

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**

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

Petition No. 1/2018

**CORAM:**

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

**IN THE MATTER OF:**

**Determination of Aggregate Revenue Requirement and Tariff for the Financial Year 2018-19 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. Ashutosh Kanungo  
Superintending Engineer,  
MPAKVN(I)L Indore**

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## List of Abbreviations

A&G	Administrative and General Expenses
ARR	Aggregate Revenue Requirement
CERC	Central Electricity Regulatory Commission
CSD	Consumer Security Deposit
Discom	Distribution Company
EA 2003	Electricity Act, 2003
EHT	Extra High Tension
FY	Financial Year
GFA	Gross Fixed Asset
GoI	Government of India
GoMP	Government of Madhya Pradesh
HP	Horse Power
HV	High Voltage
IND-AS	Indian Accounting Standards
kV	kilo Volt
kVA	kilo Volt Ampere
kVAh	kilo Volt Ampere hour
kW	kilo Watt
kWh	kilo Watt hour
LT	Low Tension
MD	Maximum Demand
MOD	Merit Order Despatch
MP	Madhya Pradesh
MPAKVN(I)L	Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited
MPERC	Madhya Pradesh Electricity Regulatory Commission
MPPGCL	Madhya Pradesh Power Generation Company Limited
MPPMCL	MP Power Management Company Limited
MPPTCL	Madhya Pradesh Power Transmission Company Limited
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NTP	National Tariff Policy
NTPC	NTPC Limited
O&M	Operation & Maintenance
PGCIL	Power Grid Corporation of India Ltd.
PLF	Plant Load Factor

PoC	Point of Connection
PPA	Power Purchase Agreement
R&M	Repair & Maintenance
RBI	Reserve Bank of India
RoE	Return on Equity
RPO	Renewable Purchase Obligation
SBI	State Bank of India
SEZ	Special Economic Zone
SLDC	State Load Dispatch Centre

## **A1: ORDER**

*(Passed on this 28<sup>th</sup> Day of May, 2018)*

This Order relates to Petition no. 1/2018 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 2018-19. 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 2018-19 latest by 31<sup>st</sup> October, 2017. MPAKVN(I)L vide letter dated 27<sup>th</sup> November, 2017 requested the Commission for grant of two months' time extension i.e., till 31<sup>st</sup> January, 2018, on the following grounds:
  - a. Annual Accounts for FY 2016-17 were under preparation.
  - b. Collection of reconciled information with respect to power procured, energy sold, capital investment and capitalisation etc. for FY 2016-17 as well as first 6 months of FY 2017-18 were in progress.
  - c. Compliance report to the directives issued in Tariff Order for FY 2017-18 was under preparation.
- 1.2 The Commission vide letter dated 8<sup>th</sup> December, 2017 had considered the request and granted the time extension for one month i.e. 31<sup>st</sup> December, 2017. MPAKVN(I)L filed the Petition on 29<sup>th</sup> December, 2017. The Commission held the motion hearing on 23<sup>rd</sup> January, 2018. The Commission vide order dated 29 January, 2018 admitted the Petition for further deliberations and directed the Petitioner to publish the public notice in newspapers by 30<sup>th</sup> January, 2018 for obtaining the comments / objections / suggestions from the stakeholders. The public notice was published on 30<sup>th</sup> January, 2018 in the newspapers Nai Duniya and Free Press. Last date for inviting comments / suggestions / objections was 21 February, 2018. The Commission held the public hearing on 13<sup>th</sup> March, 2018.
- 1.3 The Commission vide letter dated 1<sup>st</sup> March, 2018 directed the Petitioner to file clarification, additional data/information as per observations of the Commission within 15 days. The Petitioner filed response on 23<sup>rd</sup> March, 2018 vide letter No. AKVN/IND/SEZ/18/4394.



- 1.4 In response to the public notice, only two stakeholders i.e. Pithampur Audhogik Sangathan and SEZ Electricity Welfare Society filed their suggestions/ comments/ objections. Representative of Pithampur Audhogik Sangathan and SEZ Electricity Welfare society has also made its submissions in person during the public hearing conducted by the Commission on 13<sup>th</sup> March, 2018.
- 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 2018-19 has been shown in the Table below:

**Table 1: ARR filed by the Petitioner and admitted by the Commission for FY 2018-19**

Particulars	FY 2018-19	
	Filed	Admitted
<b>Sale and Power Purchase Requirement</b>		
Sale (MU)	387.63	387.63
Distribution loss (%)	2.02%	1.80%
Distribution loss (MU)	7.98	7.11
Intra state transmission loss (%)	2.87%	2.71%
Intra state transmission loss( MU)	11.69	11.00
Total power purchase requirement (MU)	407.30	405.74
<b>Expenditure</b>		
Purchase of power (Rs Crore)	158.61	144.20
Intra-state transmission (MP Transco) charges (Rs Crore)	7.49	7.49
Other power purchase related expenses incl. SLDC charges (Rs Crore)	0.03	0.03
R&M expense (Rs Crore)	2.57	0.58
Employee expenses (Rs Crore)	3.07	3.50
A&G expense (including MPERC fees) (Rs Crore)	2.18	2.18
MPERC Fees (Rs Crore)	0.02	0.01
Depreciation and related debits (Rs Crore)	0.21	0.27
Interest & finance charges (Rs Crore)	1.98	1.14
Bad Debt (Rs Crore)	0.78	0.00
Land Lease (Rs Crore)	2.19	0.00
<b>Total expenses (Rs Crore)</b>	<b>179.14</b>	<b>159.40</b>
RoE (Rs Crore)	0.93	0.29
<b>Total expenses including RoE (Rs Crore)</b>	<b>180.07</b>	<b>159.70</b>
Less: Other income (Rs Crore)	0.09	1.62
<b>Total ARR (Rs Crore)</b>	<b>179.98</b>	<b>158.08</b>
<b>Revenue</b>		
Revenue from sale of power at existing tariff (Rs Crore)	156.79	158.08
<b>Revenue surplus / (Gap) (Rs Crore)</b>	<b>-23.19</b>	<b>0.00</b>

- 1.6 In this order, the Commission has observed that revenue from exiting tariff is adequate to meet the ARR admitted by the Commission hence it has retained the existing tariff.

Further, the Commission also observed that the category wise Cross subsidy has shown variance with respect to previous year due to change in the consumers' sales ratio and related revenues.

**Implementation of the Order**

- 1.7 The Commission has determined the distribution and retail supply tariffs for various consumer categories based on the ARR as admitted for FY 2018-19. The retail supply tariffs and charges shall be recoverable by the Petitioner in its licensed area of supply for FY 2018-19. The tariff determined by this Order for FY 2018-19 shall be applicable to the consumers of the Petitioner upto 31<sup>st</sup> March, 2019, 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.
- 1.8 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 amend from time to time.
- 1.9 With this Order, the Commission has disposed of the instant Petition.

**(Anil Kumar Jha)**  
**Member**

**(Mukul Dhariwal)**  
**Member**

**(Dr. Dev Raj Birdi)**  
**Chairman**

## **A2: PUBLIC SUGGESTIONS AND COMMENTS ON LICENSEE'S PETITION**

- 2.1 The Petition was filed on 29<sup>th</sup> December, 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 21<sup>st</sup> February, 2018. The public notice was published on 30<sup>th</sup> January, 2018 in the newspapers Nai Duniya and Free Press. Two comments/objections/suggestions from the Pithampur Audyogik Sangathan, Indore and SEZ Electricity Welfare Society were received in the matter.
- 2.2 The Commission invited all willing stakeholders to present their suggestions/objections related to the ARR and tariff proposal in person during the public hearing which was held on 13<sup>th</sup> March, 2018 at the office of the Commission. M/s Pithampur Audyogik Sangathan, Indore and SEZ Electricity Welfare Society participated during the public hearing.
- 2.3 Suggestions from the Stakeholders and response of the Petitioner thereon are summarized in the following paragraphs.

### **ISSUE No. 1: Estimation of Sales**

#### **Issue raised by Stakeholder:**

Sales requirement should be on realistic estimates as assumed growth of 10% and 11% in connected load is not correct.

#### **Response from Petitioner:**

The projections are based on actual data from FY 2011-12 to FY 2016-17 and as per the provisional data for FY 2017-18. The methodology adopted for projection of sales is as per the methodology adopted by the Commission in the previous Tariff Orders.

### **ISSUE No. 2: Power Purchase**

#### **Issue raised by Stakeholder:**

Petitioner should go for competitive power purchase/ power purchase from NTPC for more competitive prices.

The purchase of solar and non-solar power should be reduced as they are available in open market at less than Rs. 4-5/unit.

Power Purchase Cost, being a major portion of the expenditure proposed should be scrutinized in a detailed manner.

#### **Response from Petitioner:**

Details on station-wise fixed cost, variable cost and total cost as per BPSA signed between MPAKVN and MPPMCL is provided in the Petition.

The price of power purchase from renewable sources is considered as per the rates approved by the Commission in the Retail Supply Tariff Order for Discoms for FY 2017-18, 5% escalation in energy charges and the price trend prevalent in the market.

MPAKVN is making full efforts to supply cost effective quality supply of power with minimal interruptions to the consumers of SEZ. The cost applicable to the industries in the SEZ area is already cost-effective as compared to other Distribution Companies in the State.

### **ISSUE No. 3: ToD Tariff Implementation**

#### **Issue raised by Stakeholder:**

Implement ToD based Tariff for all LT Industrial Consumers and reduced night time power charges for all consumers to consume the surplus power available instead of sales at Rs. 2.60 per unit.

#### **Response from Petitioner:**

The consumption of SEZ area is majorly accounted for by the Industries which have a flat load curve and nearly 99.5% of the energy consumed is at 33 kV level only.

### **ISSUE No. 4: Distribution Losses and VCoS**

#### **Issue raised by Stakeholder:**

The efforts made by the Petitioner to reduce the loss levels is not upto the mark since the network is small and there is a wide scope for improvement.

A detailed study on voltage-wise losses to ascertain the VCoS should be made by the Petitioner.

#### **Response from Petitioner:**

The distribution losses are projected based on the actual distribution losses and the trends prevalent. MPAKVN is making sincere efforts to reduce losses, but already low losses has resulted in very little scope for improvement.

A study on Voltage-wise Cost of Supply has been initiated and the report shall be submitted as soon as the study is completed.

### **ISSUE No. 5: Capital Investment**

#### **Issue raised by Stakeholder:**

The Petitioner should adopt technological development like smart grid, underground and maintenance-free transmission system, etc. Solar PV Rooftop installations should be promoted.

Capital Investment Plans should indicate likely benefits like reduction in T&D losses, reduced requirement of manpower, etc.

Capital Investment for 132 kV SS is not under the scope of a distribution licensee. Hence, this capital investment should not be allowed.

#### **Response from Petitioner:**

Since the distribution network of MPAKVN is confined to very limited geographic area, proposals to implement smart grids, etc., would entail significant expenditure, which would

eventually burden the end consumers. Capital Expenditure of Rs. 4.90 Crore for FY 2018-19 is proposed to reduce T&D losses, reduce outages and interruptions, strengthen the entire system and to meet the future demand requirements.

Construction of 132 kV SS at SEZ Phase II is as per the agreement signed between MPPTCL and MPAKVN for enhancing Contracted Transmission Capacity to 40 MW. The Capital Work in Progress of Rs. 19.30 Crore at the end of FY 2016-17 as reflected in the Audited Accounts has been capitalized in FY 2017-18 and capital expenditure and capitalization for FY 2018-19 is projected by the Petitioner.

**ISSUE No. 6: Other Components of Fixed Charges**

**Issue raised by Stakeholder:**

Other Components such as Depreciation, Other Income and Bad & Doubtful Debts should be scrutinized thoroughly by the Commission before approval.

PTC, being a trading licensee does not have any experience of distribution O&M and does not qualify to perform O&M of the Petitioner. Further, the O&M contract should be awarded based on bidding instead of nomination route.

**Response from Petitioner:**

The Fixed Charges claimed by MPAKVN are as per the provisions of MPERC Tariff Regulations, 2015 and the agreement entered with PTC India Ltd.

MPAKVN has entered into an agreement with PTC India Ltd., on 29 September, 2016 for R&M activities of its electrical network at lower rates than the previous contract with MPPKVVCL. The contracts are with reputed companies like MPPKVCCL and PTC and has resulted in many operational benefits and cost optimization.

**ISSUE No. 7: Proposed Tariff**

**Issue raised by Stakeholder:**

The present Petition covers only the area of Pithampur SEZ. The position of Crystal IT Park and Pithampur Auto Cluster should be clarified.

Tariff hike proposed is very high considering very limited industrial consumers with 100% bill collection.

Tariff Minimum Units should be withdrawn to promote smaller consumers.

Maximum Power Factor Surcharges for HT should be reduced to 20% instead of 35% as it is only 10% for LT consumers.

Proposal for withdrawal of Power Factor Incentives should not be admitted.

Temporary connection for upto 10% of the sanctioned load should be allowed for construction/expansion/renovation/modification purposes for existing HT connections on the same tariff applicable for the permanent connection.

**Response from Petitioner:**

The three entities viz., SEZ Indore Ltd., Crystal IT Park Indore Ltd. and Pithampur Auto Cluster Ltd. are subsidiary companies of MPAKVN.

The ARR proposed for FY 2018-19 is as per the principles laid out in MPERC Tariff Regulations, 2015 based on actual data for FY 2016-17 and provisional data for FY 2017-18. The Tariff hike proposed reflects the increased capital expenditure and capitalization.

Nearly 50% of the expenditure of MPAKVN is fixed in nature, while only 12% of it is recovered through Fixed Charges. Hence, the existing provisions for Tariff Minimum Consumption should continue without any changes.

Power Factor Incentives are impacting the revenue recovery of MPAKVN unnecessarily as the distribution losses are among the lowest in the country, with very short overhead lines. MPAKVN has also installed its own capacitors for PF improvement. Hence, Power Factor Incentive may be withdrawn by the Commission.

The existing provisions for temporary connection at existing HT premises may be continued for FY 2018-19.

**Commission's View:**

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

**A3: AGGREGATE REVENUE REQUIREMENT FOR FY 2018-19 OF THE PETITIONER**

**Sales forecast as projected by the Petitioner**

**Petitioner’s Submissions**

- 3.1 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.
- 3.2 In light of the above, the Petitioner has estimated the sales for various customer categories primarily based on the CAGR trends during past years.
- 3.3 Summary of sales projections for FY 2018-19 is given in the table below:

**Table 2: Summary of sales filed by the Petitioner for FY 2018-19**

<b>Consumer category</b>	<b>Projected sale (MU)</b>
<b>LT consumer categories</b>	
Non-Domestic	0.55
Public Water Works and Street Light	0.65
Industrial	0.13
<b>Total LT Sale</b>	<b>1.33</b>
<b>HT Consumer Categories</b>	
Industrial	386.31
33 kV	386.16
11 kV	0.15
Non-Industrial	0.00
<b>Total HT Sale</b>	<b>386.31</b>
<b>Total LT+HT Sale</b>	<b>387.63</b>

**Commission’s Analysis**

- 3.4 For FY 2018-19, the Petitioner has projected sale of 387.63 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 has admitted the sales as proposed by the Petitioner for FY 2018-19.

**Energy / Power Purchase Requirement**

**Petitioner’s Submissions**

- 3.5 The Petitioner has projected the requirement of 407.30 MU for procurement of energy for projected sale of 387.63 MU. The Petitioner has converted the annual projected sale into monthly sale using the sale profiles observed in the past years. It is submitted by the Petitioner that for computation of the intra-State transmission losses (MPPTCL

system losses), the loss level of 2.87% approved by the Commission in the Retail Supply Tariff Order of Discoms for FY 2017-18 has been considered.

- 3.6 The Petitioner has submitted that the energy requirement has been estimated considering the distribution losses of 2.02% based on the actual loss level during the first half of FY 2017-18. The Petitioner has further submitted that it has not considered the PGCIL losses for FY 2018-19 as it will be directly procuring power from MP Power Management Co. Ltd. (MPPMCL).
- 3.7 The Petitioner has filed the energy requirement for FY 2018-19 as shown in the table below:

**Table 3: Energy requirement for FY 2018-19 filed by the Petitioner**

Sr. No.	Particulars	FY 2018-19	
		%	MU
<b>1</b>	<b>Energy sales</b>		
	LT sales		1.33
	HT / EHT sales		386.31
	<b>Total energy sales</b>		<b>387.63</b>
2	Distribution losses	2.02%	7.98
<b>3</b>	<b>Energy requirement at T-D boundary</b>		<b>395.61</b>
4	Intra-state transmission losses	2.87%	11.69
<b>5</b>	<b>Energy requirement at the State periphery</b>		<b>407.30</b>
6	Inter-state transmission losses	0.00%	0
<b>7</b>	<b>Total energy requirement</b>		<b>407.30</b>

### Commission's Analysis

- 3.8 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%	<b>1.80%</b>

- 3.9 Accordingly, for projecting the energy requirement, the Commission has considered 1.80% as distribution losses for FY 2018-19 as mentioned in the above table.
- 3.10 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.
- 3.11 The Commission has considered intra-State transmission losses as 2.71% for FY 2018-19 as considered for the State Discoms in Retail Tariff Order dated 3<sup>rd</sup> May, 2018.



3.12 The energy/power purchase requirement on the basis of the sale admitted by the Commission for FY 2018-19 is presented in the table below:

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

Particulars	FY 2018-19	
	%	MU
Energy sales		
LT sales		1.33
HT / EHT sales		386.31
<b>Total Energy sales</b>		<b>387.63</b>
Distribution losses	1.80%	7.11
<b>Energy requirement at T-D boundary</b>		<b>394.75</b>
Intra-state transmission losses	2.71%	11.00
Energy requirement at State periphery		405.74
<b>Total energy requirement</b>		<b>405.74</b>

## Assessment of Energy Availability

### Petitioner's Submissions

3.13 The Petitioner has submitted that a Bulk Power Supply Agreement (BPSA) and a Supplementary Agreement have been signed between MP Power Management Company Ltd. (MPPMCL) and MPAKVN Indore on 29 March, 2016 and 31 March, 2017, respectively, for supply of power on Long term basis up to 45 MW. 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 Discoms of the State for the allocated thermal power station plus trading margin of four (4) paise per unit. The details of energy available as per BPSA have been shown in the Table below

**Table 6: Details of cost filed by the Petitioner for FY 2018-19**

S.No	Name of Generation stations	Units allocable to MPAKVN (MU)
1	ATPS, Chachai (Unit no. 5)	18.31
2	STPS, Sarni (unit no. 10 & 11)	29.82
3	STPS, Sarni (unit no. 6 & 9)	55.04
4	SGTPS (Unit no.5)	42.98
5	SSTPP (Singaji)	79.56
6	SGTPS (Unit no 1 to 4)	55.30
	<b>Total as Allocated</b>	<b>281.00</b>
	<b>Balance Remaining Units</b>	<b>88.63</b>
	<b>Total Consumption</b>	<b>369.63</b>

- 3.14 The Petitioner is also planning to purchase renewable power themselves or through MPPMCL in accordance with Renewable Power Obligation for FY 2018-19.
- 3.15 To comply with Renewable Purchase Obligation, power purchase requirement from renewable sources is worked out in table below:

**Table 7: Renewable Power Purchase Requirement for FY 2018-19**

Particulars	FY 2018-19
RPO Solar (%)	1.75%
RPO Non-Solar (%)	7.50%
<b>Total</b>	<b>9.25%</b>
Ex-bus requirement	407.30
RPO Solar (MU)	7.13
RPO Non Solar (MU)	30.55
<b>Total (MU) for RPO</b>	<b>37.68</b>

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

**Table 8: Energy Availability as filed by the Petitioner for FY 2018-19**

Sr. No.	Source	Allocation (MW)	Availability(MU)
1	MPPMCL	45.00	369.63
2	RPO Obligation		37.68
	<b>Total</b>		<b>407.30</b>

### Commission’s Analysis

- 3.17 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 through short term market to ensure RPO compliance.
- 3.18 The Commission had notified Sixth Amendment to the said Regulation and the amendment therein is as follows:

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

- 3.19 For FY 2018-19, the minimum quantum of electricity from Renewable sources of

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

**Table 9: Renewable Purchase Obligation worked-out by the Commission**

<b>Particulars</b>	<b>FY 2018-19</b>
RPO Solar	1.75%
RPO Non Solar	7.50%
<b>Total</b>	<b>9.25%</b>
Ex-bus requirement	405.74
RPO Solar (MU)	7.10
RPO Non Solar (MU)	30.43
<b>Total (MU)</b>	<b>37.53</b>

3.20 The Petitioner, in reply to additional datagaps raised by the Commission has submitted that it had not purchased any renewable power till FY 2017-18. Accordingly, the Commission directs the Petitioner to comply its RPO obligation for FY 2018-19 through PPA with renewable energy generators or through purchase of RECs.

3.21 The details of the Commission's worked out energy available to the Petitioner from the MPPMCL as per BPSA have been shown in the Table below:

**Table 10: Details of energy available to the Petitioner from MPPMCL for FY 2018-19**

<b>Name of Gen. Stations</b>	<b>Installed Capacity (MW)</b>	<b>Total Availability as per Retail supply Tariff Order for Discoms for FY 2018-19 (MU)</b>	<b>Allocation to MPAKVN as per BPSA(MW)</b>	<b>Corresponding availability for MPAKVN (MU)</b>	<b>Utilization by MPAKVN (MU)</b>
ATPS, Chachai (Unit 5 No. 5)	210.00	1434.00	2.06	14.07	14.07
STPS, Sarni (unit no. 10 & 11)	500.00	3381.00	4.90	33.13	33.13
STPS, Sarni (unit no. 6 & 9)	830.00	4254.00	8.14	41.72	41.72
SGTPS (Unit no.5)	500.00	3506.00	4.90	34.36	34.36
SSTPP (Singaji)	1200.00	6975.00	11.76	68.36	68.36
SGTPS (Unit no 1 to 4)	840.00	4808.00	8.24	47.16	47.16
<b>Total availability from MPPMCL</b>	<b>4080.00</b>	<b>24358.00</b>	<b>40.00</b>	<b>238.80</b>	<b>238.80</b>
<b>Additional Requirement to be met from MPPMCL</b>					<b>129.41</b>

3.22 The energy availability for FY 2018-19 as admitted by the Commission is given in the table below:

**Table 11: Ex-bus energy availability as admitted by the Commission for FY 2018-19**

Source	Availability (MU)
<b>Total Requirement</b>	<b>405.74</b>
Renewable Power Purchase as per RPO	37.53
Requirement to be met from MPPMCL	368.21

### Assessment of Power Purchase Cost

#### Petitioner's Submissions

- 3.23 The Petitioner has considered sourcing of 45 MW of power from MPPMCL based on the BPSA. The station-wise fixed charges for FY 2018-19 are considered as per the rates approved by the Commission as per the Retail Tariff for Discoms for FY 2017-18 dated 7 April, 2017.
- 3.24 The Petitioner has submitted that the station-wise energy charges of FY 2017-18, approved by the Commission in the Retail Tariff for the Discoms for FY 2017-18 dated 7 April, 2017, have been escalated by 5% to arrive at the energy charges for the FY 2018-19 on the basis of the actual trend in prices witnessed during the past 12-15 months owing to increase in cost of coal, transportation & logistics etc. It is pertinent to note that Hon'ble CERC, vide its notification No. Eco-1/2017-CERC dated 30.05.2017, has indicated escalation rate of 13.78% for domestic coal as the escalation rate for the purpose of payment for procurement of power by Distribution Licensees. Therefore, the Petitioner finds it prudent to assume an escalation rate of 5% over the energy charges of FY 2017-18 to arrive at the energy charges for FY 2018-19.
- 3.25 The per unit rate for Long Term Power works out to Rs. 3.71/kWh (inclusive of trading margin) for FY 2018-19 as per the above methodology. The detail of the same has been provided in table below:

**Table 12: Details of cost filed by the Petitioner for FY 2018-19**

S.No	Name of Generation stations	Fixed cost allocable to AKVN(1) (Rs Crore)	Units allocable to AKVN (MU)	Variable Cost (Rs/kWh)	Variable Cost in Rs Crore (2)	Trading Margin (Rs. Crore) (3)	Power Purchase Cost (Rs. Crore) (1+2+3)	Total (Rs/kWh)
1	ATPS, Chachai (Unit no. 5)	2.36	18.31	1.82	3.33	0.07	5.77	3.15
2	STPS, Sarni (unit no. 10 & 11)	5.64	29.82	2.33	6.94	0.12	12.70	4.26
3	STPS, Sarni (unit no. 6 & 9)	3.92	55.04	2.67	14.71	0.22	18.85	3.43
4	SGTPS (Unit no.5)	4.52	42.98	2.26	9.73	0.17	14.42	3.36
5	SSTPP (Singaji)	11.84	79.56	2.75	21.85	0.32	34.01	4.28
6	SGTPS (Unit no 1 to 4)	4.08	55.30	2.54	14.05	0.22	18.36	3.32
	<b>Total as Allocated</b>	<b>32.37</b>	<b>281.00</b>		<b>70.62</b>	<b>1.12</b>	<b>104.11</b>	<b>3.71</b>
	<b>Balance Remaining Units</b>		<b>88.63</b>				<b>32.84</b>	<b>3.71</b>
	<b>Total Consumption</b>		<b>369.63</b>				<b>136.95</b>	<b>3.71</b>

### Commission’s Analysis

- 3.26 The Commission noted that a Bulk Power Supply Agreement (BPSA) has been signed between MP Power Management Company Ltd. (MPPMCL) and MPAKVN Indore on 29 March, 2016 and 31 March, 2017 for supply of power on Long term basis up to 40 MW and additional 5 MW. 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 2017-18 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.
- 3.27 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 2018-19. The Commission has considered the purchase of excess energy (above allocated 40MW) 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 13: Power Purchase cost from MPPMCL admitted for FY 2018-19**

Generating stations	Admitted quantum of Power (MU)	Fixed Cost (Rs. Crore)	Variable Cost (Rs. Crore)	Power Purchase Cost (Rs. Crore)	Total Energy Rate (Rs/Unit)
ATPS, Chachai (Unit 5 No. 5)	14.07	1.95	2.43	4.39	3.12
STPS, Sarni (unit no. 10 & 11)	33.13	6.34	6.57	12.91	3.90
STPS, Sarni (unit no. 6 & 9)	41.72	3.21	9.11	12.31	2.95
SGTPS (Unit no.5)	34.36	3.83	6.51	10.34	3.01
SSTPP (Singaji)	68.36	10.23	15.84	26.08	3.81
SGTPS (Unit no 1 to 4)	47.16	3.70	10.44	14.13	3.00
Additional Purchase from MPPMCL at Rs.3.36/unit	129.41		43.44	43.44	3.36
<b>Total</b>	<b>368.21</b>	<b>29.26</b>	<b>94.35</b>	<b>123.61</b>	<b>3.36</b>

### Renewable Power Obligation (RPO)

#### Petitioner’s Submissions

- 3.28 As regards RPO cost, the Petitioner has considered per unit rate for renewable power as Rs. 6.43/unit for solar energy and Rs. 5.59/unit for non-solar energy for FY 2018-19 considering the prevailing market trend.
- 3.29 Details of the cost as filed by the Petitioner for FY 2018-19 are given in the table below:

**Table 14: Details of RPO cost filed by the Petitioner for FY 2018-19**

Sr. No.	Particulars	Power procurement rate (Rs./Unit)	Power to be procured (MU)	Amount (Rs. Crore)
1	Solar	6.43	7.13	4.58
2	Non-Solar	5.59	30.55	17.08
	<b>Total</b>		<b>37.68</b>	<b>21.66</b>

### Commission's Analysis

3.30 The Commission has considered the power purchase from renewable energy sources. The Commission directs the Petitioner to consider enter into PPAs with renewable energy generators to meet their RPO compliance. The Commission has considered the rates approved for Solar and Non-solar power purchase in the Retail Supply Tariff Order for FY 2018-19. RPO costs worked out are shown in the table below:

**Table 15: RPO cost computed by the Commission**

Particulars	RPO Cost		
	Rate	Quantum	Cost
	Rs. /kWh	MU	Rs. Crore
Solar	5.95	7.10	4.22
Non-Solar	5.38	30.43	16.37
<b>Total</b>		<b>37.53</b>	<b>20.60</b>

3.31 Total power purchase cost filed by the Petitioner and admitted by the Commission is summarized in the following table:

**Table 16: Summary of the total power purchase cost filed by the Petitioner and admitted by the Commission for FY 2018-19**

Source	Particulars	As filed	As admitted
MPPMCL	Energy (MU)	369.63	368.21
	Amount (Rs. Crore)	136.95	123.61
	Rate (Rs./kWh)	3.71	3.36
RE purchase	Energy (MU)	37.68	37.53
	Amount (Rs. Crore)	21.66	20.60
	Rate (Rs./kWh)	5.75	5.49
<b>Total</b>	<b>Energy (MU)</b>	<b>407.30</b>	<b>405.74</b>
	<b>Amount (Rs. Crore)</b>	<b>158.61</b>	<b>144.20</b>
	<b>Average Rate (Rs./kWh)</b>	<b>3.89</b>	<b>3.55</b>

### Intra - State Transmission and SLDC Charges

#### Petitioner's Submissions

3.32 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 vide its Order in Petition No. 70/2016. Since the transmission capacity allocated is now 45 MW, the transmission charges as determined on pro-rata basis. SLDC charges are considered as per Order for levy and collection of Fees and Charges by SLDC for FY 2017-18 dated 26 April, 2017. The table below provides the intra-State transmission charges and SLDC charges filed by the Petitioner for FY 2018-19:

**Table 17: Other elements of power purchase cost filed by the Petitioner for FY 2018-19**

Sr. No.	Particulars	Amount (Rs. Crore)
1	Intra-state transmission charges	7.49
2	SLDC charges	0.03

### Commission’s Analysis

3.33 The Commission has admitted intra state transmission charges as per Order in Petition No. 70 of 2016 dated 26 April, 2017, prorated to the Contracted Capacity of 45 MW as shown in the Table below:

**Table 18: Intra-State transmission charges admitted by the Commission for FY 2018-19**

Particulars	Amount (Rs. Crore)
Intra-state transmission charges	7.49

3.34 The Commission has considered SLDC charges for FY 2018-19 as per the Order for levy and collection of Fees and Charges by SLDC for FY 2018-19 dated 22 May, 2018, prorated to the Contracted Capacity of 45 MW. SLDC charges admitted by the Commission for FY 2018-19 are shown in the table below:

**Table 19: SLDC charges admitted by the Commission for FY 2018-19**

Particulars	Amount (Rs. Crore)
SLDC charges	0.03

### Pooled Power Purchase Cost

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

*“5. Eligibility and Registration for Certificates:*

*(1)*

*:*

*:*

*c. it sales the electricity generated either (i) to the distribution licensee of the area in which the eligible entity is located, at a price not exceeding the pooled cost of power purchase of*

*such distribution licensee, or (ii) to any other licensee or to an open access consumer at a mutually agreed price, or through power exchange at market determined price.*

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

3.36 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 20 : Pooled Power Purchase cost for FY 2018-19**

<b>Particulars</b>	<b>FY 2018-19</b>
Power Purchase Requirement excluding RE sources (MU) Ex- Bus	368.21
Total Power Purchase Cost excluding RE sources (Rs Crore)	123.61
<b>Pooled Power Purchase Cost (Rs/kWh)</b>	<b>3.36</b>

### **Capital Expenditure Plans/ Capitalization of Assets**

#### **Petitioner’s Submissions**

3.37 The Petitioner has submitted the head-wise projected capital expenditure for the FY 2018-19. Details of Capex are shown in the table below:

**Table 21: Details of Capex for FY 2018-19 submitted by the Petitioner**

<b>Particulars</b>	<b>FY 2017 -18 (Rs. Crore)</b>	<b>FY 2018 -19 (Rs. Crore)</b>
<b>Computers</b>	-	<b>0.02</b>
<b>Buildings</b>	<b>0.83</b>	<b>0.36</b>
Boundary Wall	0.46	-
Drains	0.17	0.31
Street light laying	0.06	-
Cons of Road	-	0.05
Building	0.14	
<b>Plant and Machinery</b>	<b>19.30</b>	<b>4.52</b>
Sub-station	19.30	4.51
Office equipment	0.003	0.01
<b>Total</b>	<b>20.13</b>	<b>4.90</b>

3.38 The Petitioner has submitted that all the capital expenditure incurred during FY 2018-19 would be capitalized in the same year. The funding of capitalization is envisaged through various sources categorized under four heads namely Consumer Contribution, Grants, Equity and Debt. The capitalisation is proposed to be financed by consumer contribution of Rs. 0.66 Crore and the remaining amount is to be funded through debt and equity in the ratio of 70:30.



## Commission's Analysis

3.39 The Commission has not considered the asset addition of Rs 19.30 Crore towards 132 kV substation as the same has not been approved. The Commission has deliberated in the matter in SEZ Retail Tariff Order for FY 2015-16 which is reproduced below:

*“7. The petitioner has filed Capex of Rs. 20.62 Crore for FY 2015-16 in the petition for determination of ARR retail supply tariff. Simultaneously, the petitioner has also filed petition (P-02/2015) for approval of Capex of Rs. 23.55 Crore for the period from FY 2014-15 to FY 2018-19. This includes the Capex for FY 2015-16 as submitted in the ARR petition. The Commission held the motion hearing on this petition on 10/02/2015 and observed that the major portion of the Capex is proposed to be taken up during FY 2015-16 therefore, this petition be addressed with the petition filed by MPAKVN(I)L, Indore for determination of ARR and retail supply tariff for FY 2015-16 (Petition No.21/2014) for SEZ Pithampur. At present the Commission has not considered the Capex filed by the petitioner for the period from FY 2014-15 to FY 2018-19 as the petitioner has neither furnished the details of the prospective consumers along with the details of increase in the demand of existing consumers from 32 MW to 50 MW nor the basis for the assumptions in the cost benefit analysis. The petitioner should file the Capex plan as per the appropriate guidelines issued by the Commission in this regard.”*

3.40 The Commission has therefore considered the balance of GFA filed i.e. Rs. 0.83 Crore for FY 2017-18 and Rs 0.38 Crore for FY 2018-19. The capitalisation for FY 2017-18 and FY 2018-19 shall also be subject to actual GFA addition during the respective years.

3.41 Capitalization for FY 2017-18 and FY 2018-19 considered by the Commission is shown in the table below:

**Table 22: Capitalization admitted for FY 2017-18 and FY 2018-19**

Particulars	FY 2017-18	FY 2018-19
Addition to GFA (Rs. Crore)	0.83	0.38

## Operations and Maintenance Expenses

### Petitioner's Submissions

#### Employee Expenses

3.42 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.

3.43 Dearness allowance, terminal benefits and pension paid for FY 2017-18 and FY 2018-19 are considered same as per actuals of FY 2016-17. No escalation is considered for DA and terminal benefits while projecting for FY 2017-18 and FY 2018-19.

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

**Table 23: Total employee expenses filed by the Petitioner for FY 2018-19**

Sr. No.	Particulars	Amount (Rs. Crore)
1	Employee expenses excluding arrears, DA, terminal benefits and incentives	1.04
2	DA	1.32
3	Terminal benefits	0.72
4	<b>Total employee expenses</b>	<b>3.07</b>

#### **A&G Expenses**

3.45 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.

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

**Table 24: A&G expenses filed by the Petitioner for FY 2018-19**

Particulars	Amount (Rs. Crore)
A&G expenses	2.18

#### **R&M Expenses**

3.47 The Petitioner has submitted that it has entered into agreement with PTC India Ltd on 29 September, 2016 to carry out all R&M Expenses of its Electrical Network and also to provide consultancy services in various techno-commercial matters relating to the distribution and supply of electricity in the Special Economic Zone. Agreement with PTC India Ltd. will remain in force for FY 2017-18 & FY 2018-19 also. The agreement also stipulates an annual increase of 8% in the R&M charges.

3.48 The Commission had considered this expenditure in its earlier Tariff Order for the FY 2013-14, FY 2014-15 and FY 2015-16.

3.49 R&M expenses projected is shown in the table below:

**Table 25: R&M expenses filed by the Petitioner for FY 2018-19**

Particulars	Amount (Rs. Crore)
R&M expenses	2.57

**MPERC Fees**

3.50 The Petitioner has projected MPERC fees as Rs. 0.02 Crore for FY 2017-18 and FY 2018-19 to be same as actual of FY 2016-17.

**Commission’s Analysis**

3.51 Tariff Regulations specify normative O&M Expenses for the Petitioner. These expenses comprise Employee expenses, Repair and Maintenance (R&M) expenses and Administrative & General (A&G) expenses. The amount of employee expenses and A&G expenses for FY 2018-19 have been specified in the Regulations. Further the Commission has considered the impact of the Seventh Pay Commission as allowed to State Govt. employees subject to true-up of employee expenses as per audited Accounts for FY 2018-19. R&M expenses are specified as 5% of opening GFA for the FY 2018-19. These norms exclude pension, terminal benefits and incentive to be paid to employees, taxes payable to the Government and fee payable to MPERC.

3.52 The Commission has considered terminal benefits & pension paid as per actuals booked in Audited Accounts for FY 2016-17.

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

3.54 As regards MPERC fees the Commission has considered the actual fees paid for FY 2018-19 Tariff Petition filing.

3.55 The Commission has considered 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.

3.56 The admitted O&M expenses for FY 2018-19 is shown in the Table below:

**Table 26: O&M expenses admitted by the Commission for FY 2018-19**

Sr. No.	Particulars	FY 2018-19 (Rs. Crore)
<b>A</b>	<b>Employee Expenses</b>	
1	Salary	2.67
2	DA	0.24
3	Terminal benefits	0.59
<b>4</b>	<b>Total Employee Expense</b>	<b>3.50</b>
<b>B</b>	<b>A&amp;G Expenses</b>	<b>2.18</b>
<b>C</b>	<b>R &amp; M (% of GFA)</b>	

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
1	Opening GFA as on 1.4.2018	11.56
2	<b>R&amp; M for FY18-19 @5%</b>	<b>0.58</b>
<b>D</b>	<b>MPERC Fees</b>	<b>0.01</b>
<b>E</b>	<b>Total O&amp;M</b>	<b>6.27</b>

## Depreciation

### Petitioner's Submissions

- 3.57 The Petitioner has considered the opening gross block of fixed assets of FY 2017-18 as per the closing block for FY 2016-17 as submitted in the True-up Petition for FY 2016-17.
- 3.58 The additions to asset have been considered as per the projected capitalisation for the FY 2017-18 and FY 2018-19.
- 3.59 Depreciation has been worked out considering the asset head wise depreciation rates provided in Annexure II of MYT Regulations, 2015. The projected depreciation for FY 2018-19 is as shown below:

**Table 27: Depreciation during the year filed by the Petitioner for FY 2018-19**

<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
Opening Gross Fixed Asset	30.86
Addition during the year	4.90
Deduction	0.00
Closing Gross Fixed Asset	35.76
Depreciation	1.07
Depreciation Rate	4.99%

- 3.60 The Petitioner has reduced the amortization of the assets capitalised from the consumer contributions. Accordingly, net depreciation on GFA for FY 2018-19 after reducing amortization on consumer contribution is shown in the table below:

**Table 28: Net depreciation filed by the Petitioner for FY 2018-19**

<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
Depreciation and related debits	1.07
Less: Consumer contribution amortized	0.86
<b>Net depreciation and related debits</b>	<b>0.20</b>

## Commission's Analysis

- 3.61 The Commission has considered the opening gross block of fixed assets for FY 2017-18 same as the closing gross block from Audited Accounts for FY 2016-17. The

projected assets addition in FY 2017-18 and FY 2018-19 has been considered as per the previous section “Capital Expenditure (Capex) and Capitalisation”.

- 3.62 The Commission has considered the average depreciation rate of 4.84% for FY 2017-18 and for FY 2018-19 as per the rate admitted by the Commission in the previous Retail Supply Tariff Order for FY 2017-18. Accordingly, the Commission has admitted gross depreciation for FY 2018-19 as shown in the table below:

**Table 29: Gross depreciation expenses admitted by the Commission**

<b>Particulars</b>	<b>FY 2017-18 (Rs. Crore)</b>	<b>FY 2018-19 (Rs. Crore)</b>
Opening GFA (closing form Audited Accounts for FY 2016-17)	10.73	11.56
Addition during the year	0.83	0.38
Closing	11.56	11.94
Average	11.15	11.75
<b>Depreciation</b>	<b>0.54</b>	<b>0.57</b>

- 3.63 The Commission has considered the opening gross block from consumer contribution & grants for FY 2017-18, same as the closing block in the Audited Accounts for FY 2016-17 (excluding the grants of Rs 9.77 Crore towards 132 kV substation). The projected additional capitalisation from consumer contribution in FY 2017-18 and FY 2018-19 has been considered zero as no capex has been admitted for plant and machinery. Further, the Commission has considered the depreciation rate for assets capitalised from consumer contribution and grants as 5.28% as submitted by the Petitioner for FY 2017-18 and FY 2018-19. Depreciation on assets capitalised from consumer contribution and grants for FY 2018-19 is shown in the table below:

**Table 30: Depreciation on assets from consumer contribution & Grants**

<b>Particulars</b>	<b>FY 2017-18 (Rs. Crore)</b>	<b>FY 2018-19 (Rs. Crore)</b>
Opening consumer contribution & grants (closing form Audited Accounts for FY 2016-17)	5.68	5.68
Addition during the year	0.00	0.00
Closing consumer contribution and grants	5.68	5.68
Average consumer contribution and grants	5.68	5.68
<b>Depreciation (@5.28%)</b>	<b>0.30</b>	<b>0.30</b>

- 3.64 Accordingly, net depreciation on GFA admitted by the Commission after reducing depreciation on consumer contribution & grants is shown in the table below:

**Table 31: Net depreciation expenses admitted by the Commission for FY 2018-19**

<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
Depreciation and related debits	0.57
Less: depreciation on Consumer contribution & Grants	0.30
<b>Net depreciation admitted</b>	<b>0.27</b>

## Return on Equity

### Petitioner's Submissions

3.65 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

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

**Table 32: Return on Equity filed by the Petitioner for FY 2018-19**

<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
Equity associated with GFA as on the beginning of the year	5.16
30% of addition to net GFA considered as funded through equity	1.27
Total equity associated with GFA at the end of the year	6.43
Average equity associated with GFA at the end of the year	5.80
<b>Return on Equity @ 16%</b>	<b>0.93</b>

### Commission's Analysis

3.67 Based on the equity identified with GFA net of consumer contribution, the RoE admitted by the Commission for FY 2018-19, as per the Regulations is shown in the table below:

**Table 33: RoE admitted by the Commission for FY 2018-19**

<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
<b>FY 2017-18</b>	
Opening Equity identified with GFA as on 1st April, 2017 (Closing worked out from Audited Accounts for FY 2016-17)	1.52
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.25
Total Equity identified with GFA as on 31st March, 2018	1.77
<b>FY 2018-19</b>	
30% of addition to net GFA considered as funded through equity net of consumer contribution	0.11
Total Equity identified with GFA as on 31st March, 2019	1.88

<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
Average Equity	1.82
<b>RoE @16% of FY 2018-19</b>	<b>0.29</b>

## **Interest and Finance Charges**

### **Petitioner’s Submissions**

3.68 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 34: Interest on normative project loan filed by the Petitioner for FY 2018-19**

<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
Debt associated with GFA as on the beginning of the year (Net of consumer contribution & grant)	9.05
Addition to debt (excluding consumer contribution & grants)	2.97
Repayment during the year	0.21
Total debt associated with GFA at the end of the year	11.81
Rate of interest & finance charges	<b>7.28%</b>
<b>Interest &amp; finance charges on normative basis for project loans</b>	<b>0.76</b>

### **Commission’s Analysis**

3.69 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 1.4.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.”*

3.70 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 2017-18 as per the audited accounts submitted by the Petitioner for FY 2016-17. The Commission has therefore computed the total debt associated with GFA at the end of the year as per the provisions of regulation.

3.71 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 2018-19, i.e., 5.18%. Details of the normative loan and interest admitted are shown in the table below:

**Table 35: Interest on normative project loan admitted by the Commission for FY 2018-19**

Particular	Amount (Rs. Crore)
<b>FY 2017-18</b>	
Opening Debt identified with GFA as on 1st April, 2017 (Closing worked out from Audited Accounts for FY 2016-17)	3.41
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	0.58
Debt repayment	0.24
Debt identified with GFA as on 31st March, 2018	3.75
<b>FY 2018-19</b>	
Debt identified with GFA as on 1st April, 2018	3.75
70% of addition to net GFA considered as funded through Loan net of Consumer Contribution	0.27
Debt repayment	0.27
Closing debt associated with GFA	3.75
Average debt	3.75
Weighted average rate of interest (%) based on Discoms Tariff Order for FY 2018-19	5.18%
<b>Interest cost admitted on project loans</b>	<b>0.19</b>

### Interest on Working Capital

#### Petitioner's Submissions

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

3.73 Interest rate is considered at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April, 2017. Petitioner has used the rate of interest for computing the interest on working capital for the FY 2018-19 as 14.05%. Details of Interest on Working Capital are shown below:

**Table 36: Details of Interest on Working Capital for FY 2018-19 by the Petitioner**

Particulars	FY 2018-19 (Rs. Crore)
<b>For Wheeling Activity</b>	
Inventory for 2 months based on ARR considered at 1% of GFA for previous year	0.31



<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
1/12th of O&M Expenses	0.65
2 months of Receivables from Wheeling charges	-
<b>Total Working Capital</b>	<b>0.96</b>
Rate of Interest	13.85%
Interest on Working Capital	0.13
<b>For Retail Activity</b>	
Inventory for 2 months based on ARR for previous year	-
O&M expenses for one month	-
2 months of Receivables of average billing	26.13
1/12th of Power Purchase expenses	13.84
Less: Consumer Security Deposit	19.22
<b>Total Working Capital</b>	<b>-6.93</b>
Rate of Interest	13.85%
Interest on Working Capital	-0.96
<b>Total Interest on Working Capital</b>	<b>-</b>

### **Commission's Analysis**

3.74 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 1<sup>st</sup> of April of the relevant year. Accordingly, the Commission has considered latest available SBI advance rate as 13.45% for the computation of interest on working capital. Accordingly, the interest on working capital has been computed as shown in the table below:

**Table 37: Interest on Working Capital admitted by the Commission for FY 2018-19**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
<b>For wheeling activity</b>		
A)	1/6th of annual requirement of inventory for previous year	0.02
B)	Total O&M expenses	6.27
B) i)	1/12th of total	0.52
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))	0.54
E)	Rate of interest	13.45%
F)	Interest on working capital	0.07
<b>For Retail Sale activity</b>		
A)	1/6th of annual requirement of inventory for previous year	0.00

<b>Sl. No.</b>	<b>Particulars</b>	<b>Amount (Rs. Crore)</b>
B)	Receivables	
B) i)	Annual revenue from tariff and charges	158.08
B) ii)	Receivables equivalent to 2 months average billing	26.35
C	Power purchase expenses	144.20
C) i)	1/12th of power purchase expenses	12.02
D	Consumers security deposit	15.13
E)	Total working capital (A+B ii) - C i) - D)	-0.80
F)	Rate of interest	13.45%
G)	Interest on working capital	-0.11
	<b>Summary</b>	
1	<b>For wheeling activity</b>	<b>0.07</b>
2	<b>For retail sale activity</b>	<b>-0.11</b>
	<b>Total interest on working capital</b>	<b>-0.04</b>
	<b>Total interest on working capital admitted</b>	<b>0.00</b>

### **Interest on Consumer Security Deposit**

#### **Petitioner's Submissions**

3.75 The Petitioner has claimed Interest on consumer security deposit has been paid to the consumers according to the provisions of the Regulation for security deposit notified by the Hon'ble Commission. Interest rate is considered same as the RBI bank rate of 6.75% prevailing as on 1st April, 2017. The Petitioner claimed interest of Rs. 1.22 Crore over the Consumer Security Deposit amount of Rs. 19.22 Crore.

#### **Commission's Analysis**

3.76 The Commission has approved interest on consumer deposit based on the audited accounts for FY 2016-17 and considering the interest rate of 6.25% (RBI Interest Rate) prevailing as on 1st April, 2018 as show in the table below:

**Table 38: Interest on Consumer Security deposit admitted by the Commission**

<b>Sl. No.</b>	<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
1.	Consumer security deposit	15.13
2.	Interest amount admitted	0.95

### **Lease Rent**

#### **Petitioner's Submissions**

3.77 The Petitioner has claimed Rs. 2.19 Crore for FY 2018-19 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.

3.78 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.”*

- 3.79 The Petitioner has claimed that lease rent is legitimate expense and should be permitted to be recovered as an expense through the ARR. The lease rent is being charged by MPAKVN as it is an opportunity cost lost for MPAKVN SEZ business as they could have leased out this land to some other industry and received lease rent against it. Further, as a distribution licensee, in normal course of action MPAKVN would have purchased this land for establishment of its power distribution infrastructure. The cost incurred for purchase of land gets capitalized and the Commission allows 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 depreciation, interest on loan and return on equity chargeable on the capital cost incurred by MPAKVN, is inevitable.
- 3.80 The Petitioner has sought lease rent in its review petition 86 of 2012 and the Commission in its Order dated 21 December, 2012 has disallowed lease rent sighting reason of non-payment. The relevant part of the same is reproduced here below for reference.

*“ii. Land Premium and Lease rent charges:*

.....

*The Commission considered the matter and observed that in the instant case since no actual payments are being made to the SEZ on account of land premium or lease rent such notional expense cannot be charged to the consumers. The claim made by the petitioner in this regard is not sustainable.”*

- 3.81 The Petitioner has submitted that it has now made all past payments towards lease rent and hence the Commission is requested to approve lease rent on actual basis. There have been instances in other states wherein the Commission has allowed this expenditure pertaining to lease rental as a pass through in the tariff over and above the other expenses.
- 3.82 The Petitioner requested to allow lease rent charged to its power business as a legitimate expenditure as part of the ARR for the FY 2017-18 and FY 2018-19.

### **Commission’s Analysis**

3.83 The Commission, during technical validation with the Petitioner on 24<sup>th</sup> May, 2018 at office of the Commission, has noted that the Petitioner does not make any payment to GoMP towards land lease, while the Petitioner is claiming the same as an opportunity cost towards leasing the land utilised for power business. The Commission is of the view that since the Petitioner is obligated to supply power to the consumers under its own licensed area as a deemed licensee as per Electricity Act, 2003 and is not making any kind of payment towards land lease to GoMP, the lease rent of Rs. 2.19 Crore claimed by the Petitioner for FY 2018-19 has not been admitted.

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

**Table 39: Interest and Finance charges as filed and admitted by the Commission for FY 2018-19**

<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>	
	<b>As filed</b>	<b>As admitted</b>
Interest on project loans	0.42	0.19
Interest on working capital loan	0.00	0.00
Interest on consumer security deposit	1.09	0.95
Lease Rent	2.19	0.00
<b>Total</b>	<b>2.31</b>	<b>1.14</b>

### **Bad & Doubtful Debts**

#### **Petitioner’s Submissions**

3.85 The Petitioner has submitted that as per clause 35 of the MYT Regulations, 2015, bad and doubtful debts in the ARR can be considered up to 1% of the yearly revenue and it has considered doubtful debts to the tune of 0.5% of the yearly revenue for the FY 2017-18 and FY 2018-19 as summarised Rs. 0.71 Crore and Rs. 0.78 Crore respectively.

#### **Commission’s Analysis**

3.86 The Commission has not allowed any provision for Bad & Doubtful Debts as the Petitioner’s previous Audited Accounts has shown none. Further, if any Bad & Doubtful Debts occurs the same would be admitted based on actuals during the Truing-up.

#### **Income Tax**

3.87 The Petitioner has not claimed any expense on account of income tax for FY 2018-19 hence not considered by the Commission.

## Other Income

### Petitioner's submissions

3.88 The Petitioner has submitted the other income for FY 2018-19 based on the actuals for FY 2016-17 as shown in the table below:

**Table 40: Other Income filed by the Petitioner for FY 2018-19**

Particulars	FY 2018-19 (Rs. Crore)
Miscellaneous Income	0.01
Interest Received on Deposit with MPSEB	0.06
Shutdown Charges	0.00
Power Application Processing Fees	0.01
<b>Total Other Income</b>	<b>0.09</b>

### Commission's Analysis

3.89 The Commission has admitted other income of Rs 1.62 Crore for FY 2018-19 as per the Audited Accounts for FY 2016-17 of the Petitioner without any escalation.

### Revenue from Sale of Power

3.90 The Petitioner has projected revenue income net of incentives as Rs. 156.79 Crore for FY 2018-19 based on existing tariff while the Commission has worked-out revenue at existing tariff net of incentives for FY 2018-19 as Rs. 158.08 Crore. The Commission has not revised the tariff as revenue income based on existing tariff is matching with the annual revenue requirement admitted by the Commission for FY 2018-19.

### ARR filed and admitted for FY 2018-19

3.91 The Commission has determined the prudent expenses against components of the ARR for FY 2018-19 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 41: ARR as filed by the Petitioner and as admitted by the Commission for FY 2018-19**

Particulars	FY 2018-19	
	Filed	Admitted
<b>Sale and Power Purchase Requirement</b>		
Sale (MU)	387.63	387.63
Distribution loss (%)	2.02%	1.80%
Distribution loss (MU)	7.98	7.11
Intra state transmission loss (%)	2.87%	2.71%
Intra state transmission loss (MU)	11.69	11.00
Total power purchase requirement (MU)	407.30	405.74
<b>Expenditure</b>		
Purchase of power (Rs Crore)	158.61	144.20
Intra-state transmission (MP Transco) charges (Rs Crore)	7.49	7.49

<b>Particulars</b>	<b>FY 2018-19</b>	
	<b>Filed</b>	<b>Admitted</b>
Other power purchase related expenses incl. SLDC charges (Rs Crore)	0.03	0.03
R&M expense (Rs Crore)	2.57	0.58
Employee expenses (Rs Crore)	3.07	3.50
A&G expense (including MPERC fees) (Rs Crore)	2.18	2.18
MPERC Fees (Rs Crore)	0.02	0.01
Depreciation and related debits (Rs Crore)	0.21	0.27
Interest & finance charges (Rs Crore)	1.98	1.14
Bad Debt (Rs Crore)	0.78	0.00
Land Lease (Rs Crore)	2.19	0.00
<b>Total expenses (Rs Crore)</b>	<b>179.14</b>	<b>159.40</b>
RoE(Rs Crore)	0.93	0.29
<b>Total expenses including RoE (Rs Crore)</b>	<b>180.07</b>	<b>159.70</b>
<i>Less: Other income (Rs Crore)</i>	0.09	1.62
<b>Total ARR (Rs Crore)</b>	<b>179.98</b>	<b>158.08</b>
<b>Revenue</b>		
Revenue from sale of power at existing tariff (Rs Crore)	156.79	158.08
<b>Revenue surplus / (Gap) (Rs Crore)</b>	<b>-23.19</b>	<b>0.00</b>

**A4: WHEELING CHARGES, CROSS SUBSIDY SURCHARGE AND ADDITIONAL SURCHARGE**

**Determination of “wheeling cost”**

4.1 The Commission allocates the fixed costs of distribution (i.e. other than power purchase) for wheeling activity in the following manner for the purpose of determining wheeling cost:

**Wheeling activity shall include:**

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

4.2 On the basis of the admitted ARR for FY 2018-19, the expenditure towards wheeling activity for the Petitioner is as shown in the Table below:

**Table 42: Expenditure towards Wheeling Activity**

<b>Particulars</b>	<b>FY 2018-19 (Rs. Crore)</b>
O&M expenses	6.27
Depreciation	0.27
Interest on loans – on normative working capital for wheeling activity	0.19
Return on Equity	0.29
Other miscellaneous expenses including MPERC fee	0.01
Less: Other Income as attributed to wheeling activity	0.00
Income Tax	0.00
<b>Total</b>	<b>7.04</b>

**Segregation of costs among voltage levels**

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

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

4.5 It is observed that the present accounting practices followed by 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.

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

**Table 43: Voltage-wise Cost Break-up of Sub-transmission & Distribution Lines**

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	14.04	4.39
<b>Below 33 kV</b>			
11 kV	12.00	10.56	1.27
LT	5.00	5.43	0.27
Sub-total	17.00	0.00	1.54
<b>Total</b>	<b>48.25</b>		<b>5.93</b>

**Table 44: 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	42.03	4.20
11/0.4 kV Transformer	3.20	2.58 per 100 KVA	0.08
<b>Total</b>	<b>13.20</b>		<b>4.29</b>

4.7 Data for length of lines and transformation capacity expected to be added during FY 2018-19 are taken as provided in the Petition.

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

**Table 45: 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	4.39	4.20	8.59
Below 33 KV	1.54	0.08	1.62
<b>Total</b>	<b>5.93</b>	<b>4.29</b>	<b>10.21</b>



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

**Table 46: 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	8.59	84.12%	7.04	5.92
Below 33 kV	1.62	15.88%		1.12
<b>Total</b>	10.21	100.00%		7.04

**Sharing of Wheeling costs**

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

4.11 This allocation of wheeling cost is done based on the usage of the network at different voltage level by consumers. The Commission has chosen to adopt “Units to be Sold” at different voltage levels as the measure of network usage to allocate the costs as detailed below:

**Table 47: Allocation of wheeling cost over distribution system users**

	Particulars	Quantity
A	Wheeling Cost at 33 kV- (Rs Crore)	5.92
B	Sales at 33 kV (MU)	386.16
C	Total Sales (MU) { HV + LV }	387.64
D	Proportion of 33 kV sales to total sales (MU)	99.62%
	<b>Cost allocation</b>	
E	Wheeling cost of 33 kV allocated to 33 kV users only (A*D)-Rs. Crore	5.90

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

**Table 48: Wheeling Charges**

Voltage	Wheeling Cost allocated (Rs. Crore)	Sales (MU)	Wheeling charges (in Rs./unit)
EHT	-	-	-
33KV	5.90	386.16	0.15

**Applicability of wheeling charges under different scenarios**

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

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

4.14 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**

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

*“8.5 Cross-subsidy surcharge and additional surcharge for open access*

*8.5.1 ...*

*....*

*Surcharge formula:*

$$S = T - [C / (1 - L / 100) + D + R]$$

*Where*

*S is the surcharge*

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

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

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

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

*R is the per unit cost of carrying regulatory assets.*

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

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

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

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

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

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

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

**Table 49 : Voltage-wise losses**

<b>Voltage Level</b>	<b>Loss level (L)</b>
EHT (transmission system) including External losses	2.71%
33 kV (only 33 kV system)	1.80%

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

**Table 50 : Transmission Charges**

Particulars	
PGCIL Charges (Rs Crore)	-
MPPTCL Charges (Rs Crore)	7.49
Total Charges (Rs Crore)	7.49
Units to be handled by MPPTCL (MU)	405.74
<b>Transmission Charges (Rs per unit)</b>	<b>0.18</b>

- 4.19 Finally, the term in the Tariff Policy formula ‘T’, Average Tariff for each category is derived from their expected revenue for FY 2018-19.
- 4.20 As per the MPERC (Open Access) Regulations, 2005, the consumers with contract demand of 1 MW or above are allowed open access w.e.f. 1st October, 2007. These consumers are to be connected at 33 KV or above as per Madhya Pradesh Electricity Supply Code, as amended from time to time.
- 4.21 In accordance with the above, the total cost (Rs/unit) for various categories of HT consumers having contract demand of 1 MW or above at 132 kV/33 kV under various scenario are worked out as detailed in the table below (“scenario wise cost”). The Cross-Subsidy Surcharge shall be the difference of average tariff and the total cost (Rs/unit) for the particular category at particular voltage. The category wise average tariff as per tariff order for FY 2018-19 is given in the table below (“category wise average tariff”). However, Cross-Subsidy surcharge shall not exceed 20% of the average tariff applicable to the category of the consumers seeking open access. In case where cross-subsidy surcharge, based on above methodology, works out as negative, the same shall be considered as zero for billing purposes.
- 4.22 Aforementioned wheeling charges and cross subsidy surcharges are not applicable to consumers availing open access from renewable sources of energy.

**Table 51 : Scenario wise cost (Rs per Unit)**

Scenario	Wt. Average Cost of Power	Cost of Power grossed up for distribution losses	Cost of Power grossed up for transmission losses	Transmission charges	Wheeling charges	Total Cost
						$[C/(1-L/100)+D+R]$
1	3.55	3.62	3.72	0.18	0.15	4.05
2	3.55	3.62	3.72		0.15	3.87

**Table 52 : Category wise average tariff and CSS**

Category of HT/EHT consumers	Average Tariff 'T'	Scenario 1	CSS	Ceiling of 20%	Applicable CSS
HV-1: Industrial and Non-industrial (Rs./unit)	4.08	4.05	0.03	0.82	0.03

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

**Determination of Additional Surcharge**

4.23 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.

**A5: FUEL COST ADJUSTMENT CHARGE**

- 5.1 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.
- 5.2 FCA formula for deriving Fuel Cost Adjustment for recovery/adjustment of uncontrollable costs due to increase or decrease in the cost of fuel in case of coal, oil, and gas for generating plants.

$$\text{FCA for billing quarter (p/u)} = \frac{\text{IVC (Rs. Crore)} \times 1000}{\text{Normative Sale (MU)}}$$

Where,

IVC = sum of – (a) difference in per unit variable cost actually billed by each long term coal or gas based power generator and variable cost as allowed in the Tariff Order, multiplied by (b) units availed from each such generating station in the preceding quarter.

Variable costs of Hydel Generating Stations shall not be considered for the purpose of working out the increase in variable Cost of Power Purchase.

Preceding Quarter = the period of preceding three months excluding the period of two months immediately preceding to the billing quarter,

Billing Quarter = the period of three months for which FCA is to billed and shall be a period commencing on first day to last day of quarter for the quarter commencing from 1st April ending 30th June and so on.

Normative Sale = the sale grossed down from the total actual ex-bus drawal from all sources (Generators + Other sources) during preceding quarter by the normative PGCIL, transmission and distribution losses for the months of the preceding quarter provided in the Tariff Order.

- 5.3 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.
- 5.4 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.

- 5.5 FCA charge shall be uniformly applicable to all categories of consumers of the Petitioner.
- 5.6 The responsibility of working out the rate of FCA every quarter shall rest with the Petitioner.
- 5.7 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 53: 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							

- 5.8 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.
- 5.9 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.
- 5.10 The Petitioner shall commence billing of FCA charge from the first day of the billing quarter.
- 5.11 The rate and amount of FCA charge shall be shown separately in the consumer bills.\
- 5.12 Following illustration is given for the purpose of understanding:

5.13 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.

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

**Table 54: MPPTCL and Distribution losses**

Sr. No.	Month/Year	MPPTCL Losses*	Distribution Losses**
		%	%
1	April, 2018	2.71%	1.80%
2	May, 2018	2.71%	1.80%
3	June, 2018	2.71%	1.80%
4	July, 2018	2.71%	1.80%
5	August, 2018	2.71%	1.80%
6	September, 2018	2.71%	1.80%
7	October, 2018	2.71%	1.80%
8	November, 2018	2.71%	1.80%
9	December, 2018	2.71%	1.80%
10	January, 2019	2.71%	1.80%
11	February, 2019	2.71%	1.80%
12	March, 2019	2.71%	1.80%

\* Transmission Losses: M.P. Transmission losses are based on input at State periphery.

\*\* Distribution Losses: Distribution losses are based on input at Discoms periphery.



## **A6: RETAIL TARIFF DESIGN**

### **Legal Position**

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

### **Commission's Approach to Tariff Determination**

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

### **Linkage to Average Cost of Supply**

- 6.3 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.
- 6.4 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.
- 6.5 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.
- 6.6 Determination of voltage-wise losses would require detailed technical studies of the distribution network. As a first step in the direction of working out category wise cross subsidy based on voltage wise cost of supply, the Commission has attempted to determine the same based on the following methodology. 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.

- (i) Voltage wise cost of supply has been computed for 33 kV and 11 kV (inclusive of LT) categories only.
- (ii) Sales as admitted by the Commission for 33 kV and 11 kV (inclusive of LT) categories have been considered.
- (iii) Total Distribution losses of the Petitioner has been considered the same as specified in the Tariff Regulations for FY 2018-19 while transmission losses have been considered as admitted in the previous section of this Order.
- (iv) Total losses as admitted by the Commission have been segregated voltage wise for 33 kV and 11 kV (inclusive of LT) in the same proportion as submitted by the Petitioner.
- (v) Power purchase costs at the Petitioner's periphery for 33 kV and 11 kV (inclusive of LT) based on the voltage-wise input energy have been considered. All other costs of the Petitioner are allocated based on the sales to each voltage-level.
- (vi) Voltage wise total cost derived has been divided by voltage wise sales for working out the voltage wise cost of supply

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

**Table 55: Broad computation of voltage-wise cost of supply**

<b>MPAKVN</b>	<b>Units</b>	<b>33 KV System</b>	<b>11 KV + LT System</b>	<b>Total</b>
Sales	MU	386.16	1.48	387.63
Technical and Commercial losses considered	%	4.41%	16.49%	4.46%
Energy Input admitted	MU	403.97	1.77	405.74
Energy Lost	MU	7.81	0.29	18.10
Commercial losses	MU		-	0
Technical losses for all voltage in proportion to Sales	MU	17.81	0.29	18.10
Net Energy Input	MU	403.97	1.77	405.74
Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr	151.06	0.66	151.73
Other costs - allocated based on voltage-wise sales	Rs Cr	7.94	0.03	7.97
Less: Other income - allocated based on voltage-wise sales	Rs Cr	1.61	0.01	1.62
Total Costs (ARR requirement)	Rs Cr	157.39	0.69	158.08
<b>VCoS</b>	<b>Rs/kWh</b>	<b>4.08</b>	<b>4.64</b>	<b>4.08</b>

6.8 Category wise cross-subsidy reduction admitted by the Commission for FY 2018-19 is shown in the table below:

**Table 56: Cross subsidy-based voltage-wise cost of supply for FY 2018-19**

Category	VCOS (Rs. / Unit)	Average billing rate (Rs. /Unit)	Ratio of Average billing Rate to Voltage-wise Cost of Supply (%)
<b>LT CATEGORIES</b>			
LV 2: Non- Domestic	4.64	4.74	102%
LV 3: Public Waterworks & Streetlights	4.64	4.08	88%
LV 4: LT Industry	4.64	5.15	111%
<b>HT CATEGORIES</b>			
HV-1: Industrial & Non-Industrial	4.08	4.08	100%

6.9 While determining the tariffs for FY 2018-19, the Commission has given due consideration to the requirement of the Electricity Act, 2003 that consumer tariffs should reflect the cost of supply. The average cost of supply for FY2018-19 works out to be Rs 4.08 per unit as against Rs 4.14 per unit in FY2017-18 .The table below shows the cost coverage (Average realization in percentage of Average cost of supply) on account of tariff for FY 2018-19 as compared to the cost coverage in the tariff order for FY 2017-18:

**Table 57: Comparison of tariff v/s overall average cost of supply**

Category	Average realization as % of Average CoS	
	FY 2017-18 (as per tariff order)	FY 2018-19 (as per this tariff order)
<b>LT CATEGORIES</b>		
LV 2: Non- Domestic	101%	116%
LV 3: Public Waterworks & Streetlights	100%	100%
LV 4: LT Industry	114%	126%
<b>HT CATEGORIES</b>		
HV-1: Industrial & Non-Industrial	100%	100%

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

- A. A new tariff category has been introduced for charging of electric vehicle/electric rickshaws in LV and HV separately.
- B. Wherever the rates for temporary connection/supply were charged at 1.3 times, the same have been reduced to 1.25 times the applicable tariff.

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

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

7.1 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.

7.2 **Audited Accounts**

**Directive:** 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.

**Response:** The Petitioner has submitted the Audited Accounts along with True-up Petitions upto FY 2016-17.

**Commission's observations/directions:** The Commission noted the submission of the Petitioner.

7.3 **Technical studies of the Distribution network to ascertain Voltage-wise Cost of Supply**

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

**Response:** The Petitioner has submitted that they have initiated a study on Voltage-wise Cost of Supply and a report shall be submitted as soon as the study is completed.

**Commission's observations/directions:** The Commission has been directing the petitioner for VCoS study through various retail supply tariff orders in past however the petitioner has not complied the same. The Commission is of the view that licensee area is small and predominately HV hence the study would not require much time. In view of above, the Petitioner is directed to submit the methodology to compute Voltage-wise Cost of Supply within one month from the issuance of this Order. Further, the petitioner is directed to submit study report within two month from the issuance of this Order.

**Fresh Directives:**

- 7.4 The Commission directs the Petitioner to submit depreciation model till FY 2016-17 or latest available linked with the asset register within a month of issuance of this Order.
- 7.5 The Commission directs the Petitioner to include details of quantum of category-wise sales, quantum of power purchase and voltage-wise distribution losses in its Audited Accounts for the Power Business.

# **TARIFF**

  

# **SCHEDULES**

**Annexure-1 (Tariff Schedules for Low Tension Consumers)**

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

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

<b><u>Tariff Schedule-- LV-1</u></b> .....	<b>56</b>
<b><u>Tariff Schedule – LV-2</u></b> .....	<b>57</b>
<b><u>Tariff Schedule – LV-3</u></b> .....	<b>59</b>
<b><u>Tariff Schedule – LV-4</u></b> .....	<b>60</b>
<b><u>Tariff Schedule – LV - 5</u></b> .....	<b>62</b>

## **Tariff Schedule-- LV-1**

**DOMESTIC: ---**

**Applicability:**

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:**

<b>Energy charges (paise per unit)</b>	<b>Monthly Fixed Charges (in Rs)</b>
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:**

<b>Sub category</b>	<b>Energy charges (paise/unit)</b>	<b>Monthly Fixed charges ( in Rs)</b>
<b>LV 2.1 Sanctioned load based tariff ( only for connected load up to 20kW)</b>		
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
<b>LV 2.2 contract demand based tariff</b>		
<b><u>OPTIONAL Demand based tariff</u></b> (only for contract demand above 10 KW and up to 20kW)	365	100 per KW or 80 per kVA of billing demand
<b><u>Mandatory demand based tariff for contract demand above 20 kW</u></b>	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
<b>For X-Ray plant</b>	<b>Additional Fixed charges (Rs. per machine per month)</b>	
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:**

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.

**Note: Private water supply scheme, water supply schemes run by institutions for their own use/employees/townships etc. shall not fall in this category. These shall be billed under the appropriate tariff category to which such institution belongs. In case water supply is being used for two or more different purposes then entire consumption shall be billed for purpose for which the tariff is higher.**

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

**Tariff: For Public Water Works and Street Light**

Category	Energy Charges (paise per unit)	Monthly Fixed Charges (in Rs. per KW)	Minimum Charges (Rs)
<b>LV 3.1 Public Water Works</b>	415	NIL	300 per kW
Temporary supply for <b>Public Water Works</b>	1.25 times the applicable tariff		
<b>LV 3.2 Street light</b>	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:**

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**

	<b>Category</b>	<b>Monthly Fixed Charges (in Rs.)</b>	<b>Energy Charges (paise per unit)</b>
<b>4.1</b>	<b>Industrial consumers</b>		
<b>4.1 a</b>	Demand based tariff (for Contract demand up to 150 HP)	100 per kW or 80 per kVA of billing demand	365
<b>4.1 b</b>	Temporary connection	1.25 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.
-

**Tariff Schedule – LV - 5**

**E- VEHICLE / E-RICKSHAWS CHARGING STATIONS**

**Applicability:**

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging stations. However, tariff for other consumers who use electricity for charging their own Vehicle / Rickshaws shall be the same as applicable for the relevant category of metered connection from which the Vehicle / Rickshaws are being charged.

**Applicable Tariff:**

<b>Category</b>	<b>Energy Charge (Paise/unit)</b>
Electric Vehicle/ Rickshaw charging installations	408

- a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions of Low Tension tariff.
- b) For the consumers in this category, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Bivector Meter capable of recording Demand in kVA/kW, kWh, kVAh.
- c) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

**GENERAL TERMS AND CONDITIONS OF LOW TENSION TARIFF**

1. **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. **Method of billing of minimum consumption:**
  - 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:
- 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 lakh. 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) paise 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) 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.
- (p) 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.
- (q) 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.

#### **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 Tatkall 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 **1.25** 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 2018-19**

**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:**

<b>S. No.</b>	<b>Category</b>	<b>Monthly Fixed Charges (Rs./kVA of billing demand per month)</b>	<b>Energy charges (Paise / unit)</b>
<b>1.1</b>	<b>Industrial</b>		
	11 KV supply	170	370
	33 KV supply	206	365
<b>1.2</b>	<b>Non-Industrial</b>		
	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
<i>For supply at 33 kV or 11 kV</i>	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.

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**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 but who are not consumers of the Distribution Licensee 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 for synchronisation power 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.
- (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 and in the event of outages for annual planned maintenance, other maintenance, forced outages of generating units or also in the event of separation of generator from grid.
- (e) The synchronization with the grid, power shall be provided for a maximum period of 2 hours on each occasion. This time limit shall not be applicable to start up activity
- (f) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization with the grid incorporating the above terms and conditions.

**Tariff Schedule – HV - 4**

**E- VEHICLE / E- RICKSHAWS CHARGING STATIONS**

**Applicability:**

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging stations. However, tariff for other consumers who use electricity for charging their own Vehicles/Rickshaws shall be the same as applicable for the relevant category of connection from which the Vehicles/Rickshaws is being charged at such premises.

**Applicable Tariff:**

Category	Energy Charge (Paise/unit)
HT Supply	408

- a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions for High Tension tariff.
  - b) For the consumers in this category, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.
  - c) Other terms and conditions shall be as specified under General Terms and Conditions for High Tension Tariff.
- .....

## **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 lakh. The consumers in arrears shall not be entitled for this incentive.

**1.10 Power Factor Penalty**

(ii) 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”.

- (iii) 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%.
- (iv) 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.
- (v) 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.
- (vi) 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.

### 1.11 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  $(250 \text{ kVA} - 210 \text{ kVA}) = 40 \text{ kVA}$  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.

1.12 **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.

1.13 **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.

1.14 **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 1.25 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:

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

- (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 1.25 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 and the condition for Time of Day Surcharge/ rebate shall be applicable at the same rate as for permanent connection.

**Other Terms and Conditions for permanent connections:**

- 1.15 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.
- 1.16 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.
- 1.17 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.
- 1.18 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.
- 1.19 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.

- 1.20 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.
- 1.21 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.
- 1.22 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.
- 1.23 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.
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