

EXECUTIVE SUMMARY

AGGREGATE REVENUE REQUIREMENT AND TARIFF PROPOSAL PETITION FOR FY 2019-20

Introduction

1. Madhya Pradesh Power Management Company Limited (MPPMCL), Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Ltd, Jabalpur (MPPKVVCL), Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd, Indore (MPPaKVVCL) and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd, Bhopal (MPMKVVCL), hereinafter called as DISCOMs, have submitted the Aggregate Revenue Requirement and Retail Supply Tariff Proposal Petition for FY 2019-20 before Hon'ble Madhya Pradesh Electricity Regulatory Commission (MPERC).
2. The present application has been made by the petitioners under Section 61 and Section 62 (1) (d) of the Electricity Act 2003 for determination of the tariff for distribution and Retail Supply Business for the period FY 2019-20 following the 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 laid down by the Hon'ble Madhya Pradesh Electricity Regulatory Commission.

Estimation of Sales

3. For the purpose of projection of sales, DISCOMs have considered appropriate / reasonable CAGRs for each category and its sub-categories in respect of urban & rural consumers separately.
4. Category wise and slab wise actual data of the sale of electricity, number of consumers, connected / contracted load, etc. of the preceding four years i.e. FY 2014-15, FY 2015-16 and FY 2016-17 and available data of the FY 2018-19 i.e. up to the month of July 2018 is also considered for projecting sales.
5. With the introduction of the Pradhan Mantri Sahaj Bijli Har Ghar Yojna (Saubhagya Scheme), an additional 19.82 Lakh domestic households are expected to get connected with the Discom's. Hence, over and above the normal growth, additional connections under the Saubhagya Scheme and IPDS Scheme have also been taken into consideration while computing the revised estimate for FY 2018-19 and forecasting the sales for FY 2019-20.
6. The past trend as mentioned above and the norms approved by Hon'ble Commission for billing unmetered agriculture consumers has been used to project the sales for FY 2019-20. The projections of Sales by DISCOMs is outlined in the following table:

Sales - MYT Period FY 2018 to FY 2020 – MU's

Discom	FY 18	FY 19 (RE)	FY 20
East Discom	14103	15993	17701
Central Discom	13276	15508	16725
West Discom	18608	20532	21509
TOTAL LT+HT	45987	52033	55936

Energy Requirement

7. The energy required to cater to the estimated sales of FY 20 has been computed using the normative losses percentage as notified by Hon'ble Commission. The details of the energy requirement at Ex-bus for the 3 DISCOMs are shown in the table given below.

Ex-Bus Energy Purchase to be done for FY 2019-20 (Normative Losses)

Sr.	Particulars	FY 20			
		MP State	East	Central	West
1	Sales (MUs)	55,936	17,701	16,725	21,509
	LT	43,250	14,088	12,791	16,371
	HT	12,686	3,614	3,934	5,138
2	Distribution Losses %	16.24%	16.00%	17.00%	15.00%
	MUs	10,849	3,361	3,461	4,026
3	Energy Requirement at Discom Boundary (MUs)	66,784	21,063	20,187	25,535
4	State Transmission Losses	2.71%	2.71%	2.71%	2.71%
	MUs	1,860	587	562	711
5	Energy Requirement at State Boundary (MUs)	68,644	21,649	20,749	26,246
6	External Losses WR	3.35%	3.35%	3.35%	3.35%
	External Losses NR	4.08%	4.08%	4.08%	4.08%
	External Losses ER	1.98%	1.98%	1.98%	1.98%
	MUs	1,323	420	401	502
7	Energy Requirement Ex-Bus	69,968	22,070	21,150	26,748

Power Purchase Cost

8. DISCOMs have projected the power purchase for the control period based on actual availability of power for the ensuing years for the state of Madhya Pradesh. The forecast considers the following aspects:
- Existing long term allocated generation capacity of MP
 - New generation capacity additions during the period FY 19 and FY 20 for MPPGCL , Central Sector, Joint venture and by private players awarded through competitive bidding
 - Impact of generation capacity allocation in WR and ER
9. DISCOMs have estimated the power purchase cost based on merit order principles for optimum utilization of the sources at least cost. However, after fully meeting the requirement of the State and selling power on the power exchange, the DISCOMs still have to partially

back-down plants which are higher up in the MoD so as to save on the variable costs being incurred. Total availability and back-down is summarized below:

Availability - MYT Period FY 2018 to FY 2020 – MU's

Particulars	FY 18	FY 19	FY 20
Ex Bus Availability before back-down (MU)	82,163	81,635	90,932
Less: Back-down of Stations (MU)	13,064	7,365	8,175
Availability from Stations (MU)	69,099	74,271	82,757
Less: Sales of Surplus Energy	3,802	9,131	12,789

10. While determining the Power purchase costs, fixed cost has been considered based on actual bills of last 12 months. Variable Charge has also been considered based on actual bills of last 12 months. The total cost after being adjusted for surplus is distributed among the three DISCOMs according to the monthly energy requirement at state boundary for individual Discom.

Revenue from Sale of Surplus Power

11. As per the power supply position, the state is expected to have surplus energy in most of the months in the ensuing year. Currently MPPMCL 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 energy surplus of the DISCOMs vis-à-vis overall energy availability and energy requirement as well as the details of revenue from sale of energy are shown in the table below. **This revenue has been subtracted from the variable power purchase costs. The petitioners have proposed a revenue from sale of surplus power to the extent of Rs 4,308 Cr for the year FY 2019-20.**

Merit Order Dispatch and Backing Down of Costly Power Sources

12. After fully meeting the requirement of the State and selling power on the power exchange, the Petitioners still have to partially back-down plants so as to save on the variable costs being incurred. **The Petitioners have applied month-wise merit order dispatch principle on the basis of variable costs for FY 2019-20 and thereafter, after considering all generating stations allocated to MPPMCL.**
13. **The Petitioners have also considered partial backing down of units/stations which are higher up in the MoD (provided the variable costs of such stations are higher than Rs. 2.83 per unit) , during those periods when their running is not required to meet the demand in that period and the market rates do not justify their running either. This addresses demand fluctuations and ensures that power procured from cheaper sources is fully utilized and avoids procurement of power from costlier sources. The resultant benefit of reduced power procurement cost or sale at a higher rate, whichever the case maybe, is in turn being passed on to the consumers.**
14. The Total power purchase cost including the RPO cost, Inter-state transmission charges, Intra state transmission charges and MPPMCL charges and adjusting the revenue from surplus sale is summarized as below:

Power Purchase Costs (Including Transmission Costs) - FY 2019-20

Particulars	FY 2019-20			
	East	Central	West	MP State
Total Power Purchase Cost at Discom Interface (Rs. Cr.)	8406	7531	10706	26,643
Units Purchased at Discom Boundary (MU)	21,063	20,187	25,535	66,784
Rate of Power Purchase at Discom Boundary (Rs./kWh)	399	373	419	3.99

ARR for FY 2019-20

15. The aggregate revenue requirement of MPPMCL and 3 DISCOMs is projected considering projections for various components of ARR as per the provisions of MYT Regulations of MPERC. Also, Revenue has been considered based on the existing tariff and accordingly the gap has been calculated.
16. The total ARR claimed is Rs. **38,163** Crs (*including the true up amounts approved by Hon'ble Commission*) for the year FY 2019-20. The details of the same are shown in the table shown below.

ARR for FY 2018-19 claimed by MPPMCL and MP DISCOMs

Sr.	ARR Items	Units	East	Central	West	Total- State
1	Total ARR (excluding True Up)	Rs Crs	10,693	9,962	13,039	33,693
2	Revenue at current tariffs	Rs Crs	10,656	10,348	13,061	34,065
3	Gap (excluding true-up)	Rs Crs	37	(386)	(23)	(372)
4	Average Cost of Supply (excluding true-up)	Rs/kWh	6.04	5.96	6.06	6.02
	Impact of True-Up Amounts of Past Years					
A	Impact of True-up of Transco-FY 2015-16	Rs Crs	21	20	25	67
B	Impact of True-up of Genco-FY 2015-16	Rs Crs	144	154	185	483
C	Impact of True-up of Discoms-FY 2013-14	Rs Crs	1,118	1,634	1,346	4,098
5	Total ARR (Including True Up)	Rs Crs	11,915	11,644	14,604	38,163
6	Total Revenue Gap (including True-up)	Rs Crs	1,259	1,296	1,542	4,098
7	Average Cost of Supply (including true-up)	Rs/kWh	6.73	6.96	6.79	6.82
8	Additional Revenue from Proposed Tariffs	Rs Crs	1,259	1,296	1,542	4,098
9	Total Revenue at Proposed Tariff	Rs Crs	11,915	11,644	14,604	38,163
10	Remaining revenue Gap	Rs Crs	-	-	-	-

Rationale for Tariff Hike

17. DISCOMs have proposed a tariff hike in fixed and energy charges for various categories in order to bridge the revenue gap. Such tariff hike is the minimum requirement for the DISCOMs to meet the inflation as well the additional cost that arisen due to uncontrollable factors as increasing RPO obligations, change in consumer mix, reduction in revenue etc. DISCOMs submits that the tariff hike is necessary for its survival which is on account of increase in costs which are beyond the control of DISCOMs.
18. It is submitted that it would not be possible for the DISCOMs to maintain their operational viability at the least, without an appropriate hike in the retail tariff.

Cross Subsidy Surcharge & Additional Surcharge

19. Based on the computation methodology notified in the revised National Tariff Policy, DISCOMs have proposed Cross Subsidy Surcharge (CSS) and Additional Surcharge. On the basis of latest data for previous 12 months commencing from September 2017 to August 2018, the additional surcharge has been computed 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 worked-out additional surcharge on OA Consumers is **Rs 1.26 / Unit**

Tariff Proposal

20. Focused to increase the Sales and bring new consumers under its ambit, progressive tariff proposal is put forward by the DISCOMs. It is important to mention that increase in the consumer base would have a ripple effect as the costs get spread over and the revenue of DISCOMs increases. It is believed that it would not be possible for the DISCOMs to maintain its operational viability without increasing its sale and also obtaining an appropriate hike in the retail tariff sought through this petition.
21. Host of Rebates, in addition to the rebates for HT consumers already provided in the last tariff order, have been introduced to promote Captive and Open Access consumers to shift their demand to the DISCOMs. Rebates to Railways is also proposed to make the power competitive for them and boost HT Sales.
22. In order to facilitate the reduction in revenue gap, the following tariff schedule has been proposed. The relative increase/decrease in the category wise tariff from the previous year has also been represented.

Proposed Revenue for FY 2019-20

Tariff Category		Sale	Revenue at Current Tariff	Revenue at Proposed Tariff	Additional Revenue at proposed Tariff	Proposed average increase in Tariff category
		MU	Rs. Cr	Rs. Cr	Rs. Cr	%
LV 1	Domestic	15707	9577	10727	1150	12.01%
LV 2	Non-Domestic	3437	2899	3214	314	10.85%
LV 3	WW & Street Light	1315	775	866	91	11.79%
LV 4	LT Industrial	1451	1186	1327	141	11.88%
LV 5	LT Agriculture	21337	11007	12308	1301	11.82%
LV 6	LT EV Charging	3	2	2	0	0.00%
Total (LT)		43250	25445	28443	2997	11.78%
HV 1	Railway Traction	111	54	54	0	0.00%
HV 2	Coal Mines	495	390	442	52	13.36%
HV 3.1	Industrial	7104	4994	5637	643	12.88%
HV 3.2	Non-Industrial	1145	861	972	111	12.88%
HV 3.3	Shopping Mall	104	81	91	10	12.93%
HV 3.4	Power Intensive industries	2112	1256	1418	162	12.87%
HV 4	Seasonal	23	20	22	2	10.77%
HV 5	PWW & Other than Agri	1103	648	732	84	12.99%

Tariff Category		Sale	Revenue at Current Tariff	Revenue at Proposed Tariff	Additional Revenue at proposed Tariff	Proposed average increase in Tariff category
		MU	Rs. Cr	Rs. Cr	Rs. Cr	%
HV 6	Bulk Residential Users	457	288	324	35	12.29%
HV 7	RECs and Start Ups	22	22	23	0	1.49%
HV 8	HT EV Charging	9	6	6	0	0.00%
	Total (HT)	12686	8620	9720	1100	12.77%
	TOTAL LT+HT	55936	34065	38163	4098	12.03%

23. DISCOMs requests Hon'ble Commission to provide the tariff considering principles as proposed by the DISCOMs.

Salient Features of the Tariff Proposal for FY 2019-20

24. The petitioners have proposed increase in tariff rates along with certain changes in general terms and conditions of LT and HT tariff. The salient features of the proposed changes are elaborated as below:

(a) Tariff Simplification Measures

The State of Madhya Pradesh has a very elaborate tariff structure, with tariff categories and slabs defined for various segments of consumers. In the tariff for FY 2019-20, it has been an endeavor to reduce the complexity in the tariff structure. These efforts should ensure simplicity and transparency of tariff structure. Key proposals for simplification of tariff are summarized as below:

- **Removal of separate Urban and Rural Tariff for all LT categories** has been proposed to be merged as Discom is providing 24 hours supply to both Urban & Rural as of today and so having separate tariff for both Urban and Rural Consumers creates unnecessary complexity in tariff structure. So it is proposed the common tariff for both Rural & Urban area.
- **Different slabs for un-metered rural domestic connections have been merged to single slab.** As load verification/ physical verification of various unmetered connection is required for billing purpose in this category which creates unnecessary confusion. So it is proposed to rationalize to one slab.
- The tariff sub-categories **LV-2.1 & LV- 2.2** in Non-domestic tariff category has been **merged to single Non-domestic tariff category** along with abolition of additional fixed charges for X-Ray plant.
- The tariff sub-categories **LV-3.1** for Public water works and **LV-3.2** for Street light have been **merged into a single tariff for PWW & St. Light category**. The existing separate tariffs for Municipal Corporation, Municipality and Gram Panchayat have been proposed to be merged in a single tariff.
- Seasonal tariff sub-category **LV 4.2** has been proposed to be **abolished**.

- Proposed to **remove temporary connection tariffs** specified in different tariff categories of LT Tariff and a general clause for temporary connection at LT to be **billed at 1.25 times** the normal tariff of the respective class is being introduced in the General Terms and Conditions for LT Tariff.

(b) Other Proposals

- **Rebate for supply through feeders feeding supply to predominantly rural area** in HV-3 Tariff category is proposed to be **abolished** as the HT consumers are receiving supply through Industrial feeders which are having supply 24x7
- In view of power surplus scenario in the state the licensees propose to increase the **existing tolerance limit of 15%** as specified at clause 6 of “General Terms & Conditions for LT Tariff” and clause 1.15 of “General Terms & Conditions for HT Tariff” **to 20% in respect of maximum demand** recorded in any month for excess demand of the consumers due to their transient requirements.
- Since the low power factor of the consumer is checked by the existing power factor surcharge, hence the existing **welding surcharge** in General Terms & Conditions for LT Supply has been **proposed to be abolished** The existing provision of Load factor incentive in General Terms & Conditions for LT Supply has been proposed to be abolished.
- To reduce the complexity of the Tariff, It is proposed that the Range of **Power Factor Incentive** 05% to 10% at different power factor **to be reduced to three slabs** – 2% (85.01%-90%), 3.5% (90.01% to 95%) and 7% (95.01% to 100%) only.
- In order to give impetus to **prompt payment** by the consumers **the current rebate of 0.25%** is proposed to be **increased to 0.50%**. Further the existing clause 7b of the “General terms and conditions for LT Tariff” in respect of prompt payment incentive has been proposed to be modified so as to cover LT consumers where the **current monthly billing amount is equal to or greater than Rs. 10000/-**
- In order to ensure timely and proper delivery of Bills along with the commitment **to reduce the carbon footprint**, the East Discoms has proposed to **deliver the consumer bills through electronic medium** like email, whatsapp etc. after obtaining the consent of the interested consumers.
- Inclusion of irrigation for fodder farming in fields associated to Gaushalas in LV-5.1 & LV-5.4 Agricultural tariff.

Prayers before Hon’ble Commission

25. MPPMCL and all 3 DISCOMs most respectfully prays to the Hon’ble Commission to:

- i. Take the accompanying ARR/Tariff petition of the above DISCOMs on record and treat it as complete;
- ii. To approve the net ARR of **Rs. 38,163/- Crores for MP State** (Rs. 11,915/- Crores for East Discom, Rs.11,644/- Crores for Central Discom and Rs.14,604/- Crores for West

Discom) and a Revenue Gap of **Rs. 4098/- Crores for MP State** (Rs.1,259/- Crores for East Discom, Rs.1,296/- Crores for Central Discom and Rs.1,542/- Crores for West Discom) for FY 2019-20;

- iii. Considering the aforesaid facts and circumstances the Hon'ble Commission may be pleased to allow expenses of MPPMCL as stated to be allowed and include them as a part of power purchase cost of three DISCOMs, to meet the ends of justice;
- iv. Consider and approve DISCOMs' tariff proposal for FY 2019-20 to recover the costs for the ensuing year;
- v. Consider and determine the wheeling charges, voltage level and consumer category wise cross subsidy surcharge, additional surcharge and transmission charges for open access customers and captive consumers on the basis of ARR petition for FY 2019-20 and make applicable w.e.f. the application date of the revised tariff;
- vi. Condone any inadvertent omissions/ errors/ shortcomings and permit the DISCOMs to add/ change/ modify/ alter portion(s) of this filing and make further submissions as may be required at a later stage; and
- vii. Pass such an order as the Hon'ble Commission deems fit and proper as per the facts and circumstances of the case.