Jaiprakash Power STPS, Nigri	511	251	761
8	MB Power STPS, Unit-I	253	344	597
9	MB Power STPS, Unit-II	211	305	516
10	Jhabua Power STPS, Unit-1	256	347	603
VI	**Renewables**	**1**	**3,966**	**3,967**
1	Renewable Energy (Solar)	-	1,670	1,670
2	Renewable Energy (other than Solar)	1	2,282	2,283
3	Renewable Energy (mini micro)	-	13	13
VII	**Total**	**12,585**	**17,575**	**30,160**

Commission's Analysis

Determination of Variable Cost

Central, State and other Generating Stations

2.60 The Commission has considered the energy charges for FY 2021-22 on the basis of actual energy charges for the period November 2019 to October 2020 as submitted by the Petitioners.

Renewable Sources

2.61 For Renewable sources, the Commission has considered power purchase from Solar and Non-solar sources at weighted average rate of Rs 4.06/kWh and Rs 5.50/kWh for existing capacities on the basis of actual weighted average rate of energy charges submitted by the Petitioner for the existing PPAs.

New generating stations

2.62 For new generating stations, the Commission has considered the variable charges on case-to-case basis as shown in Table 23.

Determination of Fixed Cost

Central, State and other Generating Stations

2.63 For Central/Inter-State Generating Stations (Thermal and Hydel), the Commission has considered latest available Tariff Orders issued by CERC for individual stations.

2.64 The Commission has considered fixed costs of the MPPGCL stations in accordance with latest available MYT Orders issued by the Commission for various generating stations read with applicable MYT Regulations.

2.65 The Commission has considered fixed costs of IPPs for which tariff is determined by the Commission, based on the latest available MYT Order.

Power Purchase from Captive Power Plants (CPP)

2.66 Regulation 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, specifies as follows:

"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."

2.67 The Commission has observed that the Petitioner has not projected any availability of power from Captive Power Plants for FY 2021-22. Accordingly, the Commission has not considered availability from the CPPs. As per the above Regulations, the Petitioner may purchase power from captive power plants at the tariff discovered through competitive bidding and file a separate Petition before the Commission for its approval. On the basis of the same, the Commission may consider the actual power purchase from CPP and its cost at the time of truing up.

New generating stations

2.68 For new generating stations, the Commission has considered the fixed charges on case-to-case basis.

2.69 The basis of Fixed and Energy Charges is shown in the table below:

Table 25: Basis of Fixed and Variable charges for the generating stations during FY 2021-22

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
I	**Central Sector**				
1	NTPC Korba	1,001.93	CERC Order 24-02-2017 in P.no. 323/GT/2014 for 01-04-2014 to 31-03-2019	148.00	As per Petitioner Submission
2	NTPC Korba III	489.17	CERC Order 03-03-2017 in P.no. 340/GT/2014 for 01-04-2014 to 31-03-2019	145.00	As per Petitioner Submission
3	NTPC Vindyachal I	732.34	CERC Order 24-02-2017 in P.no. 338/GT/2014 for 01-04-2014 to 31-03-2019	186.00	As per Petitioner Submission
4	NTPC Vindyachal II	488.20	CERC Order 06-02-2017 in P.no. 327/GT/2014 for 01-04-2014 to 31-03-2019	184.00	As per Petitioner Submission
5	NTPC Vindyachal III	736.33	CERC Order 24-02-2017 in P.no. 342/GT/2014 for 01-04-2014 to 31-03-2019	181.00	As per Petitioner Submission
6	NTPC Vindyachal IV	1,104.99	CERC Order 10-03-2017 in P.no. 339/GT/2014 for 01-04-2014 to 31-03-2019	183.00	As per Petitioner Submission
7	NTPC Vindyachal V Unit 1	583.42	CERC Order 31-08-2016 in P.no. 234/GT/2015 for 30-10-2015 to 31-03-2019	184.00	As per Petitioner Submission

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
8	NTPC Sipat I	1,824.04	CERC Order 29-03-2017 in P.no. 337/GT/2014 for 01-04-2014 to 31-03-2019	151.00	As per Petitioner Submission
9	NTPC Sipat II	874.45	CERC Order 21-03-2017 & 15-12-2017 in P.no. 322/GT/2014 & P.no. 28/RP/2017 for 01-04-2014 to 31-03-2019	154.00	As per Petitioner Submission
10	NTPC Mouda I	1,314.77	CERC Order 01-02-2017 in P.no. 328/GT/2014 for 01-04-2014 to 31-03-2019	366.00	As per Petitioner Submission
11	NTPC Mouda II Unit 1	1,386.73	CERC Order 05-04-2019 in P.no. 142/GT/2016 for COD to 31-03-2019	354.00	As per Petitioner Submission
12	NTPC Kawas GPP	406.91	CERC Order 24-03-2017 in P.no. 341/GT/2017 for 01-04-2014 to 31-03-2019	213.00	As per Petitioner Submission
13	NTPC Gandhar GPP	516.44	CERC Order 10-04-2017& 19-02-2019 in P.no. 325/GT/2014 & P.no. 32/RP/2017 for 01-04-2014 to 31-03-2019	287.00	As per Petitioner Submission
14	NTPC Auraiya GPP	309.10	CERC Order 18-04-2017 in P.no. 285/GT/2014 for 01-04-2014 to 31-03-2019	300.00	As per Petitioner Submission
15	NTPC Dadri GPP	350.88	CERC Order 2701-012-2017 in P.no. 308/GT/2014 for 01-04-2014 to 31-03-2019	277.00	As per Petitioner Submission
16	NTPC Anta GPP	218.36	CERC Order 19-09-2017 in P.no. 287/GT/2014 for 01-04-2014 to 31-03-2019	267.00	As per Petitioner Submission
17	NTPC Kahalgaon 2	1,149.46	CERC Order 21-01-2017 in P.no. 283/GT/2014 for 01-04-2014 to 31-03-2019	236.00	As per Petitioner Submission
18	KAPP Kakrapar			143.00	As per Petitioner Submission
19	TAPP Tarapur			483.00	As per Petitioner Submission
20	RAPP Rawabhatta			351.00	As per Petitioner Submission
21	NAPP Narora			274.00	As per Petitioner Submission
22	NTPC Solapur STPS, Phase-1	1,005.39	CERC Order dated 06.01.2020 in P. No. 178/GT/2017	295.00	As per Petitioner Submission
23	NTPC Gadarwara STPS, Unit-1	1,098.09	As per Petitioner Submission	280.00	As per Petitioner Submission
24	NTPC Gadarwara STPS, Unit-2	1,098.09	As per Petitioner Submission	280.00	As per Petitioner Submission
25	NTPC Lara STPS, Raigarh, Unit I	1,076.43	As per Petitioner Submission	228.00	As per Petitioner Submission
26	NTPC Lara STPS, Raigarh, Unit II	1,076.43	As per Petitioner Submission	228.00	As per Petitioner Submission
27	NTPC Firoz Gandhi Unchahar I	281.18	CERC Order dated 22.03.2017 & Corrigendum	318.00	As per Petitioner Submission

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
			dated 26-05-2017 in P. No. 319/GT/2014		
28	NTPC Firoz Gandhi Unchahar II	257.08	CERC Order dated 31.03.2017 in P. No. 289/GT/2014	323.00	As per Petitioner Submission
29	NTPC Firoz Gandhi Unchahar III	178.69	CERC Order dated 19.04.2017 in P. No. 373/GT/2014	329.00	As per Petitioner Submission
30	NTPC Firoz Gandhi Unchahar IV	551.44	CERC Order dated 06.12.2019 in P. No. 197/GT/2017	316.00	As per Petitioner Submission
31	NTPC Rihand I	586.40	CERC Order dated 23.08.2016 in P. No. 291/GT/2014	144.00	As per Petitioner Submission
32	NTPC Rihand II	496.61	CERC Order 01-12-2016 in P.no. 318/GT/2014 for 01-04-2014 to 31-03-2019	143.00	As per Petitioner Submission
33	NTPC Rihand III	1,019.13	CERC Order 06-02-2017 in P.no. 372/GT/2014 for 01-04-2014 to 31-03-2019	141.00	As per Petitioner Submission
34	NTPC NCTP Dadri II	924.62	CERC Order 02-05-2017 in P.no. 324/GT/2014 for 01-04-2014 to 31-03-2019	386.00	As per Petitioner Submission
35	NTPC Singrauli	906.53	CERC Order 28-07-2016 in P.no. 290/GT/2014 for 01-04-2014 to 31-03-2019	138.00	As per Petitioner Submission
36	NTPC IGPS I Jhajjar	1,709.41	CERC Order 09-03-2017 in P.no. 266/GT/2014 for 01-04-2014 to 31-03-2019	336.00	As per Petitioner Submission
37	NTPC Khargone STPS, Unit-I	823.23	Prorated Fixed Charges as per actual bills for the period April 2020 to December 2020	303.00	As per Petitioner submission
38	NTPC Khargone STPS, Unit-II	823.23	Prorated Fixed Charges as per actual bills for the period April 2020 to December 2020	303.00	As per Petitioner submission
39	NTPC MEJA Urja Nigam	607.69	Petitioner's submission regarding allocated capacity has been prorated to arrive at total plant capacity fixed charges	257.00	As per Petitioner Submission
40	NTPC Tanda	694.12	Petitioner's submission regarding allocated capacity has been prorated to arrive at total plant capacity fixed charges	263.00	As per Petitioner Submission
II	**MP Genco Power Station**				
41	Amarkantak TPS Ph-III	190.32	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	173.00	As per Petitioner Submission
42	Satpura Phase III	0.00	As per Petitioner Submission	0.00	As per Petitioner Submission
43	Satpura TPS Ph-IV	626.97	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	237.00	As per Petitioner Submission

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
44	SGTPS Ph-I & II	454.41	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	250.00	As per Petitioner Submission
45	SGTPS Ph-III	313.15	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	202.00	As per Petitioner Submission
46	Shri Singaji STPS, Ph-I	1,307.74	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	293.00	As per Petitioner Submission
47	Shri Singaji Phase-2, Unit-1	682.89	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	297.00	As per Petitioner Submission
48	Shri Singaji Phase-2, Unit-2	682.89	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	297.00	As per Petitioner Submission
49	Rani Awanti Bai Sagar, Bargi HPS	17.60	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	17.35	Computed based on the design Energy as per Tariff Order
50	Bansagar Ph I HPS (Tons)	151.88	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	74.22	Computed based on the design Energy as per Tariff Order
51	Bansagar Ph-II HPS (Silpara)			70.21	Computed based on the design Energy as per Tariff Order
52	Bansagar Ph-III HPS (Deolond)			66.00	Computed based on the design Energy as per Tariff Order
53	Bansagar Ph-IV HPS (Jhinna)	9.46	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	74.54	Computed based on the design Energy as per Tariff Order
54	Birsinghpur HPS	6.06	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	58.56	Computed based on the design Energy as per Tariff Order
55	Marhikheda HPS	19.17	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	152.26	Computed based on the design Energy as per Tariff Order
56	Rajghat HPS	14.88	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	100.11	Computed based on the design Energy as per Tariff Order
57	Gandhisagar HPS	15.21	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	18.12	Computed based on the design Energy as per Tariff Order
58	Ranapratap Sagar & Jawahar Sagar HPS	125.62	As per Petitioner Submission	83.06	Computed based on the design Energy as per Tariff Order
59	Pench HPS	27.06	MPERC Order dated 19.05.2021 in P. No. 53 of 2020	43.27	Computed based on the design Energy as per Tariff Order
III	**JV Hydel & Other Hydels**				
60	NHDC Indira Sagar HPS	528.60	CERC order dated: 31.5.2016, Petition No.265/GT/2014	159.26	Computed based on the design Energy as per Tariff Order
61	NHDC Omkareshwar HPS	398.43	CERC order dated: 26.5.2016, Petition No.264/GT/2014	267.37	Computed based on the design Energy as per Tariff Order

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
62	Sardar Sarovar HPS	355.96	MPERC Order dated August 6,2013 in P. No. 18 of 2013	108.59	Computed based on the design Energy as per Tariff Order
63	Rihand HPS	0.00	As per Petitioner submission	40.00	As per Petitioner submission
64	Matatila HPS	0.00	As per Petitioner submission	40.00	As per Petitioner submission
65	SJVN Rampur HPS	696.50	CERC Order dated 26.06.2019 in P. No. 315/GT/2018	221.99	Computed based on the design Energy as per Tariff Order
66	SJVN Jhakri HPS	1,345.42	CERC Order dated 19.06.2019 in P. No. 314/GT/2018 for FY 2014-15 to FY 2018-19	125.99	Computed based on the design Energy as per Tariff Order
67	Tehri HPS	1,288.57	CERC Order dated 29.03.2017 in P. No. 178/GT/2015 for 2014-15 to FY 2018-19	272.17	Computed based on the design Energy as per Tariff Order
68	Koteshwar HPP	465.52	CERC Order dated 4.6.2019 in RP No. 47/RP/2018 in P. No. 117/GT/2018	236.27	Computed based on the design Energy as per Tariff Order
69	Parbati III	519.52	CERC Order dated 23.04.2019 in P. No. 6/GT/2017	152.18	Computed based on the design Energy as per Tariff Order
70	NHPC Chamera II	262.05	CERC Order dated 17.6.2016 in P. No. 233/GT/2014	106.91	Computed based on the design Energy as per Tariff Order
71	NHPC Chamera III	375.31	CERC Order dated 29.01.2020 in P. No. 321/GT/2018	198.12	Computed based on the design Energy as per Tariff Order
72	NHPC Dulhasti	911.62	CERC Order dated 30.8.2016 in P. No. 231/GT/2014	277.18	Computed based on the design Energy as per Tariff Order
73	NHPC Dhauliganga	239.76	CERC Order dated 26.4.2016 in P. No. 230/GT/2014	123.92	Computed based on the design Energy as per Tariff Order
74	NHPC Sewa II	187.90	CERC in Order dated 27.01.2017 in P. No. 251/GT/2014 had directed that the tariff determined for period FY 2010 to FY 2014 shall remain applicable till the revised tariff approved by the Commission. Therefore considered tariff for FY 2013-14 without escalation.	211.09	Computed based on the design Energy as per Tariff Order
75	NHPC Uri II	411.79	CERC Tariff Order 05.02.2020 in P. No. 308/GT/2018	0.00	-
76	NHPC Kishanganga	498.38	CERC Tariff Order 28.10.2019 in P. No. 43/GT/2018	166.48	Computed based on the design Energy as per Tariff Order
77	NTPC Koldam HPP I	1310.38	CERC order dated 05.04.2018 in P. No. 107/GT/2015 upto FY 2018-19	254.84	Computed based on the design Energy as per Tariff Order

Sr. No.	Particulars	Fixed Charges (Rs. Crore)	Basis for Fixed Charges	Energy Charges (Paisa/kWh)	Basis for Energy Charges
78	NTPC Singrauli Small HPP	0.00	As per Petitioner submission	644.00	As per Petitioner submission
IV	**IPPs**				
79	Torrent Power	0.00	As per Commission approach in previous year	0.00	As per Commission approach in previous year
80	BLA Power	0.00	As per Commission approach in previous year	0.00	As per Commission approach in previous year
81	Jaypee Bina Power	657.9	MPERC Order in P. No. 44 of 2020 dated 30.04.2021	387.00	As per Petitioner Submission
82	Lanco Amarkantak TPS Unit 1	223.81	As per Petitioner submission	205.00	As per Petitioner Submission
83	Reliance UMPP, Sasan	444.21	As per Petitioner submission	143.00	As per Petitioner Submission
84	Essar Power STPS	0.00	As per Commission approach in previous year	0.00	As per Commission approach in previous year
85	Jaiprakash Power STPS, Nigri	1,688.83	MPERC order in Petition No. 43 of 2020 dated 03.05.2021	72.00	As per Petitioner Submission
86	MB Power STPS	1549.70	MPERC order in Petition No. 46 of 2020 dated 01.05.2021	240.00	As per Petitioner Submission
87	Jhabua Power STPS, Unit-1	799.77	MPERC order in Petition No. 47 of 2020 dated 08.05.2021	236.00	As per Petitioner Submission
V	**Renewables**				
88	Solar			406.00	Weighted average Power Purchase Charges
89	Other Mini Micro			443.00	Weighted average Power Purchase Charges
90	Other than Solar			550.00	Weighted average Power Purchase Charges

2.70 For determination of power purchase expenses, the Commission has applied the principles of Merit Order Dispatch (MOD) on the basis of variable charge for all generating stations for FY 2021-22, Further, the Commission directs the Petitioners to not unduly restrict supply to any category of consumers during the tariff period of this Retail Supply Tariff Order.

2.71 The allocation of Merit Order Dispatch for generating station applicable for FY 2021-22 is shown in the table below:

Table 26 : MOD on allocated generating stations for FY 2021-22

SL No.	Name of Station	Dispatch Type (1 Must Run, 0 Others)	Variable charges (Paisa/Unit)
1	Rani Awanti Bai Sagar, Bargi HPS	1	17
2	Gandhisagar HPS	1	18
3	Pench HPS	1	43

SL No.	Name of Station	Dispatch Type (1 Must Run, 0 Others)	Variable charges (Paisa/Unit)
4	Birsinghpur HPS	1	59
5	Bansagar Ph-III HPS (Deolond)	1	66
6	Bansagar Ph-II HPS (Silpara)	1	70
7	Bansagar Ph I HPS (Tons)	1	74
8	Bansagar Ph-IV HPS (Jhinna)	1	75
9	Rajghat HPS	1	100
10	Marhikheda HPS	1	152
11	NAPP Narora	1	274
12	RAPP Rawabhatta	1	351
13	Solar	1	406
14	Other Mini Micro	1*	443
15	Other than Solar	1*	550
16	NTPC Singrauli Small HPP	1	644
17	Rihand HPS	0	40
18	Matatila HPS	0	40
19	Jaiprakash Power STPS, Nigri	0	72
20	Ranapratap Sagar & Jawahar Sagar HPS	0	83
21	NHPC Chamera II	0	107
22	Sardar Sarovar HPS	0	109
23	NHPC Dhauliganga	0	124
24	SJVN Jhakri HPS	0	126
25	NTPC Singrauli	0	138
26	NTPC Rihand III	0	141
27	NTPC Rihand II	0	143
28	Reliance UMPP, Sasan	0	143
29	NTPC Rihand I	0	144
30	NTPC Korba III	0	145
31	NTPC Korba	0	148
32	NTPC Sipat I	0	151
33	Parbati III	0	152
34	NTPC Sipat II	0	154
35	NHDC Indira Sagar HPS	0	159
36	NHPC Kishanganga	0	166
37	Amarkantak TPS Ph-III	0	173
38	NTPC Vindyachal III	0	181
39	NTPC Vindyachal IV	0	183
40	NTPC Vindyachal II	0	184
41	NTPC Vindyachal V Unit 1	0	184
42	NTPC Vindyachal I	0	186
43	NHPC Chamera III	0	198
44	SGTPS Ph-III	0	202
45	Lanco Amarkantak TPS Unit 1	0	205
46	NHPC Sewa II	0	211
47	NTPC Kawas GPP	0	213
48	SJVN Rampur HPS	0	222
49	NTPC Lara STPS, Raigarh, Unit I	0	228

SL No.	Name of Station	Dispatch Type (1 Must Run, 0 Others)	Variable charges (Paisa/Unit)
50	NTPC Lara STPS, Raigarh, Unit II	0	228
51	NTPC Kahalgaon 2	0	236
52	Jhabua Power STPS, Unit-1	0	236
53	Koteshwar HPP	0	236
54	Satpura TPS Ph-IV	0	237
55	MB Power STPS	0	240
56	SGTPS Ph-I & II	0	250
57	NTPC Koldam HPP I	0	255
58	NTPC MEJA Urja Nigam	0	257
59	NTPC Tanda	0	263
60	NTPC Anta GPP	0	267
61	NHDC Omkareshwar HPS	0	267
62	Tehri HPS	0	272
63	NTPC Dadri GPP	0	277
64	NHPC Dulhasti	0	277
65	NTPC Gadarwara STPS, Unit-1	0	280
66	NTPC Gadarwara STPS, Unit-2	0	280
67	NTPC Gandhar GPP	0	287
68	Shri Singaji STPS, Ph-I	0	293
69	NTPC Solapur STPS, Phase-1	0	295
70	Shri Singaji Phase-2, Unit-1	0	297
71	Shri Singaji Phase-2, Unit-2	0	297
72	NTPC Auraiya GPP	0	300
73	NTPC Khargone STPS, Unit-I	0	303
74	NTPC Khargone STPS, Unit-II	0	303
75	NTPC Firoz Gandhi Unchahar IV	0	316
76	NTPC Firoz Gandhi Unchahar I	0	318
77	NTPC Firoz Gandhi Unchahar II	0	323
78	NTPC Firoz Gandhi Unchahar III	0	329
79	NTPC IGPS I Jhajjar	0	336
80	NTPC Mouda II Unit 1	0	354
81	NTPC Mouda I	0	366
82	NTPC NCTP Dadri II	0	386
83	Jaypee Bina Power	0	387

* In accordance with the Seventh Amendment to MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010, or subsequent amendments if any.

2.72 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 consumers would encourage them to utilise some of the 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 2021-22

Particulars	MU
Energy Available from all Stations allocated to MPPMCL	1,06,420
Less: Energy backed down having variable rate above Rs 3.15*	5,559
Total Energy Available for Scheduling (including for sale on the Exchange)	**1,00,861**

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

Fixed Cost

2.73 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.	Generating Stations	East	West	Central	Total
1	Rani Awanti Bai Sagar, Bargi HPS	2.69	3.28	2.83	8.80
2	Bansagar Ph I HPS (Tons)	16.99	20.80	17.89	55.68
3	Bansagar Ph-II HPS (Silpara)	2.27	2.77	2.39	7.42
4	Bansagar Ph-III HPS (Deolond)	2.87	3.46	3.06	9.39
5	Bansagar Ph-IV HPS (Jhinna)	1.45	1.76	1.52	4.73
6	Birsinghpur HPS	0.78	0.94	0.83	2.55
7	Marhikheda HPS	2.93	3.55	3.10	9.59
8	Rajghat HPS	0.69	0.84	0.73	2.27
9	Gandhisagar HPS	0.36	0.45	0.39	1.20
10	Pench HPS	2.31	2.83	2.44	7.57
11	Jaiprakash Power STPS, Nigri	154.58	189.51	162.56	506.65
12	Ranapratap Sagar & Jawahar Sagar HPS	9.60	11.69	10.12	31.41
13	NHPC Chamera II	0.12	0.15	0.13	0.41
14	Sardar Sarovar HPS	31.14	37.58	32.74	101.45
15	NHPC Dhauliganga	0.10	0.12	0.10	0.31
16	SJVN Jhakri HPS	0.35	0.43	0.37	1.14
17	NTPC Singrauli	0.58	0.71	0.61	1.90
18	NTPC Rihand III	0.78	0.95	0.82	2.55
19	NTPC Rihand II	0.35	0.43	0.37	1.14
20	Reliance UMPP, Sasan	50.79	62.34	53.44	166.58
21	NTPC Rihand I	0.38	0.46	0.40	1.23
22	NTPC Korba III	22.28	27.36	23.43	73.07
23	NTPC Korba	68.68	84.39	72.31	225.38
24	NTPC Sipat I	88.89	109.14	93.51	291.54
25	Parbati III	0.20	0.24	0.21	0.65
26	NTPC Sipat II	47.97	58.87	50.47	157.31
27	NHDC Indira Sagar HPS	81.02	98.00	85.28	264.30
28	NHPC Kishanganga	0.16	0.20	0.17	0.53
29	Amarkantak TPS Ph-III	58.12	71.21	60.99	190.32
30	NTPC Vindyachal III	53.38	65.37	56.12	174.88
31	NTPC Vindyachal IV	92.07	113.05	96.88	302.00
32	NTPC Vindyachal II	46.16	56.59	48.52	151.26

Sr. No.	Generating Stations	East	West	Central	Total
33	NTPC Vindyachal V Unit 1	48.52	59.49	51.04	159.05
34	NTPC Vindyachal I	76.77	94.25	80.76	251.78
35	NHPC Chamera III	0.15	0.18	0.16	0.49
36	SGTPS Ph-III	89.00	109.50	93.76	292.26
37	Lanco Amarkantak TPS Unit 1	68.17	83.88	71.76	223.81
38	NHPC Sewa II	0.07	0.09	0.08	0.24
39	NTPC Kawas GPP	26.59	32.42	27.90	86.91
40	SJVN Rampur HPS	0.17	0.21	0.18	0.56
41	NTPC Lara STPS, Raigarh, Unit I	36.22	44.42	38.11	118.75
42	NTPC Lara STPS, Raigarh, Unit II	36.22	44.42	38.11	118.75
43	NTPC Kahalgaon 2	17.26	21.25	18.19	56.71
44	Jhabua Power STPS, Unit-1	72.95	89.92	77.05	239.93
45	Koteshwar HPP	0.12	0.15	0.13	0.40
46	Satpura TPS Ph-IV	191.11	234.92	200.94	626.97
47	MB Power STPS	141.63	174.23	149.06	464.91
48	SGTPS Ph-I & II	118.97	146.62	124.89	390.47
49	NTPC Koldam HPP I	0.24	0.29	0.25	0.79
50	NTPC MEJA Urja Nigam	0.24	0.30	0.25	0.79
51	NTPC Tanda	0.36	0.44	0.38	1.18
52	NTPC Anta GPP	0.17	0.21	0.18	0.57
53	NHDC Omkareshwar HPS	60.58	74.66	63.98	199.22
54	Tehri HPS	0.33	0.41	0.35	1.10
55	NTPC Dadri GPP	0.28	0.34	0.29	0.91
56	NHPC Dulhasti	0.36	0.44	0.38	1.19
57	NTPC Gadarwara STPS, Unit-1	172.77	213.71	182.62	569.10
58	NTPC Gadarwara STPS, Unit-2	172.20	214.06	182.84	569.10
59	NTPC Gandhar GPP	27.95	34.64	29.47	92.06
60	Shri Singaji STPS, Ph-I	339.68	420.73	359.01	1,119.43
61	NTPC Solapur STPS, Phase-1	73.43	90.71	77.55	241.70
62	Shri Singaji Phase-2, Unit-1	175.21	215.71	184.63	575.56
63	Shri Singaji Phase-2, Unit-2	175.23	215.65	184.67	575.56
64	NTPC Auraiya GPP	0.24	0.29	0.25	0.77
65	NTPC Khargone STPS, Unit-I	129.90	159.86	136.89	426.65
66	NTPC Khargone STPS, Unit-II	129.90	159.86	136.89	426.65
67	NTPC Firoz Gandhi Unchahar IV	0.44	0.54	0.46	1.43
68	NTPC Firoz Gandhi Unchahar I	0.07	0.08	0.07	0.22
69	NTPC Firoz Gandhi Unchahar II	0.20	0.25	0.21	0.67
70	NTPC Firoz Gandhi Unchahar III	0.14	0.17	0.14	0.45
71	NTPC IGPS I Jhajjar	0.68	0.83	0.71	2.22
72	NTPC Mouda II Unit 1	74.82	92.08	78.85	245.74
73	NTPC Mouda I	67.20	82.70	70.82	220.71
74	NTPC NCTP Dadri II	0.65	0.80	0.68	2.13
75	Jaypee Bina Power	130.19	160.23	137.21	427.64
76	**Total**	**3,498.38**	**4,305.43**	**3,686.88**	**11,490.69**

Variable Cost

2.74 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
(Rs. Crore)

Sr. No.	Generating Stations	East	West	Central	Total
1	RAPP Rawabhatta	1.30	1.59	1.37	4.26
2	NAPP Narora	0.61	0.75	0.64	1.99
3	Rani Awanti Bai Sagar, Bargi HPS	2.16	2.64	2.28	7.08
4	Bansagar Ph I HPS (Tons)	23.26	28.48	24.49	76.23
5	Bansagar Ph-II HPS (Silpara)	2.57	3.14	2.71	8.42
6	Bansagar Ph-III HPS (Deolond)	2.39	2.87	2.54	7.80
7	Bansagar Ph-IV HPS (Jhinna)	2.44	2.97	2.57	7.98
8	Birsinghpur HPS	0.89	1.08	0.95	2.92
9	Marhikheda HPS	4.52	5.47	4.78	14.77
10	Rajghat HPS	1.59	1.93	1.68	5.20
11	Gandhisagar HPS	0.70	0.86	0.74	2.31
12	Pench HPS	2.79	3.41	2.95	9.14
13	NTPC Singrauli Small HPP	0.01	0.02	0.02	0.05
14	Solar	508.13	625.29	537.05	1,670.47
15	Other Mini Micro	4.01	4.92	4.22	13.15
16	Other than Solar	695.99	853.68	732.35	2,282.02
17	Rihand HPS	1.35	1.66	1.43	4.44
18	Matatila HPS	0.49	0.60	0.52	1.61
19	Jaiprakash Power STPS, Nigri	76.52	93.81	80.47	250.80
20	Ranapratap Sagar & Jawahar Sagar HPS	8.84	10.77	9.33	28.95
21	NHPC Chamera II	0.14	0.17	0.15	0.47
22	Sardar Sarovar HPS	60.70	73.25	63.82	197.77
23	NHPC Dhauliganga	0.10	0.12	0.11	0.33
24	SJVN Jhakri HPS	0.42	0.51	0.44	1.37
25	NTPC Singrauli	1.29	1.58	1.35	4.22
26	NTPC Rihand III	0.90	1.11	0.95	2.96
27	NTPC Rihand II	0.73	0.90	0.77	2.41
28	Reliance UMPP, Sasan	500.30	614.08	526.37	1,640.75
29	NTPC Rihand I	0.67	0.82	0.71	2.20
30	NTPC Korba III	22.70	27.87	23.87	74.44
31	NTPC Korba	154.96	190.39	163.14	508.48
32	NTPC Sipat I	106.03	130.18	111.54	347.74
33	Parbati III	0.16	0.19	0.16	0.51
34	NTPC Sipat II	63.38	77.79	66.69	207.86
35	NHDC Indira Sagar HPS	85.80	103.77	90.30	279.87
36	NHPC Kishanganga	0.16	0.19	0.16	0.51
37	Amarkantak TPS Ph-III	83.31	102.06	87.42	272.78
38	NTPC Vindyachal III	98.28	120.34	103.32	321.93
39	NTPC Vindyachal IV	116.30	142.79	122.36	381.45
40	NTPC Vindyachal II	122.42	150.09	128.68	401.19
41	NTPC Vindyachal V Unit 1	62.42	76.53	65.66	204.62
42	NTPC Vindyachal I	170.71	209.59	179.59	559.89
43	NHPC Chamera III	0.16	0.19	0.17	0.52
44	SGTPS Ph-III	201.68	248.13	212.47	662.28
45	Lanco Amarkantak TPS Unit 1	127.28	156.61	133.97	417.86
46	NHPC Sewa II	0.09	0.11	0.09	0.28

Sr. No.	Generating Stations	East	West	Central	Total
47	NTPC Kawas GPP	73.80	89.99	77.46	241.26
48	SJVN Rampur HPS	0.20	0.24	0.21	0.65
49	NTPC Lara STPS, Raigarh, Unit I	43.87	53.81	46.16	143.84
50	NTPC Lara STPS, Raigarh, Unit II	43.19	52.97	45.44	141.60
51	NTPC Kahalgaon 2	38.64	47.58	40.72	126.94
52	Jhabua Power STPS, Unit-1	106.04	130.71	112.00	348.76
53	Koteshwar HPP	0.13	0.16	0.14	0.42
54	Satpura TPS Ph-IV	246.02	302.43	258.69	807.14
55	MB Power STPS	216.09	265.83	227.42	709.34
56	SGTPS Ph-I & II	367.40	452.79	385.67	1,205.86
57	NTPC Koldam HPP I	0.28	0.34	0.29	0.91
58	NTPC MEJA Urja Nigam	0.43	0.53	0.45	1.40
59	NTPC Tanda	0.58	0.72	0.61	1.91
60	NTPC Anta GPP	0.65	0.81	0.69	2.15
61	NHDC Omkareshwar HPS	74.45	91.76	78.63	244.84
62	Tehri HPS	0.37	0.46	0.39	1.22
63	NTPC Dadri GPP	1.44	1.79	1.52	4.75
64	NHPC Dulhasti	0.37	0.46	0.39	1.23
65	NTPC Gadarwara STPS, Unit-1	276.25	341.71	292.00	909.97
66	NTPC Gadarwara STPS, Unit-2	247.19	307.29	262.46	816.95
67	NTPC Gandhar GPP	83.65	103.67	88.19	275.50
68	Shri Singaji STPS, Ph-I	640.97	793.92	677.44	2,112.33
69	NTPC Solapur STPS, Phase-1	222.94	275.40	235.44	733.78
70	Shri Singaji Phase-2, Unit-1	355.80	438.04	374.93	1,168.77
71	Shri Singaji Phase-2, Unit-2	355.83	437.92	375.01	1,168.77
72	NTPC Auraiya GPP	1.23	1.52	1.30	4.04
73	NTPC Khargone STPS, Unit-I	254.06	312.67	267.75	834.47
74	NTPC Khargone STPS, Unit-II	222.05	273.27	234.01	729.34
75	**Total**	**7,195.53**	**8,854.07**	**7,582.76**	**23,632.37**

Renewable Purchase Obligation (RPO)

Petitioners' Submission

2.75 The Petitioners have submitted that in view of the RPO targets as specified in the 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 02nd October, 2015 and Tariff Policy, 2016, they had made an arrangement under various PPA's 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. As a result, there was a surplus situation of availability from solar during FY 2019-20 and deficit during FY 2020-21 for complying with RPO targets.

2.76 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 2021-22

Renewable Purchase Obligation Computations	Units	FY 2021-22
Solar	%	8.00%
Other than Solar	%	9.00%
Ex-bus renewable energy requirement (MU) excluding Hydro		
Solar	MU	5,742.62
Other than Solar	MU	6,640.65
Total	**MU**	**12,203.06**
Energy Available from existing Renewable Sources		
Solar	MU	4,114.46
Other than Solar	MU	4,178.82
Total	MU	**8,293.28**
Shortfall		
Solar	MU	1,628.16
Other than Solar	MU	2,281.63
Total	MU	**3,909.78**
Extra Surplus available after meeting RPO obligations	MU	**-**
IEX rate	Rs/unit	-
Additional revenue from sale of surplus due to RPO obligation	Rs Crore	-
Renewable Energy Certificate Rates		
Solar	Rs./unit	1.00
Other than Solar	Rs./unit	1.00
Cost for procuring Renewable Energy Certificates due to shortage of RPO		
Solar	Rs. Crore	162.82
Other than Solar	Rs. Crore	228.16
Net Additional Cost to be borne for shortage of RPO	**Rs. Crore**	**390.98**

Commission's Analysis

2.77 The Commission had notified the MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 [ARG-33(I) (v) of 2015] on 02nd October, 2015. Subsequently, the Commission had notified the Sixth Amendment to the said Regulation as per which the minimum purchase quantum of electricity from Renewable sources of energy is 8.00% from Solar and 9.00% from Non-Solar sources for FY 2021-22. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2021-22 excluding consumption met through hydro sources of power, as shown in the table below:

Table 31: Renewable Purchase Obligation computed by the Commission

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
RPO Solar (%)	8.00%	8.00%	8.00%	**8.00%**
RPO Non-Solar (%)	9.00%	9.00%	9.00%	**9.00%**
Total RPO (%)	17.00%	17.00%	17.00%	17.00%
Energy Requirement for computation of RPO (MU)				
Energy Requirement	24,222.37	29,771.36	25,514.14	79,507.87
Energy Procurement from Hydro Sources	2,241.32	2,754.78	2,360.85	7,356.95
Energy Requirement (excluding hydro)	21,981.05	27,016.58	23,153.29	72,150.92
Ex-bus Renewable energy requirement to fulfill RPO (MU)				
RPO Solar	1,758.48	2,161.33	1,852.26	5,772.07
RPO Non-Solar	1,978.29	2,431.49	2,083.80	6,493.58
Total	**3,736.78**	**4,592.82**	**3,936.06**	**12,265.66**
Energy available from existing Renewable Sources (MU)				
Solar	1,253.49	1,540.64	1,320.33	4,114.46
Other than Solar (including Mini Micro Hydro power)	1,273.11	1,564.77	1,341.01	4,178.89
Total	**2,526.60**	**3,105.41**	**2,661.34**	**8,293.35**
Shortfall (MU)				
Solar	505.00	620.69	531.93	1,657.61
Other than Solar	705.18	866.73	742.79	2,314.69
Total	**1,210.18**	**1,487.41**	**1,274.72**	**3,972.30**

2.78 For fulfilment of RPO shortfall, the Commission has considered purchase of Renewable Energy from Solar sources by the Petitioners, at the price of Rs.2.51/kWh discovered in the recent competitive bid conducted by the SECI and accordingly has decided to consider this rate for working out the power purchase cost from Solar energy. Similarly, for purchase of power through Renewable Energy sources other than Solar, the Commission has taken into cognizance the price of Rs. 2.83/kWh discovery through recent bid by the SECI for wind energy projects and accordingly decided to consider this rate for working out the power purchase cost from sources other than Solar energy.

2.79 Accordingly, the cost of renewable energy power purchase has been worked out to fulfil RPO compliance as shown in the table below:

Table 32: RE power purchase cost to fulfill RPO for FY 2021-22

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Power Purchase Weighted Average Rate (Paise/kWh)				
Solar from existing sources	406	406	406	406
Non-Solar (including cost of Other Mini Micro)	550	550	550	550
A- RE Power Purchase Cost from existing sources to fulfill RPO (Rs Crore)				
Solar	508.92	625.50	536.06	1,670.47
Non-Solar (including Mini Micro Hydro power)	699.24	859.43	736.53	2,295.21
Sub-Total	**1,208.16**	**1,484.93**	**1,272.59**	**3,965.68**
Power Purchase Rate (Paise/kWh) for additional requirement of RPO fulfiment				
Solar from new / other sources	251	251	251	251
Non-Solar from new / other sources	283	283	283	283
B- Additional Cost due to RPO Obligation to be met through purchase of Solar & Non-Solar power from new / other sources (Rs Crore)				
Solar	126.75	155.79	133.51	416.06
Non-Solar	199.87	245.66	210.53	656.06
Sub-Total	**326.62**	**401.45**	**344.04**	**1,072.12**
Total (A+B) (Rs Crore)	**1,534.78**	**1,886.38**	**1,616.63**	**5,037.79**

Management of Surplus Energy
Petitioners' Submission

2.80 The Petitioners have submitted that as per the power supply position, the State is expected to have surplus energy in most of the months of the ensuing year. Currently, MPPMCL sells surplus power through Power Exchange (IEX) at prevailing rates.

2.81 The Petitioners have further submitted that the average IEX rate for the past twelve months (from August 2019 to July 2020) is Rs 3.10 per unit. Hence, for the purpose of computation of revenue from surplus energy, the average rate has been considered as Rs 3.10 per unit.

2.82 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

Sr. No.	Particulars	FY 2021-22
1	Ex-Bus Availability (MU)	103,599
2	Back down of Power including Surplus Sale of Power (MU)	20,015
3	Energy Available after Back down (MU)	83,584
4	Ex-Bus Energy Required by DISCOMs (MU)	79,653

Sr. No.	Particulars	FY 2021-22
5	Surplus Units available for Sale (MU)	3,930
6	IEX Rate (Paisa/kWh)	3.11
7	Revenue from Sale of Surplus Power (Rs Crore)	1,221
8	Purchase Cost of Surplus Power Variable (Rs Crore) including Renewables	1,139
9	Total saving in variable cost of surplus energy from sale of surplus energy (Rs Crore)	82

Commission's Analysis

2.83 It is observed that due to subdued demand in the country during the first half of the FY 2020-21 owing to nation wide lockdown imposed to contain spread of COVID-19 pandemic, the average rate discovered in IEX was very low at around 2.48/kWh. However, during second half of FY 2020-21, the demand started to move towards normalcy and therefore the average rate at IEX also increased to Rs. 3.15/kWh for the period October 2020 to March 2021.

2.84 Considering that the average of IEX during first half of FY 2020-21 does not represent the rate discovered in business-as-usual scenario, the Commission deems fit to consider the average rate of Rs. 3.15 per unit of sale of surplus power through IEX/ PXIL/bilateral arrangements/bidding for FY 2021-22. As the sale of surplus energy has been considered at Rs 3.15 /kWh, stations having variable rate more than Rs. 3.15/kWh have been considered 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, i.e., through bilateral contracts.

2.85 Further, the Commission has observed that the MPPMCL has entered into Bulk Power Supply agreement with MPIDC (erstwhile MPAKVN) for supply of 55 MW power. Further, MPIDC has been purchasing the remaining requirement of energy from MPPMCL only. As the projected requirement of MPIDC is presently not approved for FY 2021-22 in view of the delayed filing of the Petition by MPIDC, the Commission has presently considered the energy requirement of 438 MUs and average rate of power purchase of Rs. 3.74/kWh for MPIDC as approved by the Commission in its Retail Tariff Order for FY 2020-21. Any under /over recovery shall be adjusted at the time of truing up of FY 2021-22.

2.86 Accordingly, based on the above, the details of savings in the 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	Energy availability	MU	A	1,06,420
2	Additional power purchase from renewable energy for RPO fulfilment	MU	B	3,972
3	Total Energy Availability including additional availability after RPO fulfilment	MU	C=A+B	1,10,392

Sr. No.	Particulars	Unit	Reference	Admitted
4	Total energy requirement of DISCOMs	MU	D	79,508
5	Total Surplus energy available	MU	E=C-D	30,884*
6	Energy available for backdown at variable rate above Rs. 3.15/kWh	MU	F	5,559
7	Surplus energy available for sale after backdown	MU	G=E-F	25,325
8	Sale of Power to MPIDC	MU	H	438
9	Surplus energy available for sale in Power Exchange at variable rate below Rs.3.15/kWh	MU	I=G-H	24,887
10	Per unit rate of sale of surplus power in power exchange	Rs. /kWh	J	3.15
11	Revenue from sale of surplus power in Power Exchange	Rs. Crore	K=I*J/10	7,839
12	Average Power Purchase Cost of MPIDC	Rs. /kWh	L	3.74
13	Revenue from Sale of Power to MPIDC	Rs. Crore	M=L*H/10	164
14	Total Revenue from sale of surplus power in Power Exchange and MPIDC	Rs. Crore	N=K+M	8,003
15	Variable cost of surplus energy at (Sr. No. 9 above) having variable rate below Rs 3.15/ kWh	Rs. Crore	O	6,301
16	**Total saving in fixed cost of total surplus power from sale of surplus power after backdown (below Rs 3.15 per Unit)**	Rs. Crore	**P=N-O**	**1,702**

**Note: Fixed Cost of total surplus power is Rs. 4079 Crore at Sr. No-5.*

2.87 The Commission has allocated the revenue from sale of surplus power among the DISCOMs as per their revenue gaps determined in this order. As the West DISCOM is revenue surplus, the revenue from sale of surplus power has only been allocated among the East and Central DISCOMs. DISCOM-wise distribution of revenue from sale of surplus power (below Rs 3.15 per Unit) is shown in the table below:

Table 35 : DISCOM-wise distribution of revenue from sale of surplus power (below Rs 3.15 per Unit) (Rs. Crore)

Particulars	East	West	Central	Total
Revenue from sale of surplus power (below Rs 3.15 per Unit)	3,534	0.00	4,469	**8,003**

2.88 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 quantum of surplus power.

Inter-State Transmission Charges associated with existing capacities

Petitioners' Submissions

2.89 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 2019-20 as per actual figures from power purchase statement and the same has been increased annually by 5% for FY 2020-21 and FY 2021-22.

2.90 The Petitioners have further submitted that the estimated Inter-State transmission charges for FY 2021-22 amounts to Rs. 2,833.36 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 2021-22 (Rs. Crore)

Particulars	PGCIL Costs
East DISCOM	862.84
West DISCOM	1,058.45
Central DISCOM	912.07
Total	**2,833.36**

Commission's Analysis

2.91 PGCIL charges consist of charges to be paid for transmission systems of Western Region, Eastern Region and Northern Region. The Commission has observed that the Inter-State Transmission Charges for FY 2019-20 with respect to FY 2018-19 have increased by 44.80%, which is not in line with the increase in previous years. Accordingly, considering that there has been abnormal increase in inter-State transmission charges for FY 2019-20, the commission has considered 4-years CAGR of 5.75% for projecting the inter-State transmission charges for FY 2021-22 (escalating by 5.75% twice to arrive at the charges for FY 2021-22). Further, these charges have been further allocated amongst DISCOMs, which is shown in the following table:

Table 37: PGCIL charges admitted for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	Total
Inter-State Transmission charges	845.95	1,109.59	918.61	**2,874.15**

Intra-State Transmission Charges and SLDC Charges

Petitioners' Submission

2.92 The Petitioners have considered Intra-State Transmission Charges including SLDC Charges for FY 2019-20 as per actual figures from power purchase statement and considered 5% increment each year for FY 2020-21 and FY 2021-22.

2.93 Further the Petitioners have allocated Intra-State transmission charges including SLDC charges and terminal benefits for FY 2021-22 to three DISCOMs based on energy availability at State Boundary as indicated in the table below:

Table 38: Intra-State Transmission Charges and SLDC charges filed by Petitioners for FY 2021-22 (Rs. Crore)

Particulars	FY 2021-22
Transmission Charges	
East DISCOM	988.08
West DISCOM	1,212.09
Central DISCOM	1,044.46
Total	**3,244.64**
SLDC Charges	
East DISCOM	4.51
West DISCOM	5.53
Central DISCOM	4.76
Total	**14.80**
Charges including SLDC Charges	
East DISCOM	992.59
West DISCOM	1,049.23
Central DISCOM	1,217.62
Total	**3,259.44**

Commission's Analysis

2.94 The Petitioners have projected the Intra-State transmission charges (including SLDC charges) of Rs. 3259.44 Crore for FY 2021-22. However, the Commission has considered Intra-State transmission charges of Rs. 4,072.60 Crore as approved by the Commission in the MYT Order of MPPTCL for FY 2019-20 to FY 2023-24 dated 19th May, 2021 in Petition No. 45/2020.

2.95 The Commission has considered SLDC Charges for FY 2021-22 as Rs. 13.08 Crore from the latest available Tariff Order for FY 2020-21 dated 23rd November, 2020 in Petition No. 46 of 2019.

2.96 Accordingly, Intra–State transmission charges for FY 2021-22 including SLDC charges have been admitted as given in the table below:

Table 39 : Intra-State Transmission Charges including SLDC Charges admitted for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	Total for State
Intra–State Transmission charges	1,200.92	1,441.05	1,430.63	4,072.60
SLDC charges	3.91	5.01	4.16	13.08
Intra–State Transmission charges including SLDC charges and terminal benefits	**1,204.83**	**1,446.06**	**1,434.79**	**4,085.68**

2.97 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

2.98 The Petitioners have submitted details of MPPMCL costs with estimated net expenses of Rs. (-) 113.06 Crore for FY 2021-22 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 2021-22 (Rs Crore)

Particulars	Amount
Purchase of Power from Other Sources	31.16
Inter State Transmission Charge	163.50
Depreciation & Amortization Expenses	11.07
Interest & Finance Charges	187.02
Repairs & Maintenance	2.89
Employee Costs	71.94
Administration & General Expenses	22.22
Other Expenses	6.29
Expenses	**496.09**
Less-Revenue Other Income	383.03
(Profit)/Loss for the Period	**113.06**

Table 41: MPPMCL Costs allocated to DISCOMs as filed for FY 2021-22 (Rs Crore)

Particulars	Amount
East DISCOM	32
West DISCOM	47
Central DISCOM	34
Total	**113**

Commission's Analysis

2.99 The Petitioners have filed Rs. 496.09 Crore as MPPMCL expenses for FY 2021-22. The Commission has observed that most of the expenses included in MPPMCL cost relates to power purchase. The Commission in previous Tariff Orders had directed the Petitioner to include power purchase expense booked under MPPMCL cost to be shown under DISCOMs power purchase expense. The Petitioner has submitted that the major cost under power purchase is towards payment of bills. which could not be passed on to DISCOMs through monthly bills and open access charges paid for banking of power. However, from FY 2019-20 onwards all the bills are likely to be passed through the monthly bills to the DISCOMs, hence, it will be considered in ARR of DISCOMs.

2.100 The Commission has observed that MPPMCL has been doing exchange/banking of energy with third parties outside the State of Madhya Pradesh whereby during the 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 State, the banked energy is taken by the Company. It is also observed that MPPMCL has not been able to return the power drawn from banked energy in the same financial year and therefore, has been owing liability in financial terms against the banking. The Commission is of the opinion that such transactions do not involve any expense except for Open Access charges. As per the directions in previous Tariff Orders, these expenses are required to be booked under the head of power purchase of respective DISCOMs. Therefore, the Commission has not admitted power purchase expense under MPPMCL cost.

2.101 Further, the Commission has admitted only the expenses of MPPMCL as Rs.108.12 Crore towards O&M (R&M-Rs. 2.89 Crore, Employee expenses -71.94 Crore, A&G-22.22 Crore) and depreciation (Rs. 11.07 Crore). The Interest and Finance charges shall be considered at the time of True up subject to Prudence check. Further, the Commission has considered other income of MPPMCL for FY 2021-22 as the average of actual other income of previous five years i.e. 518.93 Crore. Accordingly, the net MPPMCL cost admitted in this Order is Surplus income of Rs.410.81 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 2021-22, after prudence check.

Table 42: MPPMCL Costs allocated to DISCOMs by the Commission for FY 2021-22 (Rs Crore)

Particulars	Amount
East DISCOM	(125.15)
West DISCOM	(153.83)
Central DISCOM	(131.83)
Total	**(410.81)**

Summary of Power Purchase Cost

Petitioners' Submission

2.102 Details of revised total power purchase cost as filed by the Petitioners are given in the table below:

Table 43: Power Purchase Cost as filed by Petitioners for FY 2021-22

Sr. No.	Particulars	Units	East DISCOM	West DISCOM	Central DISCOM	State
A	Ex-bus Units to be Purchased	MU	24,257	29,756	25,641	79,653
B	Fixed Cost	Rs. Crore	3,599	5,187	3,799	12,585
C	Variable Cost	Rs. Crore	5,115	7,371	5,399	17,885
D	MPPMCL costs	Rs. Crore	32	47	34	113
E = B+C+D	Total Power Purchase Cost - Ex Bus	Rs. Crore	8,747	12,604	9,231	30,583
F=E/A*10	Rate of Power Purchase	Rs. /kWh	3.61	4.24	3.60	3.84
G	External Losses	MU	476	577	501	1,554
H	Inter -State Transmission Cost	Rs. Crore	862.84	1093.85	912.07	2868.76

Sr. No.	Particulars	Units	East DISCOM	West DISCOM	Central DISCOM	State
I = (A-G)	Energy to be Purchased at State Periphery	MU	23,781	29,179	25,139	78,099
J=(E+H)	Total Power Purchase Cost at State Boundary	Rs. Crore	9,558	13,772	10,087	33,416
K=J/I*10	Rate of Power Purchase at State Boundary	Rs./kWh	4.02	4.72	4.01	4.28
L	Intra State Transmission Loss	MU	616	756	651	2,023
M	Intra State Transmission Cost – MPPTCL including SLDC	Rs. Crore	993	1,218	1,049	3,259
N= I-L	Total units purchased at DISCOMs interface	MU	23,165	28,423	24,488	76,076
O = (J+M)	Total Power Purchase cost at DISCOMs interface	Rs. Crore	10,550	14,989	11,136	36,675
P=O/N *10	Rate of Power Purchase at DISCOMs Boundary	Rs./kWh	**4.55**	**5.27**	**4.55**	**4.82**

Commission's Analysis

2.103 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 2021-22 (Rs Crore)

Sr.No	Particulars	East DISCOM	West DISCOM	Central DISCOM	State
A	Ex-bus Energy Requirement	24,222.37	29,771.36	25,514.14	79,507.87
B	Total Fixed Charges	3,498.38	4,305.43	3,686.88	11,490.69
C	Total Variable Charges (including surplus energy cost)	7,195.53	8,854.07	7,582.76	23,632.37
D=B+C	**Total Power Purchase cost**	**10,693.91**	**13,159.50**	**11,269.64**	**35,123.05**
E	Additional RE cost for RPO compliance	326.62	401.45	344.04	1,072.12
F	*less:* Revenue from sale of surplus power	3,376.59	0.00	4,626.62	8,003.21
G	MPPMCL Cost/(Income)	(125.15)	(153.83)	(131.83)	(410.81)
H=D+E-F+G	**Total Power Purchase cost**	**7,361.16**	**13,407.12**	**7,012.87**	**27,781.15**
I	PGCIL Charges	845.95	1,109.59	918.61	2,874.15
J	MPPTCL Charges	1,204.83	1,446.06	1,434.79	4,085.68
K=H+I+J	**Net Power Purchase Cost inclusive of Transmission Charges**	**9,411.93**	**15,962.77**	**9,366.27**	**34,740.98**
L	Power purchase rate at ex-bus (Rs/Unit) **(H/A*10)**	**3.04**	**4.50**	**2.75**	**3.49**
M	Power purchase rate at State Periphery (Rs/Unit) ((H+I) / (see Table -15 Sr.No-F)*10)	**3.45**	**4.96**	**3.16**	**3.92**
N	Power purchase rate at DISCOMs Periphery (Rs/Unit) (K/(see Table -15 Sr.No-C) *10)	**4.06**	**5.60**	**3.83**	**4.56**
O	Power purchase per unit sales (Rs/Unit) (K/(see Table -15 Sr.No-A)*10)	**4.83**	**6.51**	**4.62**	**5.41**

Pooled Power Purchase Cost

2.104 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."***

2.105 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 2021-22

Particulars	FY 2021-22
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	67,242.21
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	22,743.36
Pooled Power Purchase Cost (Rs/kWh)	**3.38**

Capital Expenditure Plans/ Capitalization of Assets

Petitioners Submission

Investments

2.106 The Petitioners have submitted that they are undertaking various projects in the 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, Additional / Augmentation of PTRs, installation of DTRs, conversion of bare LT line into AB Cables, replacement of service lines, etc.

2.107 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 reduced, though not up to the normative loss levels.

2.108 Details of DISCOM-wise capital expenditure plans under various schemes for FY 2021-22 as filed are indicated below:

Table 46 : Capital Investment Plan for FY 2021-22 (Rs. Crore)

DISCOMs	Amount
East	845.00
West	452.00
Central	395.55
Total for the State	**1692.55**

Capitalization and CWIP

2.109 DISCOM-wise capitalization plan and the status of Capital Works in Progress (CWIP) as filed by the Petitioners for FY 2021-22 are indicated below:

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

Particulars	East	West	Central
Opening Balance of CWIP	2,543	3,166	2,347
Fresh Investment during the year	845	452	396
Investment capitalized	1,871	754	1,930
Closing Balance of CWIP	**1,517**	**2,863**	**813**

Commission's Analysis on Asset Capitalization

2.110 The DISCOMs need to obtain appropriate approval for their capital expenditure in accordance with the guidelines for capital expenditure by licensees under the provisions of Regulation 10.3 of MPERC (The Conditions of Distribution License for Distribution Licensee (including Deemed Licensee)), Regulations 2004, by timely 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.

2.111 The capital investment plan will show separately, ongoing projects that will spill over in 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. The Commission realises importance of adequate capital expenditure for the upkeep of the network in an efficient manner and therefore, the Commission in this Order has considered, Capitalisation for FY 2021-22 as submitted by the Petitioners, which shall be subject to true up based on the outcome of the approval of the capital investment plan by the Commission. The Commission has allowed the asset capitalization projected by the Petitioners as shown in the table below:

Table 48: Projected Asset Capitalization for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	Total for State
Capitalization	1871.19	754.50	1930.26	4,555.94

Operations and Maintenance Expenses

Petitioners' Submission

2.112 The Petitioners have submitted that Operation and Maintenance (O&M) expenses are projected on the basis of the 3rd amendment to the MYT Regulations, 2015 and its amendments thereof notified on 25th November, 2020. Component-wise O&M expenses have been discussed below.

Employee Expenses

2.113 The Petitioners have submitted that the employee costs have been calculated as per the provisions of the MYT Regulations, 2015 and its amendments thereof . Petitioners have made following assumptions for calculation of employee costs:

a) For the calculation of employee expenses excluding arrears, DA, terminal benefits and incentives, basic salary has been considered as per the norms specified in 3rd Amendment to MYT Regulations, 2015 and its amendments thereof for FY 2021-22.

b) For computation of Dearness Allowance, the percentage increase considered for FY 2021-22 is shown in the table below:

Table 49: DA as a percentage of Basic Salary Proposed

Particulars (as per 7th Pay)	FY 2019-20	FY 2020-21	FY 2021-22
DA as percentage of Basic for 1st quarter - April to June	12%	12%	27%
DA as percentage of Basic for 2nd and 3rd quarters - July to December	12%	25%	29%
DA as percentage of Basic for 4th quarter - January to March	12%	27%	31%

c) Incentives/Bonus to be paid to the employees has been considered as per the previous trends 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 funds to the DISCOMs, only to meet out the Terminal Benefits liabilities 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 benefit 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.

2.114 Accordingly, employee expenses have been claimed as Rs 1,205 Crore, Rs 1,001 Crore and Rs 1,093 Crore by East, West and Central DISCOMs, respectively.

A&G Expenses

2.115 Petitioners have claimed the A&G expenses as per the Regulation 34.6 b(ii) of the 3rd Amendment to MYT Regulations, 2015 and its amendments thereof as Rs. 122 Crore, Rs. 129 Crore and Rs. 107 Crore for East, West and Central DISCOMs, respectively. Petitioners have further submitted that the norms of A&G expenses specified in the MYT Regulations, 2015 and its amendments thereof exclude fees paid to the Commission and taxes payable to the Government. Accordingly, fees paid to the Commission and taxes payable to the Government have been considered over and above the normative A&G expenses specified in the MYT Regulations, 2015 and its amendments thereof.

R&M Expenses

2.116 Petitioners have submitted that they have claimed R&M expenses as per the provisions of Regulation 34.6 (a) of MYT Regulations, 2015 and its amendments thereof. These expenses are projected as Rs. 266 Crore, Rs. 203 Crore and Rs. 273 Crore for East, West and Central DISCOMs, respectively, for FY 2021-22.

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

Table 50: O&M expenses claimed for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	Total
Employee Cost (including arrears, DA and others)	1,205	1,001	1,093	3,299
A&G Expenses	122	129	107	358
R&M expenses	266	203	273	742
Total O&M expenses	**1,593**	**1,333**	**1,474**	**4,400**

Commission's Analysis on O&M Expenses

2.118 The MYT Regulations, 2015 and its amendments thereof specify the norms for O&M Expenses of 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 2021-22 have been specified in the 3rd amendment to the MYT Regulations, 2015 and its amendments thereof notified on 25th November, 2020. Accordingly, the same has been considered by the Commission for FY 2021-22. Further, MYT Regulations, 2015 and its amendments thereof provide for approval of R&M expenses as 2.3% of opening GFA for FY 2021-22. These norms exclude pension, terminal benefits and incentive to be paid to the employees, taxes payable to the Government and fee payable to MPERC.

2.119 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..."

2.120 Considering the above, the Commission had allowed Rs. 540 Crore in Tariff Orders for FY 2017-18 to FY 2019-20 and Rs.210 Crore in FY 2020-21 towards the Pension and Terminal Benefit Trust Fund (liabilities provision), which was to be contributed by the DISCOMs to the Registered Terminal Benefits Trust.

2.121 The Commission has observed that in a separate proceeding the Commission has directed the Petitioners to create an escrow account and deposit the amount allowed towards terminal benefit trust fund in the previous years. The Commission in this order in line with the approach followed in previous orders, has considered an amount of Rs. 210 Crore (Rs 70 Cr for each DISCOM) for the Pension and Terminal Benefit Trust Fund (liabilities provision), which is to be contributed by the DISCOMs.

2.122 Further, the Commission observed that GoMP has maintained the same DA @ 12% of the basic salary from April 2019 till date. Accordingly, the Commission has considered DA @ 12% of basic salary for April 2021to June 2021 and projected the DA @ 17% for July 2021 to December 2021 and DA @28% for January 2022 to March 2022.

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

2.124 Accordingly, the employee expenses admitted for FY 2021-22 by the Commission are as shown in the table below:

Table 51: DISCOM wise Employee Expenses as admitted for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central	Total
Employee expenses				
Basic Salary	913.00	801.00	814.00	2,528.00
DA	168.91	148.19	150.59	467.68
Leave encashment (as per previous year actual)	11.63	17.68	15.95	45.26
NPS Employer Contribution	9.11	14.92	28.37*	52.41
PF/CFA/GTIS/Annuity	6.55	7.15	10.59	24.29
7th Pay Commission Arrears	0.00	0.00	0.00	0.00
Total Employee expenses	**1,109.20**	**988.94**	**1,019.50**	**3,117.64**

**As per revised submission in reply to data gap*

2.125 The Commission has considered the A&G expenses as specified in the MYT Regulations, 2015 and its amendments thereof and has also approved the fees paid to the Commission as paid by the Petitioners in proportion to their sales. Details of A&G expenses and fees paid to the Commission as admitted are given in the table below:

Table 52: DISCOM wise A&G Expenses as admitted for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central	Total
A&G expenses	121.00	114.00	106.00	**341.00**
MPERC Fees	0.46	0.58	0.48	**1.52**
Total A&G expenses	**121.46**	**114.58**	**106.48**	**342.52**

2.126 The R&M expenses have been considered @ 2.3% of opening GFA of respective DISCOMs, which is shown as follows:

Table 53: DISCOM wise R&M Expenses as admitted for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central	Total
Opening GFA as on 1st April, 2021	10,261.68	8,961.56	12668.46	31,891.71
R&M as % of opening GFA as specified in MYT Regulations	2.3%	2.3%	2.3%	2.3%
Total R&M expenses	**236.02**	**206.12**	**291.37**	**733.51**

2.127 Total O&M expenses admitted by the Commission for FY 2021-22, have been summarized in the table below:

Table 54: DISCOM wise O&M Expenses as admitted for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central	State
Employee Expenses	1,109.20	988.94	1,019.50	3,117.64
A&G Expenses (including MPERC Fees)	121.46	114.58	106.48	342.52
R&M Expenses	236.02	206.12	291.37	733.51
Terminal Benefits Provision	70.00	70.00	70.00	210.00
Total O&M expenses	**1,536.68**	**1,379.64**	**1,487.35**	**4,403.67**

Depreciation

Petitioners' Submission

2.128 The Petitioners have submitted that they have carried out detailed computation of depreciation based on rates specified by the Commission in Annexure-II of 1st Amendment to MYT Regulations, 2015 and its amendments thereof. The depreciation worked out for FY 2021-22 is shown in the Table below:

Table 55: Depreciation claimed by Petitioners for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM
Land under Lease	0	0	0
Building	3	4	7
Hydraulic Works	1	0	1
Other Civil Works	1	0	0
Plant and Machinery	206	111	157
Line Cable Networks etc.	447	162	235
Vehicles	0	0	0

Particulars	East DISCOM	West DISCOM	Central DISCOM
Furniture and fixtures	0	0	0
Office Equipment's	11	4	10
Asset developed under the scheme (RGGVY, IPDS, Soubhagya, DDUGJY)	0	42	93
Amortization of Intangible Assets	0	3	3
Supervision assets	0	0	30
Capital Stores & Spares	0	0	20
Total	**669**	**327**	**557**

Commission's Analysis of Depreciation

2.129 As per the MYT Regulations, 2015 and its amendments thereof, 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, 2021, 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.

2.130 In case of existing projects, the MYT Regulations, 2015 and its amendments thereof specify that the balance depreciable value as on 1st April, 2021 shall be worked out by deducting the cumulative depreciation including advance against depreciation as admitted by the Commission up to 31st March, 2021 from the gross depreciable value of the assets. The rates of depreciation shall continue to be charged at the rates specified in MYT Regulations, 2015 and its amendments thereof 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%.

2.131 The Commission has considered the asset addition for FY 2021-22 as admitted in previous section. Further, consumer contributions, grants and subsidies towards Capital Assets have been considered as per petitioner submission and reduced the same from the GFA for arriving at net GFA for FY 2021-22. Depreciation has been worked out on the basis of the projected average net GFA computed considering the opening and closing net GFA of FY 2021-22.

2.132 The Commission has observed that the Asset Register submitted by the Petitioner in reply to data gaps lacks information related to date of commissioning of the asset, asset reaching 70% of the depreciation, applicable depreciation rate as per the Regulations and other technical details required to substantiate their claim of depreciation. 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 computed the depreciation considering the depreciation rates of 5.28%, 5.24% and 5.29% for East, West and Central DISCOMs based on the depreciation rates defined in the Regulations, considering the actual GFA as per audited accounts of FY 2019-20. However, the Commission has withheld 50% of the depreciation which shall be allowed at the time of truing up subject to submission of proper fixed asset register.

2.133 The depreciation admitted for FY 2021-22 is given in the following table:

Table 56: Depreciation admitted for FY 2021-22 (Rs. Crore)

Particular	East DISCOM	West DISCOM	Central DISCOM	Total
Opening GFA as on 1st April 2019	**5,010.33**	**4,054.99**	**7,078.33**	**16,143.65**
Add: Addition during FY 2019-20	1,885.74	600.56	1,862.82	4,349.12
Less: Consumer Contribution/Grants in FY 2019-20	154.53	216.66	280.10	651.29
Opening GFA as on 31st March 2020	**6,741.54**	**4,438.89**	**8,661.05**	**19,841.48**
Add: Addition during FY 2020-21	620.00	753.62	675.00	2,048.62
Less: Consumer Contribution/Grants in FY 2020-21	301.51	498.51	127.86	927.88
Opening GFA as on 31st March 2021	**7,060.03**	**4,693.99**	**9,208.19**	**20,962.22**
Add: Addition during FY 2021-22	1,871.19	754.50	1,930.26	4,555.94
Less: Consumer Contribution/Grants in FY 2021-22	111.10	405.54	41.26	557.89
Closing GFA as on 31st March 2022	**8,820.12**	**5,042.95**	**11,097.19**	**24,960.26**
Average GFA	**7,940.08**	**4,868.47**	**10,152.69**	**22,961.24**
Rate of Depreciation	**5.28%**	**5.24%**	**5.29%**	**5.28%**
Depreciation	**419.51**	**255.19**	**536.76**	**1,211.46**
Depreciation witheld (50%)	209.76	127.60	268.38	605.73
Depreciation admitted	**209.76**	**127.60**	**268.38**	**605.73**

Interest and Finance Charges

Petitioners' submission

2.134 The Petitioners have submitted that Regulation 31 of the MYT Regulations, 2015 and its amendments thereof 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 2020-21 has been considered for projecting the interest and finance charges on project loans for FY 2021-22.

East DISCOM

2.135 East DISCOM has filed following details for computing the interest on capital loans:

Table 57: Interest cost claimed by East DISCOM (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	3,123.89
70% of addition to net GFA considered as funded through Loan net of consumer contribution	1,232.06
Debt Repayment due during the year (equal to the depreciation claim)	669.24
Closing balance of GFA identified as funded through debt	3,686.71
Average of loan balances	3,405.30
Weighted average rate of interest (%) on all loans	6.73%
Total interest on project loans	229.05

Particulars	Amount
Finance Charges	15.71
Discount to consumer on timely repayment	
Total Interest on Project loans & Finance Charges	**244.75**

West DISCOM

2.136 West DISCOM has filed following details for computing the interest on capital loans:

Table 58: Interest cost claimed by West DISCOM (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	1,127.88
70% of addition to net GFA considered as funded through Loan net of consumer contribution	528.15
Debt Repayment due during the year (equal to the depreciation claim)	327.32
Closing balance of GFA identified as funded through debt	1,328.70
Average of loan balances	1,228.29
Weighted average rate of interest (%) on all loans	8.50%
Total interest on project loans	104.45
Finance charge	34.07
Discount to consumer on timely repayment	5.36
Total Interest on Project loans & Finance Charge	**143.88**

Central DISCOM

2.137 Central DISCOM has filed following details for computing the interest on capital loans:

Table 59: Interest cost claimed by Central DISCOM (Rs. Crore)

Particulars	Amount
Opening balance of GFA identified as funded through debt	3,780.23
70% of addition to net GFA considered as funded through Loan net of consumer contribution	1,351.18
Debt Repayment due during the year (equal to the depreciation claim)	557.10
Closing balance of GFA identified as funded through debt	4,574.32
Average of loan balances	4,177.27
Weighted average rate of interest (%) on all loans	7.44%
Total interest on project loans	310.59
Finance charge	23.25
Discount to consumer on timely repayment	
Total Interest on Project loans & Finance Charge	**333.84**

Commission's Analysis of Interest and Finance Charges

2.138 The MYT Regulations, 2015 and its amendments thereof specifies that interest charges are 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.

2.139 Interest on loan 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 only those assets, which are put to use. The asset under construction is not being 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.

2.140 Regulation 21 of the MYT Regulations, 2015 and its amendments thereof provides that the debt-equity ratio of the capital employed for determination of tariff shall be 70:30. However, in case the actual equity is less than 30%, actual equity infused is to be considered and wherever the actual equity infused exceeds 30%, equity in excess of 30% shall be treated as normative loan.

2.141 Further, Regulation 30 of the MYT Regulations, 2015 and its amendments thereof provides that only such paid up share capital is to be reckoned for computation of Return on Equity, which has been actually utilised for meeting capital expenditure and forms a part of the approved financial package. The Commission in this order has allowed interest on loan and return on equity as per the approach followed by the Commission in previous orders. The approach adopted by the Commission for computation of interest cost for FY 2021-22 is as follows:

a) Net asset addition to GFA during the year is arrived by subtracting the consumer contribution/Grants 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 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 the year has been considered equal to the depreciation allowed for that year.

d) The Commission has worked-out the weighted average rate of interest based on the submissions made by the Petitioners in Format 3a. As per the MYT Regulations, 2015 and its amendments thereof, the Commission has considered the weighted rate of interest computed based on the actual outstanding loan during FY 2019-20.

e) Other Finance costs for FY 2021-22 have been admitted as per actual from the audited accounts for FY 2019-20 submitted by the Petitioners.

2.142 Accordingly, Interest and Finance charges admitted for FY 2021-22 are given in the following table:

Table 60: Interest and finance charges admitted for FY 2021-22 (Rs. Crore)

Particular	East DISCOM	West DISCOM	Central DISCOM	State
FY 2019-20				
Debt identified with GFA as on 1st April 2019	**1,629.98**	**1,003.99**	**3,400.10**	**6,034.07**
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	1,211.85	268.73	1,107.90	2,588.48
Debt repayment	143.37	119.34	192.02	454.73
Debt identified with GFA as on 31st March, 2020	**2,698.46**	**1,153.38**	**4,315.98**	**8,167.82**
FY 2020-21				
Debt identified with GFA as on 1st April 2020	**2,698.46**	**1,153.38**	**4,315.98**	**8,167.82**
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	222.94	178.57	383	784.52
Debt repayment	168.38	128.32	218	514.7
Debt identified with GFA as on 31st March, 2021	**2,753.02**	**1,203.63**	**4,480.97**	**8,437.63**
FY 2021-22				
Debt identified with GFA as on 1st April 2021	**2,753.02**	**1,203.63**	**4,480.97**	**8,437.63**
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	1,232.06	244.27	1,322.30	2,798.63
Debt repayment	209.76	127.6	268.38	605.73
Debt identified with GFA as on 31st March, 2022	**3,775.33**	**1,320.31**	**5,534.90**	**10,630.53**
Average debt	3,264.17	1,261.97	5,007.94	9,534.08
Weighted average rate of interest (%) on all loans as per Petitioner	**7.56%**	**8.78%**	**6.07%**	**6.94%**
Interest on Project Loans	246.77	110.8	303.98	661.55
Other Finance cost	15.71	34.07	23.25	73.03
Interest cost admitted on project loans	**262.48**	**144.87**	**327.23**	**734.58**

Interest on Working Capital

Petitioners' Submission

2.143 The Petitioners have stated that the working capital requirement has been estimated based on the norms specified in the MYT Regulations, 2015 and its amendments thereof. The East, West and Central DISCOMs have considered interest rate of 12.90%, 12.15% and 12.90%, respectively for the calculation of the interest on the working capital.

Table 61: Interest on Working Capital as filed for 2021-22 (Rs Crore)

Sr. No.	Particulars	East DISCOM	West DISCOM	Central DISCOM
	For Wheeling Activity			
1	$1/6^{th}$ (2 months) of annual requirement of inventory for previous year	18	12	18
2	**O&M expenses**			

Sr. No.	Particulars	East DISCOM	West DISCOM	Central DISCOM
2.1	R&M expenses	266	203	273
2.2	A&G expense	122	129	107
2.3	Employee expenses	1794	1,001	1,093
2.4	Total of O&M expenses	**2182**	**1,333**	**1,474**
2.5	1/12th (1 months) of total O&M expenses	182	111	123
3	Receivables	0		
3.1	Annual Revenue from wheeling charges	0	9	2
3.2	Receivables equivalent to 2 months average billing of wheeling charges	0	1	0
4	Total Working capital (1+2.5+3.2)	**200**	**124**	**142**
5	Rate of Interest	**12.90%**	**12.15%**	**12.90%**
6	**Interest on Working capital (Wheeling)**	**26**	**15**	**18**
	For Retail Sales activity			
1	1/6th (2 months) of annual requirement of inventory for previous year	1	3	5
2	**Receivables**			
2.1	Annual Revenue from Tariff and charges	12410	16,191	13,315
2.2	Receivables equivalent to 2 months average billing	2068	2,699	2,219
3	**Power Purchase expenses**	**9514**	**13,767**	**11,136**
3.1	1/12th (1 month) of power purchase expenses	793	1,147	928
4	Consumer Security Deposit	1026	1,384	1,052
5	Total Working capital (1+2.2-3.1-4)	251	170	244
6	**Rate of Interest**	**12.90%**	**12.15%**	**12.90%**
7	**Interest on Working capital (Retail Sales)**	**32**	**21**	**31**
8	**Net Interest on Working Capital**	**58**	**36**	**50**

Commission's Analysis of Interest on Working Capital

2.144 MYT Regulations, 2015 and its amendments thereof specifies 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. The Rate of interest on working capital shall be equal to the State Bank Advance Rate as on 1st April of the relevant year.

2.145 The Commission has considered the opening Gross Fixed Asset of FY 2021-22 for East, West and Central DISCOMs for computation of Interest on Working Capital. One percent of opening Gross Fixed Asset has been 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 per the practice adopted in previous Tariff Orders. 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. Further, annual revenue from wheeling charges has been considered based on the actual values as per audited accounts of FY 2019-20.

2.146 MYT Regulations, 2015 and its amendments thereof 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 1st of April, 2021 stands at 12.15%. Accordingly, the normative interest rate for working capital loans to DISCOMs would be limited to 12.15%. The interest on working capital admitted by the Commission for wheeling and retail sales activity combined together is shown in the table below:

Table 62: Interest on Working Capital admitted by the Commission (Rs. Crore)

Sr. No.	Particulars	Months	East DISCOM	West DISCOM	Central DISCOM	Total for State
For wheeling activity						
A)	1/ 6th (2 months) of annual requirement of inventory for previous year	2	12.86	10.94	15.99	39.79
B) i)	Total of O&M expenses		1,536.68	1,379.64	1,487.35	4,403.67
B)ii)	1/12th (1 months) of total O&M Expenses	1	128.06	114.97	123.95	366.97
C)	Receivables					
C) i)	Annual Revenue from wheeling charges		0.66	8.98	1.85	11.49
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	2	0.11	1.50	0.31	1.92
D)	Total Working capital (A+B (ii)+C (ii))		141.02	127.41	140.25	408.68
E)	Rate of Interest		12.15%	12.15%	12.15%	12.15%
F)	**Interest on Working capital**		**17.13**	**15.48**	**17.04**	**49.65**
For Retail activity						
A)	1/6th (2 months) of annual requirement of inventory for previous year	2	3.21	2.74	4.00	9.95
B)	Receivables					
B) i)	Annual Revenue from Tariff and charges		13,351.92	14,223.46	14,827.07	42,402.44
B)ii)	Receivables equivalent to 2 months average billing (B(i)/6)	2	2,225.32	2,370.58	2,471.18	7,067.07
C)	Power Purchase expenses		7,361.16	13,407.12	7,012.87	27,781.15
C) i)	1/12th (1 months) of power purchase expenses (C/12)	1	613.43	1,117.26	584.41	2,315.10
D	Consumer Security Deposit		992.86	1,388.27	1,044.51	3,425.64
E)	Total Working capital (A+B(ii)-C(i)-D)		622.24	(132.22)	846.26	1,336.29
F)	Rate of Interest		12.15%	12.15%	12.15%	12.15%
G)	**Interest on Working capital**		**75.60**	**(16.06)**	**102.82**	**162.36**
	Summary					
	For wheeling activity		17.13	15.48	17.04	49.65
	For Retail Sales activity		75.60	(16.06)	102.82	162.36
	Total Interest on working Capital		**92.74**	**(0.58)**	**119.86**	**212.01**
	Admitted Interest on working Capital		**92.74**	**0.00**	**119.86**	**212.60**

Interest on Consumer Security Deposit

Petitioners Submission

2.147 DISCOMs have submitted that interest on consumer security deposit is payable to the consumers according to MYT Regulations, 2015 and its amendments thereof . They have further submitted that interest on consumer security deposit has been calculated for FY 2021-22 as per the RBI Bank Rate of 5.75%.

Table 63: Interest on Consumer Security Deposit as per Regulations for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM
Interest on Consumer Security Deposit	48	59	59

Commission's Analysis of Consumer Security Deposit

2.148 The Commission has computed the interest on consumer security deposit as per the norms of the MYT Regulations, 2015 and its amendments thereof at RBI latest Bank Rate of 4.25% and admitted the same as shown in the table below:

Table 64: Interest on Consumer Security Deposit (CSD) admitted for FY 2021-22 (Rs. Crore)

Particular	East DISCOM	West DISCOM	Central DISCOM	Total for State
Interest on Consumer Security Deposit	39.88	57.94	43.33	**141.14**

Return on Equity

Petitioners' submission

2.149 The Petitioners have submitted that the Return on Equity (RoE) for the period has been calculated as per the MYT Regulations, 2015 and its amendments thereof. Claims made by the DISCOMs are shown in the following table:

Table 65: Return on Equity for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central
Opening balance of GFA identified as funded through equity	3,300.85	1676.61	3,053.47
Normative additional equity (30% of Capitalisation net consumer contribution)	528.03	226.35	566.70
Closing balance of GFA identified as funded through equity	3,828.88	1902.96	3,620.17
Average Equity	3,564.87	1,789.78	3,336.82
Return on Equity (16% on Average Equity)	**570.38**	**286.37**	**533.89**

Commission's Analysis of Return on Equity

2.150 The MYT Regulations, 2015 and its amendments thereof 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 2021-22. The return on equity is then determined by allowing the specified rate of 16% on the total equity identified. The total equity identified along with RoE as admitted for FY 2021-22 is shown DISCOM wise in the table below:

Table 66: Return on Equity admitted for FY 2021-22 (Rs. Crore)

Particulars	East	West	Central	Total
FY 2019-20				
30% of addition to net GFA considered as funded through equity net of consumer contribution	519.36	115.17	474.82	1,109.35
Total Equity identified with GFA as on 31st March, 2020	1,896.22	1,231.40	2,098.66	5,226.28
FY 2020-21				
30% of addition to net GFA considered as funded through equity net of consumer contribution	95.55	76.53	164.14	336.22
Total Equity identified with GFA as on 31st March, 2021	1,991.77	1,307.94	2,262.80	5,562.51
FY 2021-22				
30% of addition to net GFA considered as funded through equity net of consumer contribution	528.03	104.69	566.70	1,199.42
Total Equity identified with GFA as on 31st March, 2022	2,519.79	1,412.62	2,829.50	6,761.91
Average Equity	2,255.78	1,360.28	2,546.15	6,162.21
RoE @16% of FY 2021-22	**360.92**	**217.64**	**407.38**	**985.95**

Other Items of ARR

2.151 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

2.152 The Petitioners have submitted that the MYT Regulations, 2015 and its amendments thereof and its amendments provides methodology for computation of Provision for Bad and Doubtful Debts, wherein it is allowed to the maximum of 1% of revenue. The Bad & doubtful debts claimed by the Petitioner for FY 2021-22 is as follows:

Table 67: Provision for Bad and Doubtful Debts for FY 2021-22 as per Regulations (Rs Crore)

Particulars	East	West	Central
Bad and Doubtful Debts	126.78	161.91	133.15

Commission's Analysis on Bad and Doubtful debts

2.153 MYT Regulations, 2015 and its amendments thereof specifies 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.

2.154 MYT Regulations, 2015 and its amendments thereof 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.

2.155 DISCOMs have neither stated the efforts 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.

2.156 Accordingly, the Commission admits the expenses against the bad and doubtful debts to the tune of Rs 2 Crore for each DISCOM as per the approach adopted by the Commission in previous orders.

Other Income

Petitioners' submission

2.157 The Petitioners have submitted that the main components of Non-Tariff Income are wheeling charges, supervision charges, sale of scrap and miscellaneous charges from consumers. Miscellaneous charges have been projected as a percentage of tariff income.

2.158 The Petitioners have projected their Other Income and Non-Tariff Income for FY 2021-22 based on some percentage increase in line item including adjustment for the income received during the previous years. Accordingly, the Other Income and Non-Tariff Income as filed by the Petitioners is as shown below:

Table 68: Other Income for FY 2021-22 (Rs Crore)

Particulars	East	West	Central	Total
Income from Investment, Fixed & Call Deposits	16	27	43	86
Interest on loans and Advances to staff	0	0	0	0
Other Income from Trading/Sale of scrap	16	14	0	30
Interest on Advances to Suppliers / Contractors	3	1	0	4
Miscellaneous receipts	96	66	84	246
Wheeling charges	1	9	2	12
Liability of wheeling charges towards MPPTCL written off	139	0	0	139
Supervision charges	17	41	19	77
Recovery from theft	23	0	0	23
Other Charges from Consumers	71	0	21	92
Utility Charges	0	0	2	2
Net gain/(loss) on disposal of stores item	0	0	6	6
Income from renting	0	5	0	5
Other miscellaneous income	0	0	63	63
Any other subsidy other than grant	0	0	181	181
Total	**381**	**163**	**336**	**880**

Commission's Analysis on Other Income

2.159 The Commission has issued MPERC (Recovery of expenses and other charges for providing electric line or plant used for the purpose of giving supply) Regulations, (Revision-I) 2009 (Seventh Amendment) on 7th September 2020, vide which the Commission has notified metering and other charges. As per the Regulation, metering charges only be levied upto the effective period of the Retail Supply Tariff Order for FY 2019-20 and thereafter, metering charges shall be applicable in accordance with the respective provisions under retail supply tariff order issued by the Commission from time to time. The relevant extract of the Regulation is as follows:

> ***"5.0 Other Charges to be recovered from consumers: -***
>
> *5.1.1 As provided for in section 45(3)(b) of the Electricity Act, 2003 (No. 36 of 2003), the Distribution Licensee may charge from the consumers a rent or other charge in respect of any electric Meter or Electrical Plant provided by the distribution Licensee. Accordingly, the Commission notifies schedule of metering charges and other charges as mentioned in Annexure I appended to this Regulation. However, metering charges prescribed in the Annexure I appended to this regulation shall be levied up to the effective period of the retail supply tariff order for FY 2019-20. Thereafter, metering charges (if any) shall be applicable in accordance with the respective retail supply tariff order issued by the Commission from time to time."*

2.160 In this Tariff Order, the Commission has decided not to levy any metering charges on the consumers.

2.161 The actual other income of the Distribution Licensees excluding meter rent as per audited accounts for the previous years is as shown in the table below:

Table 69: Total actual other income as per audited accounts (Rs Crore)

DISCOMs	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
East DISCOM	209.05	169.90	162.72	336.12	371.77
West DISCOM	303.56	202.06	137.59	107.78	205.53
Central DISCOM	231.74	204.48	126.14	458.86	358.39

2.162 Based on the above actual other income received as per audited accounts for FY 2017-18 to FY 2019-20, the Commission has considered the average of Other Income during the previous three years, which includes interest on deposits, sale of scrap, other miscellaneous receipts, etc., but excludes meter rent for assessment of other income for FY 2021-22. The admitted Other Income for FY 2021-22 by the Commission excluding metering charges is as tabulated below, which shall be subjected to true up on the basis of actuals:

Table 70: Other Income admitted for FY 2021-22 (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Other Income	290.20	150.30	314.46	**754.97**

2.163 The ARR as admitted for FY 2021-22 is presented in the following table:

Table 71: Aggregate Revenue Requirement (ARR) as admitted (Rs Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Power Purchase Cost	7,361.16	13,407.12	7,012.87	27,781.15
Inter-State transmission charges	845.95	1,109.59	918.61	2,874.15
Intra-State Transmission Charges including SLDC Charges	1,204.83	1,446.06	1,434.79	4,085.68
O&M Expenses	1,536.68	1,379.64	1,487.35	4,403.67
Depreciation	209.76	127.60	268.38	605.73
Interest & Finance Charges				
On Project Loans	262.48	144.87	327.23	734.58
On Working Capital Loans	92.74	0.00	119.86	212.60
On Consumer Security Deposit	39.88	57.94	43.33	141.14
Return on Equity	360.92	217.64	407.38	985.95
Bad & Doubtful Debts	2.00	2.00	2.00	6.00
Total Expenses admitted	**11,916.39**	**17,892.46**	**12,021.81**	**41,830.66**
Less: Other income + Non Tariff Income	290.20	150.30	314.46	754.97
ARR Admitted	**11,626.19**	**17,742.16**	**11,707.34**	**41,075.69**
Revenue Gap of MP Transco True-up of FY 2018-19	242.04	310.16	257.83	810.03
Revenue Surplus of MP Genco on True-up of FY 2018-19	(109.82)	(137.27)	(145.12)	(392.21)
Revenue Gap for True-up of FY 2014-15 to FY 2017-18	1,237.19	(2,401.10)	2,387.70	1,223.79
Revenue Gap for True-up of FY 2018-19	356.32	(1,290.49)	619.31	(314.86)
ARR admitted including True ups	**13,351.92**	**14,223.46**	**14,827.07**	**42,402.44**

Segregation of admitted ARR between Wheeling and Retail Sales activities

2.164 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.

2.165 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.

2.166 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

2.167 On the basis of above, the ARR for FY 2021-22 for all the three DISCOMs is segregated as under:

Table 72: Total ARR as admitted (Rs. Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	Total
Power Purchase Cost including MPPMCL cost	7,361.16	13,407.12	7,012.87	27,781.15
Inter State transmission charges	845.95	1,109.59	918.61	2,874.15
Intra State transmission charges including SLDC	1,204.83	1,446.06	1,434.79	4,085.68

Particulars	**East DISCOM**	**West DISCOM**	**Central DISCOM**	**Total**
Total impact of True-Up Amounts of Past Years of MP Transco, MP Genco and DISCOMs	1,725.74	(3,518.71)	3,119.72	1,326.75
(A) Sub Total- Power Purchase Cost	**11,137.67**	**12,444.06**	**12,486.00**	**36,067.73**
Wheeling Activity				
O&M cost	1,536.68	1,379.64	1,487.35	4,403.67
Depreciation	209.76	127.60	268.38	605.73
Interest on Project Loans	262.48	144.87	327.23	734.58
Return on Equity	360.92	217.64	407.38	985.95
Interest on Working Capital – Wheeling	17.13	0.00	17.04	34.17
(B) Sub Total- Wheeling ARR for FY 2021-22 as approved	**2,386.98**	**1,869.75**	**2,507.39**	**6,764.12**
Retail Activity				
Bad and Doubtful Debts	2.00	2.00	2.00	6.00
Interest on Consumer Security Deposit	39.88	57.94	43.33	141.14
Interest on Working Capital Retail	75.60	0.00	102.82	178.42
Less: Other Income - Retail & Wheeling	290.20	150.30	314.46	754.97
(C) Sub Total- Retail ARR for FY 2021-22 as approved	**(172.73)**	**(90.36)**	**(166.32)**	**(429.40)**
Total ARR for FY 2021-22 (D= A+B+C)	**13,351.92**	**14,223.46**	**14,827.07**	**42,402.44**

Revenue from existing tariffs and Gap/Surplus

Petitioners' Submission

2.168 The Petitioners have submitted that there has been no substantial hike for FY 2014-15 and FY 2015-16 which have severely affected the financial health of the DISCOMs. For FY 2016-17 to FY 2020-21, the Commission has approved tariff hike of 8.40%, 9.48%, 0%, 7.00% and 2% respectively. The DISCOMs are finding it very difficult to sustain their operations at the present tariff levels because of intrinsic rise in expenditure due to inflationary pressures, and consistent rise in power and energy demands, an ambitious normative loss reduction trajectory and benchmarks set by the Commission, and obligations to be met under the policy objectives of the State and Central Governments. Accordingly, in order to bridge the revenue gap, it is necessary for the licensee to seek an appropriate hike in the tariff, up to the level as proposed and detailed in the petition.

2.169 The revenue from existing tariff for FY 2021-22 is as follows:

Table 73: Revenue at Existing and proposed Tariff submitted by Petitioner for FY 2021-22(Rs. Crore)

Consumer Categories	East DISCOM		West DISCOM		Central DISCOM		Total for the State	
	Revenue at existing Tariff	Revenue at proposed Tariff	Revenue at existing Tariff	Revenue at proposed Tariff	Revenue at existing Tariff	Revenue at proposed Tariff	Revenue at existing Tariff	Revenue at proposed Tariff
LV-1: Domestic	3,866	4,208	3,867	4,173	3,465	3,749	11,198	12,130
LV-2: Non-Domestic	968	996	1,250	1,285	1,081	1,111	3,299	3,392
LV-3: Public Water Works & Street Light	247	265	297	317	283	296	828	878
LV4: LT Industrial	362	383	624	663	348	370	1,334	1,417
LV 5: Agriculture and allied activities	4,187	4,552	5,761	6,266	4,498	4,803	14,446	15,621
LV 6: Electric Vehicle	1	1	1	1	1	1	2	2
Total LT	**9,630**	**10,404**	**11,800**	**12,705**	**9,676**	**10,329**	**31,105**	**33,439**
HV-1: Railway Traction	41	41	-	-	27	27	68	68
HV-2: Coal Mines	443	447	0	0	35	37	478	484
HV-3.1: Industrial	1,354	1,356	2,550	2,560	2,396	2,547	6,300	6,463
HV-3.2: Non-Industrial	235	237	394	402	413	426	1,041	1,065
HV-3.3: Shopping Mall	2	2	46	48	48	49	96	100
HV-3.4: Power Intensive Industries	650	658	689	695	384	395	1,724	1,747
HV-4: Seasonal	8	9	10	10	3	3	21	22
HV-5: Public Water Works and Irrigation & Other Agricultural	119	123	665	714	204	214	988	1,051
HV-6: Bulk Residential Users	195	199	22	23	127	133	344	355
HV-7: Synchronization/ Start-up Power	0	0	15	16	0	0	16	17
HV-8: Electric Vehicle	1	1	1	1	2	2	4	4
Total HT	**3,049**	**3,075**	**4,391**	**4,468**	**3,640**	**3,833**	**11,080**	**11,376**
Total (LT + HT)	**12,679**	**13,479**	**16,191**	**17,173**	**13,315**	**14,162**	**42,185**	**44,814**

2.170 On the basis of the above, the projected Revenue Gap/(Surplus) submitted by the Petitioner in reply to data gaps is as follows:

Table 74: Gap/Surplus for FY 2021-22 as submitted by the Petitioner

Particulars	Unit	East DISCOM	West DISCOM	Central DISCOM	State
Total ARR	Rs Crore	13,479	17,173	13,941	44,593
Revenue at Current Tariffs	Rs Crore	12,679	16,191	13,315	42,185
Total Revenue Gap/(Surplus)	Rs Crore	801	982	625	2,408
Average Cost of Supply	**Rs./Unit**	**6.91**	**7.10**	**6.86**	**6.97**

Commission Analysis

2.171 The consumer category-wise revenue including rebate/incentives at existing tariff, admitted for FY 2021-22 is presented in the table below:

Table 75: Revenue including rebate/incentives at existing tariffs in FY 2021-22 (Rs. Crore)

Consumer Categories	East DISCOM		West DISCOM		Central DISCOM		Total for the State	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
LV-1: Domestic	6,432.33	3,962.88	5,802.82	3,863.65	6,095.00	3,835.42	18,330.15	11,661.95
LV-2: Non-Domestic	1,102.76	974.43	1,362.54	1,274.01	1,153.29	1,081.12	3,618.60	3,329.57
LV-3: Public Water Works & Street Light	386.37	247.12	430.37	297.19	430.53	283.23	1,247.27	827.54
LV4: LT Industrial	401.95	361.49	682.69	623.83	370.89	352.21	1,455.53	1,337.53
LV 5: Agriculture and Allied Activities	7,477.87	4,197.38	10,280.21	5,959.46	7,694.45	4,292.55	25,452.53	14,449.39
LV 6: E-Vehicle/ E-Rickshaws Charging Stations	1.02	0.61	0.94	0.57	0.98	0.59	2.94	1.77
Total LT	**15,802.31**	**9,743.92**	**18,559.57**	**12,018.70**	**15,745.13**	**9,845.11**	**50,107.02**	**31,607.74**
HV-1: Railway Traction	55.33	30.28	0.00	0.00	55.33	30.28	110.65	60.56
HV-2: Coal Mines	500.76	411.76	0.00	0.00	25.49	26.20	526.24	437.96
HV-3.1: Industrial	1,616.23	1,180.98	2,972.26	2,546.29	2,933.07	2,289.91	7,521.56	6,017.18
HV-3.2: Non-Industrial	243.77	222.67	459.09	388.51	424.01	388.58	1,126.87	999.76
HV-3.3: Shopping Mall	2.46	2.20	57.15	45.84	56.17	42.96	115.78	91.01
HV-3.4: Power Intensive Industries	826.41	502.76	1,362.07	689.45	593.59	344.14	2,782.07	1,536.35
HV-4: Seasonal & Non-Seasonal	8.54	6.68	10.42	8.16	2.49	2.64	21.45	17.49
HV-5.1: Public Water Works and Irrigation	144.24	108.05	1,039.79	710.39	268.81	183.46	1,452.84	1,001.89
HV 5.2 Other than Agriculture use	17.11	11.93	7.89	5.09	10.87	7.93	35.86	24.95
HV-6: Bulk Residential Users	259.21	190.65	27.28	19.77	154.59	113.02	441.07	323.45
HV-7: Synchronization/ Start-up Power	0.22	0.24	15.06	15.47	0.40	0.38	15.68	16.09
HV-8: E-Vehicle/E-Rickshaws Charging Stations	2.18	1.37	0.68	0.69	3.45	2.15	6.31	4.20
Total HT	**3,676.45**	**2,669.57**	**5,951.69**	**4,429.65**	**4,528.25**	**3,431.65**	**14,156.39**	**10,530.88**
Total (LT + HT)	**19,478.76**	**12,413.50**	**24,511.26**	**16,448.36**	**20,273.38**	**13,276.77**	**64,263.42**	**42,138.62**

2.172 On the basis of the above, details of total ARR as admitted by the Commission and the revenue income including rebate/incentives at existing tariff for FY 2021-22 is as shown in the table below:

Table 76: Final ARR and Revenue from existing tariffs for FY 2021-22 (Rs Crore)

Particulars	East DISCOM	West DISCOM	Central DISCOM	State
Total ARR admitted including True-up (A)	**13,351.92**	**14,223.46**	**14,827.07**	**42,402.44**
Revenue at existing Tariffs (B)	12,413.50	16,448.36	13,276.77	42,138.62
Uncovered Gap/(Surplus) (C=A-B)	**938.43**	**(2,224.90)**	**1,550.30**	**263.83**

2.173 To meet the aforesaid Revenue Gap of Rs. 263.83 Crore, the Commission has increased the tariff marginally by 0.63%, which has been detailed in Tariff design chapter of this order. The total ARR admitted by the Commission and revenue at approved tariff is shown in table below:

Table 77: Final ARR and Revenue from approved tariffs for FY 2021-22 (Rs Crore)

Particulars	State
Total ARR admitted including True-up (A)	**42,402.44**
Revenue at approved Tariffs (B)	**42,402.44**
Uncovered Gap/(Surplus) (C=A-B)	**0.00**

A3: WHEELING CHARGES, CROSS SUBSIDY SURCHARGE AND ADDITIONAL SURCHARGE

Determination of "wheeling cost"

3.1 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

3.2 On the basis of the admitted ARR for FY 2021-22, the expenditure towards wheeling activity for all the DISCOMs is Rs. 6,764.12 Crore.

Segregation of costs among voltage levels

3.3 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.

3.4 The Distribution Licensees in the State presently do not maintain accounts 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.

3.5 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.

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

Table 78 : Voltage-wise Cost Break-up of Sub transmission & Distribution Lines

Voltage level of Lines	East DISCOM (ckt-kms)	West DISCOM (ckt-kms)	Central DISCOM (ckt-kms)	State (ckt-kms)	Per unit cost (Lakh Rs. /ckt-km)	Total Cost of lines (Rs. Crore)
33 kV	20,402	17,544	19,552	57,498	13.95	8,019.79
Below 33 kV						
(a) 11 kV	1,67,443	1,36,678	1,62,126	4,66,247	13.23	61,682.38
(b) LT	1,47,965	1,73,747	1,27,825	4,49,537	6.99	31,402.45

Voltage level of Lines	East DISCOM (ckt-kms)	West DISCOM (ckt-kms)	Central DISCOM (ckt-kms)	State (ckt-kms)	Per unit cost (Lakh Rs. /ckt-km)	Total Cost of lines (Rs. Crore)
(c) Sub-Total	3,15,408	3,10,425	2,89,951	9,15,784		93,084.83
Total	**3,35,810**	**3,27,969**	**3,09,503**	**9,73,282**		**1,01,104.62**

Table 79 : Total voltage level-wise cost of Transformer

Transformer Voltage Level	East (MVA)	West (MVA)	Central (MVA)	State (MVA)	Per unit cost (Lakh Rs./MVA)	Total Cost (Rs. Crore)
33/11 kV Transformer	11,516.00	12,891.80	12,599.00	37,006.80	43.55	16,116.46
11/0.4 kV Transformer	11,026.56	16,261.30	15,608.00	42,895.86	3.04 per 100 kVA	13,040.34
Total	**22,542.56**	**29,153.10**	**28,207.00**	**79,902.66**		**29,156.80**

3.7 Data for length of lines and transformation capacity expected to be added during FY 2021-22 has been considered as provided in the Petition.

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

Table 80 : Identification of value of network at each voltage level (Rs. Crore)

Voltage level	Cost of Lines	Cost of Transformation	Total Cost
33 kV	8,019.79	16,116.46	24,136.25
Below 33 kV	93,084.83	13,040.34	1,06,125.17
Total	**1,01,104.62**	**29,156.80**	**1,30,261.42**

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

Table 81 : Identification of network expenses (wheeling cost) at different voltage levels

Voltage level	Asset value (Rs. Crore)	Assets value Ratio (%)	Total wheeling cost (Rs Crore)	Allocation of Wheeling Cost (Rs Crore)
33 kV	24,136.25	18.53%	6,764.12	1,253.33
Below 33 kV	1,06,125.17	81.47%		5,510.79
Total	**1,30,261.42**	**100.00%**		**6,764.12**

Sharing of Wheeling costs

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

3.11 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 82 : Allocation of wheeling cost over Distribution system users

Sr. No.	Particulars	Units	Amount
A	Wheeling Cost at 33 kV	Rs. Crore	1,253.33
B	Sales at 33 kV	MU	7,814.88
C	Total Sales {excluding EHV System}	MU	58,781.95
D	Proportion of 33 kV sales to total sales	%	13.29%
	Cost allocation		
E	**Wheeling cost of 33 kV allocated to 33 kV users only (A*D)**	**Rs. Crore**	**166.63**

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

Table 83 : Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (Rs. /kWh)
EHT	-	-	-
33 kV	166.63	7,814.88	0.21

Applicability of wheeling charges under different scenarios

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

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

b) **Scenario 2:** Generator is connected to distribution network at 33 kV of Distribution Licensee, while the consumer is connected to the transmission network (132 kV or above): In this scenario, the consumer's requirement will be met by power flow over transmission network alone. The power generated by the open access generator will be locally consumed within the DISCOMs 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 State of Madhya Pradesh 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.

3.14 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

3.15 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."*

3.16 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.

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

Table 84 : 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	79,507.87	27,781.15	3.49

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

Table 85 : Voltage-wise losses

Voltage Level	Loss level (L)
EHT (transmission system) including External losses	4.45%
33 kV (only 33 kV system)	5.06%

3.19 The cost of transmission shall be uniformly spread over all consumers at every voltage level, as the transmission network is utilized by all the consumers. Therefore, similar to wheeling costs, the admitted transmission charges for FY 2021-22 are worked out as under:

Table 86 : Transmission Charges

Particulars	Unit	Quantity
PGCIL Charges	Rs. Crore	2,874.15
MPPTCL Charges	Rs. Crore	4,085.68
Total Charges	**Rs. Crore**	**6,959.82**
Units to be handled by MPPTCL	MU	79,507.87
Transmission Charges	**Rs/kWh**	**0.88**

3.20 Finally, the term in the Tariff Policy formula 'T', Average Tariff for each category, is derived from their expected revenue for FY 2021-22.

3.21 As per the MPERC (Open Access) Regulations, 2005, the consumers with contract demand of 1 MW and 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.

3.22 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW and 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 2021-22, 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 to be negative, the same shall be considered as zero for billing purposes.

3.23 The aforementioned wheeling charges and cross subsidy surcharges shall also 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 87 : Scenario-wise cost (Rs. per unit)

Scenario	Wt. Average rate of power purchase (Rs. /unit)	Cost of Power grossed up for distribution losses (5.06%)	Cost of Power grossed up for transmission losses (4.45%)	Transmission charges (Rs. per unit)	Wheeling charges (Rs. per unit)	Total Charges [C/(1-L/100) + D+R]
1	3.49	3.68	3.85	0.88	0.21	4.94
2	3.49		3.66	0.88		4.53
3	3.49		3.66	0.88		4.53
4	3.49	3.68	3.85		0.21	4..06

Table 88 : Category wise Cross Subsidy Surcharge (Rs. per unit)

Illustration as per Scenario 1				
Category of HT/EHT consumers	**Average Tariff 'T' (Rs Per Unit)**	**Ceiling 20% (Rs/Unit)**	**CSS (Rs/Unit)**	**Applicable CSS (Rs/Unit)**
HV- 1: Railway Traction*	5.47	1.09	0.94	0.94
HV- 2: Coal Mines	8.32	1.66	3.38	1.66
HV- 3.1: Industrial	8.00	1.60	3.06	1.60
HV- 3.2: Non-Industrial	8.87	1.77	3.93	1.77
HV-3.3: Shopping Malls	7.86	1.57	2.92	1.57
HV-3.4: Power Intensive Industries	5.58	1.12	0.64	0.64
HV-4: Seasonal	8.15	1.63	3.21	1.63
HV- 5: Public Water Works	6.90	1.38	1.96	1.38
HV- 6: Bulk Residential Users	7.33	1.47	2.39	1.47
HV-7: Syncronization start-up power	10.26	2.05	5.32	2.05
HV-8: EV Charging Station	6.55	1.31	1.61	1.31

* 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

3.24 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.

3.25 The financial position of the DISCOMs is 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 DISCOMs have to bear the additional burden of capacity charges of stranded power to comply with their Universal Supply Obligation.

3.26 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.

3.27 In light of the provisions specified in Clause 5.8.3 of the National Electricity Policy, Section 42(4) of the Electricity Act 2003, besides relevant clause 13.1 of MPERC (Terms & Conditions for Open Access in MP) Regulations, 2005, the Petitioners determined Additional Surcharge on a yearly basis for Open Access consumers of the State in addition to levy of Cross Subsidy Surcharge specified in Tariff Policy, 2016 on the basis of latest data for previous 12 months commencing from September 2019 to August 2020.

3.28 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 computed Additional Surcharge as shown in the table below:

Table 89 : Computation of Additional Surcharge by the Petitioners

S.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-19	4,567.82	3,308.27	1,259.55	0.70	26.19	1.84
2	Oct-19	4,614.39	3,316.06	1,298.33	1.05	9.41	0.98
3	Nov-19	5,214.43	4,542.92	671.51	1.44	31.57	4.54
4	Dec-19	6,757.73	5,363.72	1,394.01	1.07	33.40	3.57
5	Jan-20	7,006.37	5,340.60	1,665.77	1.50	35.44	5.30
6	Feb-20	7,116.74	6,044.44	1,072.30	1.54	31.30	4.83
7	Mar-20	5,932.46	4,588.55	1,343.92	1.33	27.75	3.68
8	Apr-20	4,713.00	4,046.53	666.48	1.14	5.65	0.65
9	May-20	5,674.61	4,808.65	865.96	1.14	31.75	3.61
10	Jun-20	5,016.42	3,853.86	1,162.56	1.04	46.08	4.77
11	Jul-20	6,488.65	5,818.64	670.01	1.28	50.35	6.45
12	Aug-20	6,075.55	4,813.87	1,261.68	1.32	48.12	6.37
	Total	**69,178.18**	**55,846.09**	**13,332.09**		**377.02**	**46.60**
	Additional Surcharge on OA Consumers (Rs./Unit) (8)/(7)*10						**1.24**

3.29 The Petitioners have thus claimed the Additional Surcharge of Rs. 1.24 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

3.30 The Commission has considered the submission made by the Petitioners and stakeholders in light of the provisions specified in Clause 5.8.3 of the National Electricity Policy, Clause 8.5 of the Tariff Policy, 2016, Section 42(4) of the Electricity Act, 2003, and determined Additional Surcharge. The Additional Surcharge determined by the Commission shall be levied in addition to Cross Subsidy Surcharge determined by the Commission in accordance with the Tariff Policy, 2016.

3.31 The Commission has computed the Additional Surcharge by considering the average monthly fixed rate arrived based on daily fixed rate of generating station having least energy charge as per MoD whose energy was surrendered due to open access consumers. The Commission computed additional surcharge as shown in the table below:

Table 90 : 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)/10**
1	Sep-19	4,567.82	3,308.27	1,259.55	0.70	26.19	1.83
2	Oct-19	4,614.39	3,316.06	1,298.33	0.90	9.41	0.84
3	Nov-19	5,214.43	4,542.92	671.51	1.19	31.57	3.75
4	Dec-19	6,757.73	5,363.72	1,394.01	0.91	33.40	3.05
5	Jan-20	7,006.37	5,340.60	1,665.77	1.38	35.44	4.90
6	Feb-20	7,116.74	6,044.44	1,072.30	1.29	31.30	4.03
7	Mar-20	5,932.46	4,588.55	1,343.92	1.28	27.75	3.56
8	Apr-20	4,713.00	4,046.53	666.48	1.05	5.65	0.59
9	May-20	5,674.61	4,808.65	865.96	1.07	31.75	3.40
10	Jun-20	5,016.42	3,853.86	1,162.56	0.86	46.08	3.96
11	Jul-20	6,488.65	5,818.64	670.01	1.32	50.35	6.63
12	Aug-20	6,075.55	4,813.87	1,261.68	1.13	48.12	5.44
Total		**69,178.18**	**55,846.09**	**13,332.09**		**377.02**	**41.99**
Additional Surcharge on OA Consumers (Rs./Unit) (8)/(7)*10							**1.11**

3.32 The Commission has thus determined the Additional Surcharge of Rs. 1.11 per unit in accordance with the applicable Regulations from the date of applicability of this Retail Supply Tariff Order.

A4: FUEL COST ADJUSTMENT CHARGE

Petitioners' submission

4.1 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.

4.2 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 should 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 on overall averaging method and impact of all the factors over an annual cycle are covered and distributed equitably.

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

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

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.

4.4 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.

4.5 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.

4.6 Since 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.

4.7 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.

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

4.9 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.

4.10 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

4.11 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 can be allowed to be recovered / adjusted 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 increase/decrease in power purchase costs is taken care of by levy of FCA. The Commission therefore decides to continue with levy of FCA charge to be mandatorily filed by the Petitioners on quarterly basis.

4.12 In view of Regulation 9 of the MYT Regulations, 2015 and its amendments thereof 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.

4.13 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.

4.14 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.

4.15 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.

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

4.17 MPPMCL has been authorized by the DISCOMs to procure power on their behalf for retail supply to consumers. The responsibility of computing the rate of FCA every quarter shall rest with the MPPMCL.

4.18 MPPMCL shall compute the 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 91: 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							

4.19 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.

4.20 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.

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

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

Following illustration is given for the purpose of understanding:

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.

4.23 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 92: Normative Losses - for PGCIL System, MPPTCL System and distribution losses

Month/Year	PGCIL Losses*		MPPTCL Losses**	Distribution Losses***
	Region	%	%	%
April-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
May-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
June-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
July-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
August-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
September-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
October-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
November-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
December-2021	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
January-2022	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
February-2022	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
March-2022	W.R.	2.77%	2.59%	15.57%
	E.R.	1.74%		
	N.R.	3.52%		
* 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.				

A5: RETAIL TARIFF DESIGN

Legal Position

5.1 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 2021-22 for the Petitioners. Due consideration was given to the submissions made by Petitioners, Stakeholders, suggestions made by State Advisory Committee and all other relevant material. While determining tariff for various consumer categories, the Commission has given due consideration to the relevant provisions of the Electricity Act, 2003, Tariff Policy, 2016, and relevant Regulations.

Commission's Approach to Tariff Determination

5.2 As per advice of the Energy Department GoMP letter No. 4773/F-3-10/2020/13 dated 21th June, 2021, uniform retail supply tariffs for each consumer category in all the three DISCOMs shall be continued for FY 2021-22.

5.3 ARR is determined on the basis of distribution loss level trajectory specified in the Tariff Regulations.

Linkage to Average Cost of Supply

5.4 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 and IA Nos. 137 & 138 of 2010. In this regard, Petitioners have submitted that aforesaid Judgment of the 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 APTEL.

5.5 Petitioners have submitted that the MYT 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.

5.6 In view of the above, the Commission has endeavoured to work out indicative category-wise cross subsidy based on voltage-wise cost of supply in-spite of constraints in segregation of voltage-wise 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.

5.7 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 voltage-wise cross subsidy so computed is indicative in nature and not accurate, as the base data for the same needs to be worked out based on actuals. The Commission has adopted the 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 MYT Regulations, 2015 and its amendments thereof for FY 2021-22 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 DISCOMs 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 DISCOMs 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.

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

Table 93: 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 Admitted	MU	5,481	7,815	50,967	64,263
Technical and Commercial losses submitted by the Petitioner	%	4.45%	5.06%	15.52%	19.17%
Energy input submitted	MU	5,737	8,516	65,401	79,654
Energy input admitted	MU	5,737	8,615	65,156	79,508
Energy lost admitted (Technical up to 33kV and 11 kV + LT-technical and commercial)	MU	255	800	14,189	15,244
Commercial loss assumed as 50% of 11kV and LT overall losses	MU	-	-	7,095	7,095
Balance 50% commercial losses for all voltage in proportion to sales	MU	605	863	5,627	7,095

State	Units	EHT System (400 kV, 220 kV, 132 kV & 66 kV)	33 KV System	11 KV + LT System	Total
Net energy loss admitted	MU	860	1,663	12,721	15,244
Net energy input for Computing VCoS	MU	6,342	9,477	63,688	79,508
Power Purchase Costs - allocated based on voltage-wise net energy input	Rs. Crore	2,771	4,141	27,829	34,741
Other costs - allocated based on voltage-wise sales	Rs. Crore	566	845	5,679	7,090
Less: Other income - allocated based on voltage-wise sales	Rs. Crore	60	90	605	755
Recoveries of Past Years	Rs. Crore	106	158	1,063	1,327
Total Costs (ARR requirement)	**Rs. Crore**	**3,382**	**5,054**	**33,966**	**42,402**
VCoS	**Rs. /unit**	**6.17**	**6.47**	**6.66**	**6.60**

5.9 Consumer category-wise approximate cross-subsidy, computed based on voltage-wise cost of supply, for FY 2021-22 is shown in the table below:

Table 94: Cross-subsidy based on voltage-wise cost of supply for FY 2021-22 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			
Domestic	6.66	6.42	96%
Non-Domestic	6.66	9.20	138%
Public Water Works & Street Light	6.66	6.68	100%
LT Industrial	6.66	9.19	138%
Agriculture and Allied Activities	6.66	5.73	86%
E-Vehicle/ E-Rickshaws Charging Stations	6.66	6.02	90%
HV-Category			
Railway Traction	6.17	5.47	89%
Coal Mines	6.33	8.32	131%
Industrial	6.34	8.00	126%
Non-Industrial	6.51	8.87	136%
Shopping Mall	6.48	7.86	121%
Power Intensive Industries	6.37	5.58	88%
Seasonal & Non-Seasonal	6.51	8.15	125%
Public Water Works and Irrigation and Other than Agriculture use	6.34	6.90	109%
Bulk Residential Users	6.49	7.33	113%
E-Vehicle/E-Rickshaws Charging Stations	6.60	6.55	99%
Total	**6.60**	**6.60**	**100%**

5.10 While determining the tariffs for FY 2021-22, 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 2021-22 works out to Rs. 6.60 per unit as against Rs. 6.51 per unit for FY 2020-21. The table below shows the cost coverage (Average realization as percentage of Average cost of supply) on account of tariff for FY 2021-22, as compared to the cost coverage in the Tariff Order for FY 2020-21:

Table 95: Comparison of tariff v/s overall average cost of supply

Category/ sub-category	Average realisation as % of Average CoS	
	FY 2020-21 (as per Tariff Order)	FY 2021-22 (Achieved as per this Tariff Order)
LV- Categories		
Domestic	97%	97%
Non-Domestic	149%	139%
Public Water Works & Street Light	101%	101%
LT Industrial	145%	139%
Agriculture and Allied Activities	86%	87%
E-Vehicle / E-Rickshaws Charging Stations	92%	91%
Total LT	**96%**	**96%**
HV- Categories		
Railway Traction	84%	83%
Coal Mines	132%	126%
Industrial and Power Intensive Industries	110%	111%
Non-Industrial and Shopping Mall	139%	133%
Seasonal & Non-Seasonal	141%	124%
Public Water Works and Irrigation and Other than Agriculture use	110%	105%
Bulk Residential Users	112%	111%
Electric Vehicle	96%	99%
Total HT	**113%**	**113%**
Total (LT + HT)	**100%**	**100%**

5.11 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 9th January, 2017 in the matter of Appeal No.134 of 2015 wherein it has been observed that the State Commissions while issuing the Retail Supply Tariff Orders and for purpose of avoiding tariff shocks to the 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.

5.12 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 2021-22. Main features of the tariff design are detailed in following paragraphs:

i. **Tariff for Domestic LV-1:** The Applicability of domestic tariff has been extended to Affordable Rental Housing Complex established under Pradhan Mantri Awas Yojana, and to Registered home stays under MP Homestay (Registration and Regulation) Scheme, 2010.

ii. **Billing of LV 5.4 Agriculture flat rate consumers**: Taking into account subsidy for agriculture category, consumers having load upto 10 HP will be billed only at Rs. 750 per HP per annum. The consumers above 10 HP shall be billed at Rs. 1500 per HP per annum.

iii. **Tariff for HV E-vehicles/E-Rickshaw charging stations**: The tariff for HV e-vehicles / e-rickshaw charging stations has been reduced to encourage adoption of e-vehicles.

iv. **Incentive for prompt payment:** Incentive for prompt payment for LT Consumer category has been retained at 0.5% of the billed amount for that month.

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

vi. **Metering Charges:** The Commission has not allowed any Metering Charges to be billed to the consumers in this Tariff Order.

vii. **Pro-rating of consumption for Domestic Consumers:** The Commission has retained the provision of pro-rating 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.

viii. **Tariff for LV-2 (Non-Domestic), LV-4 (LT Industrial), LV-6 (E-vehicles/E-Rickshaw charging stations) and Tariff for HV-1 (Railway Traction), HV-2 (Coal Mines), HV-3.1 (Industrial), HV-3.2 (Non-Industrial), HV-3.3 (Shopping Malls), HV-4 (Seasonal Industries), HV-5 (Irrigation, Public Water Works and other than agricultural), HV-6 (Bulk Residential Users), HV-7** has not been changed.

ix. In order to meet the revenue gap of Rs.263.83 Crore the Tariff for following categories have been marginally increased- LV-1(Domestic), LV-3 (Public Water Works and Street Light), LV-5 (Agricultural and Allied Activities) and HV-3.4 (Power Intensive Industries). The Commission while revising the category wise tariffs has taken cognisance of the existing levels of Cross subsidy for these categories.

x. **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 retained at Rs. 1/kWh for the incremental consumption.

xi. **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 to FY 2021-22.

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

xiii. **Inclusion of river link projects in HV-5 Tariff Category:** The applicability of the HV-5 tariff category has been extended to river link projects implemented by Government or its agency.

xiv. **Specific Terms and Conditions for HV-6 Tariff Category:** Tripartite agreement for HV-6 Tariff Category has been discontinued.

A6: COMPLIANCE OF DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2020-21

The response submitted by DISCOMs on the directives issued by the Commission in the Retail Supply Tariff Order for FY 2020-21 and the Commission's observations/directions thereon are given below:

6.1 Meterisation of Unmetered Connections

Commission's Directives:

The Commission has noted the submission of DISCOMs and has obtained the latest reports from them. The Commission has observed that the progress of the DISCOMs regarding DTR meterisation for the FY 2019-20 is not satisfactory. The Commission further directs the DISCOMs to expedite DTR meterisation. The Commission has observed that simply providing meters is not the total solution but the DISCOMs need to have a complete energy auditing solution in order to monitor the energy pilferage. The DISCOMs shall continue submitting the quarterly progress reports on DTR meterisation along with the energy Audit. The DISCOMs are directed to submit an action plan by the 30th January, 2021.

East DISCOM Submission:

The Petitioner has submitted that as on September, 2020, it is having 1,04,089 Agricultural predominant DTRs catering supply to 10,55,520 agricultural consumers out of which 11,847 DTRs have been provided with meters as on September, 2020.

The meterisation of agricultural DTRs is not covered in any ongoing / sanctioned scheme plan for 100% predominant agricultural consumers and will be provided after the sanction of loan assistance from Financial Institutions or from any Government Scheme. The quarterly reports of agricultural DTR meterisation is regularly being submitted to the Commission.

Central DISCOM Submission:

The status of DTR meterisation as of November, 2020 is as under:-

Category	No. of DTRs	No. of DTRs metered	Defective meters	Unmetered DTRs	Total meterisation required
Urban	39358	27064	8878	12294	21172
Rural (Non-Agri.)	77655	30432	15847	47223	63070
Rural (Agri.)	258804	59625	9962	199179	209141
Total	**375817**	**117121**	**34687**	**258696**	**293383**

The above work of DTR meterisation could not be completed due to paucity of funds with the DISCOM. The Energy Department has been requested to arrange required fund (Rs.

538 Crore). On receipt of fund, action plan will be finalized and the work shall be taken up. The consumer indexing at DTR level is being initiated in all the Circles. After completion of consumer indexing, the Energy Audit shall be done.

West DISCOM Submission:

The meterization of predominantly agricultural DTRs has already been incorporated in the Capex plan of the DISCOM for the FY 2016-17 to FY 2019-20. The same shall also be included in the capex plan to be filed for the next Control Period. The said work of DTR meterisation shall be executed depending upon the availability of the funds.

Commission's Observations/ Directions:

The Commission has noted the submission of DISCOMs and has obtained the latest reports from them. The Commission has observed that the progress of the DISCOMs regarding DTR meterisation is not satisfactory. The Commission further directs the DISCOMs to expedite DTR meterisation. The Commission has observed that simply providing meters is not the total solution but the DISCOMs need to have a complete energy auditing solution in order to monitor the energy pilferage. The DISCOMs shall continue submitting the quarterly progress reports on DTR meterisation along with the energy Audit. The DISCOMs are directed to submit an action plan by 30th June, 2021.

6.2 Accounting of Rebates/Incentives/Surcharges

Commission's Directives:

The Commission has noted the submissions of DISCOMs and directs DISCOMs to expedite the process of development of a report and submit the same on quarterly basis.

East DISCOM Submission:

The Petitioner has submitted the annual data of incentive rebates and surcharge before the Commission in previous years, now the same will be submitted before the Commission on quarterly basis as directed.

Central DISCOM Submission:

The quarterly report is being submitted in time.

West DISCOM Submission:

The summary of incentive/surcharge for HT Consumers given during the FY 2019-20 and FY 2020-21 (up to October, 2020) is as under:

Particular / Year		**2019-20**	**2020-21 (up to Oct-20)**
Additional charge/surcharge recovered from	Power Factor Surcharge	17.81	10.54
	Late Payment Surcharge	26.80	26.93
	Total Additional charge/surcharge Recovered	**44.61**	**37.48**

Particular / Year		2019-20	2020-21 (up to Oct-20)
HT consumer (Rs. Crore)			
Rebate/Incentive provided to HT consumer (Rs. Crore)	Power Factor Incentive	-167.09	-80.61
	Time of Day Incentive	-217.76	-106.51
	Prompt Payment Incentive	-1.76	-0.75
	Captive Incentive	-27.49	-21.10
	Open Access Rebate	0.95	0.00
	Green Field/NSC Rebate	-91.10	-48.88
	Advance Payment Incentive	-0.07	-0.06
	Incremental Rebate	-21.44	-38.52
	Online Payment Rebate	-2.60	-1.24
	Total Rebate	**-528.36**	**-297.69**
Net Impact (Rs. Crore)		**-483.75**	**-260.22**

The consumer wise detail of incentive/surcharge is being submitted to the Commission. Further, as directed IT section of the DISCOM has been assigned the task to develop the computerized report in this regard.

Commission's Observations/ Directions:

The Commission has noted the submissions of DISCOMs and directs DISCOMs to expedite the process of development of a report and submit the same on quarterly basis.

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

Commission's Directives:

The Commission has observed that the sample size and the sample selected by the DISCOMs is not the representative sample of the State or the respective DISCOMs. The Commission therefore directs that a comprehensive study with large representative sample covering all consumer categories, climate zone, water level status, crop patterns be conducted through an outsource independent agency of repute to arrive at a meaningful conclusion. The outcome be shared with the Commission within six months of issue of this Tariff Order.

East DISCOM Submission:

As directed by the Commission, the desired study shall be carried out with increased sample size and considering the various other factors, i.e., climate zone, water level status, crop patterns, etc. The outcome of the said study shall be shared with the Commission as per the timeline given by the Commission.

Central DISCOM Submission:

An outsourced agency will be assigned shortly for carrying out survey and to put up details as required by the Commission within the time limit.

West DISCOM Submission:

As directed by the Commission, the desired study shall be carried out with increased sample size and considering the various other factors, i.e., climate zone, water level status, crop patterns, etc. The outcome of the said study shall be shared with the Commission as per the timeline given by the Commission.

Commission's Observations/ Directions:
The Commission directs the DISCOMs to submit the comprehensive study to the Commission within the timeframe as prescribed in Retail Supply Tariff Order for FY 2020-21.

6.4 Transfer of Funds to Pension & Terminal Benefit Trust Fund

Commission's Directives:

The Commission has noted the submission of the Petitioners. As separate proceeding is under progress, the matter would be appropriately dealt through the Petition. However, the Commission directs the Petitioners to deposit the amount against the Terminal Benefit Trust Fund allocated in this Tariff Order on monthly basis.

East DISCOM Submission:

The Petitioner submits that under cash flow mechanism notified by GoMP Rs.10 Crore has been received from MPPMCL for depositing into Terminal Benefit Trust, same has been deposited into the TBT trust. Requisition of balance fund as approved by the Commission in respective Tariff Orders for depositing into TBT Trust has been submitted to MPPMCL, on receipt of the same, amount shall be deposited into the TBT Trust.

Central DISCOM Submission:

MPPMCL has deposited Rs.15 Crore to TBT Pension Fund on dated 24th December, 2020 which includes share of Rs.5 Crore of Central DISCOM. The information regarding this deposit has also been sent to the Commission vide MPPMCL letter No. CGM (RM)/VDJ/742 Jabalpur dated 28th December, 2020.

West DISCOM Submission:

The MP Vidyut Mandal Abhiyanta Sangh had filed a Petition (13/2018) before the Commission. The matter is still under adjudication before the Commission. As per the directives issued by the Commission, MPPMCL has released Rs 10 Crore till date under cash flow management for The Terminal Benefit Trust Fund and the same has been deposited in The Terminal Benefit Trust Fund Bank Account by the Petitioner.

Commission's Observations/ Directions:

The Commission has noted the submission of the Petitioners and directs the Petitioners to deposit the amount against the Terminal Benefit Trust Fund allocated in this Tariff Order on monthly basis as per Commission order dated 11th May, 2021.

6.5 Replacement of Stopped and Defective Meters

Commission's Directives:

The Commission has noted the submission of the Petitioner. It is observed that the Petitioners have been submitting the quarterly progress report to the Commission. However, the Petitioners have failed to submitted the comprehensive plan to replace all the stopped and defective meters. Accordingly, in view of the higher distribution loss of the DISCOMs, the Commission directs the Petitioners to submit the comprehensive replacement plan of the defective/ stopped meters by 31st January,2021.

East DISCOM Submission:

The Petitioner humbly submits before the Commission that the replacement of Stopped/defective meters is a continuous process. The target for meterisation work of 1-phase Stop Defective/Unmetered was finalized at 16,04,847 as on 30th June 2019 against which 5,54,499 Meters were installed/replaced during June, 2019 to October, 2020. Accordingly, the month-wise target and plan finalized for 100% meterisation under company area as on October, 2020 is as under: -

Total Target as on 30.06.19	Achiev. (June-19 to Oct-20)	Total Target as on 31.10.20	Action Plan: Month wise installation of meters with availability				
			Nov.20	Dec.20	Jan.21	Feb.21	Mar.21
1	2	3	6	7	8	9	10
1604847	554499	1050348	210069	210069	210069	210069	210072

The Quarterly reports of meterisation is regularly being submitted before the Commission.

Central DISCOM Submission:

The comprehensive replacement plan of the defective/ stopped meters is tabulated below:-

Sr.	Circle	No. of Stopped / defective meters as of Nov 2020	Till Mar, 2021	During Apr 21 – Jun 21	During Jul 21 - Sep 21	During Oct 21 - Dec 21	During Jan 22 - Mar 22	During Apr 22 – Jun 22	During Jul 22 - Sep 22	During Oct 22 - Dec 22	During Jan 23 - Mar 23
1	Betul	47429	5200	5200	5200	5200	5200	5200	5200	5200	5829
2	Bhopal (O&M)	50519	5600	5600	5600	5600	5600	5600	5600	5600	5719
3	Bhopal (CITY)	82505	9200	9200	9200	9200	9200	9200	9200	9200	8905
4	H-Bad	88613	9800	9800	9800	9800	9800	9800	9800	9800	10213
5	Raisen	36628	4100	4100	4100	4100	4100	4100	4100	4100	3828
6	Rajgarh	6738	750	750	750	750	750	750	750	750	738

Sr.	Circle	No. of Stopped / defective meters as of Nov 2020	Till Mar, 2021	During Apr 21 – Jun 21	During Jul 21 - Sep 21	During Oct 21 - Dec 21	During Jan 22 - Mar 22	During Apr 22 – Jun 22	During Jul 22 - Sep 22	During Oct 22 - Dec 22	During Jan 23 - Mar 23
7	Sehore	23159	2600	2600	2600	2600	2600	2600	2600	2600	2359
8	Vidisha	60889	6800	6800	6800	6800	6800	6800	6800	6800	6489
9	Ashok Nagar	35239	3900	3900	3900	3900	3900	3900	3900	3900	4039
10	Bhind	132752	15000	15000	15000	15000	15000	15000	15000	15000	12752
11	Datia	67128	7500	7500	7500	7500	7500	7500	7500	7500	7128
12	Guna	73636	8200	8200	8200	8200	8200	8200	8200	8200	8036
13	Gwalior (CITY)	54804	6100	6100	6100	6100	6100	6100	6100	6100	6004
14	Gwalior (O&M)	91130	10100	10100	10100	10100	10100	10100	10100	10100	10330
15	Morena	135192	15000	15000	15000	15000	15000	15000	15000	15000	15192
16	Sheopur	59669	6600	6600	6600	6600	6600	6600	6600	6600	6869
17	Shivpuri	168955	18700	18700	18700	18700	18700	18700	18700	18700	19355
	Central DISCOM	1214985	135150	135150	135150	135150	135150	135150	135150	135150	133785

West DISCOM Submission:

The Petitioner humbly submits before the Commission that the replacement of Stopped/defective meters is a continuous process. With regard to HT consumers, defective meters are negligible, and meters have got replaced as and when same is reported as defective. The following is the status of the stop defective meters of HT consumers in the last three years:

Year	Total HT consumer	No of Stop defective meters	% HT defective meters
FY 2016-17	3,101	3	0.09%
FY 2017-18	3,312	1	0.03%
FY 2018-19	3,504	0	0.00%
FY 2019-20	3,673	17	0.46%
FY 2020-21 (up to Oct)	3,727	24	0.64%

With regard to LT consumers the DISCOM is continuously replacing the defective meters. It is humbly submitted that the reason due to which meter have got defective may not be attributed solely to the Licensee and many a time, consumers are also responsible for the same. Multiple schemes are being implemented by the DISCOM to strengthen the metering and meter reading process. The introduction of schemes like Smart Metering Scheme would enable the DISCOM to provide smart meters to the consumers. The task of replacement of stopped and defective meters is also covered under IPDS and DDUGJY schemes.

As directed by the Commission stopped/defective meters shall be replaced and progress of the same shall be submitted before the Commission.

Commission's Observations/ Directions:

The Commission has noted the submission of the Petitioner. It is observed that the Petitioners have been submitting the quarterly progress report to the Commission. However, the Petitioners have failed to submit the comprehensive plan to replace all the stopped and defective meters. Accordingly, in view of the higher distribution loss of the DISCOMs, the Commission directs the Petitioners to submit the comprehensive replacement plan of the defective/ stopped meters by 30th Spetember, 2021.

6.6 Alignment of R-15 strictly with the categories, subcategories and slabs of the Tariff Schedule as per the new Tariff Structure

Commission's Directives:

The Commission express its displeasure over casual approach of the DISCOMs in complying the directives provided by the Commission in this regard. It is observed that in absence of proper category / sub-category wise details, the sales projections are being made by the DISCOMs based on assumptions only. The Commission in tariff order for FY 2019-20 had directed to submit the R15 aligned with the rate scheduled approved by the Commission. However, the Petitioner following a lackadaisical approach has still not been able to submit the proper R15 monthly/annual report. The projection of proper estimate of sales, consumer addition and connected load cannot be completed without proper data for the past period. Therefore, the Commission directs the Petitioner to file R15 monthly report as per the rate schedule approved by the Commission for the complete FY 2019-20 and FY 2020-21 along with the tariff filing for FY 2021-22, failing which the Commission may take an appropriate view considering the non-compliance of the Commission's direction.

East DISCOM Submission:

The R-15 report aligned with tariff order has been designed by IT team of DISCOM is available on R-15 portal/website of the DISCOM. The reconciliation with conventional R-15 along with fine tuning of reports is in progress. The Annual Tariff Wise R-15 for the FY 2021-22 shall be submitted before the Commission once the R-15 is finalized. The month-wise available R-15 is being submitted before the Commission.

Central DISCOM Submission:

The East DISCOM is acting as the nodal company for modification of R-15 statement on behalf of all the three DISCOMs.

West DISCOM Submission:

The R-15 report aligned with the Tariff Order has been designed by IT team of DISCOM. The Annual Tariff Wise R-15 for FY 2021-22 shall be submitted before the Commission once the R-15 is finalized. The month wise available R-15 is being submitted before the Commission.

Commission's Observations/ Directions:

The Commission has been repeatedly directing the Petitioners to submit the R-15 reports as per the tariff schedule approved by the Commission, which is necessary to project sales accurately. However, the Petitioners have been following lackadaisical approach and not complying with the direction of the Commission. This approach of the Petitioner is not acceptable. The Commission directs the Petitioner to submit the R-15 reports aligned with the tariff schedule approved by the Commission with the tariff Petition for next financial year failing which the Commission may take an appropriate view considering the non-compliance of the Commission's direction.

6.7 Capital Expenditure and Capitalisation details

Commission's Directives:

The Commission expresses its displeasure over casual approach of the DISCOMs in complying the directives provided by this Commission. In order to reprimand the Petitioners, the Commission is not allowing the depreciation as per the rates prescribed in the MPERC Tariff Regulations which is subject to submission of Fixed Asset Registers along with the true up petition of FY 2020-21. Further, the Commission directs the Petitioner to submit the Fixed Asset Register upto FY 2019-20 along with the tariff Petition for FY 2021-22 in the format prescribed by the Commission, failing which the Commission may take an appropriate view considering the non-compliance of the Commission's direction.

East DISCOM Submission:

Asset Register via ERP System, which is showing full details of the Assets as per Assets class wise, which is duly tallied with the Audited Accounts of the DISCOM is being submitted to the Commission on yearly basis. Further, the format in which the Commission has desired assets register is in process and shall be submitted by the Petitioner along with the filing of True-up Petition of FY 2021-22.

Central DISCOM Submission:

The Petitioner vide letter no. MD/MK/RA/271 dated 13th January, 2021 has already submitted the Fixed Asset Register of Central DISCOM up to FY 2019-20 to the Commission.

West DISCOM Submission:

Asset Register via ERP System, which is showing full details of the Assets as per Assets class wise which is duly tallied with the Audited Accounts of the DISCOM for the FY 2019-20 the soft copy of the same is being submitted to the Commission. Further, the format in which the Commission has desired assets register is in process and shall be submitted by the Company along with the filing of True-up Petition of F.Y 2021-22.

Commission's Observations/ Directions:

The Commission expresses its displeasure over casual approach of the DISCOMs in complying the directives provided by this Commission. In order to reprimand the Petitioners, the Commission is not allowing the depreciation as per the rates prescribed in the MPERC MYT Regulations, 2015 and its amendments thereof, which is subject to submission of Fixed Asset Registers along with the true up petition of FY 2021-22. Further, the Commission directs the Petitioner to submit the Fixed Asset Register upto FY 2020-21 along with the Tariff Petition for FY 2022-23 in the format prescribed by the Commission.

6.8 Submission of report to ascertain the Consumption of irrigation pumps

Commission's Directives:

The Commission has observed that none of the DISCOMs has submitted the report to ascertain the consumption of irrigation pumps with the tariff Petition as per the direction of the Commission in the last tariff order. The Commission once again directs the Petitioners to submit report to ascertain the consumption of irrigation 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, failing which the Commission may take an appropriate view considering the non-compliance of the Commission's direction.

East DISCOM Submission:

As directed by the Commission, the details of consumption on sample agriculture feeders have been submitted vide letter No. CGM/ Comml. /EZ/TRAC/12 Jabalpur, dated 02nd January, 2020. As directed, same shall be submitted again before the Commission.

Central DISCOM Submission:

The details have previously been submitted to MPERC vide T.O. letter no. MDCZ/RA/1728 dated 10th December, 2019 and MDCZ/RA/255 dated 10th December, 2020.

West DISCOM Submission:

As directed by the Commission, the details of consumption on sample agriculture feeders has been submitted vide letter No. MD/WZ/05/Com/TRAC/69 Indore, dated 02nd January, 2020. As directed, same shall be submitted again before the Commission.

Commission's Observations/ Directions:

It is observed that the Petitioners have submitted details of consumption of sample agricultural feeder. However, the Petitioners have not submitted the detailed report detailing the methodology adopted for selection of sample feerders, energy audit report of the selected feeders etc. as per the direction of the Commission. Therefore, the Commission once again directs the Petitioners to submit report to ascertain the consumption of irrigation 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.

6.9 Action Plan for Line Loss reduction

Commission's Directives:

The Commission appreciates the efforts made by the West DISCOM as they have surpassed the distribution loss targets and have achieved 11.10% for FY 2019-20. Whereas, the other two DISCOMs viz. East and Central's progress is far from satisfactory. There is a huge gap between the targeted losses and actual losses. These DISCOMs are losing huge amount against these losses as the Commission has been allowing only the normative losses to be passed on to the Consumers. The Commission opines that it is very necessary and expedient to go into the details of suboptimal performance of the DISCOMs. The Commission directs

DISCOMs to arrange a separate exercise to perform Circle wise Energy Audits through an independent agency and submit an action plan to reduce the losses based on this Energy Audit Report to the Commission. The Commission also directs the DISCOMs to submit a quarterly progress reports on this matter.

East DISCOM Submission:

It is submitted that the distribution losses of the East DISCOM in FY 2018-19 were 30.57%, however, the DISCOM has achieved the distribution loss level of 22.52 % in FY 2019-20 against the normative distribution loss of 16%. DISCOM is making continuous efforts to reduce the losses.

Central DISCOM Submission:

The DISCOM will assign an independent agency to perform Circle wise energy audits and will submit Energy Audit Report to the Commission. The progress of the same will also be provided on quarterly basis.

West DISCOM Submission:

It is submitted that West DISCOM has achieved the distribution loss level of 11.10% in the FY 2019-20 against the normative distribution loss of 15%. DISCOM is making continuous efforts to reduce the losses.

Commission's Observations/ Directions:

The Commission appreciates the efforts made by the West DISCOM, however, it has been observed that the distribution losses submitted by other two DISCOMs are above loss level specified by the Commission. East and Central DISCOMs progress is far from satisfactory. There is a huge gap between the targeted losses and actual losses. These DISCOMs are losing huge amounts against these losses as the Commission has been allowing only the normative losses to be passed on to the consumers. The Commission opines that it is very necessary and expedient to go into the details of suboptimal performance of the DISCOMs. The Commission directs DISCOMs to arrange a separate exercise to perform Circle wise Energy Audits through an independent agency and submit an action plan to reduce the losses based on this Energy Audit Report to the Commission. The Commission also directs the DISCOMs to submit quarterly progress reports in this matter.

6.10: Meterisation of unmetered agricultural and domestic consumers

Commission's Directives:

The Commission is not satisfied with the progress so far achieved by the DISCOMs. The DISCOMs are directed to complete this work within six months and report compliance to the Commission.

East DISCOM Submission:

The DISCOM is doing continuous efforts towards 100% meterization, the report of meterization shall be appraised before the Commission on timely basis.

Central DISCOM Submission:

There are 3.79 Lakh unmetered domestic consumers as of November, 2020 in Central DISCOM. The meterisation of these consumers is in progress and is expected to be completed by March, 2022. The work of meterisation of unmetered agriculture connections shall be taken up thereafter.

West DISCOM Submission:

With regard to domestic consumers, it is submitted that there are no unmetered connections in DISCOM area. With regard to agriculture consumers necessary instructions regarding identification and meterisation of urban flat rate agriculture consumer has already been issued to the field offices. Filed offices are working on the desired task and following is the status of progress achieved during the period from 01st October, 2019 to 30th September, 2020

Meter Installed (No.)	No. of Connection shifted to 10 Hrs. supply feeder (No.)	Single phasing arrangement done on feeder to restrict supply (No)	Total (No.)
499	1771	4940	7210

Despite the aforesaid progress in this matter, it is submitted that exercise of such meterisation may take some further time. Hence, the Commission is requested to extend the time line to next tariff period.

Commission's Observations/ Directions:
The Commission has taken note of the submission of the DISCOMs. It has been observed that West DISCOM has achieved meterisation of Domestic consumers but not DTR metering. Progress of East and Central DISCOMs is unsatisfactory. The DISCOMs are directed to complete this work within 1st July, 2021 and report compliance to the Commission by 31st July, 2021.

6.11 Consumer category wise study of hourly consumption pattern

Commission's Directives:
The Commission reiterates its directions given to the Petitioners 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.

East DISCOM Submission:
Task of desired study has been assigned to the consultants and outcome of the said study shall be submitted before the Commission soon.

Central DISCOM Submission:
The Petitioner vide letter no. MD/MK/RA/272 dated 13th January, 2021 has already submitted the Report on Month-wise, Category-wise Peak and Off-peak Consumption of Central DISCOM to the Commission.

West DISCOM Submission:

Task of desired study has been assigned to the consultants and outcome of the said study shall be submitted before the Commission soon.

Commission's Observations/ Directions:

The Commission reiterates its directions given to the Petitioners 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.

Further, the Petitioners are required to provide details with regards to existing ToD tariff in the formats appended to this order as Annexure-2.

6.12 Mini, Micro, Small Hydel plants billed under HV-4 (Seasonal Industries) category

Commission's Directives:

The Commission directs the Petitioner to submit the Number of consumers, actual sales, connected load of Mini, Micro, Small Hydro plants in previous three financial years during Seasonal and Non-Seasonal period separately.

A7: PUBLIC SUGGESTIONS AND COMMENTS ON LICENSEES' PETITIONS

7.1 After admission of the ARR and Tariff proposals for FY 2021-22 filed by MPPMCL and three DISCOMs, public notice was published in the prominent newspapers of the State to invite comments/objections/suggestions from the 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 last date to file suggestions/comments/objections. Names of the Stakeholders who had filed the suggestions/comments/objections on the ARRs/Tariff Proposals for FY 2021-22 are given in Annexure-I.

7.2 Public Notice, comprising the gist of the ARR and Tariff proposals were published by Petitioners on 14th February, 2021, in the following Hindi and English newspapers requesting the stakeholders to file their objections/comments/suggestions latest by 8th March, 2021.

Table 96 : List of Newspapers- Public Notice published by Petitioner

Newspaper	Language
Free Press, Indore	English
Pradesh Today, Indore	Hindi
The Hitavada, Jabalpur	English
Dainik Bhaskar, Jabalpur	Hindi
Dainik Bhaskar, Sagar	Hindi
Peoples Samachar, Bhopal	Hindi
Raj Express, Gwalior	Hindi

1.30 The Commission scheduled the public hearing on 9th March 2021 via video conferencing and heard the comments/suggestions of the stakeholders.

7.3 Number of comments received on ARRs/Tariff proposals are shown in the table below:

Table 97 : Numbers of suggestions received

Sr. No.	Name of DISCOM	Number of suggestions received
1.	West DISCOM, Indore	28
2.	Central DISCOM, Bhopal	8
3.	East DISCOM, Jabalpur	14
	Total	**50**

7.4 As a part of the tariff exercise, a meeting of the State Advisory Committee (SAC) was convened on 18th March, 2021 through video conferencing to seek suggestions on the Petition. The issues raised and suggestions made by the members of SAC have been appropriately considered herein.

7.5 The suggestions/comments/objections received from various stakeholders have been given due consideration by the Commission, however, salient suggestions/comments/ objections related to the Tariff Petition have been grouped together according to the nature of the suggestions/comments/objections and are summarized in this Section. Some of the issues raised by the stakeholders, which do not relate to ARR and tariff are not discussed in this Chapter.

ISSUE No. 1: Sales Projection

Stakeholders Suggestions:

The criteria adopted by the Petitioner for projecting the sales by considering the average sales for last 4 years is unjustifiable and unrealistic. As consumption is increasing every year, averaging of 4 years will reveal lower consumption. The basis for Sales Projection should have been the average of highest consumption of the last 3 to 4 months.

Also, since the Petitioners have given reference of CEA recommendation of this methodology, the Commission should look into CEA's *"Power Supply Position Report Of India"* of those five years for which the Petitioner has considered their calculation, from which it could be observed that the energy required and supplied by the State has always been among the top 5-6 States of India and going by the figures presented in the said report, the sales figures estimated by the Petitioners are much lower than the actual sales.

Petitioners' Response:

For the projection of sales, the Petitioner has considered category-wise and slab-wise actual data for sale of electricity, number of consumers, connected/contracted load, etc., of the preceding four years, i.e., FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20 and available data of FY 2020-21 i.e., up to the month of October, 2020. Any variation in the sales quantum shall be considered at the time of true–up.

Commission's View:

The Commission appreciates the submission made by the Stakeholders. The Commission has scrutinized the sales submitted by the Petitioners and compared with the past trend and found that sales projected for HV-2 (Coal Mines) and HV-6 (Bulk Residential) category of consumer is at variance with the past trend. Accordingly, the Commission has revised the sales for HV-2 (Coal Mines) and HV-6 (Bulk Residential) category of consumers, details of which has been shown in A2 chapter of this order. Further, the Commission has revised the Sales for LV-5 (Agriculture and Allied Activities) based on the norms approved by the Commission in this order.

ISSUE No. 2: Distribution losses

Stakeholders Suggestions:

It is observed that the Petitioners use distribution loss figures of the last year to project the energy requirement of next year but it should be based upon the latest figure as it is a very important parameter. Further, the actual losses for FY 2019-20 have been 22.52% for East DISCOM, 27.59% for Central DISCOM and 11.61% for West DISCOM. Such high losses in East and Central DISCOMs are responsible for higher tariffs for consumers of West DISCOM too. Hence, separate Tariff rates should be allowed for each DISCOMs based on their T&D losses, as burdening of inefficiency of non-performing DISCOM should not be passed onto other better performing DISCOMs.

The energy loss admitted in 33kV System for FY 2020-21 was 383 MU, which is 5% of the input energy admitted i.e 7,566 MU. Similarly, it has been shown in the Tariff Order for FY 2020-21 that 50% losses in proportion to sale is 846 MU, which is 11.18% of input energy admitted and the net energy loss admitted is 1,229 MU, which is 16.24% of input energy admitted. Therefore, the total loss shown is 2,458 MU against the input energy admitted i.e. 32.48%, which is very high. Hence, requested the Commission to investigate this and reduce the energy cost of consumer accordingly.

Petitioners' Response:

The Petitioner has claimed the quantum of power purchase considering the normative distribution loss as approved in the MYT Regulations, 2015 and its amendments thereof and therefore the consumers are not being burdened with any additional losses.

Commission's View:

The Commission has approved the ARR for the Petitioners considering the normative distribution losses for FY 2021-22 approved in the MYT Regulations, 2015 and its amendments thereof thereby not allowing pass through of higher losses and its associated costs on account of inefficiency of the Petitioners to the consumers. Further, the Commission has been issuing uniform tariff for each category across the State on getting advise from the State Government on the above matter and thus, the Commission after taking into consideration the wider public interest into account has decided to keep the tariff uniform across the State for each category.

ISSUE No. 3: High Power Purchase Cost

Stakeholders Suggestions:

The power purchase cost is a major element in expenditure, which comprises about 66 to 68% of the ARR. The proposed power purchase cost excluding other cost is Rs. 36,673 Crore including inter-State transmission charges and intra-State transmission charges, needs detailed scrutiny. The third-party experts in the field of power generation and power trading should monitor and evaluate the costs.

Moreover, the availability of power is much more against the requirement because of additional capacity creation. Total back down of power to the extent of 20,015 MU needs an independent scrutiny. This backing down needs to be examined whether such backing down is in the State's interest and whether such surplus power can be used in other States to avoid the financial losses. The surplus power available and its cost also needs to be examined as the fixed cost is paid to the power Companies without purchasing single unit as per their Agreement. Further, the power purchase requirement has been worked out by the DISCOMs without any study and base.

With the implementation of Distribution Bulk Supply Tariff (DBST) with effect from January, 2020, the overall Power Purchase Cost of all the three DISCOMs is being distributed on the basis of Revenue available with DISCOMs for power purchase and in proportion of their energy requirement, which resulted in MP State Power purchase cost as Rs. 33,416 Crore. Hence, any amount above that should not be allowed under ARR.

Petitioners' Response:

In the Petition, power purchase expenses have been considered as per provision of CERC/ MPERC orders issued for respective generating stations and power purchase bills of previous years. It is pertinent to mention that the quantum of power purchase has been calculated considering the normative distribution loss approved in the MYT Regulations, 2015 and its amendments thereof. The Petitioners submitted that the Commission after scrutinizing all the relevant records/information, determines the ARR of the licensees.

Commission's View:

The Commission after carrying out due diligence of the details submitted by the Petitioners, and orders issued by appropriate Commissions has approved the Power Purchase Cost, which has been detailed in the Chapter A2 of this Order.

ISSUE No. 4: Management of Surplus Power

Stakeholders Suggestions:

The Petitioner has suggested that the TOD segments should be introduced for all LT Industrial consumers as some load of LT industries can be shifted to night hours and all the Industrial consumers having TOD meter may record the consumption as per TOD. The consumers will also be having opportunity to utilize cheaper power during the night hours and surplus power, which is mostly available at night can be utilized with appreciable rate. In view of the fact that power is surplus during night hours, monetary benefits may be provided to those consumers who are prepared to draw more power during night hours. At present during the night time, from 22:00 hrs to 08:00 hrs, the power available in open market is around Rs. 1.00 to Rs. 2.50 and if night tariff is introduced, then power will be sold to the consumers of the State at reasonable cost and the surplus power during night hours will be utilized and DISCOMs will get more revenue, which will reduce the revenue gap in ARR. Further, the States like Gujarat, Maharashtra, etc., are providing major incentive in tariff to draw more power at night.

The surplus power should be offered to Railways at attractive rates, which may be higher than the proposed rate of sale of power in IEX. The additional amount earned from sale of power to Railways will also reduce the proposed ARR. Further, in view of the surplus power, HT and LT Industrial consumers should be incentivized by increasing the TOD rebate for night hours from 20% to 25%. Further, the Industries can use more power during night hours and surplus power will be used and the additional power can be sold during day time.

The Petitioners mentioned that it has been demonstrated that surplus power during FY 2021-22 is likely to remain 3930 MU. IEX rate realization for this power is 310.64 paisa per unit. By increasing certain rebates and relief in present tariff rates, the realization will be more than the present tariff for 3.4 Category, i.e., 540 paisa per unit with fixed charges of Rs.565/- per kVA and the effective rate will be around 630 paisa per unit.

The Petitioner has stated that the State is expected to have surplus energy in most of the months in ensuing FY 2021-22. The surplus power is proposed to be sold at IEX and the rate of sale of surplus power considered is based on last thirty months average, which appears errorenous. The basis has to be FY 2020-21 (actuals) updated up to January, 2021.

Petitioners' Response:

MPPMCL disposes the surplus power through power exchange (IEX) at the prevailing rates. MPPMCL tries to sell such surplus power at a cost which is determined by the market conditions prevailing at that time. The details regarding surplus power are given in Chapter A-6 of the Petition.

Various rebates are being provided to the consumers including Railways to increase consumption from the DISCOM. The off-peak period rebate has been increased from 15% to 20% by the Commission in the Tariff Order for FY 2016-17. Further, no surcharge is being levied for consumption in peak period keeping in view the available surplus power in the State. Therefore, proposal for any further increase in ToD rebate is not appropriate.

This off-peak power rebate is nothing but Special night Tariff. 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 operate in day time.

Commission's View:

It is observed that due to subdued demand in the country during the first half of the FY 2020-21 owing to nation wide lockdown imposed to contain spread of COVID-19 pandemic, the average rate discovered in IEX was very low at around 2.48/kWh. However, during second half of FY 2020-21, the demand started to move towards normal and therefore the average rate at IEX also increased to Rs. 3.15/kWh for the period October 2020 to March 2021. Considering that the average of IEX during first half of FY 2020-21 does not represent the business-as-usual scenario, the Commission deems it prudent to consider the average rate of Rs. 3.15 per unit of sale of surplus power through IEX/ PXIL/bilateral arrangements/bidding for FY 2021-22.

The Commission has also considered backdown of power plants having variable cost over Rs 3.15/kWh. Further, the Commission has also retained various rebates introduced for incentivizing the Industrial consumers for encouraging incremental consumption and the same has been detailed in tariff design Chapter of this order.

ISSUE No. 5: Renewable Purchase obligation (RPO)

Stakeholders Suggestions:

The sixth amendment to MPERC (Cogeneration and Generation of electricity from renewable sources of energy) Regulations, 2010 have brought some major changes due to which it has been found out that MP's hydel consumption has been for several years more than the RPO. State Government is thus requested to waive off Renewable Purchase obligation (RPO).

Petitioners' Response:

Calculation of Renewable Purchase Obligation has been done considering the provision of MPERC (Cogeneration and Generation of electricity from Renewable sources of energy) Regulation 2010.

Commission's View:

The Commission has taken cognizance of stakeholders' suggestions and Petitioners' reply. The Commission has allowed power purchase cost considering the compliance of RPO in accordance with Sixth amendment to Madhya Pradesh Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010. The details regarding RPO compliance, and its cost have been discussed in Chapter A2 of this Order.

ISSUE No. 6: Process of Public Hearing

Stakeholders Suggestions:

The process adopted for conducting public hearing was not in accordance with provision of Regulations as sufficient time has not been given to Distribution Companies to provide their reply to objector.

Petitioners' Response:

The Commisssion may take appropriate view in this matter.

Commission's View:

The Commission has followed due process prescribed under Section 64 of the Electricity Act, 2003 and specified in the MPERC (Conduct of Business) Regulations as amended from time to time for publication of Petition and conducting the public hearing. In order to provide ample opportunity to all the stakeholders to submit their comments on the Petition for determination of Retail Supply Tariff for FY 2021-22, the Tariff petition along with tariff formats were uploaded on the web site of the Commission and Distribution Licensees. The chronology followed by the Commission has been detailed in chapter A1 of this Order.

ISSUE No. 7: Investment Plan

Stakeholders Suggestions:

Investments made on account of System improvement has no oversight. It is emphasized that all such investments should be based on actuals for FY 2020-21. An independent agency should be recruited for monitoring the benefits of such investments through improvement of the system.

Petitioners' Response:

Cost related with the investment, i.e., Interest and Finance charges, ROE, etc., have been considered as per MYT Regulations, 2015 and its amendments thereof.

Commission's View:

The Petitoners have filed separate Petitions for approval of Capital investment plan for FY 2021-22 to FY 2026-27, which has been admitted by the Commission and presently under consideration. Therefore, the Commission in this Order has considered the capital expenditure for FY 2021-22 provisonally based on Peitioner submission, which shall be subject to approval of capital investment plan and True up.

Aggregate Revenue Requirement (ARR) Components

ISSUE No. 8: Computation of Aggregate Revenue Requirement (ARR)

Stakeholders Suggestions:

In the Chapter A11 of the Petition, the ARR for FY 2021-22 has been worked out by the Petitioners on the basis of the provisions of Regulations considering actual figures of FY 2019-20 as base. Further, the revenue subsidy has not been considered in FY 2020-21 and FY 2021-22 (Table 128 of the Petition). The Commission may consider curbing of such tendencies through bringing out a Regulation. Hence, the ARR has to be based on actuals of FY 2020-21 updated up to January, 2021 available on MPPMCL Portal.

Another stakeholder submitted that Discoms have not filed their Retail supply Tariff petition for FY 2021-22 on the basis of correct figures.

Petitioners' Response:

The Petitioners submitted that the tariff petition has been prepared on the basis of past years audited data & present available figure with DISCOMs. Further, ARR is calculated in accordance with the provisions of MYT Regulations, 2015 and its amendments thereof. Summary of ARR for all three DISCOMs along with MPPMCL cost available in Table 129 of the Petition. Subsidy provided by State Government is not the subject matter of the instant Petition and revenue has been considered as per tariff schedule approved by the Commission.

Commission's View:

The Commission has taken the cognizance of the stakeholders' suggestions and Petitioners' reply and has approved the ARR on the basis of the provisions of the MYT Regulations, 2015 and its amendments thereof. Further, the Commission has determined the tariff to recover the full ARR and has not considered the tariff subsidy in its computation. If any susbsidy received from Government shall be considered by the Commission on the basis of actuals at the time of truing up.

ISSUE No. 9: O&M Expenses of DISCOMs

Stakeholders Suggestions:

The proposed O&M Expenses, Employee Costs, Administrative & General Expenses, Repair and Maintenance Expenses, Capital Investment Plan, Scheme Wise Capitalization, CWIP, Fixed Assets Addition, etc., needs to be verified from other agency for its correctness.

The Petitioner should provide proper justification regarding expenses towards Repairs and Maintenance, Employees cost and A&G expenses that are shown in the ARR as the actual cost is always less than the cost as per provisions. The Commission should work out real cost after conducting separate study through independent agency with approval of Appellate Tribunal. Further, the actual cost must be considered at the time of true-up.

Petitioners' Response:

Other components of ARR, i.e., O&M Expenses, Capital Investment Plan, scheme-wise capitalization, CWIP, Fixed Assets Addition have been considered as per provision of MYT Regulations, 2015 and its amendments thereof.

Commission's View:

The Commission has noted the submission of the Stakeholder and the Petitioners. The Commission has allowed O&M Expenses in accordance with the norms stipulated in the MYT Regulations, 2015 and its amendments thereof. These norms have been fixed following due diligence of the actual O&M expenses of the Petitioners in the previous years.

ISSUE No. 10: Voltage wise Cost of Supply

Stakeholders Suggestions:

The voltage-wise cost of supply for the three DISCOMs has been worked out by the Petitioner and given in proposed ARR, which seems to be incorrect.

Petitioners' Response:

With regard to the voltage-wise cost of supply, the Petitioner has calculated the voltage-wise cost of supply as per the directions of the Hon'ble APTEL in Appeal No. 103 of 2010 and IA No. 137 & 138 of 2010. Here, it is noteworthy to mention that 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. As per provisions of the Act read with Tariff Policy, Tariff is required to be determined based on the average cost of supply instead of voltage wise cost of supply.

Commission's View:

The Commission has computed Voltage wise cost of supply based on the methodology prescribed by Hon'ble APTEL as per the details submitted by the Petitioners in their submissions. The approach and methodology adopted for computation of voltage wise cost of supply is detailed in Tariff Design Chapter of this order.

ISSUE No. 11: Depreciation

Stakeholders Suggestions:

The depreciation on the assets handed over by the consumers as well as by the developer of colony should not be allowed.

Petitioners' Response:

The depreciation claimed by DISCOM in its ARR of FY 2021-22 is as per MYT Regulations, 2015 and its amendments thereof.

Commission's View:

The Commission has worked out depreciation on the basis of the average net GFA computed after considering the opening and closing net GFA for FY 2021-22. Further, consumer contributions, grants and subsidies towards Capital Assets filed by the petitioner have been reduced from the GFA for arriving at the net GFA for FY 2021-22. In addition to this, the Commission has computed the depreciation considering the depreciation rates of 5.28%, 5.24% and 5.29% for East, West and Central DISCOM based on the depreciation rates defined in the Regulations, considering the actual GFA as per audited accounts of FY 2019-20. However, the Commission has withheld 50% of the depreciation which shall only be allowed at the time of truing up subject to submission of appropriate fixed asset register by the petitioner.

ISSUE No. 12: Other Cost/Income

Stakeholders Suggestions:

In Other Income, income from surcharges have not been considered, even though an amount of Rs.880 Crore has been projected. The Commission is requested to consider surcharge as part of Other Income and in some States, it is already the norm.

Petitioners' Response:

All components of ARR including depreciation, Interest and Finance Charges, Interest on consumer security deposit, return on equity, provision for bad and Doubtful Debts and other have been considered as per the MYT Regulations, 2015 and its amendments thereof.

With regards to late payment surcharge, the MPERC Regulations RG-35 (II) of 2015 specify that, "*41.2 The delayed payment surcharge shall not be considered as income for the purpose of determination of gap between Aggregate Revenue Requirement and Tariff & other Income.*"

Thus, provisions of MYT Regulations, 2015 and its amendments thereof and it amendment there do not recognize the delayed payment surcharge as a part of Other Income.

Commission's View

The Commission has not considered the income from Delayed Payment Surcharge as Other Income, in accordance with the provisions of MYT Regulations, 2015 and its amendments thereof.

ISSUE No. 13: Bad and doubtful debts

Stakeholders Suggestions:

The provision of bad and doubtful debts may be allowed at the time of True up Petition only after verification of the actual write-off of the amount. Any benefit passed on to the consumers should not be allowed under this head.

Petitioners' Response:

MPERC Regulations RG – 35(II) of 2015 provides the methodology for computation of provision for Bad & Doubtful Debts, wherein it is stated that it is to be allowed to the maximum of 1% of yearly revenue. The Bad and doubtful debts claimed in the Petition is well within aforesaid limit prescribed in the Regulations.

Commission's View:

The bad and doubtful debts have been allowed by the Commission as per the provisions of the MYT Regulations, 2015 and its amendments thereof and approach adopted by the Commission in previous Tariff Orders. The same has been detailed in the Chapter A2 of this Order.

ISSUE No. 14: Cross Subsidy Surcharge and Additional Surcharge

Stakeholders Suggestions:

The Commission should invoke provisions under Section 42(2) sub para 4 of Electricity Act 2003 and abolish Cross Subsidy Surcharge (CSS) and Additional Surcharge.

The Petitioner should show the computation of wheeling charge and CSS to be levied up on the open access consumer in the ARR Petition. The addition of Fuel Cost Adjustment to the effective tariff of consumers category will result in increase in the CSS worked out by the Commission.

Also, FCA being an adjustment which impacts the consumer that procure power from the DISCOMs, does not directly impact the open access consumers as they do not get benefits of reduced fuel cost in the DISCOMs' Power Purchase. Hence, the proposal to link FCA with CSS on Open Access consumers ought to be rejected.

Additional Surcharge has been calculated by considering the weighted average monthly fixed rate of surrendered power, which is based on daily weighted fixed rate of generating station in the surrendered power. The Commission in Retail Supply Tariff Order for FY 2019-20, considered the average monthly fixed rate arrived based on daily least fixed rate of generating stations whose energy was surrendered due to open access consumers for determining Additional Surcharge. In the months of October'2018 to January '2019, DISCOMs have purchased far more electricity than claimed surrendered energy amount. Therefore, stranded energy in these months did not occur necessarily due to open access. So, for determining Additional surcharge, cost of backdown energy surrendered due to open access for months of October '2018 to January '2019 should not be considered.

Open access consumers pay demand charges to the Distribution Licensee as a regular consumer. Such fixed cost already incurred by the Open Access consumers will have to be adjusted in the cost attributable to Open Access as stranded capacity of the DISCOMs.

The Commission should remove CSS and Additional Surcharge on Purchasing RE Power from third party within the State to increase use of green power and minimize the pollution in the State.

Further, Petition does not have any information on the revenue received from CSS and Additional Surcharge. It is observed that an amount of Rs. 1,100 Crore is due on account of CSS and Additional Surcharge, which is not shown in the Petition. Revenue to be received from Open Access consumers is also not shown in the Petition. Also, procurement of power to Railways from open market was granted due to compelling circumstances however, CSS and Additional Surcharge is payable by Railways. The Commission is requested to take effective steps giving direction to the Petitioners for recovery of outstanding arrears from Railways.

Petitioners' Response

Proposal of levy of CSS and additional surcharge is in accordance with the provisions of Section 42 of the Electricity Act, 2003 and Tariff Policy issued by the Central Government, and Section 42 of the Act nowhere provides for elimination of cross subsidy and CSS.

The charges applicable for Open Access are in accordance with MPERC Open Access Regulations, 2005 and its amendments from time to time.

Fuel Cost Adjustment (FCA) charges is trued up by the Commission for each quarter to pass on the variations in fuel cost incurred by the generators to DISCOMs. Accordingly, DISCOMs pass the benefits of FCA charges to the consumers as energy charges. However, CSS is levied to high value consumers to provide the obligated power supply at affordable rate.

The Commission should consider increase in the CSS to the extent of FCA charges payable for a period, to protect financial health of DISCOMs, as DISCOMs are providing quality and reliable power supply to end consumers.

The Petitioner has computed the Additional Surcharge of Rs.1.24 per unit 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 Petitioner requested to consider the Additional Surcharge as submitted in the ARR Petition.

Commission's view

The Commission has determined Additional Surcharge by considering the average monthly fixed rate arrived based on daily fixed rate of generating station having least energy charge as per MoD whose energy was surrendered due to open access consumers.

Further, the Commission has computed Wheeling Charges and CSS on the basis of projected network capacity addition during FY 2021-22 for different voltage levels, in accordance with the provisions of Tariff Policy, 2016.

The computations for CSS, Additional Surcharge and Wheeling Charge have been detailed in the Chapter A3 of this Order.

ISSUE No. 15: Levy of Fuel Cost Adjustment

Stakeholders Suggestions:

The power purchase cost of the State was Rs. 2.60/kWh in FY 2011-12 and the proposed power purchase cost for FY 2021-22 is Rs. 4.82/kWh, which is more than double during the period of 10 years in the State. Power Purchase Costs contribute more than 80% of total ARR of the MP State. Any increase in power purchase cost directly gets reflected in the consumer tariff. Hence, the Commission should scrutinize the request made by the Petitioner to increase the power purchase cost reason as the cost of increase in power rate has already been recovered through FCA.

The FCA acts as hindrance on working of Industry and also impacts on the Industry's working capital. Further, the State of Madhya Pradesh has surplus of power and revenue. Therefore, the FCA recovery should be abolished.

Any additional FCA should not be allowed in next one year as any increase in FCA also increases Electricity Duty by 9%.

The Petitioner has proposed changes in methodology for computation of FCA formula, which should not be allowed by the Commission. Further, the Commission should verify the Coal purchase Invoices, Transportation Cost, etc., through external agency.

Petitioners' Response:

It is submitted that ARR and Tariff Petition for the Distribution & Retail Supply Business for FY 2021-22 is filed before the Commission in accordance with the tariff principles laid down in the MYT Regulations, 2015 read with the Third amendment issued by MPERC dated 25th November 2020. As provided in Section 61 read with section 62 of the Electricity Act, 2003, tariff is proposed in accordance with the principle of cost of supply.

It is submitted that the instant Petition filed before the Commission is for determination of ARR and retail supply tariff for FY 2021-22. Thus, any levy of FCA in the previous financial year is not relevant.

Practice of determination of FCA is in accordance with the provision of Section 62(4) of the Electricity Act, 2003. FCA is meant to ensure speedy recovery of cost of supply due to increase in the power purchase cost.

As per the Section 62(5) of Electricity Act, 2003, the Commission has sole jurisdiction for determination of the FCA. Approval of FCA is in line with the provisions of the Act as well as Regulations.

Commission's View

Considering various stakeholders' submissions, the Commission has decided to retain the existing provisions in this matter. FCA has been discussed in details in Chapter A4 of this Order.

Tariff Design and Tariff Schedule

ISSUE No. 16: Tariff rationalization for Domestic Consumers

Stakeholders Suggestions:

Though surplus power availability is continuously increasing, the Petitioners have proposed tariff hike in every slab of domestic category, which would restrain the demand of power more. Further, concessional rate slab has been reduced from existing 51 to 150 units to 51 to 100 units resulting in to increase in tariff from 7.3% to 33%.

Therefore, it is desirable that domestic tariff is lowered thereby providing domestic consumer incentive to consume more power, which would narrow the surplus margin and will result in earning of better revenue for the DISCOMs.

Further, the minimum energy charge of Rs. 1000 for temporary connection for the construction of own building should be abolished.

The proposed 5.28% increase in electricity tariff of domestic consumers and their power supply slabs are not justifiable. Further, in summer season, the power consumption will increase due to which additional load shall be utilised by the consumers. Therefore, the DISCOMs should provide exemption on the use of more electricity, rather than proposing increase in the rate of electricity.

Petitioners' Response:

In relation to the slab mentioned in LV 1.2 of the petition, it is stated that sales and revenue have been calculated in the format number R-3, R-4 and R-5 in the form attached to the Petition. In these formats, according to the tariff order issued by the Commission in the year 2020-21, only sales slab of 51-150 and 151-300 have been taken in LV 1.2. Thus, the calculation of gross revenue requirement and gap made by the Licensee is correct and as per the rules.

In the Tariff Order of FY 2020-21 issued by the Commission, the tariff imposed for the construction of own building has been revised to 1.25 times the present tariff. Billing of the minimum charge for temporary connection is appropriate as at present, the fixed charge is not sufficient to recover the fixed cost of the Petitioner.

Commission's View

The Commission has continued with the tariff slab 51-150 for Domestic consumers as approved in Tariff Order for FY 2020-21. Tariff design is discussed in details in Chapter A5 of this Order. The Commission after prudence check has allowed tariff hike of only 0.63%.

ISSUE No. 17: Equal Tariff for Industrial, Non- Industrial and Power Intensive Industries

Stakeholders Suggestions

The difference in the rates for Industrial, Non- Industrial and Power Incentive Industries are not in order as the Commission takes the average cost of supply for fixing of tariff rate and as per cross subsidy road map, the tariff for industries should not be more than 120% of average cost of supply. Hence, the tariff rate of Industries, Non-Industries and Power Intensive industries should be equal.

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. Section 62(3) of Electricity Act, 2003 which is reproduced as under-

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

Further, the Tariff Policy also provides for cross subsidy of +-20% with respect to average cost of supply. Therefore, the Commission is fully empowered to approve differential tariff to be charged from two different class of consumers and this practice should be continued in the interest of consumers of the State.

Commission's View:

The Commission has determined the tariff for all category of consumers considering the sales mix and revenue contribution by respective categories in order to meet the approved revenue requirement of the petitioners which is in accordance with the principles laid down and the prudent practices followed by the Commission in its Tariff Orders.

ISSUE No. 18: Supply for temporary purpose in existing HT consumers premises

Stakeholders Suggestions:

10% of the sanctioned load is allowed to be used for construction for expansion/ renovation/ modification from existing HT connections on the same tariff applicable for the permanent connection. However, presently the consumers are facing challenges due to overzealous checking by the Licensee. Like in any industry, frequent small construction and modification is always required as 10% of load of contract for such activity should be allowed.

Petitioners' Response:

Issue of stakeholder is addressed in the Tariff Order for FY 2019-20 by the Commission. Existing HT consumers who require temporary supply for the purpose of addition and/or alteration are allowed to avail such power from the existing permanent connection up to the Contract Demand. Additional demand, if any, shall be billed as per the provision of the Additional charges for Excess Demand.

Billing of the minimum charge for temporary connection is appropriate as at present the permanent charge is not sufficient to recover the permanent cost of the license holder.

Commission's View:

Existing HT consumer who requires temporary supply for construction for expansion/ renovation/ modification are allowed to avail supply at the normal tariff as per the conditions specified in the approved rate schedule of this Order. As the provision is clear in the said matter, the Commission has decided to retain the existing provisions.

ISSUE No. 19: Increase in Tariff Minimum Units and reduction of off season period for HV-4: Seasonal Consumer

Stakeholders Suggestions:

The off-season period for seasonal consumer should be 4 months in place of 6 months as per consumer's option and Tariff minimum units for consumer having Contract Demand up to 100 kVA should be 50 units per kVA or 600 units per annum per kVA as in the HV 3.1 category. This will be helpful to small consumers. Due to change of policy of Central Government, Ginning and Pressing Industries are not able to consume even Tariff minimum units. Hence, as proposed, above off-season period for seasonal consumer should be kept for 4 months in place of 6 months as per consumer request.

In the Tariff Order for FY 2020-21 under Specific Terms and Conditions, 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/offseason months during this financial year prior to issue of this Order, same should be accepted and shall be valid for this Tariff Order (Page no. 192 (2018-19)).

Petitioners' Response:

As proposed by the stakeholder, one cannot compare the seasonal consumer with the Industrial consumer. The minimum billing demand for the off season in respect to the seasonal consumer is only '10% of Contract Demand' against 90% of Contract Demand in case of normal Industrial consumer only on the basis that they consume power in a particular period of the year and not throughout the year. If it is submission of the seasonal consumers that the period of the off season is very less, then in that case there would be no need of separate cheaper tariff for the seasonal consumer. In view of this, the proposal of the stakeholder cannot be accepted.

At present, fixed charges is not sufficient to recover the fixed cost of the Licensee. Therefore, the present applicable guaranteed minimum consumption to different category in Tariff Order for FY 2020-21 should be continued till the fixed charges are increased to that level so as to recover the fixed cost of supply.

DISCOM appreciates the support of the stakeholder on the proposal. The Commission is requested to take suitable view in the matter of Specific Terms and Conditions for HV-4 Seasonal Consumers.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing tariff structure for Seasonal Consumers.

ISSUE No. 20: Change of classification from Non-domestic to Industrial for Telecom Towers

Stakeholders Suggestions:

As per MSME guidelines for MSME industries, telecom is also considered as MSME industry. Thus, all telecom tower connections given under non-domestic category should be converted into industrial category.

Petitioners' Response:

No activity of manufacturing/processing is being carried out in the telecom towers thus, present classification in the non-domestic category is appropriate and same should be continued.

Commission's view

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing provisions. The Commission has been allowing Industrial tariff to the Industries where raw material is processed into finished product through manufacturing process and other such activities. The telecom tower connections are covered under LV Non- Domestic and HV Non- Industrial categories as the case may be.

ISSUE No. 21: Effect of COVID-19 on Industrial Consumers

Stakeholders Suggestions:

To safe guard the industrial progress in the State, the proposed increase in Tariff rates for Industrial consumers has to be withdrawn. The proposed average increase of 6.23% in tariff should not be considered as the Commission already increased the rates vide Tariff Order dated 17.12.2020 just three months before.

Further, various States have provided concessions/relief to Industrial and Commercial/Non-domestic Consumers in COVID-19 pandemic as the lockdown have impacted the country's industry and economy very harshly. Therefore, the consumers should be provided with relief and also be supported to tackle this economic impact.

Some of stakeholders have also suggested that the Textile Industry is a Power Intensive Industry as per provisions of Energy Conservation Act and therefore, a separate tariff should be made for the Textile Industry under Power Intensive Tariff Category.

Petitioners' Response:

The instant Petition has been filed for the determination of ARR and Retail supply Tariff for FY 2021-22. The same is required to be determined as per the principle of cost of supply and provision of MYT Regulations, 2015 and its amendments thereof. Any relief due to COVID-19 pandemic is not the subject matter of present Petition. In case of occurrence of any Force Majeure event, the consumer may avail remedy under appropriate provision of MP Electricity Supply Code 2013. Since the revenue from existing tariff is not sufficient to recover the ARR, tariff hike has been proposed.

As regards the inclusion of textile industry into power intensive category, no data has been submitted regarding support of this claim. Further, instant Petition has been filed for determination of ARR and Tariff for the Distribution and Retail Supply Business for FY 2021-22, and any proposal of rebate lacks merit.

Commission's View:

The Commission determines the tariff as per the provisions of Section 61, Section 62 and Section 64 of the Electricity Act, 2003 and the MYT Regulations notified by it. Accordingly, in this tariff order the Commission considering legal framework and commercial principles has determined the tariff and allowed a tariff hike of only 0.63%.

ISSUE No. 22: LT industrial Tariff

Stakeholders Suggestions:

In the case of consumers having Contract Demand up to 25 HP/18.5 kW, the energy charges and fixed charges should be billed at a rate of 30% less than the charges applicable to other consumer and requested the Commission to revoke the terms and conditions as per the Tariff Order for FY 2016-17.

The limit on contracted load to avail rebate should be increased from 20 HP to 35 HP.

Petitioners' Response:

This special relief to protect the interest of small consumer is sufficient and no further increase in relief is desirable.

The consumer has sought relief in billing on contracted load from 25 HP to 35 HP which is wrongly claimed because as per Tariff Order for FY 2020-21 contracted load is already restricted up to 20HP. Also, in this regard it is to inform that this matter is related to MP

Electricty Supply Code and not to ARR. The consumer may apply for relief in its contracted load under the relevant clause of MP Electricity Supply Code and the Commission may take an appropriate decision for the same.

Commission's View:

The Commission has taken cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to continue to bill consumers having Contract Demand upto 20 HP at a rate 30% less than the charges for consumers having contract demand above 20 HP.

ISSUE No. 23: Conversion of Existing LT Industrial/Non domestic connection to corresponding HT connection

Stakeholders Suggestions:

It is requested that the Commission should allow the rebate to all existing LT Industrial/Non domestic consumers who converted their connections from LT to HT during FY 2021-22 and not from date of Tariff Order issued.

From the above, it is clear that all those connections given during the year from 01.04.2021 will be getting rebate, but the DISCOM is giving the effect from the time of issue of Tariff Order. The Commission should give clear direction in the new Tariff Order. It will encourage the consumer to convert from LT to HT and the tariff hike and financial losses due to conversion of tariff will be eliminated.

Further, the Commission is requested not to recover supply affording charges for conversion, since the consumer has already paid the supply affording charges at the time of availing the LT connection and at the time of conversion, additional burden of about Rs. 4-5 Lakh for construction of Sub Station and other works has been incurred.

Petitioners' Response:

In the Tariff Order for FY 2018-19, FY 2019-20 and FY 2020-21, it is clearly provided that rebate shall be available on the conversion of connection during FY 2018-19, FY 2019-20 and FY 2020-21 as the case may be. Thus, any connection converted from LT to HT after completion of such financial year are not eligible for rebate. Eligibility of rebate should be based on the effective period of Tariff Order and not the financial year. DISCOM has proposed amendment to link the rebate with Tariff period.

Further issue of the supply affording charges is not the subject matter of the instant Petition.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has clarified that the rebate to those consumers converted from existing LT Industrial/Non-Domestic connection to corresponding HT connection will be effective from the beginning of financial year till the end of financial year. Similiarly for this Tariff Order also the rebate shall be applicable for FY 2021-22 (April 2021 to March, 2022).

ISSUE No. 24: Cross Subsidy

Stakeholders Suggestions:

As per the Electricity Act, the cross-subsidy for all categories of consumers should be kept within ±20% of Average Cost of Supply. Further, the HV-3.1and LV-4 category - Industrial consumer seek justification for loading their tariff with cross-subsidy of +23% and +32 %.

Petitioners' Response:

The Commission has been consciously making efforts over the past several years to reduce the cross-subsidy levels across all consumer categories. However, while doing so, the Commission has to consider the effect of tariff shock to any consumer category. Thus, Tariff Orders being issued by the Commission are fully compliant with the Tariff Policy and Electricity Act, 2003.

Commission's View:

The Cross Subsidy varies year on year based on various factors, viz., Sales mix of various consumer categories with respect to the total sales, connected load, number of consumers, component of power purchase cost in the ARR and other costs also, which keep varying every year. The Commission is making all efforts to reduce the cross subsidies gradually without giving the tariff shock to subsidized category of consumers.

ISSUE No. 25: Definition of Maximum Demand

Stakeholders Suggestions:

The Commission must prescribe the definition and description of method for determination of Maximum Demand in the Supply Code, rather than leaving any further scope of defining it under the Tariff Orders. Since being a regulatory code, the M.P. Electricity Supply Code through its set of rules and principles govern all the bodies incorporated under the Electricity Act for the purpose of supply and consumption of electricity in a State, therefore this Code should be complete in itself while leaving no scope of further defining any term through any other Act or Orders and must act as the sole guide for each and every stakeholder associated with supply and consumption of electricity in a State as the same can be seen adopted in Electricity Supply Codes of other States like Maharashtra, Rajasthan and Gujarat.

Secondly, it is proposed that the current method of determining the Maximum Demand, i.e., the Sliding window Principle method should be replaced with Block window/Fixed Time Block method.

With the imposition of this method, the leftover unutilized power can be utilized by increasing the integral demand in one block window cycle whereas currently in sliding method practically it is very difficult to increase load above 90% whereas in case of block window system load factor can reach up to 95-96% as can be seen in enclosed bill.

Petitioners' Response:

The Petitioner has submitted that the manner of calculation of Maximum Demand prescribed in Tariff Order is applicable for all category of consumers uniformly. Therefore, any amendment based on the suggestion of particular industry may not be justified. The Commission is requested to take suitable view in this regard accordingly.

The Maximum Demand is nothing but the highest load being used by the consumer. In other words, Maximum Demand represents the load actually being used by the consumer against the Contract Demand. Therefore, present formula which consider maximum of MD or CD is appropriate.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions and the Petitioners' reply. The Maximum Demand is already defined in the respective tariff schedules for LV and HV categories of Tariff Orders issued by the Commission from time to time and the same has been included in this Tariff Order also.

ISSUE No. 26: Ceiling in the Load factor

Stakeholders Suggestions:

The Commission is suggested to review the present slot of reduced rate of Energy Charge of "Above 50% Load Factor" and modify it to atleast Rs.1 less as compared to normal energy charges up to 50% load factor.

Petitioners' Response:

It is not practically possible to fix the ceiling of load factor on the basis of load factor of individual consumers. The Commission has fixed the generic ceiling for all HT consumers. The purpose behind the differentiation of tariff is to promote the consumers to consume more power according to their respective contract demand.

It is submitted that the present HT tariff provision for both, below 50% Load Factor and above 50% Load Factor is appropriate.

Commission's View:

Considering the Petitioner's and various stakeholders' submissions, the Commission has decided to continue with existing provisions in this matter.

ISSUE No. 27: Homestay Policy (Electric Tariff at domestic rate)

Stakeholders Suggestions:

The Policy initially started with the MP Homestay (Registration and Regulation) Scheme, 2010. The Policy incorporated within itself various types of home stay for which ordinary citizens could get themselves registered by fulfilling the criteria laid down in the scheme,

provided that the rates applicable to domestic electricity connection would be applied to the home stay registered under the scheme.
The Policy has been broken in three parts:

1. MP Bread and Breakfast Establishment Scheme, 2019, which deals with general homestay categories in the house of people living in urban or semi-urban set up.
2. MP Farm Stay Establishment Scheme, 2019, which provides for registration of farm house owned by individuals for the purpose of providing accommodation to tourists.
3. MP Gram Stay Establishment Scheme, 2019, which aims at giving experience of rural life to the tourist, while boasting the economy of the villagers.

In the other States like Uttarakhand, Kerala, Himachal Pradesh, New Delhi and Gujarat, the Policy of Homestays are being charged domestic tariff for electricity connections.

Therefore, the Commission should make a provision for treating a registered homestay under domestic category and charging domestic tariff for electricity.

Petitioners' Response:

Central DISCOM submits that in the current Tariff schedule there is no separate provisions for Homestays in the State so it may be considered under Domestic Category.

East and West DISCOM submitted that all kind of guest houses, circuit house, eating establishments and hotels whether owned by goveremnet or private entaities are covered under LV-2.2 non domestic tariff category. Therefore, proposal for any perferenital tariff for guest houses/ circuit house/ hotel being operated in the form of 'Home stay' is inconsistent with the provision of Section 62(3) of the Act.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided that registered homestay consumers shall be charged under LV-1 Domestic category tariff.

ISSUE No. 28: Guaranteed Minimum consumption charge, Bill energy charges only for the net energy

Stakeholders Suggestions:

In order to promote Green Energy and to harness solar radiation, some of the substation owners have installed Rooftop Solar plants to offset the energy imported by them with the energy generation from the rooftop solar. It is observed from Retail Supply Tariff Petition that proposed tariff schedule provides for levy of Fixed Charge and Energy Charge subject to Guaranteed Minimum Consumption Charge, while Transmission Substation is categorized under HV-3 category.

Investment payback capability of solar plants would be greatly hampered if they had to provide such high fixed cost of electricity. The Stakeholder requested the Commission to consider:

1. Waiver of Guaranteed minimum Consumption charges for substations who have installed Solar roof top.
2. Offset the energy exported from the energy imported and bill energy charges only for the net energy.

Petitioners' Response:

As per the principles of two-part tariff, fixed charges are meant for the recovery of fixed cost incurred by the Licensees. However, the prevailing fixed charges are not enough to recover the fixed cost of the Licensee. Therefore, unless the fixed charges are increased to that level, so as to recover the total fixed cost of supply, Guaranteed Minimum Consumption Charges cannot be waived off. Further, Tariff Minimum Charges are levied only when consumption of any consumer falls below guaranteed minimum consumption for a month.

Offsetting of the energy is done based on the MPERC (Grid Connected Net Metering), Regulations, 2015. The Commission may take an appropriate view on the same.

Commission's View:

Considering that the fixed charges allowed to the Petitioners are not sufficient to cover their fixed cost, the Commission has decided to retain the existing provisions in this matter.

ISSUE No. 29: Actual billing rates as per monthly bills higher than the approved Average Billing Rate (ABR) for Industrial consumer of LV-4 and HV-3.1 Category of consumers

Stakeholders Suggestions:

In the Tariff Order for FY 2020-21, it is observed that the average cost of supply is Rs. 6.24 per unit and voltage-wise cost supply is Rs. 6.14 per unit, which is very high. When Cross Subsidy of 120% is applied then ABR works out to Rs. 7.37 per unit. However, while receiving the bill from DISCOM, the rate has been increased up to Rs. 14.08 per unit, which is much higher as compared to other States.

Petitioners' Response:

The provision under Section 62(3) of the Electricity Act, 2003 provides for the factors-based determination of differential tariff. Further, the Commission is fully empowered to make differential tariff to be charged from two different class of consumers and this practice should be continued in the interest of consumers of the State.

The average billing rate worked out by the Commission is based on the projected consumers and sales for whole category, whereas the actual billing is being done by the DISCOM as per rate approved in the Tariff Schedule considering the actual load factor, power factor, supply voltage and consumption of the consumer. Hence, billing rate of any particular consumer may vary.

Commission's View:

The Comission arrives at the revenue at existing tariff from each category of consumers based on the projected sales in that particular category and in order to meet the revenue gap the tariff needs to be revised. The revenue at existing tariff projected for all the categories of consumers is shown in table no. 75 of Chapter A2, whereas the table no. 76 of Chapter A2 shows revenue gap at existing tariff.

Further, the projections of revenue for each category of consumers are based on the projected sales and accordingly the actual billing rate may differ in particular cases depending on the consumption of the consumers.

ISSUE No. 30: Reduce Billing Demand

Stakeholders Suggestions:

General Terms and Conditions for Billing Demand for the Fixed Charges for HV consumers should be changed from "90% of Contract Demand or Actual Demand, whichever is higher" to "80% of Contract Demand or Actual Demand, whichever is higher".

Further, another stakeholder requested the Commission to reduce the Billing Demand to 65% of Contract Demand or actual demand, whichever is higher.

The stakeholder requested the Commission to do away with the present method of billing (Fixed Charges & Energy Charges with conditions of minimum charges) and shift to billing on the actual minimum demand and unit consumed at the append billing rate derived by the Commission in Tariff. This will be a win-win situation for both (DISCOM's and HT Industrial Consumers in HV-3.4 Category).

Petitioners' Response:

Due to Availability Based Tariff (ABT) and stringent scheduling of power, the cost of power has become very sensitive to the demand of power. Hence, charging for any drawal in excess of the contracted or scheduled demand at a higher rate than normal is fair and reasonable.

The Petitioner feels that the consumer should follow the discipline of keeping their actual drawals as agreed with the Licensee. However, if a particular consumer finds it difficult to maintain the Maximum Demand up to Contract Demand, option to increase / decrease the Contract Demand can be utilized.

As regards the high percentage of Billing demand, the tariff is recovered from the consumers on the basis of concept of two-part tariff structure, where the fixed charges are billed to the consumers for the recovery of fixed cost of the Distribution Licensees without consideration of any consumption of power. Hence, any reduction in the minimum Billing Demand will result into under recovery of fixed cost of the Distribution Licensees.

The fixed charge in two-part tariff structure is levied on the consumers as per the provisions of the Electricity Act, 2003. The Distribution licensee also has to pay certain fixed cost to the generators. Therefore, the present practice of two-part tariff is appropriate. As per the principles of two-part tariff, fixed cost charges are meant for the recovery of fixed cost (Universal supply obligation of licensee) and energy charges are meant for the recovery of variable cost. At present fixed charges are not sufficient to recover the fixed cost of the licensee. Therefore, unless the fixed charges are increased to the level sufficient to recover the fixed cost of supply, TMM cannot be abolished. As per clause 42.1(d) of the MYT Regulations 2015, the tariff minimum charges cannot be removed unless the fixed charges are aligned with recovery of full fixed cost.

Commission's View:

The Commission has observed that the revenue from fixed charges through the retail tariffs is only about 15-25% of the total revenue from different categories of consumers, whereas, the fixed cost of the petitioners is about 60% of the ARR. Since, the revenue from Fixed Charges is not sufficient to recover fixed cost of the Petitioner, the Commission has decided to continue with the existing provisions in this matter.

ISSUE No. 31: Agricultural consumers

Stakeholders Suggestions:

It is observed that the tariff for LV 5.1 and LV 5.2 are exactly same therefore both the categories should be merged as one.

Tariff should not be increased till works of Agricultural feeder separation is completed and sufficient power supply is not provided by DISCOMs. Further, it is unreasonable to charge bill amount of 6 months as security deposit for Agricultural pump connections. Thus, appropriate interest should be provided on amount of security deposit.

Proposed tariff hike of 6.61% for LV-5 Agriculture category is unjustified. Such tariff hike is unbearable in absence of Government Subsidy. Further, the electricity is never supplied to agricultural consumers as announced and all transformers are overloaded in such case the increase in agricultural electricity rate is completely inappropriate.

Similar to LV 5.3 Agriculture consumers, minimum billing should also be applicable for LV 5.1 and LV 5.2 metered Agriculture consumers. Consumer using power higher than minimum billing should be billed for extra usage at the end of the year.

Flat rate tariff should also be applicable for Urban Agriculture consumers of LV 5.4 category.

Provision of 'No billing' should be introduced in Tariff Schedule in cases of drought or other natural calamities when there is no power consumption.

Agriculture consumers are facing power interruptions because of poor maintenance of distribution network by DISCOMs. Penalty should be levied on DISCOMs for delay in providing services to consumers like replacement of faulty transformers, addressing line faults, etc. The Commission should ensure that DISCOMs provide quality power supply to Agriculture consumers.

Since MP has surplus power, supply of minimum 10 hours during the day and for 6 to 8 hours during the night should be provided for Agriculture consumers.

As per Government's directions, minimum of 10 hours of power supply has to be provided to Agriculture consumers. However, DISCOMs are providing only 8 hours of power supply Agriculture consumers. Additionally, Agriculture consumers are receiving lesser power supply due to line faults for which consumers do not get any compensation.

Petitioners' Response:

Proposal for amendment in LV 5.2 category is submitted by the Petitioners. The Petitioner has gone through the suggestions raised by the objector and shall discuss the same with the concerned department and the Management.

The Commission may take an appropriate view in the matter. Further, the matter of subsidy pertains to GoMP.

In the tariff schedule 5.1 (c), there is already category of DTR metered group consumers. As regards minimum billing of LV 5.1, 5.2, flat rate of LV 5.4, 'No Billing' in case of drought, the Commission may take an appropriate view in the matter.

The proposed electricity rates for agricultural consumers are lower than the average electricity supply cost of the company. The average cost of power supply in the Petition is Rs. 7 per unit while the average power supply rate for agricultural category has been proposed by the Petitioner at Rs. 6.22 per unit. The power consumption for agricultural works has increased and agricultural production has also increased which is possible due to tireless efforts made by the department for infrastructure development and quality power supply. The DISCOMs are supplying electricity for 10 hours on agricultural feeder. Sometimes due to natural cases like thunderstorm, lightning, power supply is interrupted, which can be resorted by restoring the power supply. Further, proper maintenance work of electrical equipment is being carried out by the DISCOMs from time to time

As regards poor maintenance of distribution network and minimum hours of supply to agricultural consumers, DISCOM is providing 10 hours of electricity on agricultural feeders. However, natural causes such as typhoon, hurricane, lightning, falling of tree on the line and accidental technical failure in equipment disrupts the power supply. Proper maintenance of electrical equipment is carried out by the Company from time to time. However, in case of any specific problem, the consumer can file objection in the Regional Chief Engineer or DISCOM Headquarters.

As regards quality power supply, only standard level and quality transformers are installed by the Company, and in case of failure, action is taken to replace them quickly. Efforts are made to provide better services to consumers by properly managing the resources available with the Company. Regular and contract employees are recruited by the Company from time to time. And for pre- and post-monsoon maintenance, maintenance work is carried out through the workers on a man-day basis.

Commission's view

With regard to the change in Tariff structure, the Commission has taken cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing tariff structure. Further, capital expenditure is being allowed to the DISCOMs for improvement in infrastructure and the DISCOMs are required to ensure that adequate supply is provided to the consumers.

ISSUE No. 32: Applicability of tariff category for Schools to be changed from Non-domestic to Domestic category

Stakeholders Suggestions

Presently, the government and private schools which are not for profit organisations are being charged under the non domestic category of tariff. Further, due to ongoing pandemic the schools and the parents of the childrens are in precarious financial condition. Therefore, it is requested to apply domestic tariff to all the private and government schools or any other normal tariff category.

Petitioners' Response:

West DISCOM submitted that presently, school and educational Institutes whether owned by government or private entities are billed under LV 2.1 non domestic tariff category. Therefore, stakeholder suggestion that it should be billed in any other normal tariff category has been already addressed in the existing provision of the Tariff Order. Further, with regards to proposal for any preferential tariff for schools being operated by the members of private school association is inconsistent with the provision of Section 62(3) of the Act.

However, Central DISCOM submitted that the applicability of LV-1 tariff schedule for school and educational instituties, the Commission may take appropriate view on the same.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects and has decided to continue billing to the schools and educational institutes under tariff category LV 2.1.

Other Charges

ISSUE No. 33: Increase in limit of Contract Demand for 11 kV and 33 kV consumers

Stakeholders Suggestions:

The existing limit of Contract Demand of 300 kVA for 11 kV consumer should be increased up to 500 kVA, this will be helpful for metro cities where the problem for laying line always arises. The existing limit of Contract Demand of 10000 kVA for 33 kV consumer should be increased up to 15000 kVA and this will be helpful for such big consumer whose requirement is more than 10000 kVA and less than 15000 kVA.

Petitioners' Response

Further, the subject matter of Contract Demand at particular voltage level is not the subject matter of the Tariff Petition.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing provisions in this regard.

ISSUE No. 34: Power Factor Surcharge and Delayed Payment Surcharge

Stakeholders Suggestions:

Maximum Power Factor Surcharge on account of low Power Factor should not exceed 10%, which is at present 35% for HT Consumers, while in case of LT consumers, it is only 10%.

Present rate of delayed payment surcharge is 1.25%, which is very high and it should be reduced to 0.75%. Surcharge for late payment should be levied corresponding to the delay of days and not for entire month.

It is proposed that low Power Factor surcharge should be taken only on actual consumption as per the provision given in Supply Code against energy charges. The billing of low Power Factor surcharge on TMM units is against the provisions given in Supply Code Clause 2.1. In case of HT connection, Power Factor surcharge is being billed on actual consumption whereas it is being billed in case of LT connection on actual consumption plus TMM units also. Hence, it is requested to impose the Power Factor surcharge on the basis of actual consumption as it is being done in case of HT consumers.

Petitioners' Response

It is submitted that any reduction in the limit of Power Factor penalty for HT consumer would result in burdening of other consumers who are in fact maintaining their Power Factor. Considering the nature of load being used in the HT Industries with respect to LT consumer, it is not appropriate to compare both the industries. The Commission may take suitable view in the amendments proposed by the DISCOM.

Commission's View:
With regard to Delated Payment Surcharge, the Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing provisions in this regard.

Further, with regard to billing of Power Factor Incentive and Surcharge, considering the submission of the stakeholders, the Commission has clarified in the General Terms and Conditions for LT and HT category of cosnumers that the Power Factor incentive and surcharge shall be billed on the basis of energy actually consumed during the month.

Metering and Billing related issues

ISSUE No. 35: Time-of-Day Surcharge/Rebate

Stakeholders Suggestions:
Currently a TOD Rebate of 20% of Normal rate of Energy Charge is provided for Off peak load period (10 PM to 6 AM next day) which the Petitioners have requested to be amended by further limiting this rebate to a maximum of Rupees 1/unit.

Further, off-peak hours should be considered from 9.00 pm to 7.00 am and rebate of off-peak hours should be increased from 20% to 25%/30%/40% due to surplus power available in the State and also for increasing the utilization of the same.

Surplus Power of the State should be made available to power intensive industries of the State at Rs. 3 per unit.

Petitioners' Response
The Commission is requested to take suitable view in the amendment proposed by the petitioner.

The purpose of having ToD tariff is to ensure efficient utilization of electricity. Besides this, 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 has also ordered to not levy any peak period surcharge keeping in view surplus power in the State. Therefore, proposal for any further increase in ToD rebate is not appropriate.

As regards making surplus power available to Industry at discount, the off-peak rebate of 20% of normal energy charges is available and it is proposed in the instant Tariff Petition for FY 2021-22 also.

Commission's View:
The Commission has analysed the load pattern prevailing in the State for FY 2018-19 and FY 2019-20. The Commission has not considered the load pattern prevailing during FY 2020-21, as it would not reflect the actual variation in demand due to lockdown imposed to contain

COVID-19 pandemic. Based on the analysis, the Commission has decided to modify the existing ToD structure, which is shown in 1.13 of the "General Terms and Conditions of High Tension Tariff" in Rate schedule of this order.

ISSUE No. 36: Power Factor incentive

Stakeholders Suggestions:

As per the Tariff Order, the stakeholder should get the benefit in LT connection for maintaining good Power Factor, i.e., incentive but in the case of LT connection having load less than 10 kW, this benefit is not being provided even though having the system, which automatically ensures good Power Factor. Hence, the Commission is requested to clarify that all the consumers are eligible for getting Power Factor incentive if they fulfill the criteria mentioned in the Tariff Order.

Improvement in Power Factor is beneficial to both consumer and utility. However, to create infrastructure to improve Power Factor near to unity, the consumer has to invest a huge amount in Power Factor correction equipment. To incentivize such use of costly Power Factor correction equipment, the Commission should consider giving Power Factor incentive from 90% onwards in the following manner,

(a) above 95% to 96% – 2%
(b) 96% to 97% - 3%
(c) 97 to 98% - 5%
(d) 98% to 99% - 7%
(e) above 99% - 9%

The Power Factor incentive for HT/EHT should be increased from 7% to 10%. Further, similar benefits should also be extended to LT Industries stakeholders.

The proposed definition of percentage of Power Factor for the purpose of giving Power Factor incentive should not be allowed.

Petitioners' Response:

Petitioners have proposed amendment in the provision dealing with Power Factor incentive for LT consumers to make it clear and unambiguous. The Commission is requested to take a suitable view in this regard.

The Petitioner has proposed the similar formula for calculation of PF incentive as applicable for calculation of PF surcharge in order to maintain the parity. The PF penalty as well as incentive motivate or force, as the case may be to the consumer to improve PF, which is necessary for stability of the system.

Any improvement in the Power Factor reduces the maximum demand and also reduces the bill of the consumer. The existing rebate seems quite reasonable and sufficient. The stakeholder suggestion lacks merit because it has been proposed to give higher rebate to the consumers who maintains low power factor.

Further, Power Factor rebate is provided in lieu of cost of equipment installed by the consumers for improving the Power Factor. Since, the PF rebate is extended continuously for a long time and the breakeven period for the realization of the cost of the equipment is much less as compared to the time for which rebate is offered, therefore the Petitioner has proposed to gradually reduce the PF incentives.

In ideal situation, every consumer is expected to maintain unity Power Factor. Both, Active (kWh) and Reactive (kVArh) energy is consumed simultaneously. Reactive Energy (kVArh) occupies the capacity of electricity network and reduces the useful capacity of system. Thus, 7% maximum Power Factor incentive is being provided to HT consumers. Any further increase in such incentive will result into less recovery of cost of supply, which will ultimately result into the increase in tariff for the other consumer categories.

As regards similar level of incentive to LT consumers, looking at the nature of load used by the HT consumer, comparison with LT consumer is not appropriate.

As regards redefining the definition of percentage of Power Factor, proposal for calculation of "average monthly Power Factor" for the purpose of giving PF Incentive is in line with the formula approved by the Commission for Power Factor surcharge. Petitioner has proposed the similar formula for calculation of PF incentive as applicable for calculation of PF surcharge in order to maintain the parity.

Commission's view

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects, and has decided to retain the existing provisions for LT and HT industries with regard to Power Factor Incentive.

ISSUE No. 37: Rebate for Existing / New HT connections

Stakeholders Suggestions:

A rebate of Rs one per unit is proposed by the DISCOM in energy charge for incremental monthly consumption w.r.t consumption of FY 2015-16 in the same month. This rebate should be increased and may be continued. It helps to increase the consumption because the cost of production will be reduced. In this regard, it is brought to the knowledge of the Commission that the DISCOM is not considering the base month as a whole while in the Tariff Order, it is clear that the incremental consumption is to be considered subject to the month in which connection were served. If the connection served in any month is between the reading dates, the base month is not considered and as such the consumer cannot avail the benefit of incremental consumption. The Commission should clarify the position.

The existing provision for rebate for new HT connection is as follows:

"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 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."

However, the DISCOM has not complied with the order of the Commission and allowed the rebate from the date of issue of Tariff Order. It is very clearly mentioned that the rebate should be allowed from the date of connection subject to conditions specified in the Tariff Order. This point needs specific instruction from the Commission.

It is requested that the Commission should allow extension of rebate from FY 2021-22 to FY 2022 to 23 giving due attention to COVID-19 and lockdown effect. Further, extension of general 5-year time of rebate for HV 3.4 category to 6 years should be done similar to HV 3.1 Category by extending one more year time after considering above request of extension due to COVID-19 impact.

The base months for calculation of incremental monthly consumption shall be the first 12 months subsequent to the month of availing the connection. The incremental consumption for any month shall be worked out considering the consumption of the corresponding base month.

It is therefore requested that aforesaid provisions may kindly be incorporated in the Tariff Order for FY 2021-22 to save hardship.

Petitioners' Response:

The Petitioner has submitted the proposal with regard to the modification of base year for calculation of incremental rebate. The Commission is requested to take suitable view on this issue.

Further, the Petitioner stated that any change in any Tariff Schedule should be effective only from the date on which Tariff Order becomes applicable. Hence, this rebate shall be effective from applicability of Tariff order. The Tariff Order for FY 2019-20 become applicable with effect from 17th August 2019, therefore connections served during and after FY 2016-17 shall be eligible for rebate as per the amended condition, but rebate can be provided only on the consumption done after 17th August 2019.

Further, the instant Petition has been filed for the determination of ARR and Retail supply Tariff for FY 2021-22. The same is required to be determined as per the principle of cost of supply and provisions of MYT Regulations, 2015 and its amendments thereof. Any relief due to COVID-19 pandemic is not the subject matter of present Petition. In case of occurrence of any Force Majeure event, consumer may avail remedy under appropriate provision of MP Electricity Supply Code 2013.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply. As per existing provision of Clause (d) of Specific Terms and Conditions for HV-3 category, regarding rebate for existing existing HT Consumers, it has been specified that the base months for computation of incremental consumption shall be considered 12 months after availing the connections. The stakeholder's objection is with regard to non consideration of month of connection as part of base months. It is pertinent to mention that if the connection is released in mid of the month, the consumption would be lower for the month in which the connection was released. Further, in the first month of taking connection, usually the consumption is low as the production / manufacturing does not reach its normal level. Accordingly, base months shall be considered as 12 months subsequent to the month of availing the connection.

With regards to applicability of rebate for New HT connections, it is clarified that the rebate shall be applicable for the entire financial year irrespective of the date of issuance of Tariff Order, wherever it is specified that the rebate is for particular Financial Year (FY) in the rate schedule. Similarly, for this Tariff Order also, the rebate shall be applicable from the beginning of the FY 2021-22, wherever it is specified in the schedule.

Further with regard to extension of rebate for FY 2022-23, the Commission may consider the same at the time of determining the tariff for FY 2022-23.

ISSUE No. 38: Rebate for Online and Prompt Payment

Stakeholders Suggestions:

DISCOMs have assumed that the payment made through NEFT/RTGS are eligible for rebate for online payments only from the date of issuance of the Tariff Order. Therefore, the Petitioners are not considering payment through NEFT/RTGS for FY 2017-18 and FY 2018-19 even though the Tariff Order for FY 2017-18 and FY 2018-19 provides for rebate of 0.5% on online payments for HT Consumers. The Commission should provide necessary directives to address the issue and provide reliefs for previous years.

DISCOMs should print actual date of bills uploaded in Portal as billing date. As it has come to the notice of the stakeholder that DISCOMs are uploading the bills on the server 3-7 days after the printed billing date. So, prompt payment incentives could not be claimed however, the payment is been done within 2 days and sometimes the last date has already been crossed and in some cases stakeholder have to pay Late payment surcharges. Therefore, it is suggested that division wise group ID needs to be created for online issuance of bill so that process delay of 10-15 days shall be avoided which will directly benefit DISCOM for getting immediate Revenue from Telecom sector.

The Stakeholder has submitted that the Prompt payment incentive may be enhanced from 0.5% to 1% for the consumers making payment within 3 days after uploading bills on portal.

Petitioners' Response:
The billing of the consumers has been done in accordance with the Tariff Orders issued by the Commission from time to time. As per Tariff Order, Chapter A1, Clause 1.32, the Tariff Order for FY 2019-20 is applicable from 17th August, 2019. Therefore, the Petitioners are providing rebate on payment made through NEFT/RTGS modes (i.e., online mode) from the date of applicability of the Tariff Order. Further, the billing of any particular consumer is not the subject matter of the present Petition.

Stakeholders may avail the various online facilities provided by DISCOMs for payment of energy bills. Further, as per Tariff Order for FY 2020-21, an incentive for prompt payment @0.50% of the bill amount (excluding arrears, security deposit, 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.10,000. Hence, present provision for prompt payment is appropriate.

Commission's View:
With regard to applicability of NEFT/RTGS modes of payment, the Commission has already clarified through Tariff Order issued by it for FY 2019-20 that the bill paid through NEFT/ RTGS transaction shall also be eligible for the online bill payment rebate.

Further, with regard to dispcrepency, if any, on account of bill date and date of uploading of the bills on their website as pointed out by the stakeholders, the Commission directs the Petitioner to resolve the issue at the earliest and provide rebate as per the provisions of the Tariff Order.

Further, the Commission has continued the rebate for online bill payment and prompt payment in this order also.

ISSUE No. 39: Proposed Tariff hike for FY 2021-22

Stakeholders Suggestions:
The Commission may consider rejecting the DISCOM's prayer for tariff increase, as the DISCOMs have failed to curtail their expenses, increase revenue by 100% materialization and controlling thefts.

The Commission issues Directives to the DISCOMs every year and the compliance is generally done with resources available. Additional funds are asked for, which have to be self-generated. Therefore, it is suggested that directions issued in future should have mechanism of generating funds for implementation through Public/Private Sector participation.

Apart from the proposed tariff hike, FCA is also levied @0.12 paisa per unit. From the proposed Tariff it will be observed that Rs.5/- per kVA increase is demanded in Fixed Charges, and 0.13

Rs. in Unit charges. Present rate is already high. FCA is payable which is at present 0.12 Paisa per Unit and 9 % Electricity Duty is payable on Unit rate. This leads to a hike in Tariff amounting to around 3-4%.

The public notice mentions a proposed hike of 1.33 % for HV 3.4 category, the Commission is requested that any proposal for hike in tariff charges as and above 1.33 % should be disallowed.

Petitioners' Response:

The Petitioner has considered all components of ARR in accordance with applicable Regulations. Further, the revenue from existing tariff is not sufficient to recover the cost of supply. Hence, the Petitioner has proposed minimum tariff hike.

The Petitioner has submitted that ARR and Tariff Petition for the Distribution and Retail Supply Business for FY 2021-22 is filed before the Commission in accordance with the tariff principles laid down in the MYT Regulations, 2015 as amended from time to time. As provided in Section 61 read with Section 62 of the Electricity Act, 2003 tariff for different categories are proposed in accordance with the principles of cost of supply.

It is pertinent to mention that the proposed tariff for Power Intensive Industries is much lower compared to HV 3.1 – Industrial Tariff. It may be observed that for 33 kV, the energy charge for HV 3.4 is 165 paise and 70 paise cheaper than HV 3.1 for below 50% load factor and above 50% load factor, respectively. Similarly, for 132 kV, the energy charge for HV 3.4 is 145 paise and 48 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.

Further, kind attention of the Commission is also drawn to the fact that as per Tariff Order for FY 2020-21, average tariff of power intensive industry is Rs. 6.14 Rs. per unit as against the average cost of supply of Rs. 6.51, this means that power intensive consumers are not even contributing towards the average cost of supply. Apart from these, consumers of this category are also availing the facility of various rebate as approved in the Tariff Order.

Commission's View:

The Commission has taken the cognizance of stakeholders' suggestions and Petitioners' reply, and has determined the ARR by exercising due prudence and considering the norms specified through the MYT Regulations notified by it and the level of cross subsidies into account. Accordingly, the Commission has determined the tariff as detailed in Chapter A2 and A3 of this order.

ISSUE No. 40: Use of electricity for charging of telecom towers from the existing connection of industrial consumers

Stakeholders Suggestions:

The tariff HV 3.1 (Industrial) is applicable to all HT industrial consumers for power, light and fan, etc., including all energy consumed for Common and ancillary facilities like bank, shops, water supply, sewage pumps, police station, etc. The correct interpretation and intended interpretation would be any and all such sub-users that are situated within the premises of an HT industrial consumer including telecom towers that comprise ‘common and ancillary’ facilities of such consumers. The Petitioner, however, is plainly misreading the tariff classification.

Hence, the Commission is requested to clarify that the applicability of the use of supply for Telecommunication tower comes under the ancillary facilities such as Banks, General purpose shops, Water supply, Sewage pumps, Police Stations, etc., so that interpretation of prevailing tariff order can be clarified.

Petitioners’ Response:

Use of electricity in ancillary services such as bank, canteen, and police station are specifically allowed. However, Tariff Order is silent about the use of electricity in the charging of mobile tower installed in the premises of industrial consumer. To avoid any dispute in this regard the Commission is requested to clarify the issue.

Commission’s View:

The Commission allows common and ancillary services in the premises of Industrial Units and names a few services for the ease of understanding the meaning of ancillary services. Certainly, such ancillary services are not restricted by the nomenclature of illustrated services only and it covers other such services also including the Telecom Towers, etc.

ISSUE No. 41: UDAY and its impact

Stakeholders Suggestions:

Under UDAY scheme, outstanding loans of the DISCOMs may have been taken over by the State Government. Four years have lapsed and it is expected that the State Government has taken over the liability of the DISCOM under this scheme. Therefore, the Commission is requested to provide confirmation from the Petitioner. It is also appealed that the Commission ensure compliance by MPPMCL and the State Government.

Petitioners’ Response:

Ujjwal DISCOM Assurance Yojana (UDAY) has been launched for operational and financial turnaround of power distribution companies by Government of India, Ministry of Power on 20th November 2015. As the loan liability of the Company has been reduced to the extent of loan taken over by State Government under UDAY scheme, it has impact on weighted average interest rate of the Company, which is already considered in the Petition.

Further issue raised by stakeholder is not the subject matter of ARR and Tariff petition.

Commission’s View:

The Commission has taken the cognizance of stakeholders’ suggestions and Petitioners’ reply on the impact of UDAY Scheme. The impact of UDAY scheme has been dealt by the

Commission in true up orders of FY 2014-15 to FY 2018-19. Further, the Commission also clarifies that the treatment of the amount received from UDAY Scheme during FY 2021-22 may be considered if deemed appropriate at the time of truing up of FY 2021-22.

ISSUE No. 42: Monthly fixed charges applicable for Electric Vehicle/E-Rickshaw charging station.

Stakeholders Suggestions:

Considering the present lower utilization of Public Charging Stations due to lower penetration of EVs, additional fixed charges can hamper the commercial viability of EV Charging business. The notified fixed charges may further result in limited EV adoption in the State of Madhya Pradesh. Further, the Commission may consider revising the fixed charges applicable for Electric Vehicle charging stations. Moreover, the stakeholder requested the Commission to provide exemption on monthly fixed charges for at least a period of 5 years.

The electricity tariffs are a major component of the overall tariff structure for Public Charging Stations. The efforts of the Commission in creating separate consumer category for Public Charging Stations and setting preferential tariffs for the same is appreciated. However, owing to fixed charges coupled with additional surcharges and duties, the landed cost of electricity varies widely across States. As per industry analysis for the utilisation of a standard (122-150) kW (CCS2, CHAdeMO, Type2 AC Standards) charger landed cost to EV user in State of Madhya Pradesh can be around Rs. 30-35 per kWh. Also, higher landed cost of electricity in State of Madhya Pradesh will increase the running cost of EVs reducing their competitiveness over the Internal Combustion Engine (ICE) vehicles. This is also expected to impact the utilization of PCS which may impact the overall viability of operating PCS. Further, this will pose challenges towards adoption of EVs as envisaged by the Government of Madhya Pradesh.

Petitioners' Response

The Petitioner has submitted that in the ARR Petition filed for the FY202l-22, the fixed charges have already been proposed less than half of what has been fixed in the tariff order for the current year i.e., FY2020-21.

As far as the exemption of fixed charges for the next 5 years is concerned, it is to mention that the DISCOMs have to put the infrastructure for charging stations in place for which some expenditure has to be incurred. Therefore, levy of fixed charges is necessary. The fixed charges in the tariff structure have already been proposed half for FY 2021-22 as compared to current year.

The Petitioner has also submitted a comparative statement showing fixed charge and energy charge in other States of the country. From which it is observed that although in Uttar Pradesh and Andhra Pradesh fixed charges are nil, but energy charge is comparatively much higher which increases their ABR.

Further, the landed cost mentioned to EV user, Electric vehicle charging through fast charging is subject to loading of the DISCOM infrastructure. Since there is very less demand of the Public Charging Infrastructure the tariff proposed for the Electric Vehicle Charging Stations is subject to additional loading in the distribution infrastructure. Therefore, it would not be appropriate to exempt the fixed charge.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions, Petitioners' reply and other commercial aspects including the existing level of cross subsidy and has decided to reduced the Fixed charges in HT Tariff Schedule for Electric Vehicle Consumers. Further, for LT Electric Vehicle consumers, the Commission has retained the existing fixed charges as the ABR for the said category is already below the ACoS i.e. at 91%.

ISSUE No. 43: Non-Consideration of Income through CSS paid by Open Access Consumers

Stakeholders Suggestions:

The Petitioners, in their proposed approach have not taken into account the fixed cost recovered from the open access consumers by way of Cross Subsidy Surcharge (CSS) paid by them. Further, the stakeholder submitted that the open access consumers of the State pay CSS whenever they procure power through open access route. Since the Commission determines the CSS on the basis of the Average Billing Rate (ABR) of the consumer category. Moreover, the CSS includes some part of the fixed cost obligation of the licensee. Besides this, the OA consumers pay distribution and wheeling charges and transmission charges over and above their power purchase cost and the CSS. Therefore, there is some part of the fixed cost which the DISCOMs are able to recover from the OA consumers by way of CSS being paid by them.

The Open Access consumers pay the demand charges to the Distribution Licensees just like a regular consumer. Such fixed cost already incurred by the OA consumers will have to be adjusted in the cost attributable to OA as stranded capacity of the DISCOMs.

Petitioners' Response

The Petitioner has submitted that the CSS levied for the consumers is in line with the National Tariff Policy, 2016. As per the Provision 8.3.1 (Tariff design) and Provision 8.5.1 (Cross-subsidy surcharge) and additional surcharge for open access of the National Tariff Policy,2016 interlinking of CSS and the transmission charges paid for availing open access and the objection raised is irrelevant.

The Petitioner has submitted that the charges applicable for Open Access in accordance with MPERC Open Access Regulations, 2005 and its amendments from time to time.

Commission's View

The Commission considers all other income including non tariff income recovered by the DISCOMs as per the provision of the Regulations and reduce it from the total expenditure allowed to the DISCOMs to determine the ARR.

Further, the Commission has projected the other and non tariff income for FY 2021-22 based on the actual figures of previous years.

ISSUE No. 44: Power Purchase from Short-term Market

Stakeholders Suggestions:

Considering the advantages of optimisation of power purchase cost through market, it is suggested that the Commission may consider formalising the optimisation through market by evolving appropriate procedure for considering short term market rates while finalising the Merit Order of the DISCOMs. Further, the stakeholder submitted that on the similar grounds, the Hon'ble UPERC has recently issued the Merit Order Despatch and Power Purchase Optimization Regulations, 2021, wherein it is mandated to consider the opportunities in the market while procuring power. In view of the above, the Commission is requested to consider evolving an appropriate framework by which the STOA/Power Exchange rates can be considered as a part of the merit order of DISCOMs. This proposal will not cause any loss to the DISCOM in any circumstance since the bids are cleared on the Power Exchange only when the prices are less than quoted price and in case if bids are not cleared at the desired rates, they can always call upon the despatches from their tied-up stations under long term PPA. This will be a win-win situation for the DISCOM as well as the consumers of the State.

The stakeholder submitted that the Hon'ble CERC on 27th August 2020 approved the Green-Term Ahead Market (GTAM) wherein Solar and Non-Solar RE is being transacted in four contracts namely intra-day, Day Ahead contingency, Daily and Weekly. The DISCOMs have the option to fulfil their existing RPO obligations as well as the targets in forthcoming years by procuring RE power through the GTAM market also. Further, the buyers of this market can fulfil their respective RPOs. Moreover, GTAM introduction has opened avenues for the development of organized renewable energy market to provide an alternate market-based route to the RE generators to sell their green power and to the buyers to fulfil their RPO at competitive price with flexibility of entry and exit in the market. Therefore, it is requested that the Commission may consider the suggestions in above paragraphs while finalising the current Tariff Petition.

Petitioners' Response

The Commission may take appropriate action.

The suggestion regarding renewable energy from Green Term Ahead Market is noted and the Petitioners will take up matter with appropriate authority.

Commission's View

The Commission has taken the cognizance of stakeholders' suggestions and Petitioners' reply. Further, the Commission has carried out due diligence while approving the power purchase cost which has been detailed in chapter A2 of this order. The Commission, however, opines that the Petitioners should continue their efforts to reduce their power purchase costs after evaluating all potent possibilities including power exchanges.

ISSUE No. 45: Publishing in Hindi Language

Stakeholders Suggestions

The third amendment of MYT Regulations, 2015 and its amendments thereof was Gazetted on 25th November, 2020 and published in english language only on 27th November, 2020. However, the official language of the State is Hindi and in the first instance, there is a provision for publishing the english version of it in Hindi firstly, which has not been followed, due to which no action can be continued on the basis of the third amendment dated 25th November, 2020.

Petitioners' Response

Opinion would be appropriate to be given from the Commission.

Commission's View

The Commission has observed that the issue raised by the Stakeholder pertains to MYT Regulations, 2015 and its 3rd amendment and it is not related to the present tariff petition. However, the Commission has observed that the principal Regulations "MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2015 [RG-35(II) of 2015]" was notified by the Commission in both the languages viz. Hindi and English. While notifying the 3rd Amendment to the aforesaid Regulations which relates to amendments in loss trajectory and other norms only, the Commission has followed the due process as per the Electricity, Act, 2003 and had given opportunity to the stakeholders to offer their comments through "Public Notice" dated 12.11.2020 published in Hindi & English language in prominent Hindi and English Newspapers of State. Thereafter, the aforesaid notification was notified on 25th November 2020 in MP Gazette for extension of control period for FY2021-2022 and revision of norms.

Annexure-1 (List of Stakeholders)

LIST OF STAKEHOLDERS- EAST DISCOM - TARIFF FY 2021-22

Sl. No.	Name/ Designation	Address
1	A.P. Trivedi Sons	M/s. A.P. Trivedi Sons, Main Road, Balaghat
2	A.P. T. Tiles	M/s. A.P. T. Tiles, C/o A.P. Trivedi Sons, Main Road, Balaghat
3	Shri K.K. Agrawal	M/s. Bharat Krishak Samaj, Shri Shanti Shah Kisan Karyalaya, Gangotri Apartment, Gol Bajar, Distt. Jabalpur
4	Shri Brijesh Datt Arjariya	M/s. Kishan Sewa Sena, Gangotri Apartment, Gol Bajar, Jabalpur
5	Shri Rajnarayan Bhardwaj	Plot No. 453, Sanjeevni Nagar Gadda, Jabalpur
6	Authorised Signatory	M/s. Ramnik Power & Alloys Pvt. Ltd. Main Road, Balaghat
7	Shri Rajendra Agrawal,	1995A, Gyan Vihar Colony, Narmada Road, Jabalpur
8	Shri Nirmal Lohia	Taldarbaja, Tikamgarh
9	Shri D Khandelwal,	960, Naier Town, Jabalpur
10	Shri Ramesh Patel, Adhyaksh	M/s. Bhartiya Kisan Union (Tikat), Near Mahavir Chowk, Ward No. 8, Sihora, Distt. Jabalpur
11	Shri P.G. Najpandey	M/s. Nagrik Upbhokta Margdarsak Manch, 6/47, Ramnagar, Adhartal, Jabalpur
12	Shri D R Jeswani	M/s. Mahakaushal Udyog Sangh, Industrial Area, Richhai, Jabalpur 482010
13	Shri Alok Kumar Verma & Others	Near Pani ke Tanki, Pratap Ward, Tikari, Betul
14	Ashwini Pandey	Vidhyut Mandal Pensioner Association

LIST OF STAKEHOLDERS- CENTRAL DISCOM - TARIFF FY 2021-22

Sl. No.	Name/ Designation	Address
1	Shri Manoj Kumar Singh, Director	Madhya Pradesh Tourism Board, Lilliy Trade Wing, 6th Floor, Jehagirabad, Bhopal
2	Smt Jaishree Kiyavat Commissioner	Lok Sikshan Sanchalnalaya, Madhya Pradesh, Gautam Nagar, Bhopal
3	Shri Jogendra Behera & Shri Bhavesh Kundalia CA Adani Power	M/s. Indian Energy Exchange Ltd. (IEX), 3,4,5 & 6 Plot No. 7, Fourth Floor, TDI Centre, Jasola, New Delhi 110025
4	Shri S.N. Sharma	Private School Association, 160, Saidham Colony, hhaman Ganesh Marg, Ujjain
5	Shri Vijay Chhibber, IAS Retd.	Electric Power Transmission Association, New Delhi
6	Shri. Vipin Kumar Jain	M.P. Small Scale Industries Organization, E-2/30, Arera Colony, Bhopal - 462016
7	Shri. Vipin Kumar Jain	Gwalior Industries Association, 19, Industrial Estate, Tansen Road, Gwalior - 474004
8	Shri. Saurabh Kumar	EESL Group, NFL Building 5^{th} , 6^{th} , 7^{th} Floor, Core-III, Scope Complex, Lodhi Road, New Delhi - 110003

LIST OF STAKEHOLDERS- WEST DISCOM - TARIFF FY 2021-22

Sl. No.	Name /Designation	Address
1	Partner	M/s. S.M.O. Industires, Kasrawad, Tahsil Kasrawad, Distt. Khargone
2		M/s. Masand Agro Equipment Pvt.Ltd., 70, Shastri Market, Indore 452007
3	Shri Kapil Soni	M/s. Satyam Industries, Pati Bakrota Road, Khetia. Teh. Pansemal, Distt. Barwani
4	Shri Ashok Khandelia,	M/s. Association of Industrties, Dewas, 1/B/1, 1B/2A, I.S. Gajra Industria Area, No. 1, A.B. Road, Dewas 455001
5	Shri Kailash Yadav	M/s. Kshipra Upbhokta Sangrakshan Samiti, 17/1 Durga Colony, Ankpat Marg, Ujjain 456006
6	Shri Satish Sood, Director	Oasis Distilleries Ltd, H-102, B-12 Metro Tower Vijay Nagar, Indore-452010
7	Shri M.C. Rawat	The Madhya Pradesh Textile Mills Association, Jal Sabhagrah, 56/1, South Tukoganj, Indore 452 001
8	Shri S.M. Jain	M/s. Venus Alloys Pvt. Ltd., Unit -2, 67, Industrial Area, Mandsaur - 458001 (M.P.)
9		M/s. Kataria Wires Pvt. Ltd. 310-13, Industrial Estate, Ratlam
10	Shri R P Gautam Advisor	M/s. Maral Overseas Limited, ‘Maral Sarovar’ V&PO-Khalbujurg,,Tehsil-Kasrawad, Dist-Khargone,Madhya Pradesh- India -451660.
11	Shri Subhash Parihar	New Umariya Colony, Mhow
12		M/s. Venkatesh Industries, Niwali Road, Sendhwa, Distt. Barwani
13		M/s. Gomtesh Ginning and Pressing, Village Bakaner, Tehsil Manawar, Distt. Dhar
14		M/s. Tanmay Pure, Barwani-Baroda Road, Village Susari, 454 331 Teh. Kukshi, Distt. Dhar
15		M/s. J.K. Cotton Industries, Kukshi, Tahsil Kukshi Distt. Dhar
16	Authorised Signatory Shri R.S.Goyal	M/s. Pradeep Cotton Pvt. Ltd., Warla Road, Sendhwa, Distt. Barwani
17	Shri Shubham Jain	1. M/s. Rathi Iron & Steel Industries Ltd. 103, Laxmi Tower, 576, M.G. Road, Indore 452001
18	Shri Shubham Jain	M/s. Jaideep Ispat & Alloys Pvt. Ltd. (CCD), 103, Laxmi Tower, 576, M.G. Road, Indore 452001
19		M/s. Diveel Cotton Industries, Pansemal Road, Distt. Dhar
20	Shri R.S. Goyal	51, Pradesh Nagar, Nemawar Road, Indore 452 001
21	Proprietor	M/s. Harman Cotex, Bistan Road, Opp. Dejla Dewada Colony, Khargone 451 001
22	Shri Manjit Chawala	M/s. Mandi Vyapari Sangh, Vyapari Vishranti Bhawan, Krishi Upaj Mandi Parisar, Bistan Road, Khargone, Distt. Khargone-451 001
23		M/s. Madhyanchal Cotton Ginners & Traders Association, Opp. Dejla Devada Colony, Bistan Road, Khargone
24	Shri Mukesh Koshal	3402 Chander Marg Mhow Distt. Indore
25	Shri Nikhar Agrawal	970 Mank Chok Mhow Distt. Indore

Sl. No.	Name /Designation	Address
26	Shri Sanjay Agrawal	970 Mank Chok Mhow Distt. Indore
27	Shri Mahendra Sahu	M/s Indus Tower Ltd. H-4th Floor, Metro Tower, Scheme No. 54, A.B. Road, Indore
28	Shri Rohit Bhoraskar	Viraj Conductors Limited

Annexure-2 (Details of ToD Tariff)

Table-A: Average Hourly Demand in FY 2018-19 & FY 2019-20, separately for each category (HV-2, HV-3.1, 3.2, 3.3 & 3.4, HV-4, HV-5)

Hours	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1												
2												
3												
4												
5												
6												
7												
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18												
19												
20												
21												
22												
23												
24												

Table-B: Average Hourly Demand in FY 2018-19 & FY 2019-20, separately for HT category

Hours	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Hours	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Table C: Detail for FY 2018-19 & FY 2019-20, to be submitted separately for each category (HV-2, HV-3.1, 3.2, 3.3 & 3.4, HV-4, HV-5) in following Table:

Particulars	ToD Slots	Load (kW)	Units Consumed (MU)
Off peak load period	22:00 hrs – 06:00 hrs (-)20.00%		
Normal Load period	06:00 hrs – 17:00 hrs 0%		
Evening Peak load period	17:00 hrs – 22:00 hrs 0%		

Table D: Details to be submitted separately for each time slot (6 AM to 5 PM, 5 PM to 10 PM & 10 PM to 6 AM) in FY 2018-19 and FY 2019-20, separately in the following Table

Particulars		FY 2018-19 & FY 2019-20					
S. No.	Month	Total Energy Entitlement (MU)	Total Surplus Energy available before backdown (MU)	Energy Backed down (MU)	Energy sold in Exchange/ Bilateral source (MU)	Avg. Rate (Rs. /KWh)	Amount (Rs. Crore)
1	April						
2	May						
3	June						
4	July						
5	August						
6	September						
7	October						
8	November						
9	December						

Particulars		FY 2018-19 & FY 2019-20					
S. No.	**Month**	**Total Energy Entitlement (MU)**	**Total Surplus Energy available before backdown (MU)**	**Energy Backed down (MU)**	**Energy sold in Exchange/ Bilateral source (MU)**	**Avg. Rate (Rs. /KWh)**	**Amount (Rs. Crore)**
10	**January**						
11	**February**						
12	**March**						
TOTAL							

TARIFF SCHEDULES

Annexure-3 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2021-22

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, Affordable Rental Housing Complex established under Pradhan Mantri Awas Yojana, Registered home stays under MP Homestay (Registration and Regulation) Scheme, 2010, 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	413	64 per connection	50 per connection
51 to 150 units	505	109 per connection	90 per connection

Monthly Consumption Slab (units)	Energy Charge with telescopic benefit (paise per unit)	Monthly Fixed Charge (Rs.)	
	Urban/ Rural areas	Urban areas	Rural areas
151 to 300 units	645	24 for each 0.1 kW load	21 for each 0.1 kW load
Above 300 units	665	25 for each 0.1 kW load	24 for each 0.1 kW load

Minimum Energy 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. Accordingly, the Fixed and Energy Charges shall be computed.

<u>Illustration</u>
Previous Meter Reading: 5th June 2021
Next Meter Reading: 10th July 2021
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**

(ii) Energy Charge and Fixed Charge for Temporary connections and DTR meter

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 three years)	1.25 times the tariff applicable as per schedule LV 1.2 (i)		
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.

(iii) 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 @ 510 per unit	98 per connection

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

Specific Terms and Conditions for LV-1 category:

a) The Energy Charges corresponding to consumption recorded in DTR meter 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)	640	153 per kW	122 per kW
Demand based tariff **Mandatory** for Connected load above 10 kW	640	275 per kW or 220 per kVA of billing demand	235 per kW or 188 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**	630	82 per kW	67 per kW
Sanctioned load based tariff (only for connected load up to 10 kW) On all units in case monthly consumption **exceeds 50 units**	780	138 per kW	117 per kW
Demand based tariff (**Mandatory** for Connected load above 10 kW)	690	296 per kW or 237 per kVA of billing demand	214 per kW or 171 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	870	224 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	195 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	870 (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/-)	87 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	67 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. The consumers having connected load upto and including 10 kW may also opt for Demand based tariff.

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>563</td><td>316</td><td rowspan="3">No Minimum Charges</td></tr>
<tr><td>Gram Panchayat</td><td>532</td><td>144</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/15 kW, 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.**

Provided that consumers whose recorded maximum demand during a month is more than 20 HP/15 kW, rebate of 30% shall not be applicable for that particular month.

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

Terms and Conditions:

(a) The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovolt ampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month.

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

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

i. **For LT Industries in rural areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 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	53	469
(ii)	Above 300 units up to 750 units in the month	64	572
(iii)	Rest of the units in the month	70	600
b)	Temporary connections	70	600
c)	DTR metered group consumers	Nil	459
LV-5.2			
a) (i)	First 300 units per month	53	469
(ii)	Above 300 units up to 750 units in the month	64	572
(iii)	Rest of the units in the month	70	600
b)	Temporary connections	70	600
LV-5.3			
a)	Up to 25 HP in urban areas	105 per HP	530
b)	Up to 25 HP in rural areas	82 per HP	510
c)	Demand based tariff (Contract demand and connected load up to 150 HP) (Mandatory above 25 HP) in urban areas	255 per kW or 204 per kVA of billing demand	600
d)	Demand based tariff (Contract demand and connected load up to 150 HP) (Mandatory above 25 HP) in rural areas	133 per kW or 106 per kVA of billing demand	600

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	375	375
b)	Three phase- rural	375	375
c)	Single phase- urban	375	375
d)	Single phase- rural	375	375

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	750	750
b)	Three phase- rural	750	750
c)	Single phase- urban	750	750
d)	Single phase- rural	750	750

*****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. 4773/F-3-10/2020/13 dated 21st June, 2021 has conveyed that the flat rate agriculture consumers having load upto 10 HP will pay Rs 750/- per HP per annum and flat rate agriculture consumers having load more than 10 HP will pay Rs 1500/- 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 LV 5.4 and metered consumers covered under tariff schedule LV 5.1 shall be considered.

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

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

iii) For unmetered temporary agriculture consumers under LV 5.1 category, assessed consumption shall be as per following norms:

Particulars	**No. of units per HP of sanctioned load per month**	
Type of Pump Motor	**Urban Area**	**Rural Area**
Three Phase	**220**	**195**
Single Phase	**230**	**205**

1.4 Agricultural consumers opting for temporary supply shall have to pay the charges in advance for three months including those who request to avail connection for one month only subject to replenishment from time to time for extended period and adjustment as per final bill after disconnection. Regarding temporary connection for the purpose of threshing the crops, temporary connection for a period of one month can be served at the end of Rabi and Kharif seasons only with payment of one month's charges in advance.

1.5 Following **incentive*** shall be given to the metered agricultural consumers on installation of energy saving devices –

S. No.	**Particulars of Energy Saving Devices**	**Rate of rebate**
1.	ISI / BEE star labeled motors for pump sets	15 paise per unit
2.	ISI / BEE star labeled motors for pump sets and use of frictionless PVC pipes and foot valve	30 paise per unit
3.	ISI / BEE star labeled motors for pump sets and use of frictionless PVC pipes and foot valves along with installation of shunt capacitor of appropriate rating	45 paise per unit

*Incentive shall be allowed on the consumer's contribution part of the normal tariff (full tariff minus amount of Govt. subsidy per unit, if any) for installation of energy saving devices under demand side management. This incentive will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Incentive will be admissible from the month following the month in which Energy Saving Devices are put to use and its verification by a person authorized by the Distribution Licensee. The Distribution Licensee is required to arrange wide publicity to above incentive in rural areas. The licensee is required to place quarterly information regarding incentives provided on its website.

1.6 **Minimum consumption**

(i) **For Metered agricultural consumers (LV-5.1 and LV-5.2):** The consumer shall guarantee a minimum consumption of 30 units per HP or part thereof of connected load per month for the months from April to September and 90 units per HP or part thereof of connected load per month for the months from October to March irrespective of whether any energy is consumed or not during the month.

(ii) **For other than agricultural use (LV-5.3):**

a) The consumer will guarantee a minimum annual consumption (kWh) based on 180 units/HP or part thereof of contract demand in notified rural areas and 360 units/HP or part thereof of contract demand in urban areas irrespective of whether any energy is consumed or not during the year.

b) The consumer shall be billed monthly minimum 15 units per HP per month in rural area and 30 units per HP per month in urban area in case the actual consumption is less than monthly minimum consumption (kWh).

c) **Method of billing of minimum consumption** shall be as given in the General Terms and Conditions of Low Tension Tariff.

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

1.8 **Delayed payment surcharge** in case of agriculture consumers on LV - 5.4 flat rate tariff shall be levied @ of Rs 1 every month for each block or part thereof of arrears of Rs.100/-. For other sub categories of this Tariff Schedule, the delayed payment surcharge shall be billed as specified under General Terms and Conditions of Low Tension Tariff.

1.9 **Specific conditions for DTR metered consumers:**

a) All the consumers connected to the DTR shall pay the energy charges for the units worked out based on their actual connected load.

b) The Distribution Licensee will obtain consent of such connected consumers for billing as per procedure specified in (a) above.

1.10 One CFL/ LED lamp up to 20 Watt 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 and battery swapping 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 the 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 energy charges due to excess demand or excess connected load

      ii. **Fixed Charges for Excess Demand:** These charges shall be billed as per the 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 energy charges due to excess demand or excess connected load

ii. **Fixed Charges for Excess load:** These charges shall be billed as per the 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:

(c) **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.

(d) **Incentive for prompt payment**: An incentive for prompt payment @0.50% of the bill amount (excluding arrears, security deposit,, 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.

(e) **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.

(f) **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.

(g) Power Factor Incentive:

If the average monthly power factor of the consumer (other than LV-1: Domestic 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.

Provided that this Incentive shall be billed on the basis of energy actually consumed 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 as the case may be beyond this ceiling in two consecutive billing months during the tariff period, the Distribution Licensee may insist on the consumer to avail HT supply.

(b) No metering charges shall be billed in this tariff order.

(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 plus applicable GST 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 (other than LV-1: Domestic 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. Provided that such surcharge shall be billed on the basis of energy actually consumed during the month. Power factor surcharge shall be billed 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-4 (Tariff Schedules for High Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2021-22

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:

(p) 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.

(q) The dedicated feeder maintenance charges shall not be applicable.

(r) 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.

(s) 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.

(t) **Energy charges for excess demand**: No extra charges are applicable on the energy charges due to the excess demand or excess connected load.

(u) 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.

(v) 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.

(w) 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.

(x) 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	675	725	640
33 kV supply		715	620
132 kV supply		695	600
220 kV supply		672	576

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	347	710	610
	33 kV supply	570	705	600
	132 kV supply	660	662	565
	220/400 kV supply	660	620	520
3.2	**Non-Industrial**			
	11 kV supply	327	745	655
	33 kV supply	470	725	630
	132 kV supply	560	680	570
3.3	**Shopping Malls**			
	11 kV supply	336	725	650
	33 kV supply	388	715	610
	132 kV supply	520	665	590
3.4	**Power intensive industries**			
	33 kV supply	580	540	540
	132 kV supply	710	517	517
	220 kV supply	710	510	510

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

Supply Voltage	Sub- category	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
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 served during and after FY 2015-16, the base months for calculation of incremental monthly consumption shall be the first 12 months subsequent to the month of availing the connection. The incremental consumption for any month shall be worked out considering the consumption of the corresponding base month.

The consumer availing this rebate shall not be entitled to the rebate of new HT connection/ Green field connection under clause (e) below.

(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 and/or FY 2019-20 and/or FY 2020-21 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 2021-22) 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, 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 2020-21).
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 2021-22) compared to the same month in last year (FY 2020-21).
iii. The rebate shall be applicable from the date of request submitted by the consumer to the Licensee during FY 2021-22.
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 2020-21		FY 2021-22		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 incremental 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 2021-22. The rebate is applicable for FY 2021-22 for the units billed only after the commencement of HT Agreement during FY 2021-22.

(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	367	695	590
33 kV supply	408	675	570
During Off-Season			
11 kV supply	Rs. 367 on 10% of contract demand or actual recorded demand during the season, whichever is higher	834 i.e. 120% of seasonal Energy Charge	Not applicable
33 kV supply	Rs. 408 on 10% of contract demand or actual recorded demand during the season, whichever is higher	810 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:

This Tariff Category 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.

This Tariff category shall also applicable to River link projects implemented by government or its agency provided that the supply of power is utilized for purposes covered under this category only.

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.

This tariff category shall also 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:

Sub-Category	Monthly Fixed Charge (Rs. / kVA of billing demand per month)	Energy Charge (paise per unit)
11 kV supply	327	602
33 kV supply		590
132 kV & above supply		550

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	326	625	560
	33 kV supply		610	540
	132 kV supply		590	520
2	**For Tariff Sub-Category 6.2**			
	11 kV supply	204	625	560
	33 kV supply		610	540
	132 kV supply		550	510

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) 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. This Tariff category shall also be applicable to the Generator/Co-generation plant from Renewable Sources entitled to draw power exclusively for its own use from the State Distribution Licensee for synchronization of plant with the grid or during shutdown period of its plant or during other emergencies.

Tariff for all voltages:

Category	Energy Charge (Paise/unit)
For all Voltage levels of HV category	960

Terms and Conditions:

(a) The supply for above purpose with the grid shall not exceed 15% of the capacity of the Power Plant. In case of drawl of power above 15% of the capacity of the power plant on any occasion, the excess energy drawn during the billing month shall be billed at the rate of 2 times of the normal energy charges.

(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) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization/power 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 and Battery Swapping 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 100 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 on the basis of energy actually consumed**
Above 95% and up to 96%	1.0 (one percent)

Power Factor	**Percentage incentive payable on billed energy charges on the basis of energy actually consumed**
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 categories of consumers for which applicability of ToD/ Rebate is expressly mentioned in the tariff order. 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**
Months	**April to October**	
1.	Normal hours (i.e. Hours excluding Off peak hours)	Normal rate of Energy Charge
2.	Off peak load period (10 PM to 6 AM next day)	10 % of Normal rate of Energy Charge as Rebate
Months	**November to March**	
1.	Normal hours (i.e. Hours excluding Off peak hours)	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.

Power Factor penalty shall be billed on the basis of energy actually consumed during the month.

(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 as amended from time to time.

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/- plus applicable GST 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 as amended from time to time. 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) Connection and Disconnection Charges shall also be paid.

(f) 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.

(g) 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 maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum 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 maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum 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 maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum demand recorded for energy charges.

1.23 No Metering Charges shall be billed in this Tariff Order.

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.

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