MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

AGGREGATE REVENUE REQUIREMENT AND RETAIL SUPPLY TARIFF ORDER FOR FY 2017-18

Petition No. 72/2016

CORAM:

Dr. Dev Raj Birdi, Chairman
A. B. Bajpai, Member
Alok Gupta, Member

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement and Tariff for the Financial Year 2017-18 based on application filed by the Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited (MPAKVN(I)L) for Special Economic Zone (SEZ) at Pithampur Area, District Dhar, Madhya Pradesh.

Represented by (Petitioner)

Shri. D.L Goyal
Joint Director,
MPAKVN(I)L Indore

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A1: ORDER

(Passed on this 07th Day of April, 2017)

This Order relates to petition no. 72/2016 filed by the MP Audyogik Kendra Vikas Nigam (Indore) Ltd., (hereinafter referred to as “MPAKVN(I)L” or the “Petitioner” or the “licensee”) before MP Electricity Regulatory Commission (hereinafter referred to as the “Commission” or “MPERC”) for determination of Aggregate Revenue Requirement (ARR) and retail supply tariff for its Special Economic Zone (SEZ) area at Pithampur, District Dhar, Madhya Pradesh for the financial year 2017-18. The petition has been filed under MPERC (Terms and Conditions for determination of tariff for supply and wheeling of electricity and methods and principles for fixation of charges) Regulations, 2015 (hereinafter referred to as the “Regulations”).

1.1 In accordance with the Regulations, MPAKVN(I)L was required to file the petition for determination of ARR and retail supply tariff for FY 2017-18 latest by October 31, 2016. MPAKVN(I)L filed the petition on 13/12/2016 wherein the Petitioner has also included the True-up for FY 2015-16 and ARR for FY 2016-17. The Commission held the motion hearing on January 27, 2017. During the hearing the representative of the Petitioner has submitted that it has filed a separate petition for determination of true-up of the ARR for FY 2015-16, hence the same may be excluded from the scope of the instant petition. The Commission has accepted the request of the Petitioner. The Commission has observed that the Petitioner requested among prayers in the instant petition for determination of the ARR for FY 2016-17. The Commission had already issued the detailed order on 09/08/2016 in the matter of petition no. 01 of 2016 for determination of ARR and retail supply tariff for FY 2016-17, wherein it had decided to continue with the retail supply tariffs determined for FY 2015-16 during FY 2016-17 in view of the fact that despite repetitive reminders the Petitioner failed to submit the requisite audited accounts which was pre-requisite being statutory requirement in accordance with the provisions of the Electricity Act 2003. The Petitioner resubmitted the Petition vide letter No. AKVN/IND/SEZ/17/1614 dated February 06, 2017. The Commission admitted the revised petition with modifications and conditions on February 07, 2017.

1.2 The Commission directed the Petitioner to file clarification, additional data/information as per observations of the Commission within 15 days. The Petitioner filed response on 09/02/2017 vide letter No. AKVN/IND/SEZ/17/1987. The Commission vide letter dated 09/02/2017 directed the Petitioner to publish the public notice in newspapers by 13/02/2017 for obtaining the comments / objections / suggestions from the stakeholders. The public notice was published on February 09, 2017. Last date for inviting comments / suggestions / objections was March 06, 2017. The Commission held the public hearing on 21/03/2017.

1.3 In response to the public notice, only one stakeholder i.e. Pithampur Audyogik

Sangathan filed its suggestions/comments/objections. Representative of Pithampur Audyogik Sangathan has also made its submissions in person during the public hearing conducted by the Commission on March 21, 2017.

1.4 With the filing of the ARR and retail supply tariff petition for FY 2017-18, the Petitioner had submitted abstracts of the Balance Sheet and Profit and Loss Account of MPAKVN (I) Ltd., Indore for FY 2015-16, for its power business of SEZ at Pithampur, audited by Statutory Auditor.

1.5 The Petitioner has stated that projections made in the petition are based on the expected load growth and past data / information. Abstract of the ARR filed by the Petitioner and admitted by the Commission for FY 2017-18 has been shown in the Table below:

Table 1: ARR filed by the Petitioner and admitted by the Commission for FY 2017-18

Particulars	**FY 2017-18**	
	Filed	**Admitted**
Sale and Power Purchase Requirement		
Sale MU	420.97	420.97
Distribution loss (%)	2.80%	1.90%
Distribution loss MU	12.13	8.15
Intra state transmission loss (%)	2.88%	2.87%
Intra state transmission loss MU	12.84	12.69
Total power purchase requirement MU	445.94	441.82
Expenditure		
Purchase of power (Rs Crore)	163.72	160.23
Intra-state transmission (MP Transco) charges (Rs Crore)	6.61	6.61
Other power purchase related expenses incl. SLDC charges (Rs Crore)	0.02	0.02
R&M expense (Rs Crore)	3.78	0.48
Employee expenses (Rs Crore)	3.34	3.28
A&G expense (including MPERC fees) (Rs Crore)	2.06	2.05
Depreciation and related debits (Rs Crore)	0.47	0.22
Interest & finance charges(Rs Crore)	1.71	1.32
Land Lease	2.19	0.00
Total expenses(Rs Crore)	**183.38**	**174.21**
RoE(Rs Crore)	0.48	0.24
Total expenses including RoE (Rs Crore)	**184.38**	**174.45**
Less: Other income(Rs Crore)	0.06	0.06
Total ARR (Rs Crore)	**184.32**	**174.38**
Revenue		
Revenue from sale of power at existing tariff(Rs Crore)	157.96	160.30
Revenue surplus / (Gap) (Rs Crore)	**-26.36**	**-14.08**

Implementation of the Order

1.6 The Commission has determined the distribution and retail supply tariffs for various consumer categories based on the ARR as admitted for FY 2017-18. The retail supply tariffs and charges shall be recoverable by the Petitioner in its licensed area of supply for FY 2017-18. The tariff determined by this Order for FY 2017-18 shall be applicable after seven days from the date of publication of the public notice in the news papers and up to 31st March, 2018, unless amended, extended or modified by this Commission. It is further ordered that the Petitioner is permitted to issue bills to consumers in accordance with the provisions of this Tariff Order and applicable Regulations.

1.7 The Commission directs that this Order be implemented along with directions given and conditions mentioned in the detailed Order and Tariff Schedules attached to this Order. The Petitioner is directed to take immediate steps to implement this Order after giving seven (7) days public notice in the newspapers, in accordance with Regulation 1.30 of MPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004.

1.8 With this Order, the Commission has disposed of the instant petition.

(Alok Gupta)	(A. B. Bajpai)	(Dr. Dev Raj Birdi)
Member	Member	Chairman

A2: AGGREGATE REVENUE REQUIREMENT FOR FY 2017-18 OF THE PETITIONER

Sales forecast as projected by the Petitioner

2.1 The Petitioner in its petition has submitted that it has adopted the historical trend method for estimation of sales, number of consumers and load as the same is found reasonably accurate and also was in practice in past .

2.2 In light of the above, the Petitioner has estimated the sales for various customer categories primarily based on the CAGR trends during past years. Primary basis for determination of Sales Projection for FY 2017-18 is as under:

- Historical data of category wise actual sales for the period 2011-12 to 2015-16.
- Expected new connections.

2.3 Summary of sales projections for FY 2017-18 is given in the table below:

Table 2: Summary of sales filed by the Petitioner for FY 2017-18(MU)

Consumer category	**Projected sale**
LT consumer categories	
Non-Domestic	0.61
Public Water Works and Street Light	0.77
Industrial	0.15
Total LT Sale	**1.53**
HT Consumer Categories	
Industrial	419.44
Non-Industrial	0.00
Total HT Sale	419.44
Total LT+HT Sale	**420.97**

Commission's Analysis

2.4 For FY 2017-18, the Petitioner has projected sale of 420.97 MU. Basis for projection of sale in the petition is the additional requirement from expected addition of new consumers as well as enhancement of load by the existing consumers. The Commission has taken due cognizance of submissions of the Petitioner and admitted the sale as proposed by the Petitioner for FY 2017-18.

Energy / Power Purchase Requirement

Petitioner's Submissions

2.5 The Petitioner has submitted that the energy requirement has been estimated by considering the actual distribution losses of 2.80% as per first half of FY 2016-17 and MPPTCL losses of 2.88% as per MPPTCL MYT Order dated 10 June, 2016. The Petitioner has further submitted that it has not considered the PGCIL losses for FY 2017-18 as it will be directly procuring power from MP Power Management Co. Ltd. (MPPMCL).

2.6 The Petitioner has filed the energy requirement for FY 2017-18 as shown in the table below:

Table 3: Energy requirement for FY 2017-18 filed by the Petitioner

2.7

Sr. No.	**Particulars**	**FY 2017-18**	
		%	**MU**
1	**Energy sales**		
	LT sales		1.53
	HT / EHT sales		419.44
	Total energy sales		**420.97**
2	Distribution losses	2.80%	12.13
3	**Energy requirement at T-D boundary**		**433.09**
4	Intra-state transmission losses	2.88%	12.84
5	**Energy requirement at the State periphery**		**445.94**
6	Inter-state transmission losses	0.00%	0.00
7	**Total energy requirement**		**445.94**

Commission's Analysis

2.8 The distribution loss level trajectory as specified for the Petitioner in the Regulations for the control period from FY 2016-17 to FY 2018-19 is given in the table below:

Table 4: Distribution loss trajectory as per Regulations

Sr. No.	**Distribution Licensee**	**FY 2016-17**	**FY 2017-18**	**FY 2018-19**
1.	SEZ, Pithampur	2.00%	**1.90%**	1.80%

2.9 Accordingly, for projecting the energy requirement, the Commission has considered 1.90% as distribution losses for FY 2017-18 as mentioned in the above table.

2.10 As regards PGCIL Losses, since the Petitioner is sourcing the complete requirement of power from MPPMCL, hence there shall not be any external losses. Accordingly, the inter-State transmission losses have not been considered.

2.11 The Commission has considered intra-State transmission losses as 2.87% for FY 2017-18 as considered for the State Discoms in Retail Tariff Order dated 31 March, 2017.

2.12 The energy / power purchase requirement on the basis of the sale admitted by the Commission for FY 2017-18 is presented in the table below:

Table 5: Energy / power purchase requirement admitted by the Commission

Sr. No.	**Particulars**	**FY 2017-18**	
		%	**MU**
1	Energy sales		
	LT sales		1.53
	HT / EHT sales		419.44
	Total Energy sales		**420.97**
2	Distribution losses	1.90%	8.15
3	**Energy requirement at T-D boundary**		**429.12**
4	Intra-state transmission losses	2.87%	12.69
5	Energy requirement at State periphery		441.82
6	**Total energy requirement**		**441.82**

Assessment of Energy Availability

Petitioner's Submissions

2.13 The Petitioner has submitted that a Bulk Power Supply Agreement (BPSA) has been signed between MP Power Management Company Ltd. (MPPMCL) and MPAKVN(I)L Indore on 29 March, 2016 for supply of power on Long term basis up to 40 MW which is effective from 1 April, 2015. As per the BPSA, the Bulk Electricity shall be supplied to procurer at the weighted average tariff as determined/approved by the State Commission in tariff order of MPGENCO of the State for the allocated thermal power station plus trading margin of four (4) paise per unit.

2.14 The Petitioner is also planning to purchase renewable power themselves or through MPPMCL in accordance with Renewable Power Obligation for FY 2017-18.

2.15 To comply with Renewable Purchase Obligation, power purchase requirement from renewable sources is worked out in table below:

Table 6: Renewable Power Purchase Requirement for FY 2017-18

Particulars	**FY 2017-18**
RPO Solar (%)	1.50%
RPO Non-Solar (%)	7.00%
Total	**8.50%**
Ex-bus requirement	445.94
RPO Solar (MU)	6.69
RPO Non Solar (MU)	31.22
Total (MU) for RPO	**37.90**

2.16 Annual projected availability as filed is shown in the table below:

Table 7: Energy Availability as filed by the Petitioner for FY 2017-18 (MU)

Sr. No.	**Source**	**Allocation (MW)**	**Availability(MU)**
1	MPPMCL	40.00	408.03
2	RPO Obligation		37.90
	Total		**445.94**

Commission's Analysis

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

2.18 The relevant section of the Fifth amendment MPERC (Co-generation and generation of Electricity from Renewable sources of energy) (Revision-I) Regulations, 2010 [ARG-33(I)(v) of 2015], is reiterated below:

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

Financial Year	***Cogeneration and other Renewable Sources of Energy***		
	Solar (%)	***Non Solar (%)***	***Total (%)***
2015-16	*1.00*	*6.00*	*7.00*
2016-17	*1.25*	*6.50*	*7.75*

2017-18	*1.50*	*7.00*	*8.50*
2018-19	*1.75*	*7.50*	*9.25*

.''

2.19 For FY 2017-18, the minimum quantum of electricity is 1.50% for Solar and 7.00% for Non-Solar. Accordingly, the Commission has computed the quantum of solar and non-solar power purchase requirement based on the total energy requirement admitted for FY 2017-18, as shown in the table below:

Table 8: Renewable Purchase Obligation worked-out by the Commission (MU)

Particulars	**FY 2017-18**
RPO Solar	1.50%
RPO Non Solar	7.00%
Total	**8.50%**
Ex-bus requirement	441.82
RPO Solar (MU)	6.63
RPO Non Solar (MU)	30.93
Total (MU)	**37.56**

2.20 The details of energy available to the Petitioner from the MPPMCL as per BPSA have been shown in the Table below:

Table 9: Details of energy available to the Petitioner from MPPMCL for FY 2017-18 (MU)

Name of Gen. Stations	**Installed Capacity (MW)**	**Total Availability as per Retail supply Tariff Order for Discoms for FY 2017-18 (MU)**	**Allocation to MPAKVN(I)L as per BPSA(MW)**	**Corresponding availability for MPAKVN(I)L (MU)**	**Utilisation by MPAKVN(I)L (MU)**
ATPS , Chachai (Unit 5 No. 5)	210	1,656.62	2.06	16.25	16.25
STPS , Sarni (unit no. 10 & 11)	500	2,706.40	4.9	26.52	26.52
STPS , Sarni (unit no. 6 & 9)	830	4,987.04	8.14	48.91	48.91
SGTPS (Unit no.5)	500	3,899.66	4.9	38.22	38.22
SSTPP (Singaji)	1200	7,216.49	11.76	70.72	70.72
SGTPS (Unit no 1 to 4)	840	5,011.07	8.24	49.16	49.16
Total availability from MPPMCL	**4,080.00**	**25,477.28**	**40.00**	**249.78**	**249.78**
Balance Requirement					**154.48**

2.21 The energy availability for FY 2017-18 as admitted by the Commission is given in the table below:

Table 10: Ex-bus energy availability as admitted by the Commission for FY 2017-18 (MU)

Sr. No.	Source	Availability(MU)
1	**Total Requirement**	**441.82**
2	Renewable Power Purchase as per RPO	37.56
3	Requirement to be met from MPPMCL	404.26

Assessment of Power Purchase Cost

Petitioners Submissions

2.22 The Petitioner has considered sourcing of 40 MW of power from MPPMCL at the rate of Rs. 3.59/kWh for FY 2017-18.

2.23 Details of the cost as filed by the Petitioner for FY 2017-18 are given in the table below:

Table 11: Details of cost filed by the Petitioner for FY 2017-18

Sr. No.	Particulars	Power procurement rate (Rs./Unit)	Power to be procured (MU)	Amount (Rs. Crore)
1	MPPMCL	3.59	408.03	146.66

Commission's Analysis

2.24 The Commission noted that a Bulk Power Supply Agreement (BPSA) has been signed between MP Power Management Company Ltd. (MPPMCL) and MPAKVN(I)L Indore on 29th March, 2016 for supply of power on Long term basis up to 40 MW which is effective from 1st April, 2015. As per the BPSA trading margin of four (4) paise per unit is levied on purchase of energy by the MPPMCL. As the Commission has already directed MPPMCL for determination of trading margin in the Discoms Retail Tariff Order for FY 2016-17 and the process is not initiated as yet, the Commission therefore taking in to cognizance of the same has not considered the trading margin at this point of time.

2.25 Further, based on BPSA (excluding trading margin) the Commission has considered the variable rate and allocated the fixed cost determined for the generating stations that are allocated to the Petitioner, under Retail Tariff for the Discoms for FY 2017-18. The

Commission has considered the purchase of balance energy by the Petitioner from MPPMCL at the weighted average rate of the allocated generating station as per BPSA. The Commission admitted power purchase cost from MPPMCL is shown in the table below:

Table 12: Power Purchase cost from MPPMCL admitted by the Commission for FY 2017-18 (MU)

Generating stations	Fixed Cost (Rs. Crore)	Variable Cost (Rs. Crore)	Power Purchase Cost (Rs. Crore)
ATPS , Chachai (Unit 5 No. 5)	2.10	2.82	4.92
STPS , Sarni (unit no. 10 & 11)	5.03	5.88	10.91
STPS , Sarni (unit no. 6 & 9)	3.48	12.45	15.93
SGTPS (Unit no.5)	4.02	8.24	12.26
SSTPP (Singaji)	10.52	18.50	29.02
SGTPS (Unit no 1 to 4)	3.63	11.90	15.52
Balance energy from MPPMCL @ Rs.3.55/unit (weighted average rate)		54.77	54.77
Total		**114.56**	**143.33**

Renewable Power Obligation (RPO)

Petitioners Submissions

2.26 As regards RPO cost, the Petitioner has considered per unit rate for renewable power as Rs. 4.50 for FY 2017-18 considering the prevailing market trend.

2.27 Details of the cost as filed by the Petitioner for FY 2017-18 are given in the table below:

Table 13: Details of RPO cost filed by the Petitioner for FY 2017-18

Sr. No.	Particulars	Power procurement rate (Rs./Unit)	Power to be procured (MU)	Amount (Rs. Crore)
1	Solar	4.50	6.69	3.01

Sr. No.	Particulars	Power procurement rate (Rs./Unit)	Power to be procured (MU)	Amount (Rs. Crore)
2	Non-Solar	4.50	31.22	14.05
	Total		**445.94**	**163.72**

Commission's Analysis

2.28 The Commission has considered the rate of power purchase from renewable sources of energy as filed by the Petitioner. Renewable energy power purchase costs worked out is shown in the table below:

Table 14: RE power purchase cost computed by the Commission

Particulars	Renewable Power Purchase		
	Rate	Quantum	Cost
	Rs. /kWh	MU	Rs. Crore
Solar	4.50	6.63	2.98
Non-Solar	4.50	30.93	13.92
Total		**37.56**	**16.90**

2.29 Total power purchase cost admitted by the Commission is summarized in the following table:

Table 15: Summary of the total power purchase cost admitted by the Commission for FY 2017-18

Source	Particulars	As filed	As admitted
MPPMCL	Energy (MU)	408.03	404.26
	Amount (Rs. Crore)	146.66	143.33
	Rate (Rs./kWh)	3.59	3.55
RE purchase	Energy (MU)	37.91	37.56
	Amount (Rs. Crore)	17.06	16.90
	Rate (Rs./kWh)	4.50	4.50
Total	**Energy (MU)**	**445.94**	**441.82**

Source	Particulars	As filed	As admitted
	Amount (Rs. Crore)	**163.72**	**160.23**
	Average Rate (Rs./kWh)	**3.67**	**3.63**

Intra - State Transmission and SLDC Charges

Petitioners Submissions

2.30 The Petitioner has submitted that for the purpose of calculation of transmission charges payable to MPPTCL it has considered the admitted charges for MPPTCL in the MYT Order for the FY 2016-17 to FY 2018-19 dated 10th June, 2016. SLDC charges are considered as per Order for levy and collection of Fees and Charges by SLDC for FY 2016-17 dated 5th April, 2016. The table below provides the intra-State transmission charges and SLDC charges filed by the Petitioner for FY 2017-18:

Table 16: Other elements of power purchase cost filed by the Petitioner for FY 2017-18 (Rs Crore)

Sr. No.	Particulars	Amount
1	Intra-state transmission charges	6.61
2	SLDC charges	0.02

Commission's Analysis

2.31 The Commission has admitted intra state transmission charges as per MYT Order for the FY 2016-17 to FY 2018-19 dated 10th June, 2016 as shown in the Table below:

Table 17: Intra-State transmission charges admitted by the Commission for FY 2017-18 (Rs. Crore)

Sr. No.	Particulars	Amount
1	**Intra-state transmission charges**	**6.61**

2.32 The Commission has considered SLDC charges for FY 2017-18 as per the Order for levy and collection of Fees and Charges by SLDC for FY 2016-17 dated 5th April, 2016. SLDC charges admitted by the Commission for FY 2017-18 are shown in the table below:

Table 18: SLDC charges admitted by the Commission for FY 2017-18 (Rs. Crore)

Sr. No.	Particulars	Amount
1	**SLDC charges**	**0.02**

Pooled Power Purchase Cost

2.33 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."*

2.34 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 19 : Pooled Power Purchase cost for FY 2017-18

Particulars	**FY 2017-18**
Power Purchase Requirement excluding renewable energy sources (MU) Ex- Bus	404.26
Total Power Purchase Cost excluding renewable energy sources (Rs Crore)	143.33
Pooled Power Purchase Cost (Rs/kWh)	**3.55**

Capital Expenditure Plans/ Capitalization of Assets

Petitioners Submissions
Investments

2.35 The Petitioner has submitted the scheme wise projected capital expenditure for the FY 2017-18. Details of Capex are shown in the table below:

Table 20: Details of Capex for FY 2017-18 submitted by the Petitioner (Rs Crore)

Sr. No.	Schemes	FY 2017-18 Proposed
1	33 kV metering equipments with meter & modem	0.050
2	11kV ME with meter & modem	0.008
3	HT energy meter with modem	0.002
4	11kv capacitor bank 1500kVAR	-
5	New Distribution transformer	0.096
6	Connectivity with 132kV substation & up-gradation of existing distribution system	2.500
	Total	**2.656**

2.36 The Petitioner has submitted that all the capital expenditure incurred during FY 2017-18 would be capitalized in the same year. Over and above that capital works in progress of Rs. 19.30 Crore incurred for 132 kV Substation would also get capitalized in FY 2017-18. The funding of capitalization is envisaged through various sources categorized under four heads namely Consumer Contribution, Grants, Equity and Debt. A grants of Rs. 9.77 Crore is received for 132 kV Substation and the remaining expenditure after consumer contribution & grants is proposed to be funded through debt and equity in the ratio of 70:30.

Commission's Analysis on Asset Capitalization

2.37 The Commission noted that the Petitioner has submitted the Audited Accounts for FY 2015-16 while previous year accounts are still in process of finalization. Looking to the present scenario, the Commission has considered it appropriate to admit the capitalization for FY 2016-17 and FY 2017-18, same as actual GFA added in FY 2015-16 based on Audited Accounts submitted. The capitalisation for FY 2016-17 and FY 2017-18 shall also be subject to actual GFA addition during the respective years. Capitalization for FY 2016-17 and FY 2017-18 is shown in the table below:

Table 21: Capitalization admitted for FY 2016-17 and FY 2017-18 (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Addition to GFA	1.96	1.96	1.96

Operations and Maintenance Expenses

Petitioners Submissions

Employee Expenses

2.38 As per the provision of the Para 34.1 of the Regulations, norms of employee cost are notified exclude dearness allowance, pension, terminal benefits and incentive to be paid to employees and hence, these are considered over & above the norms in the Regulations.

2.39 Dearness allowance, terminal benefits and pension paid for FY 2017-18 are considered same as of FY 2015-16 based on Audited Accounts. No escalation is considered for DA and terminal benefits while projecting for FY 2017-18.

2.40 Accordingly, total employee expense filed by the Petitioner is shown in the table below:

Table 22: Total employee expenses filed by the Petitioner for FY 2017-18 (Rs. Crore)

Sr. No.	**Particulars**	**Amount**
1	Employee expenses excluding arrears, DA, terminal benefits and incentives	1.01
2	Arrears	0.00
3	DA	1.10
4	Terminal benefits	1.23
5	**Total employee expenses**	**3.34**

A&G Expenses

2.41 The Petitioner has filed Administrative and General (A&G) expenses as per the provision of the Para 34.1 of the Regulation, excluding fees paid to the MPERC and Taxes payable to the government.

2.42 The Petitioner has projected MPERC fees of Rs. 0.02 Crore for FY 2017-18 same as actual of FY 2015-16.

2.43 A&G expenses filed by the Petitioner are shown in the table below:

Table 23: A&G expenses filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	**Amount**
A&G expenses	2.04
MPERC fees	0.02

R&M Expenses

2.44 The Petitioner has submitted that it has entered into an agreement with MPPKVVCL, Indore dated 26th March, 2013 to carry out all R&M expenses of its electrical network situated in the Special Economic Zone Phase I and Phase II in Pithampur area of the Dhar District and also to provide consultancy services in various techno-commercial matters relating to the distribution and supply of electricity. For first six months of FY 2016-17, MPPKVVCL had been carrying out all R&M activities. Subsequently, the Petitioner has entered into agreement with PTC India Ltd. on 29th September, 2016 for R&M activities of its electrical network and other consultancy services at lower rates and agreement with PTC India Ltd. will remain in force for FY 2017-18.

2.45 R&M expenses as per agreement signed with PTC India Ltd. for FY 2017-18, is shown in the table below:

Table 24: R&M expenses filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	Amount
R&M expenses	3.78

Commission's Analysis on O&M Expenses

2.46 The Commission has considered Employee, Administrative & General (A&G) and Repair & Management (R&M) expenses as per the norms given in the Regulations. As regards consideration of R&M contract in the R&M expenses, the Commission deemed it appropriate to consider R&M expenses as per the provisions of the Regulations and expect that the Petitioner should manage its R&M contract under the normative O&M expenses.

2.47 The Commission has considered the dearness allowance, terminal benefits and pension paid as projected by the Petitioner for FY 2017-18.

2.48 The Commission on the basis of the Petitioner submission and Regulation admitted the O&M cost as below:

Table 25: O&M cost admitted by the Commission for FY 2017-18 (Rs. Crore)

Sr. No.	Particulars	FY 2017-18
A	**Employee Expenses**	
1	Salary	1.01
2	DA	1.10
3	Terminal benefits	1.17
4	**Total Employee Expense**	**3.28**
B	**A&G (including MPERC fees of**	**2.05**

Sr. No.	Particulars	FY 2017-18
	Rs 86,800)	
C	R & M (% of GFA)	
1	Opening GFA as on 1.4.2017	9.60
2	**R& M for FY17-18 @5%**	**0.48**
D	**Total O&M**	**5.81**

Depreciation

Petitioners Submissions

2.49 The Petitioner has considered the depreciation rate specified by the Commission in the Regulations for computing the depreciation. The Petitioner has considered the opening gross block of fixed assets of FY 2016-17 same as the closing bock for FY 2015-16. The projected assets addition in FY 2016- 17 and FY 2017-18 has been considered to calculate addition to opening GFA for FY 2016-17 and FY 2017-18. Depreciation has been calculated taking into consideration the opening balance of assets in the beginning of the year and the projected capitalisation. Depreciation claim filed by the Petitioner for FY 2017-18 is shown in the tables below:

Table 26: Depreciation during the year filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	FY 2017-18
Opening Gross Fixed Asset	7.83
Addition during the year	21.95
Deduction	0.00
Closing Gross Fixed Asset	29.78
Depreciation	0.94
Depreciation Rate	4.99%

2.50 The Petitioner has reduced the amortization of the assets capitalised from the consumer contributions. Accordingly, net depreciation on GFA for FY 2017-18 after reducing amortization on consumer contribution is shown in the table below:

Table 27: Net depreciation filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	FY 2017-18
Depreciation and related debits	0.94
Less: Consumer contribution amortized	0.47
Net depreciation and related debits	**0.47**

Commission's Analysis of Depreciation

2.51 The Commission has considered the opening gross block of fixed assets for FY 2016-17 same as the closing block for FY 2015-16. The projected assets addition in FY 2016- 17 and FY 2017-18 has been considered as per the previous section "Capital Expenditure (Capex) and Capitalisation". The Petitioner has submitted the audited accounts for FY 2015-16 only, wherefrom the average depreciation rate has been worked out as 4.84%. The Commission has considered the same average depreciation rate of 4.84% for FY 2016-17 and for FY 2017-18. Accordingly, the Commission has admitted gross depreciation for FY 2017-18 as shown in the table below:

Table 28: Gross depreciation expenses admitted by the Commission for FY 2017-18 (Rs. Crore)

Particulars	**FY 2016-17**	**FY 2017-18**
Opening GFA (closing of FY 2015-16)	7.64	9.60
Addition during the year	1.96	1.96
Closing	9.60	11.56
Average	8.62	10.58
Depreciation (@ 4.84%)	**0.42**	**0.52**

2.52 The Commission has considered the opening gross block from consumer contribution and grants for FY 2016-17, same as the closing block in the Audited Accounts for FY 2015-16. The projected addition from consumer contribution in FY 2016- 17 and FY 2017-18 has been considered same as in Audited Accounts for FY 2015-16. Further, the Commission has considered the amortization rate of 5.28% as submitted by the Petitioner for FY 2016-17 and FY 2017-18. The amortization of the consumer contributions and grants for FY 2017-18 is shown in the table below:

Table 29: Amortisation on consumer contribution admitted by the Commission for FY 2017-18 (Rs. Crore)

Particulars	**FY 2016-17**	**FY 2017-18**
Opening consumer contribution and grants (closing of FY 2015-16)	5.25	5.49
Addition during the year	0.24	0.24
Closing consumer contribution and grants	5.49	5.73
Average consumer contribution and grants	5.37	5.61
Amortisation (@5.28%)	**0.28**	**0.30**

2.53 Accordingly, net depreciation on GFA admitted by the Commission after reducing amortisation on consumer contribution is shown in the table below:

Table 30: Net depreciation expenses admitted by the Commission for FY 2017-18 (Rs. Crore)

Particulars	FY 2017-18
Depreciation and related debits	0.52
Less: Consumer contribution amortized	0.30
Net depreciation admitted	**0.22**

Return on Equity

Petitioners submissions

2.54 The Petitioner has claimed that return on equity is computed on average equity based upon the opening balance of equity and normative additions during the year, which has been arrived at by considering 30% of the capitalization net of consumer contribution and grants as funded from equity

2.55 RoE claimed by the Petitioner is shown in the table below:

Table 31: Return on Equity filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	Amount
FY18	
Equity associated with GFA as on the beginning of the year	1.46
30% of addition to net GFA considered as funded through equity	3.03
Total equity associated with GFA at the end of the year	4.50
Average equity associated with GFA at the end of the year	2.98
Return on Equity @ 16%	**0.48**

Commission's Analysis of Return on Equity

2.56 Based on the equity identified with GFA net of consumer contribution, the RoE admitted by the Commission for FY 2017-18, as per the Regulations is shown in the table below:

Table 32: RoE admitted by the Commission for FY 2017-18(Rs Crore)

Particular	Amount
FY 2016-17	
Opening Equity identified with GFA as on 1st April, 2016 (Closing worked out from Audited Accounts for FY 2015-16 submitted by the Petitioner)	0.72
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.52

Particular	**Amount**
Total Equity identified with GFA as on 31st March, 2017	1.23
FY 2017-18	
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.52
Total Equity identified with GFA as on 31st March, 2018	1.75
Average Equity	1.49
RoE @16% of FY 2017-18	**0.24**

Interest and Finance Charges

Petitioners submissions

2.57 The Petitioner has stated that it has not borrowed any capital loan. As per the provisions in the Regulations, the Petitioner has worked out normative loans and calculated the interest thereon by applying prevailing State-Bank Advance Rate (SBAR). The Petitioner has considered debt: equity ratio as 70:30 for the assets capitalised during the year and notionally worked out the interest burden thereon. Details are shown in the table below:

Table 33: Interest on normative project loan filed by the Petitioner for FY 2017-18 (Rs. Crore)

Particulars	**Amount**
FY 2017-18	
Debt associated with GFA as on the beginning of the year	0.92
Addition to debt (excluding consumer contribution & grants)	7.08
Repayment during the year	0.47
Total debt associated with GFA at the end of the year	7.53
Rate of interest & finance charges	8.97%
Interest & finance charges on normative basis for project loans	**0.38**

Commission's Analysis of Interest and Finance Charges

2.58 The Commission has noted from the records filed by the Petitioner that the Petitioner has not borrowed any loan. Therefore, there is no interest burden on the Petitioner. As regards equity in excess of 30% of capital contribution, relevant portion of the Regulations is reproduced below:

"For a Project declared under commercial operation on or after 1.4.2013, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be

treated as normative loan."

2.59 Accordingly, the Commission has considered additional equity contribution, i.e., 70% of the capital employed for creation of the assets as normative loans. Consumer contribution has been reduced from the GFA for the purpose of computing normative loan. Further, the Commission has considered the net debt (excluding Consumer contribution and grants) associated with GFA as on the beginning of the year for FY 2015-16 as per the audited accounts submitted by the Petitioner. The Commission has therefore computed the total debt associated with GFA at the end of the year as per the provisions of regulation.

2.60 As regards interest rate, the Petitioner does not have any loans; therefore, it may not be possible to compute their actual weighted average rate of interest. In this situation, the Commission has considered the weighted average interest rate of long term loans of other distribution licensees of Madhya Pradesh as admitted in the State Discoms Retail Tariff Order for FY 2017-18, i.e., 7.28%. Details of the normative loan and interest admitted are shown in the table below:

Table 34: Interest on normative project loan admitted by the Commission for FY 2017-18 (Rs. Crore)

Particular	Amount
FY 2016-17	
Opening Debt identified with GFA as on 1st April, 2016 (Closing worked out from Audited Accounts for FY 2015-16 submitted by the Petitioner)	1.15
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	1.20
Debt repayment	0.13
Debt identified with GFA as on 31st March, 2017	2.22
FY 2017-18	
Debt identified with GFA as on 1st April, 2017	2.22
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	1.20
Debt repayment	0.22
Closing debt associated with GFA	3.21
Average debt	2.72
Weighted average rate of interest (%) based on Discoms Tariff Order for FY 2017-18	7.28%
Interest cost admitted on project loans	**0.20**

Interest on Working Capital

Petitioners Submissions

2.61 The Petitioner has stated that interest on working capital has been calculated on the basis of provisions of the Regulations.

2.62 Interest rate is considered at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April, 2016. Petitioner has used the rate of interest for computing the interest on working capital for the FY 2017-18 as 14.05%. Details of Interest on Working Capital are shown below:

Table 35: Details of Interest on Working Capital for FY 2017-18 submitted by the Petitioner (Rs. Crore)

Particulars	**FY 2017-18**
For Wheeling Activity	
Inventory for 2 months based on ARR considered at 1% of GFA for previous year	0.01
1/12th of O&M Expenses	0.76
2 months of Receivables from Wheeling charges	-
Total Working Capital	0.77
Rate of Interest	14.05%
Interest on Working Capital	0.11
For Retail Activity	
Inventory for 2 months based on ARR for previous year	0.00
O&M expenses for one month	
2 months of Receivables of average billing	26.34
1/12th of Power Purchase expenses	14.20
Less: Consumer Security Deposit	17.18
Total Working Capital	-5.04
Rate of Interest	14.05%
Interest on Working Capital	-0.71
Total Interest on Working Capital	-

Commission's Analysis of Interest on Working Capital

2.63 Regulations specify that the total working capital shall consist of expenses towards working capital required for the supply activity and for the wheeling activity. Parameters that shall be considered for computation of working capital for wheeling and supply activities have also been specified separately. Further, as per Regulations, the rate of interest on working capital shall be equal to the State Bank of India Advance rate as on 1st of April of the relevant year. Accordingly, the Commission has considered latest available SBI advance rate as 13.85% for the computation of interest on working capital. Accordingly, the interest on working capital has been computed as shown in the table below:

Table 36: Interest on Working Capital admitted by the Commission for FY 2017-18 (Rs. Crore)

Sl. No.	Particulars	Amount
For wheeling activity		
A)	1/6th of annual requirement of inventory for previous year	0.01
B)	Total O&M expenses	5.81
B) i)	1/12th of total	0.48
C)	Receivables	
C) i)	Annual revenue from wheeling charges	
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	
D)	Total working capital (A), B) ii), C) ii))	0.50
E)	Rate of interest	13.85%
F)	Interest on working capital	0.07
For Retail Sale activity		
A)	1/6th of annual requirement of inventory for previous year	0.00
B)	Receivables	
B) i)	Annual revenue from tariff and charges	174.38
B) ii)	Receivables equivalent to 2 months average billing	29.06
C	Power purchase expenses	160.23
C) i)	1/12th of power purchase expenses	13.35
D	Consumers security deposit	17.18
E)	Total working capital (A+B ii) - C i) - D)	(1.47)
F)	Rate of interest	13.85%
G)	Interest on working capital	(0.20)
	Summary	
1	**For wheeling activity**	**0.07**
2	**For retail sale activity**	**(0.20)**
	Total interest on working capital	**(0.13)**
	Total interest on working capital admitted	**Nil**

Interest on Consumer Security Deposit

2.64 The Petitioner has claimed Rs 1.33 Crore against interest on security deposit for FY 2017-18. The Commission worked out interest on security deposit @ 6.75% based on latest RBI base rate; as shown in the table below:

Table 37: Interest on Consumer Security deposit admitted by the Commission for FY 2017-18 (Rs. Crore)

Sl. No.	Particulars	Amount
1.	Consumer security deposit	17.18
2.	Interest amount admitted @6.5%	1.12

Lease Rent

2.65 The Petitioner has claimed Rs. 2.19 Crore for FY 2017-18 towards the lease rent payable by the Petitioner for the land used for the purpose of power business. The Petitioner has worked out land premium and lease rent charges for such portion of the land.

2.66 The abstract of the clause 33 of the MPERC (Terms & Condition for determination of tariff for supply and wheeling of electricity and methods and principle of fixation of charges) Regulations, 2015 is reproduced below:

*"**33.Lease/Hire purchase charges.***

Lease charges for assets taken on lease by Distribution Licensee shall be considered as per lease agreement provided the charges are considered reasonable by the Commission."

2.67 After examining the submissions regarding lease rent by the Petitioners, the Commission finds the claim un-reasonable as the Petitioner being a deemed licensee under the Provisions of the Electricity Act, 2003, is obligated to supply power to the consumers under its own license area therefore the Commission has not admitted the lease rent of Rs. 2.19 Crore claimed by the Petitioner.

2.68 Summary of the interest and finance charges as filed and as admitted are given in table below:

Table 38: Interest and Finance charges as filed and admitted by the Commission for FY 2017-18 (Rs. Crore)

Sl. No.	Particulars	FY 2017-18	
		As filed	As admitted
1.	Interest on project loans	0.38	0.20

Sl. No.	Particulars	FY 2017-18	
		As filed	**As admitted**
2	Interest on working capital loan	0.00	0.00
3	Interest on consumer security deposit	1.33	1.12
4.	Lease Rent	2.19	0.00
5.	**Total**	**2.31**	**1.32**

Bad & Doubtful Debts

2.69 The Petitioner has not claimed any expenses on account of Bad & Doubtful debts for FY 2017-18, hence not considered by the Commission.

Income Tax

2.70 The Petitioner has not claimed any expense on account of income tax for FY 2017-18 hence not considered by the Commission.

Other Income

Petitioners submissions

2.71 The Petitioner has submitted the other income of Rs. 0.06 Crore as shown in the table below:

Table 39: Other Income filed by the Petitioner for FY 2017-18 (Rs. Crore)

Sl. No.	Particular	FY 2017-18
1	Miscellaneous Income	0.0009
2	Interest Received on Deposit with MPSEB	0.0483
3	Shutdown Charges	0.0015
4	Surcharge Received on Power Bill	-
5	Power Application Processing Fees	0.0112
6	**Total Other Income**	**0.0619**

Commission's Analysis on Other Income

2.72 The Commission has admitted other income of Rs 0.06 as submitted by the Petitioner for FY 2017-18.

Revenue from Sale of Power

2.73 The Petitioner has projected revenue income of Rs. 157.96 Crore for FY 2017-18 based on existing tariff while the Commission has worked-out revenue at existing tariff for FY 2017-18 as Rs. 160.30 Crore. The Commission has revised the tariff to match the annual revenue requirement of the Petitioner as admitted by the Commission for FY

2017-18. The revenue from the revised tariff works out to Rs 174.44 Crore.

ARR filed and admitted for FY 2017-18

2.74 The Commission has determined the prudent expenses against components of the ARR for FY 2017-18 as detailed in preceding paragraphs. Details of ARR claimed by the Petitioner and as admitted by the Commission is shown in the table below:

Table 40: ARR as filed by the Petitioner and as admitted by the Commission for FY 2017-18 (Rs Crore)

Particulars	**FY 2017-18**	
	Filed	**Admitted**
Sale and Power Purchase Requirement		
Sale MU	420.97	420.97
Distribution loss (%)	2.80%	1.90%
Distribution loss MU	12.13	8.15
Intra state transmission loss (%)	2.88%	2.87%
Intra state transmission loss MU	12.84	12.69
Total power purchase requirement MU	445.94	441.82
Expenditure		
Purchase of power (Rs Crore)	163.72	160.23
Intra-state transmission (MP Transco) charges (Rs Crore)	6.61	6.61
Other power purchase related expenses incl. SLDC charges (Rs Crore)	0.02	0.02
R&M expense (Rs Crore)	3.78	0.48
Employee expenses (Rs Crore)	3.34	3.28
A&G expense (including MPERC fees) (Rs Crore)	2.06	2.05
Depreciation and related debits (Rs Crore)	0.47	0.22
Interest & finance charges(Rs Crore)	1.71	1.32
Land Lease	2.19	0.00
Total expenses(Rs Crore)	**183.38**	**174.21**
RoE(Rs Crore)	0.48	0.24
Total expenses including RoE (Rs Crore)	**184.38**	**174.45**
Less: Other income(Rs Crore)	0.06	0.06
Total ARR (Rs Crore)	**184.32**	**174.38**
Revenue		
Revenue from sale of power at existing tariff(Rs Crore)	157.96	160.30
Revenue surplus / (Gap) (Rs Crore)	**-26.36**	**-14.08**

2.75 The Commission has determined the distribution and retail supply tariff for various consumer categories based on the ARR as admitted.

A3: WHEELING CHARGES, CROSS SUBSIDY AND ADDITIONAL SURCHARGE

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:

3.2 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

3.3 On the basis of the admitted ARR for FY 2017-18, the expenditure towards wheeling activity for the Petitioner is Rs. 6.47 Crore, details as shown in the Table below:

Particulars	**FY 2017-18 (Rs Crore)**
O&M expenses	5.81
Depreciation	0.22
Interest on loans – on normative working capital for wheeling activity	0.20
Return on Equity	0.24
Other miscellaneous expenses including MPERC fee	0.01
Total	**6.47**

Segregation of costs among voltage levels

3.4 The costs of distribution identified as attributable to wheeling activity may further be distributed among the two voltage levels of distribution i.e. 33 kV and below 33 kV. Though, the EHT consumers (i.e. at voltages above 33 kV) are consumers of the

Petitioner but they are not directly connected to the distribution system. Certain costs such as cost related with metering, billing and collection are associated with EHT consumers. At this juncture, the Commission is not inclined to get into those details, primarily on account of data unavailability.

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

3.6 It is observed that the present accounting practices followed by the Petitioner 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.

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

Table 41: Identification of asset value

Voltage level of Lines	**Cumulative length of lines (ckt-km)**	**Per unit cost (Lakh Rs./ckt-km)**	**Total Cost of lines (Rs. Crore)**
33 kV	31.25	15.22	4.76
Below 33 kV			
11 kV	12.00	10.62	1.27
LT	5.00	4.78	0.24
Sub-total	17.00	15.41	1.51
Total	**48.25**	**30.63**	**6.27**

Table 42: Total Cost of transformer voltage level

Transformer Voltage Level	**Cumulative capacity (MVA)**	**Per unit cost (Lakh Rs./MVA)**	**Total Cost (Rs. Crore)**
33/11 kV Transformer	10.00	39.54	3.95
11/0.4 kV Transformer	3.20	2.91 per 100 KVA	0.09
Total	**13.20**		**4.05**

3.8 Data for length of lines and transformation capacity expected to be added during FY 2017-18 are taken as provided in the petition.

3.9 In order to identify the asset values at different voltage levels, it is necessary to "assign" the interface transformers to either voltage levels. For this exercise, the Commission considers it appropriate to include the distribution transformers (11/0.4

kV) to be a part of the 11 kV network and the power transformers of 33/11 kV to be a part of the 33 kV network. Based on this method, the asset values at different voltage levels work out to:

Table 43: Identification of value of network at each voltage level

Voltage level	Cost of Lines (Rs. Crore)	Cost of Transformation (Rs. Crore)	Total Cost (Rs. Crore)
33KV	4.76	3.95	8.71
Below 33 KV	1.51	0.09	1.61
Total	**6.27**	**4.05**	**10.32**

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

Table 44: Identification of network expenses (wheeling cost) at different voltage level

Voltage Level	Assets value (Rs. Crore)	Assets value Ratio (%)	Total wheeling cost (Rs Crore)	Wheeling Cost (Rs Crore)
33 kV	8.71	84.42%	6.47	5.46
Below 33 kV	1.61	15.58%		1.01
Total	**10.32**	**100.00%**		**6.47**

Sharing of Wheeling costs

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

3.12 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 45: Allocation of wheeling cost over distribution system users

	Particulars	Rs Crore
A	Wheeling Cost at 33 kV- Rs Crore	5.46
B	Sales at 33 kV (MU)	419.17
C	Total Sales (MU) { HV + LV}	420.97
D	Proportion of 33 kV sales to total sales	99.57%

	Particulars	Rs Crore
	Cost allocation	
E	Wheeling cost of 33 kV allocated to 33 kV users only (A*D)-Rs. Crore	5.44

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

Table 46: Wheeling Charges

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (in Rs./unit)
EHT	-	-	-
33KV	5.44	419.17	0.13

Applicability of wheeling charges under different scenarios

3.14 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 the distribution network up to the consumer's connection.

(b) Scenario 2: Both generator and consumer are connected to the distribution system of the Distribution Licensee at 33 KV: The power generated by the open access generator will be consumed within the area of the Petitioner 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.

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

Determination of Cross-Subsidy Surcharge

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

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

8.5.1 …

….

Surcharge formula:

S= T – [C/ (1-L/100) + D+ R]

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying regulatory assets.

Above formula may not work for all distribution licensees, particularly for those having power deficit, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.

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

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

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

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

”

3.17 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.

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

Table 47 : Voltage-wise losses

Voltage Level	**Loss level (L)**
EHT (transmission system) including External losses	0.00%
33 kV (only 33 kV system)	1.90%

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 consumers. Therefore, similar to wheeling costs, the admitted transmission charges for FY 2017-18 are worked out as under:-

Table 48 : Transmission Charges

Particulars	**Rs. Crore**
PGCIL Charges	-
MPPTCL Charges	6.61
Total Charges	3.95
Units to be handled by MPPTCL	441.82
Transmission Charges per unit	**0.09**

3.20 Finally, the term in the Tariff Policy formula ‘T’, Average Tariff for each category is derived from their expected revenue for FY 2017-18.

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

3.22 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV under various scenario are worked out as detailed in the table below ("scenario wise cost"). The Cross-Subsidy Surcharge shall be the difference of average tariff and the total cost (Rs/unit) for the particular category at particular voltage. The category wise average tariff as per tariff order for FY 2017-18 is given in the table below ("category wise average tariff"). However, Cross-Subsidy surcharge shall not exceed 20% of the average tariff applicable to the category of the consumers seeking open access. In case where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.

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

Table 49 : Scenario wise cost (Rs. per unit)

Scenario	**Cost of Power at 5% Margin**	**Cost of Power grossed up for distribution losses (1.90%)**	**Cost of Power grossed up for transmission losses (Nil)**	**Transmission charges**	**Wheeling charges**	**Total Cost [C(1+L/100)+D]**
1	3.63	-	-	0.09	0.13	3.85
2	3.63	3.73	-	0.09	0.13	3.85

Table 50 : Category wise average tariff (Rs. per unit)

Category of HT/EHT consumers	**Average Tariff 'T'**
HV-1: INDUSTRIAL AND NON-INDUSTRIAL	
33kV	4.14
11kV	5.97

Additional Surcharge

3.24 In regard to the Petitioner's request for determination of additional surcharge to be levied from open access consumers the Commission observed that the Petitioner has not furnished the requisite details. The Petitioner may, if require, file a separate petition for determination of additional surcharge with details related to existing open access consumers.

A4: FUEL COST ADJUSTMENT CHARGE

4.1 As per the Regulations, the Commission decides to continue with the FCA formula along with its associated mechanism/modalities with minor modifications as detailed in following paragraphs.

4.2 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 for generating plants.

$$\text{FCA for billing quarter (p/u)} = \frac{\text{IVC (Rs. Crore)x1000}}{\text{Normative Sale (MU)}}$$

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.

4.3 FCA shall have to be worked out on the basis of the normative parameters as per respective generation Tariff Orders issued by the appropriate Commissions. Further variation if any, shall need prior approval of the Commission.

4.4 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.

4.5 FCA charge shall be uniformly applicable to all categories of consumers of the Petitioner.

4.6 The responsibility of working out the rate of FCA every quarter shall rest with the Petitioner.

4.7 The Petitioner shall work out the change in variable cost of power purchase during the preceding quarter based on the bills received by them from the long term coal 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 51: 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. Crore)	Rate (paise/unit)	Cost (Rs. Crore)	[5-7] (Rs. Crore)
1	2	3	4	5	6	7	8
Total							

4.8 The Petitioner shall workout "normative sale". For this purpose, normative PGCIL, transmission and distribution loss (percentage /quantum) for the months of preceding quarter, as provided in the Tariff Orders, shall be subtracted from the total ex-bus power drawn during the preceding quarter to arrive at normative sale.

4.9 FCA charge shall be worked out by the Petitioner based on the formula provided hereinabove 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.

4.10 The Petitioner shall commence billing of FCA charge from the first day of the billing quarter.

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

4.12 Following illustration is given for the purpose of understanding:

4.13 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.

4.14 The details of the normative Losses for PGCIL System and MPPTCL System and normative distribution losses as per this Tariff Order of the Commission are indicated in the table below:

Table 52: PGCIL, MPPTCL and distribution losses %

Sr. No.	Month/Year	MPPTCL Losses**	Distribution Losses***
		%	%
1	April, 2017	2.87%	1.90%
2	May, 2017	2.87%	1.90%
3	June, 2017	2.87%	1.90%
4	July, 2017	2.87%	1.90%
5	August, 2017	2.87%	1.90%
6	September, 2017	2.87%	1.90%
7	October, 2017	2.87%	1.90%
8	November, 2017	2.87%	1.90%
9	December, 2017	2.87%	1.90%
10	January, 2018	2.87%	1.90%
11	February, 2018	2.87%	1.90%
12	March, 2018	2.87%	1.90%

A5: PUBLIC SUGGESTIONS AND COMMENTS ON LICENSEES' PETITION

5.1 The petition was filed on February 07, 2017. The Commission directed the Petitioner to publish the gist of ARR/Tariff proposal in the newspapers to invite comments/objections/suggestions from the stakeholders by March 06, 2017. One comment/objection/suggestion from M/s Pithampur Audyogik Sangathan, Indore in the matter has been received.

5.2 The Commission invited stakeholder to present his suggestions/objections related to the ARR and tariff proposal in person during the public hearing which was held on March 21, 2017 at the office of the Commission. M/s Pithampur Audyogik Sangathan, Indore has participated during the public hearing.

5.3 Suggestions from the Stakeholder and response of the Petitioner thereon are summarized in the following paragraphs.

ISSUE No. 1: Power Purchase Cost

Issue raised by Stakeholder:
Petitioner in Petition mentioned two different rates for average power purchase cost i.e. Rs. 3.59 per unit at page no. 31 and Rs. 3.89 per unit at page no. 43 while MPPMCL is proposing to sell surplus power at IEX at Rs. 2.43 per unit. Further, the average power purchase cost may not be allowed more than Rs. 3 per unit as it is reasonable long term market rate and this will allow reduction of Rs. 24 Crore in power purchase cost. Further, long term power purchase agreement should be signed.

Response from Petitioner:
It will not be appropriate to compare long term power purchase rates with short term power purchase rates. The long term power purchase agreement with MPPMCL signed considering the power plants capacities allocated as per notification from Government of Madhya Pradesh dated 30th March, 2016. The long term power purchase agreement is applicable with effect from 01st April, 2015.

For working out the power purchase costs, it has duly considered the station-wise availability and costs based on the Commission's Retail Tariff Order of State Discoms for FY 2016-17 dated 5th April, 2016. Pro-rata availability and cost for each station in the submitted Petition is considered based on station-wise availability and cost duly approved, for State Discoms, by MPERC. Transmission cost and SLDC cost is also considered as part of Power purchase cost.

The benefit of its SEZ consumers, in respect of assuring firm power on RTC basis, it has signed the long term power purchase agreement with MPPMCL.

The rate Rs. 3.59/ kWh is the average rate for power purchase projected from MPPMCL and is computed at generator bus, while the rate (Rs. 3.89/ kWh) as mentioned by the Stakeholder, on page-43 of the Petition corresponds to the average power purchase rate computed on units to be supplied by the Petitioner to its consumers after considering T&D losses.

Commission's view:
The Commission agrees with the submission of the Petitioner that long-term power can't be equated with the long-term power. The issue has also dealt appropriately in the relevant chapters.

ISSUE No. 2: Applicability of Intra-state transmission charges
Issue raised by Stakeholder:
Petitioner has considered intrastate transmission charges. Further, intrastate transmission charges would be waived off as power is supplied at the periphery of the SEZ.

Response from Petitioner:
As per the Power Purchase Agreement signed with MPPMCL, the delivery point is ex-bus of respective thermal generating stations of MPGENCO from which power has been allocated by GoMP. Hence, intrastate transmission charges will be applicable.

Commission's view:
The Commission agrees with the submission of the Petitioner.

ISSUE No. 3: Distribution Losses

Issue raised by Stakeholder:
The Petitioner has projected distribution loss as 2.80% against the Commission target of 1.90%. The Commission may form an enquiry committee for investigation of causes of such level of losses.

Response from Petitioner:
The Commission has provided a very stringent distribution loss target of 1.90% for FY 2017-18, which is very difficult to achieve. From distribution loss levels of 3.30% for FY 2015-16 in MYT Regulations, 2012, the Commission has drastically reduced it to 1.90% for FY 2016-17 in MYT Regulations, 2015 which is around 40% of reduction in one year. For such a small distribution system, achieving such a reduction target for the distribution losses is quite difficult.

The Petitioner is doing all possible efforts from its side to bring down the losses from the existing level. However, bringing the losses further down when they are already substantially lower is a very difficult activity. The projected losses for FY 2017-18 are being considered on the basis of half-yearly distribution losses, for FY 2016-17, which are 2.80% and it is assumed that trend will continue in FY 2017-18. The load on the distribution system has increased from 32 MW to 40 MW, in FY 2016-17. Further, the distribution network in the SEZ area has been also increased in FY 2016-17 {33 kV line length of 6.65 kms and a Power Transformer of 5 MVA, 33/11 KV at SEZ -2 substation have been added}. All these factors have further contributed in increasing distribution losses on the network.

Commission's view:

The Commission has considered normative level of losses as per Regulations.

ISSUE No. 4: O&M charges

Issue raised by Stakeholder:

O&M expenses in FY 2017-18 have been increased to Rs. 9.16 Crore against Rs. 4.99 Crore of FY 2015-16. Further, it is requested to reduce Rs. 1 Crore in A&G expenses along with other reduction in other component.

Response from Petitioner:

Its core business is not the distribution of electricity and it is proactively doing the same so as the SEZ consumers should be benefitted of reduced power purchase costs if compared with the Incumbent Discom. For effectively & efficiently supplying power to its SEZ consumers, the Petitioner has engaged reputed agencies for O&M work and advisory for techno-commercial matters. The Commission has also acknowledged, under its Tariff Order for FY 2015-16, the requirement of such engagement looking at the difficulties faced by the Petitioner in the past related to its power business and in the interest of the SEZ consumers.

Considering the staff deputed by the O&M agency, it has kept a minimum number of staff for power business, for looking after the various relevant activities, and accordingly has claimed the employee and A&G expenses. The expenses towards dearness allowance, pension, terminal benefits and incentives, to be paid to employees, have been considered same which were actually paid during FY 2015-16.

Commission's view:

The Commission has appropriately addressed the issue in the order.

ISSUE No. 5: Lease Rent

Issue raised by Stakeholder:

An additional item as Lease rent of Rs. 2.19 Crore was added in the Petition. No provision of electricity act permits the licensee to lay lines in the areas of supply and thus MPAKVN(I)L has no authority to levy such rent And thus such expenses may be rejected.

Response from Petitioner:

The Petitioner is a SEZ developer, who is responsible for providing various services to the business units who setup their factories in the SEZ premises. It is collecting lease rent for the land allocated for use in line with letter from Commerce and Industrial Department, Government of Madhya Pradesh dated 14th December, 1981.

As a deemed distribution licensee, the Petitioner is also supplying power to the occupants of the SEZ. For this purpose, it has provided land to its power business (duly reflected under its audited annual accounts for FY 2015-16) for setting up its infrastructure necessary for providing power to the industrial units. Against this land which has been allocated to the power business, the Petitioner is charging lease rent for the area allocated to the power business which is a separate business unit and has separate annual accounts.

It is duly submitted that in case the power business wouldn't have existed, this land which is presently allocated to the power business would have been allocated for some other purpose and lease rent would have been charged to the occupant. Its core business is not the distribution of electricity and it is proactively doing the same so as the SEZ consumers should be benefitted of reduced power purchase costs if compared with the Incumbent Discom.

Further, as a distribution licensee, in normal course of action, the Petitioner would have purchased this land for establishment of its power distribution infrastructure. The cost incurred for purchase of land would have got capitalized and the Petitioner in such case would have then prayed the Commission for allowing the depreciation, interest on loan and return on equity chargeable on account of this cost as part of ARR. Accordingly, this expenditure, in the form of either lease rent or a sum of depreciation, interest on loan and return on equity chargeable on the capital cost incurred by the Petitioner, is inevitable.

Commission's view:
The Commission has appropriately addressed the issue in the order.

ISSUE No. 6: Removal of power factor incentive.

Issue raised by Stakeholder:
Stakeholder opposed the Petitioner proposal of removal of power factor incentive .

Response from Petitioner:
The distribution system of the Petitioner is most efficient; the network is very small with very short distance overhead lines from the distribution grid to consumer premises and the distribution (wheeling losses) are lower than any distribution company or equitable Industrial area. Further, it has also installed its own capacitor banks on its distribution network, for achieving improvement in the Power Factor. In view of the same, there is no rationale in giving PF incentive in the retail tariff above 0.95 PF. The Commission is requested to remove power factor incentive as it is unnecessary impacting the revenue recovery of the Petitioner.

Commission's view:
The Commission has noted the submission of stakeholders and petitioner. The Commission deemed it appropriate to rationalize the incentives on Power factor in this order.

ISSUE No. 7: Removal of Time of Day (ToD) Surcharge/ Rebate

Issue raised by Stakeholder:
Stakeholder opposed the Petitioner proposal of removal of TOD tariff. All the incentives agreed in the tariffs for Discoms should be provided for in the SEZ tariff FY 2017-18.

Response from Petitioner:

ToD surcharge/ rebate are useful where there is a huge difference observed in peak demand and off-peak demand. By adopting ToD tariff measure under such a scenario, it helps in reducing the gap between peak demand and off-peak demand.

In case of Petitioner, the distribution network of SEZ area is having a majority of HT Industrial consumers (99.5% of the energy supplied is being consumed by Industrial Consumers connected at 33 kV) who have round the clock consumption and hence the load curve is purely flat. There is no likelihood of these consumers shifting their loads from one time period to other just because of lower tariff as most of the industries are running round the clock. So while the aspect of ToD surcharge/ rebate may be relevant for other Discoms in the State, the purpose of ToD tariff will not be served in case of the Petitioner. Considering the same, ToD surcharge/ rebate may be removed as it is unnecessary impacting the revenue recovery of the Petitioner.

Regarding the other incentives the consumers in SEZ area are already enjoying the benefits of lower tariffs of electricity if compared with incumbent Discom, which has been made possible due to proactive role played by the Petitioner as a deemed distribution licensee. The Petitioner is also suffering financial losses for its power business, duly provided under the audited annual accounts for FY 2015-16. Provision of further incentives would unnecessary further impact deficit for its power business.

Commission's view:

The Commission finds merit in the submissions made by the petitioner and has decided to discontinue with the TOD tariff (rebates and surcharge).

A6: RETAIL TARIFF DESIGN

Legal Position

6.1 In exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Commission has determined the Aggregate Revenue Requirement and Tariff for FY 2017-18 for the Petitioners. Due consideration was given to the submissions made by Petitioner and Stakeholders. 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.

Linkage to Average Cost of Supply

6.2 The Commission directed the Petitioner to determine the voltage wise cost of supply in compliance to the directives given in the judgment passed by Hon'ble Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010. In this regard, the Petitioner has submitted the details of calculation of the voltage wise cost of supply as per the methodology provided by the Hon'ble APTEL.

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

6.4 In the absence of requisite data, the Hon'ble APTEL has further advised that the power purchase cost which is the major component of the Discoms' costs can be apportioned to different voltage levels in proportion to the sale and losses at the respective voltage levels. As regards the other costs such as Return on Equity, Interest on Loan, depreciation, Interest on Working Capital and O&M costs, these costs can be pooled and apportioned equitably, on pro-rata basis to all voltage levels.

6.5 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 followed in the Retail Supply tariff order for FY17-18 for the Discoms. The category wise cross subsidy so worked out is indicative in nature, as the base data for the same need to be duly culled out on actual.

6.6 The Commission has worked out indicative voltage wise cost of supply and commensurate cross-subsidy as shown in the table below:

Table 53: Broad computation of voltage-wise cost of supply

MPAKVN(I)L		**33 KV System**	**11 KV + LT System**	**Total**
Sales	MU	419.17	1.80	**420.97**
Technical and Commercial losses submitted by the Petitioner	%	2.80%	2.80%	2.80%
Energy Input at the Licensee's Periphery (Petitioner's Submission)	MU	431.24	1.85	**433.09**
Energy Input admitted (Ex-Bus)	MU	439.93	1.89	**441.82**
Energy Lost	MU	20.76	0.09	
Technical and Commercial losses submitted by the Petitioner	MU	20.76	0.09	20.85
Net Energy Input	MU	439.93	1.89	441.82
Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr	166.15	0.71	166.87
Other costs - allocated based on voltage-wise sales	Rs Cr	7.55	0.03	7.58
Less: Other income - allocated based on voltage-wise sales	Rs Cr	0.06	0.00	0.06
Total Costs (ARR requirement)	Rs Cr	**173.64**	**0.75**	**174.38**
VCoS	**Rs/kWh**	**4.14**	**4.14**	**4.14**

6.7 Category wise cross-subsidy determined based on VCOS for FY 2017-18 is shown in the table below:

Table 54: Cross subsidy based voltage-wise cost of supply for FY 2017-18

Category	**VCOS (Rs./ Unit)**	**Average billing rate (Rs. /Unit)**	**Ratio of Average billing Rate to Voltage-wise Cost of Supply (%)**
LT CATEGORIES			
LV 2 : Non- Domestic	4.14	4.19	101
LV 3 : Public Waterworks & Streetlights		4.15	100
LV 4 : LT Industry		4.71	114
HT CATEGORIES			
HV-1: INDUSTRIAL			
HV 1.1: Industrial Use			

Category	VCOS (Rs./ Unit)	Average billing rate (Rs. /Unit)	Ratio of Average billing Rate to Voltage-wise Cost of Supply (%)
33 kV	4.14	4.14	100
11 kV	4.14	5.97	113

6.8 It is pertinent to mention here that in determination of retail tariff in this order for various consumer categories, the category wise cross subsidy has been kept within +/- 20% of overall average cost of supply in line with the provisions of the Tariff policy as shown in the Table below:

Table 55: Cross subsidy based on Average cost of supply for FY 2017-18

Particulars	Average billing rate (Rs. /Unit	Average Cost of Supply (Rs. /Unit	Average Realization as % of ACOS
LOW TENSION			
LV 2 : Non-Domestic	4.19	4.14	101%
LV 3: PUBLIC WATER WORKS AND STREET LIGHTS	4.15	4.14	100%
LV 4: LT INDUSTRY	4.71	4.14	114%
HIGH TENSION			
HV-1: INDUSTRIAL AND NON-INDUSTRIAL	4.14	4.14	100%

6.9 After giving due consideration to the suggestions/ objections of the Stakeholder and the proposals submitted by the Petitioner, the Commission has withdrawn the incentives on Time of Day (TOD) tariff in the tariff design for FY 2017-18.

A7: COMPLIANCE ON DIRECTIVES ISSUED IN TARIFF ORDER FOR FY 2016-17

7.1 The response submitted by Petitioner on the directives issued by the Commission in the Retail Supply tariff order for FY 2016-17 and the Commission's observations/directions thereon are given below:

7.2 The Petitioner is a deemed licensee and is obliged to submit its ARR/Tariff petition to the Commission for determination of ARR and retail supply tariff for the consumers of SEZ area. While carrying out power supply business, the Petitioner is required to follow the provisions of the Electricity Act, 2003, Tariff Policy, relevant Rules and Regulations notified, amended from time to time and as applicable to a distribution licensee.

7.3 Audited Accounts

Directive: The Commission directed Petitioner to submit the audited accounts in order issued dated 09th August, 2016 and in absence of audited accounts decided to continue retail supply tariff order in the matter of petition No. 21 of 2014 for SEZ Pithampur for FY 2015-16 dated 23rd March, 2015.

Response: The Petitioner has submitted they have prepared separate financial statements for power business for FY 2015-16 which have been audited by the statutory auditor.

Commission's observations/directions: The Commission noted the submission of the Petitioner. Further, the Commission directs the Petitioner to submit the all pending Audited Accounts audited by the statutory auditor along with True-up petitions for respective years within three months.

Further, the Commission observed that the Petitioner has not submitted the compliance of directives issued in Tariff Order for FY 2015-16. The Commission directs the Petitioner to submit the compliance status of Directives issued in Tariff Order for FY 2015-16 within 3 months.

7.4 Fresh Directive

Directive: Technical studies of the Distribution network to ascertain voltage wise cost of supply

The Commission directs the Petitioner to carry out a detailed study on voltage wise losses on Distribution network and furnish report within 3 months..

TARIFF

SCHEDULES

Annexure-1 (Tariff Schedules for Low Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2017-18

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
TARIFF SCHEDULES FOR LOW TENSION CONSUMERS OF MPAKVN (Indore), LTD., SEZ PITHAMPUR

Table of Contents

Tariff Schedule-- LV-1

DOMESTIC: ---
Applicability:
1.1 This tariff is applicable for light, fan and power for residential use only. Dharamshalas, old age houses, rescue houses, orphanages, places of worship and religious institutions will also be covered under this category.

Tariff:

Energy charges (paise per unit)	Monthly Fixed Charges (in Rs)
325	50 per connection

Minimum charges: Rs. 60 per connection per month as minimum charges towards energy charges are applicable for above category.

Specific Terms and conditions for LV-1 category

a) 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.

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

Tariff Schedule – LV-2

NON-DOMESTIC: ---

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, Parlours, All Offices, Hospitals and medical care facilities including Primary Health Centres, clinics, nursing homes belonging to either Govt. or public or private organisations, public buildings, guest houses, Circuit Houses, Government Rest Houses, X-ray plant, recognized Small Scale Service Institutions, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, professional's chambers (like Advocates, Chartered Accountants, Consultants, Doctors etc.), bottling plants, marriage gardens, marriage houses, advertisement services, advertisement boards/ hoardings, training or coaching institutes, petrol pumps and service stations, tailoring shops, laundries, gymnasiums, health clubs, telecom towers for mobile communication and any other establishment (except those which are covered in LV 2.1), who is required to pay Commercial tax/service tax/value added tax (VAT)/entertainment tax/luxury tax under any Central/State Acts., Educational Institutions including workshops and laboratories of Engineering Colleges / Polytechnics/ITIs (which are registered with /affiliated/ recognized by the relevant Govt. body or university), Hostels for students or working women or sports persons (run either by Govt. or individuals)

Tariff:

Sub category	Energy charges (paise/unit)	Monthly Fixed charges (in Rs)
LV 2.1 Sanctioned load based tariff (only for connected load up to 20kW)		
On all units if monthly consumption is not more than 50 units	325	45 per KW
On all units in case monthly consumption exceeds 50 units	365	80 per KW
LV 2.2 Connected Load based tariff		
OPTIONAL Demand based tariff (only for connected load above 10 KW and up to 20kW)	365	100 per KW or 80 per kVA of billing demand

Mandatory demand based tariff for connected load above 20 kW	365	100 per KW or 80 per kVA of billing demand
Temporary connections including Multi point temporary connection at LT for Mela*	440	100 per KW or 80 per kVA or part thereof of sanctioned or connected or recorded load whichever is highest
For X-Ray plant	**Additional Fixed charges (Rs. per machine per month)**	
Single Phase	500	
Three Phase	700	
Dental X-ray machine	75	

*In case permission for organizing Mela is granted by Revenue Authorities of Government of Madhya Pradesh or by MPAKVN(I)/SEZ.

Specific Terms and Conditions for LV-2 category:

a) **Minimum consumption:** The consumer shall guarantee a minimum annual consumption of 360 units per kW or part thereof 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) Other terms and conditions shall be as specified under General Terms and Conditions.

Tariff Schedule – LV-3

PUBLIC WATER WORKS AND STREET LIGHTS

Applicability:

1.2 The tariff **LV-3.1** is applicable for Public Utility Water Supply Schemes, Sewage Treatment Plants, Sewage Pumping Installations run by SEZ or any other organization authorised by the Government in the area of SEZ to supply/ maintain public water works / sewerage installations and shall also be applicable to electric crematorium maintained by local bodies/trusts.

1.3 **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.**

1.4 The tariff **LV-3.2** is applicable to traffic signals and lighting of public streets or public places including parks, town halls, monuments and its institutions, museums, public toilets, public libraries, reading rooms run by Government or Local Bodies or SEZ and Sulabh Shochalaya**.**

1.5

Tariff: For Public Water Works and Street Light

Category	Energy Charges (paise per unit)	Monthly Fixed Charges (in Rs. per KW)	Minimum Charges (Rs)
LV 3.1 **Public Water Works**	415	NIL	300 per kW
Temporary supply for **Public Water Works**	1.3 times the applicable tariff		
LV 3.2 **Street light**	415	NIL	300 per kW

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 licensee. This incentive will continue to be allowed till such time these energy saving devices remain in service. The licensee is required to arrange wide publicity of above incentive.

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

Tariff Schedule – LV-4

LT INDUSTRIAL

Applicability:

1.6 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: For industrial consumers

	Category	Monthly Fixed Charges (in Rs.)	Energy Charges (paise per unit)
4.1	**Industrial consumers**		
4.1 a	Demand based tariff (for Contract demand up to 150 HP)	100 per kW or 80 per kVA of billing demand	365
4.1 b	Temporary connection	1.3 times of the applicable tariff	

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 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. The consumer shall guarantee a minimum annual consumption (kWH) based on 360 units per HP or part thereof of contract demand irrespective of whether any energy is consumed or not during the year.

ii. The consumer shall be billed monthly minimum 30 units per HP per month in case the actual consumption is less than above specified units.

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

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

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

GENERAL TERMS AND CONDITIONS OF LOW TENSION TARIFF

1. **SEZ Area** means the area notified by Government of Madhya Pradesh (GoMP) as may be amended from time to time.

2. Rounding off: All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.

3. Billing Demand: In case of demand based tariff, the billing demand for the month shall be the actual maximum kVA demand of the consumer during the month or 90% of the contract demand, whichever is higher. The billing demand shall be rounded off to the nearest integer number i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

4. Fixed charges billing: Unless specified otherwise, fractional load for the purposes of billing of fixed charges shall be rounded off to nearest integer i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored. However for loads less than one kW/HP, it shall be treated as one kW/HP.

5. **<u>Method of billing of minimum consumption:</u>**

   a. 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 Demand:** Shall be billed as per following procedure:

a) **Consumers availing supply at demand based tariff:** The consumers availing supply at demand based tariff shall restrict their actual maximum demand within the contract demand. However, in case the actual maximum demand recorded in any month exceeds 105% of the contract demand, the tariff in this schedule shall apply to the extent of 105 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 105% of contract demand (termed as Excess Demand) and consumption corresponding thereto at the following rates:-

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

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

c) **Fixed charges for Excess Demand:** These charges shall be billed as per following:

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

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

d) The above billing for Excess Demand, applicable to consumers is without prejudice to the 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.

e) 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. Other Terms and Conditions:

(a) For **advance payment** made before commencement of consumption period for which bill is prepared, a rebate of 1 % per month on the amount (excluding security deposit) which remains with the licensee at the end of calendar month shall be credited to the account of the consumer after adjusting any amount payable to the licensee.

(b) **Incentive for prompt payment**: An incentive for prompt payment @0.25% of the bill amount (excluding 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 lack. The consumers in arrears shall not be entitled for this incentive.

(c) The Sanctioned load or connected load in case of connected load based tariff should not exceed 112.5 kW / 150 HP. In case of demand based tariff the contract demand should not exceed 112.5 kW / 150 HP without any ceiling on connected load. If the consumer exceeds his load / demand beyond this ceiling on more than two occasions in two billing months during the tariff period, the Licensee may insist on the consumer to avail HT supply.

(d) Metering Charges shall be billed as per schedule of Metering and Other Charges as prescribed in MPERC (Recovery of expenses and other charges for providing electric line or plant used for the purpose of giving supply), Regulations (Revision-I),2009. Part of a month will be reckoned as full month for purpose of billing.

(e) In case the cheque presented by the consumer is dishonoured, without prejudice to Licensee's rights to take recourse to such other action as may be available under the relevant law, a service charge of Rs. 150 per cheque shall be levied in addition to delayed payment surcharge

(f) Other charges as stated in schedule of miscellaneous charges shall also be applicable.

(g) **Welding surcharge** is applicable to installations with welding transformers, where the connected load of welding transformers exceeds 25% of the total connected load and where suitable capacitors of prescribed capacity have not been installed to ensure power factor of not less than 0.8 (80%) lagging. Welding Surcharge of 75 (seventy five) paisa per unit shall be levied for the consumption of the entire installation during the month. However, no welding surcharge shall be levied when recorded power factor is 0.8 or more.

(h) For purposes of computing the connected load in kW of the welding transformers, a power factor of 0.6 (60%) shall be applied to the maximum current or kVA rating of such welding transformers.

(i) Existing LT power consumer shall ensure that LT capacitor of proper rating is provided. In this regard, Madhya Pradesh Electricity Supply Code 2013 may be referred for guidance. It shall be the responsibility of the consumer to ensure that overall average power factor during any month is not less than 0.8 (80%) failing which the consumer shall be liable to pay low power factor surcharge on the entire billed amount against energy charges during the month at the rates given below:

1. **For the consumer whose meter is capable of recording average power factor**:

    a. Surcharge @ 1 % of energy charges for every 1% fall in power factor below 80% up to 75 %.

    b. Surcharge of 5% plus 1.25% of energy charges for every 1% fall in power factor below 75% up to 70%.

    The maximum limit of surcharge will be 10 % of the energy charges billed during the month.

2. **For LT consumer having meter not capable of recording average power factor**: The consumer shall ensure that LT capacitors of proper rating are provided and are in good working condition. In this regard, Madhya Pradesh Electricity Supply Code, 2013 may be referred for guidance. In case of failure to meet the above criteria, the consumer would be levied a low power factor surcharge of 10% on the entire billed amount against energy charges during the month and would be continued to be billed till such time the consumer meets the above criteria .

(j) Levy of welding / power factor surcharge as indicated hereinabove shall be without prejudice to the rights of the Licensee to disconnect the consumer's installation, if steps are not taken to improve the power factor by installing suitable shunt capacitors.

(k) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final.

(l) 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.

(m) **Delayed payment Surcharge for all categories:** Surcharge at the rate of 1.00 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date subject to a minimum of Rs.5/- per month for total outstanding bill amount up to Rs. 500/- and Rs 10/ per month for amount of bill more than Rs.500/. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be levied for the period after supply to the consumer is permanently disconnected.

(n) 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.

(o) **Power Factor Incentive:**

If the average monthly power factor of the consumer is equal to or more than 90%, incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 90% up to 91%	0.5
Above 91% up to 92%	1.0
Above 92% up to 93%	1.5
Above 93% up to 94%	2.0
Above 94% up to 95%	2.5
Above 95% up to 96%	3.0
Above 96% up to 97%	3.5
Above 97% up to 98%	4.0
Above 98% up to 99%	4.5
Above 99%	5.0

For this purpose, the “average monthly power factor” is defined as the ratio in percentage of total Kilo Watt hours to the total kilo volt Ampere hours recorded during the month.

(p) Use of mix loads in one connection: Unless otherwise permitted specifically in the tariff category, the consumer requesting for use of mix loads for different purposes shall be billed for the purpose for which the tariff is higher.

(q) 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.

(r) 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.

(s) 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

8. Additional conditions for Temporary Supply at LT:

(a) Temporary supply cannot be demanded by a prospective/ existing consumer as a matter of right but will normally be arranged by the licensee when a requisition giving due notice is made. The temporary additional supply to an existing consumer also shall be treated as a separate service and charged subject to following conditions. However service under Tatkal Scheme shall be made available within 24 hours according to the charges specified in the order of the Commission regarding Schedule of Miscellaneous Charges.

(b) Fixed Charge and energy charge for temporary supply shall be billed at **1.3** times the normal charges as applicable to relevant category if not specified otherwise specifically.

(c) Estimated bill amount is payable in advance before serving the temporary connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given to consumers for this advance payment.

(d) The Sanctioned load or connected load in case of connected load based tariff should not exceed 112.5 kW / 150 HP. In case of demand based tariff the contract demand should not exceed 112.5 kW / 150 HP without any ceiling on connected load.

(e) The month for the purpose of billing of charges for temporary supply shall mean 30 days from the date of connection. Any period less than 30 days shall be treated as full month for the purpose of billing.

(f) Connection and disconnection charges and other miscellaneous charges shall be paid separately as may be specified in the Schedule of Miscellaneous Charges.

(g) Power factor incentive/penalty shall be applicable at the same rate as applicable for permanent connection.

Annexure-2 (Tariff Schedules for High Tension Consumers)

ANNEXURE TO THE TARIFF ORDER PASSED BY MPERC FOR FINANCIAL YEAR 2017-18

MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS OF MPAKVN (Indore), LTD., SEZ PITHAMPUR

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Tariff Schedule – HV - 1

INDUSTRIAL AND NON-INDUSTRIAL

Applicability:

The **tariff HV-1.1(Industrial)** shall apply to all HT industrial consumers including Mini Steel Plants (MSP), MSP with rolling mills/ sponge iron plants in the same premises, electro chemical/ electro thermal industry, Ferro alloy industry etc for power, light and fan etc. which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting, common and ancillary facilities such as Banks, General purpose shops, Water supply, Sewage pumps, Police Stations etc. in the premises of the industrial units and Dairy units where milk is processed (other than chilling, pasteurization etc.) to produce other end products of milk.

The **tariff HV-1.2 (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.

Tariff:

S. No.	**Category**	**Monthly Fixed Charges (Rs./kVA of billing demand per month)**	**Energy charges (Paise / unit)**
1.1	**Industrial**		
	11 KV supply	170	370
	33 KV supply	206	365
1.2	**Non-Industrial**		
	11 KV supply	225	390
	33 KV supply	240	380

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 33 kV or 11 kV	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) Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 2

PUBLIC WATER WORKS

Applicability:

The Tariff Category HV-2 shall apply to supply of power to Public Utility Water Supply schemes, sewage treatment plants /sewage pumping plants and for energy used in lighting pump house and dairy (for those dairy units where only extraction of milk and its processing such as chilling, pasteurization etc. is done)..

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.

Tariff:

Category	Monthly Fixed charges (Rs. / kVA of billing demand per month)	Energy Charges (paise per unit)
11 kV supply	175	360
33 kV supply	200	330

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) Other terms and conditions shall be per the General Terms and Conditions of High Tension Tariff.

Tariff Schedule – HV - 3

SYNCHRONIZATION OF POWER FOR GENERATORS CONNECTED TO THE GRID

Applicability:

This Tariff shall apply to those generators who are already connected to the grid and seek to avail power for synchronization with the grid.

Tariff for all voltages:

Category	Energy Charge (Paise/unit)
Generators for synchronization with Grid	**750**

Terms and Conditions:

(a) The supply for synchronization with the grid shall not exceed 15% of the capacity of unit of highest rating in the Power Plant.

(b) The condition for minimum consumption shall not be applicable to the generators including CPP. Billing shall be done for energy recorded on each occasion of availing supply during the billing month.

(c) The supply shall not be allowed to the CPP for production purpose for which they may avail stand-by support under the relevant Regulations.

(d) The synchronization with the grid shall only be made available after commissioning of plant.

(e) For the synchronization with the grid, power shall be provided for a maximum period of 2 hours on each occasion.

(f) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization with the grid incorporating the above terms and conditions.

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 Madhya Pradesh Electricity Supply Code, 2013.

1.3 Point of Supply: The point of supply shall be as per provisions of Madhya Pradesh Electricity Supply Code, 2013.

1.4 **Determination of Demand:** The **maximum demand** of the supply in each month shall be four times the largest number of kilovolt ampere hours delivered at the point of supply during any continuous 15 minutes during the month as per sliding window principle of measurement of demand.

1.5 **Billing demand:** The billing demand for the month shall be the actual maximum kVA demand of the consumer during the month or 90% of the contract demand, whichever is higher. The billing demand shall be rounded off to the nearest integer number i.e. the fraction of 0.5 or above will be rounded off to next integer figure and the fraction of less than 0.5 shall be ignored.

1.6 **Tariff minimum consumption shall be billed** as follows :

1) The consumer shall be billed for guaranteed annual minimum consumption (KWH) based on number of units per kVA of contract demand specified for his category, irrespective of whether any energy is consumed or not during the year.

2) The consumer shall be billed one twelfth of guaranteed annual minimum consumption (KWH) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.

3) During the month in which actual cumulative consumption equals or greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year.

4) In the month which cumulative actual or billed monthly consumption of the consumer exceeds the cumulative monthly prorated minimum annual guaranteed consumption and if the consumer was charged in earlier months for tariff minimum difference consumption on account of his actual consumption being less, then such 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 such tariff difference consumption does not get fully adjusted in that month, such adjustment shall continue to be done 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 ***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.

1.9 An incentive for prompt payment @0.25% of the bill amount (excluding electricity duty and other Government levies) 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 lack. The consumers in arrears shall not be entitled for this incentive.

1.10 **Power Factor Incentive**

Power factor incentive shall be payable as follows:

Power Factor	**Percentage incentive payable on billed energy charges**
Above 95% and up to 96%	0.5
Above 96% and up to 97%	1.0
Above 97% and up to 98%	1.5
Above 98 % up to 99%	2.0
Above 99 %	2.5

1.11 **Power Factor Penalty**

(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 Licensee reserves the right to disconnect the consumer's installation till steps are taken to improve the same to the satisfaction of the 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 Kilo Watt hours to the total kilo volt Ampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

(v) Notwithstanding what has been stated above, if the average monthly power factor of a new consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:

a) This period of six months shall be reckoned from the month following the month in which the average power factor was found for the first time to be less than 90%.

b) In all cases, the consumer will be billed the penal charges for low power factor, but in case the consumer maintains the average monthly power factor in subsequent three months (thus in all four months) to not less than 90%, the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.

c) The facility, as mentioned herein, shall be available not more than once to new consumer whose average monthly power factor is less than 90% in any month during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as applicable to any other consumer.

1.12 Additional Charges for Excess Demand

i. The consumer shall at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds 105% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 105% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 105% of contract demand on energy charges and fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand. The excess demand so computed, if any, in any month shall be charged at the following rates from all consumers except Railway Traction

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

Example: If a consumer having a contract demand of 200 kVA records a maximum demand of 250 kVA, the billing of energy charges for excess demand of (250 kVA- 210 kVA)= 40 kVA shall be = (total consumption recorded during the month* 40 kVA/maximum recorded demand)*1.3* energy charge unit rate.

iii. **Fixed charges for excess demand: -** These charges shall be billed as per following:

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

2. **Fixed charges for Excess Demand when the recorded maximum demand exceeds 115% of contract demand** :- In addition to fixed

charges in 1 above, recorded demand over and above 15 % of the contract demand shall be charged at 2 times the normal fixed charges

Example for fixed charges billing for excess demand: If the contract demand of a consumer is 100 kVA and the maximum demand recorded in the billing month is 140 kVA, the consumer shall be billed towards fixed charges as under:-

a) Up to 105 kVA at normal tariff.

b) Above 105 kVA up to 115 kVA i.e. for 10 kVA at 1.3 times the normal tariff.

c) Above 115 kVA up to 140 kVA i.e. for 25 kVA at 2 times the normal tariff.

While doing so, other provisions of electricity tariff (such as tariff minimum charge etc.) will also be applicable on aforesaid excess demand.

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 Electricity Supply Code, 2013.

1.13 **Delayed Payment Surcharge:** Surcharge at the rate of 1.00 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be applicable after supply to the consumer is permanently disconnected.

1.14 **Service Charge for Dishonoured Cheques:** In case the cheque(s) presented by the consumer are dishonoured, a service charge at the rate of Rs. 1000/- per cheque shall be levied in addition to delayed payment surcharge as per rules. This is without prejudice to the Licensee’s rights to take action in accordance with any other applicable law.

1.15 **Temporary supply at HT:** If any consumer requires supply for a temporary period, the temporary supply shall be treated as a separate service and charged subject to the following conditions:

(a) Fixed Charges and Energy Charges shall be charged at 1.3 times the normal tariff. The fixed charge shall be recovered for the full billing month or part thereof.

(b) The consumer shall guarantee minimum consumption (KWH) as applicable to the permanent consumers on pro-rata basis based on number of days as detailed below:

$$\text{Minimum consumption for additional supply for temporary period} = \frac{\text{Annual minimum consumption as applicable to permanent supply X No. of days of temporary connection}}{\text{No. of days in the year}}$$

(c) The billing demand shall be the demand requisitioned by the consumer or the highest monthly maximum demand during the period of supply commencing from the month of connection ending with the billing month, whichever is higher. For example:

Month	Recorded Maximum Demand (kVA)	Billing Demand (kVA)
April	100	100
May	90	100
June	80	100
July	110	110
August	100	110
September	80	110
October	90	110
November	92	110
December	95	110
January	120	120
February	90	120
March	80	120

(d) The consumer shall pay the estimated charges in advance, before serving the Temporary Connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given on such advance payment.

(e) The consumer shall pay rental for the metering system.

(f) Connection and Disconnection Charges shall also be paid.

(g) In case of existing HT consumer, the temporary connection may be given through existing permanent HT connection on following methodology of assessment :

(i) Deemed contract demand for the month to be billed for the fixed charge= C.D. (existing) on normal tariff for permanent connection +

C.D. for temporary connection on normal tariff for temporary supply.

(ii) Billing demand for the month shall be as per tariff order for the deemed contract demand for that month.

(iii) Consumption during the month may be billed for Permanent connection (A)

$$A = \frac{\text{Contract demand (Permanent)}}{\text{Deemed contract demand}} \times \text{Total consumption}$$

Consumption of Temporary connection = Total consumption - (A)

(iv) The consumption worked out above for temporary connection shall be billed at 1.3 times the normal energy charges.

(v) The demand in excess of deemed contract demand as calculated above at **(g)** (i) shall be treated as Excess Demand. For billing purposes such Excess demand, if any, in any month shall be treated as pertaining to temporary connection load and shall be charged at 1.5 times the normal fixed charges & energy charges of temporary connection. Additional charges for excess demand recorded during the period of temporary connection shall be calculated as given below :

Fixed charges for excess demand = fixed charges per kVA for temporary connection * excess demand* 1.5 (one and half)

Energy charges for excess demand = energy charges per unit for temporary connection * 1.5(one and half)*(excess demand/deemed contract demand)*total consumption

(h) Power factor incentives/penalties shall be applicable at the same rate as for permanent connection.

Other Terms and Conditions for permanent connections:

1.16 The existing 11KV consumer with contract demand exceeding 300 kVA who want to continue to avail supply at 11kV at his request, shall be required to pay additional charge at 5 % on the total amount of Fixed Charges and, Energy Charges billed in the month.

1.17 The existing 33KV consumer with contract demand exceeding 10,000 kVA who want to continue to avail supply at 33kV at his request, shall be required to pay additional charge at 3% on the total amount of Fixed Charges and Energy Charges billed in the month.

1.18 Metering Charges shall be billed as per schedule of Metering and Other Charges as prescribed in MPERC (Recovery of expenses and other charges for providing electric line or plant used for the purpose of giving supply), Regulations (Revision-I), 2009 as amended from time to time. Part of a month will be reckoned as full month for purpose of billing.

1.19 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.

1.20 In case any dispute arises regarding interpretation of this tariff order and/or applicability of this tariff, the decision of the Commission will be final and binding.

1.21 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.

1.22 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.

1.23 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.

1.24 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.

1.25 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.
