

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**  
**"Urja Bhawan", Shivaji Nagar, Bhopal - 462 016**



**TARIFF ORDER**

**2006-07**

**Petition No.            141/05 (East Discom)**  
**142/05 (West Discom)**  
**144/05 (Central Discom)**

**PRESENT:**

**P. K. Mehrotra, Chairman**

**D. Roy Bardhan, Member**

**R. Natarajan, Member**

**IN THE MATTER OF:**

**Determination of Aggregate Revenue Requirement (ARR) and Retail  
Tariff for FY 2006-07 based on the Tariff Applications made by:**

- (i) Madhya Pradesh Poorva Kshetra Vidyut Vitaran Company Ltd.
- (ii) Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Ltd.
- (iii) Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd.

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**ORDER**

*(Passed on this 31<sup>st</sup> Day of March, 2006)*

- 1.1 This order relates to petition numbers 141/05, 142/05 and 144/05 filed before Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission) by Madhya Pradesh Poorva Kshetra Vidyut Vitaran Company Limited (hereinafter referred to as East Discom), Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Limited (hereinafter referred to as West Discom) and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (hereinafter referred to as Central Discom) respectively on 21<sup>st</sup> November 2005 for determination of tariff for distribution and retail supply of electricity to the consumers in their areas of supply during FY'07. The licensees were required to submit their tariff petitions for FY'07 under the MPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 as amended vide notification dated 30<sup>th</sup> September 2005 by the stipulated date of 31<sup>st</sup> October 2005. All the three Discoms have filed their tariff petition for FY'07 on 21<sup>st</sup> November 2005. The Commission notified the Terms and Conditions for determination of Tariff under Multi Year framework on 5<sup>th</sup> December 2005 and under Clause 2.1 of these regulations also, the distribution licensees are required to file petitions for determination of tariff by 31<sup>st</sup> October every year. Multi year tariff principles shall be applicable from April 01, 2006 for a period of three years.
- 1.2 The first control period shall run for a period of three years i.e upto FY 09 and the tariff determined under the present order shall be the tariff and charges recoverable from various consumer categories during the control period with such changes and alterations as are made by the Commission from year to year with the aim of reducing cross subsidy and to give the benefit of efficiency gains to the consumers. The Commission shall extend the validity of the tariff and charges from year to year during the control period or make such modifications after ascertaining the cost of supply and after adjusting the expenses that the licensee is entitled to recover keeping in mind the need to share the gains of improved efficiency with consumers and in some instances, to compensate the licensee for the extraordinary levels of distribution losses (AT&C losses) in any particular geographical area. The distribution licensees are therefore required to file their application before the Commission every year by 31<sup>st</sup> October to enable the Commission to scrutinize the estimates of revenue and expenses.

- 1.3 Government of Madhya Pradesh (GoMP) notified the Madhya Pradesh Electricity Reforms First Transfer Scheme Rules, 2003 (Scheme Rules in short) on 30<sup>th</sup> September 2003. As per clause 5(1) of the said Rules, on and from the date of transfer to be notified by the State Government, the properties and all interests, rights and liabilities of the MPSEB as specified in Schedules ‘A’ to ‘E’ shall stand transferred to and vested in the State Government . As per clauses 6(3), 6(4) and 6(5) of the Scheme Rules, the undertakings forming part of Distribution Undertakings as set out in Schedules –C, D and E shall stand transferred to and vested in Discom-1, Discom-2 and Discom-3 respectively on and from the date of the transfer to be notified by the State Government. Vide Order No. 3679/FRS/18/13-2002 dated 31<sup>st</sup> May 2005, GoMP effected the reorganization of the MPSEB by notifying the Opening Balance Sheets of MPGenco, MPTransco, East Discom, Central Discom, West Discom and the residual MPSEB after restructuring as on 31<sup>st</sup> May 2005. Thus the Discoms are the owners of their respective distribution assets previously owned by MPSEB. The Discoms had started functioning independently from 1st June 2005 based on the order of GoMP dated 31<sup>st</sup> May 2005. The order of the Government of Madhya Pradesh also provided that the successor entities of MPSEB shall, immediately on the issue of the order, sign the Inter-se Agreements viz (i) the Power Purchase Agreement, (ii) the Transmission Service Agreement and (iii) Bulk Supply Agreement and file applications before the Madhya Pradesh Electricity Regulatory Commission for approval of inter-se agreements, for the determination of tariff and terms and conditions for the operation of the inter-se agreements. The details of the status of these agreements are discussed subsequently.
- 1.4 The Commission has reviewed the operational and financial performance of the Discoms for FY 06, including the period during which Discoms were functioning as agents of MPSEB. The Commission has finalised this order based on the review and analysis of the past records, information submissions, necessary clarifications submitted by the distribution licensees and views expressed by stakeholders.

**Procedural history****Submission of proposals by licensees**

- 1.5 Just prior to the notification of 31<sup>st</sup> May 2005, the Commission was engaged in the validation of the data submitted by the MPSEB for determining the retail tariff for FY06. The retail tariff order passed by the Commission on 10<sup>th</sup> December 2004 was valid till 31<sup>st</sup> March 2005 and its validity had been extended till the issue of revised tariff order. On issue of the GoMP Order dated 31<sup>st</sup> May 2005, the Commission issued a brief retail tariff order on 29<sup>th</sup> June 2005, to be effective from 15<sup>th</sup> July 2005, to enable the newly formed distribution companies to continue operating. . The Commission directed all the Discoms to file their separate tariff petitions for FY'06 before 31<sup>st</sup> July 2005 and also directed that if they are not in a position to do so, the Commission would consider treating the difference between the revenue and expenditure for FY06 as regulatory asset, which will be adjusted during the tariff period when the Commission introduces Multi year tariff from FY'07. As stated at the beginning of this Order, the three Discoms filed their petition for determination of tariff for FY07 on 21<sup>st</sup> November 2005 and the petitions included the data for FY06 as well. In this order the Commission has discussed in detail the requirement of aggregate revenue for FY07.
- 1.6 Among the distribution licensees, the East Discom is responsible for distribution and retail supply of electricity in the revenue divisions of Rewa, Sagar and Jabalpur; the West Discom is responsible for distribution and retail supply of electricity in the revenue divisions of Indore and Ujjain; while the Central Discom is responsible for distribution and retail supply of electricity in the revenue divisions of Bhopal Gwalior, Chambal and Hoshangabad.

**Gist of tariff petitions**

- 1.7 The gist of the tariff petitions is given below:

**Table 1: Snapshot of the tariff petitions**

S. No.	Discom	Financial year	Revenue income from sale of power (Rs. Cr.)	Non tariff income (Rs. Cr.)	Total revenue (Rs. Cr)	Total revenue requirement (Rs. Cr.)	Revenue gap (Rs. Cr)	Distribution loss (%)
1.	East	FY'06	1878.88	34.88	1913.76	2159.23	245.47	38.73
2		FY'07	2049.60	37.02	2086.62	2576.77	490.15	35.88
3	West	FY'06	2209.28	163.99	2373.27	2751.57	378.30	31.50
4		FY'07	2317.28	165.72	2483.01	3261.37	778.36	30.00
5	Central	FY'06	1792.00	255.00	2047.00	2094.00	47.00	41.60
6		FY'07	2050.00	243.00	2293.00	2681.00	388.00	38.00

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- 1.8 The petitions submitted by the Discoms on 21<sup>st</sup> November 2005 were found to be incomplete as these were submitted without indicating category wise proposals of tariffs to meet the revenue gap. They had also not submitted detailed analysis of projections of sale in respect of un-metered connections or the results of any study that might have been conducted on the basis of Distribution Transformer Metering (DTR metering). The Commission therefore granted time up to 15<sup>th</sup> December 2005 to all the Discoms to submit the required data.
- 1.9 The Central Discom submitted its tariff proposal for FY'07 on 15<sup>th</sup> December 2005 proposing to bridge the revenue gap of Rs. 388 crore for FY'07 partly through increase in the tariff for LT consumers (Rs. 140.95 crore or 11.59%) and the remaining through treatment of the gap as a "Regulatory Asset" to be amortized over a period of time. The Central Discom did not propose any change in the prevailing tariff for HT consumers.
- 1.10 The East Discom, in its tariff proposals for FY'07, submitted on 19<sup>th</sup> January 2006 suggested to bridge the revenue gap of Rs. 245.47 crore for FY'06 and Rs. 490.15 crore for FY'07, partly through increase in the tariff for LT consumers and the rest through treatment as "Regulatory Asset" to be amortized over a period of three years. The East Discom also did not propose any change in the prevailing tariff for HT consumers.
- 1.11 The West Discom, in its tariff proposals for FY'07 submitted on 6<sup>th</sup> January 2006, suggested to bridge the revenue gap of Rs. 378.30 crore for FY'06 and Rs. 778.36 crore for FY'07, partly through increase in the tariff for LT consumers and HT consumers and the rest through treatment as "Regulatory Asset" to be amortized over a period of three years.
- 1.12 The Commission received the completed proposals from the Distribution licensees only in January 06 and has therefore considered the petitions as presented before the Commission in January 2006.
- 1.13 The proposals made by the three distribution licensees were likely to result in a tariff which would be specific to them and could vary from one Discom to another. It is pertinent to mention here that the Commission received a communication from the Energy Department, Government of Madhya Pradesh, dated 7<sup>th</sup> March 2006, which inter alia, conveyed that the intention of the Government of MP was that "at least in the foreseeable future, the tariffs for various consumer categories in the State must remain similar".

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- 1.14 One of the concerns expressed in the above mentioned communication was that no major differences should arise among the Discoms, in terms of revenue gaps, or surpluses and further that the Government would in no way like the financial interests of the Discoms to be jeopardised and that there should be adequate incentives available to the Discoms for efficiency enhancement. It was further clarified that the Government intended to provide subsidy or any other form of financial assistance only to identified consumers as per Government's policy. This communication further went on to state that the State Government had decided that the bulk power purchase and supply function shall be carried out by a trading company to be set up for this purpose separately and that the Commission may determine differential bulk supply tariff (DBST) at which the MPSEB / Successor Trading Company shall supply electricity to the three Discoms so as to keep uniform retail tariff in the State. The Government of MP, through the above communication advised the Commission to assist the Government in achieving the objectives outlined in the communication and sought the advice of the Commission under section 86(2)(iv) of the Electricity Act, 2003, whether the Government should take any further action for achieving the said objectives.
- 1.15 The Commission, in this order, has tried its best to meet the objectives spelt out in the above communication. These objectives are not easy to achieve even though they may look simple, in view of the very divergent consumer mix, operating efficiencies, variations in collection efficiency and the efforts put in by the three distribution licensees towards containing AT&C losses. The Commission in this order has met the intention of the Government of determining a uniform tariff for the whole State. However, the Commission must point out that the widely varying AT&C loss levels of different distribution licensees will require that tariffs in the coming years must reflect their respective efficiencies and the benefit of low loss levels must be given to the consumers. This also means that the high loss recording regions will be required in the future, to carry a greater burden of such losses unless the loss levels are restricted and brought down. The road map for reduction of AT&C losses has been prescribed by the Commission for the duration of the control period upto FY 09 and is as given below :
- 1.16 East Discom which is required to bring AT&C loss level to 35.5% during FY 06, is expected to bring it down to 32.5% in FY 07, 29.5% in FY 08 and 26.5% in FY09
- 1.17 West Discom which is required to bring AT&C loss level to 31.7% during FY 06, is further required to keep the level at 30% in FY 07, 27.5% in FY 08 and 25% in FY 09
- 1.18 Central Discom is presently having the highest losses and is required to keep them at a level of 41.6% in FY 06 and to reduce the same to 37% in FY07, 32% in FY08 and 27.5% in FY09.



- 1.19 National Tariff Policy requires that by 2011-2012, the loss levels must be brought down to comparable international level. This will definitely mean better performance leading to lowering of average cost of supply and consequently, lower tariffs. For FY 07, the Commission has computed the requirement of individual distribution licensees in respect of power purchase by applying the specified loss level target for each company and has aggregated the resultant figure for the State as a whole. Thus, the gains of efficiency of any particular region have been shared by the consumers of other regions which have not shown similar determination to reduce losses. This situation may not continue in future years and therefore the Commission wishes to take this opportunity to bring it to the notice of the consumers in the state, the need for hastening the process of lowering AT&C losses, and thereby getting the advantage of lower tariff in their geographical region. It may be pointed that the National Tariff Policy, in para 8.2.1 (2), suggests as follows

*“AT&C loss reduction should be incentivised by linking returns in a MYT framework to an achievable trajectory. Greater transparency and nurturing of consumer groups would be efficacious. For government owned utilities improving governance to achieve ATC loss reduction is a more difficult and complex challenge for the SERCs.*

*Prescription of a MYT dispensation with different levels of consumer tariffs in succeeding years linked to different ATC loss levels aimed at covering full costs could generate the requisite political will for effective action to reduce theft as the alternative would be stiffer tariff increases. Third party verification of energy audit results for different areas/localities could be used to impose area/locality specific surcharge for greater ATC loss levels and this in turn could generate local consensus for effective action for better governance. The SERCs may also encourage suitable local area based incentive and disincentive scheme for the staff of the utilities linked to reduction in losses”*

- 1.20 In future, the Commission will look at the performance for specific geographical regions and direct the licensees to implement scheme for providing incentives and disincentives to the staff of the utility also. Details of such scheme shall be provided separately.
- 1.21 On account of determining uniform tariff throughout the state, the Commission is passing only one order even though separate petitions have been filed by the three distribution licensees. The respective efficiency and future trend of performance will determine the financial position of the distribution licensees. In line with multi year tariff principles, the Commission will consider the financial performance during the mid term review to decide how the gains or losses made by individual companies should be treated. With regard to the Government’s decision to form a separate trading company for conducting bulk power purchase and supply function and the request to determine differential bulk supply tariff, the Commission’s views are given at the end of this Order.

1.22 The Commission, in this Order has introduced a fixed charge to be collected from domestic consumers and to be kept in a special fund for which a separate account shall have to be maintained by the Discoms. This special fund is in keeping with the provisions contained in Sec 26 (7)(b) of MP Vidyut Sudhar Adhiniyam, 2000 which provides that such funds be utilised for projects meant to enable supply by the distribution licensee in different areas under its area of supply. It is estimated that this fixed charge will provide the licensees a corpus of Rs 45 crore annually and it will be advisable that this is leveraged for raising more resources to meet investment requirements necessary for efficiency enhancement and development and maintenance of a coordinated distribution system including appropriate metering and loss reduction measures. On completion of these projects for efficiency and capacity enhancement, the assets will become entitled for depreciation and the capital repayment problem will be taken care of. The long term benefit of these measures will bring about improvement for the common consumer and particularly, those residing in underserved, or poorly served areas. The licensee should have no difficulty in finding resources for up-gradation of overloaded transformers or lines, and for providing appropriate meters for all consumers. The waiting list for regular connections, must be expeditiously reduced and the plight of new colonies presently served through temporary connections must be improved.

**Notification of proposal for public information**

1.23 The Commission gave due publicity to the proposals submitted by the distribution licensees. The details of the publication of the proposals and the responses from the stakeholders including the validation of technical data provided by the licensee are being dealt with in detail in the order attached.

**Inter-se agreements**

1.24 As stated earlier, the Order of the GoMP dated 31<sup>st</sup> May 2005 stipulated that the successor entities of MPSEB shall, immediately on the issue of the Order, sign the Inter-se Agreements viz. (i) the Power Purchase Agreement, (ii) the Transmission Service Agreement and (iii) Bulk Supply Agreement and file applications before the Commission for approval of the agreements, for the determination of tariff, and terms and conditions for the operation of the inter-se agreements. MPSEB and the companies have accordingly filed the agreements with the Commission.

1.25 During the hearings conducted on the subject of Inter-se agreements, the Commission directed the generating company, transmission licensee and distribution licensees to file their petitions for determination of tariff for FY 06. MPGenco and MP Transco have filed petitions before the Commission for determination of their tariff for FY06. The Commission had already passed Orders for FY06 on the above petitions of MP Genco and MP Transco.

1.26 The Power Purchase Agreement between MPGenco and MPSEB follows the direction given in GoMP's notification dated 31<sup>st</sup> May 2005 stipulating that the entire generation of MP Genco shall be supplied to MPSEB for further supply to Distribution licensees.

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- 1.27 Even though the Order of GoMP dated 31<sup>st</sup> May 2005 directed the distribution licensees to file their tariff petition for FY 06 before the Commission immediately and the Commission in its Tariff Order dated 29<sup>th</sup> June 2005 had also directed the distribution licensees to file their petitions for determination of tariff for FY06 before 31<sup>st</sup> July, 2005, the distribution companies could not comply with these directions. They have however, submitted their petition for FY06 together with the petition for FY07.
- 1.28 While the Commission has taken a view on the revenue gap of FY 06 in the detailed Order attached, the approval of the inter-se agreements and arrangements made therein are still under consideration of the Commission. A separate Order shall be passed in due course.

### **Public Hearing**

- 1.29 The Commission held a public hearing on the tariff petitions filed by the Discoms on 20<sup>th</sup> February 2006 for West Discom and on 28<sup>th</sup> February 2006 for Central and East Discoms in the Conference Hall of the Commission. The Commission also invited several Non-Government Organizations (NGOs) to take part in the process of tariff determination and represent interests of all consumers. The comments/objections/suggestions received during the hearings have been duly considered in this order.

### **State Advisory Committee**

- 1.30 A presentation on the tariff petitions and proposals of each Discom were made before the Advisory Committee on 27<sup>th</sup> February 2006. The observations made in the Advisory Committee meeting on the petitions/proposals and the valuable suggestions have been kept in mind while finalising this order.
- 1.31 After hearing the licensee's representatives on the above issues raised by the consumer associations or individual consumers/objectors, the Commission has decided to make modifications in the existing tariff rates and its structure, which are described in the detailed Order attached.

**Estimated revenue from revised tariffs**

- 1.32 The Commission has estimated the overall revenue requirement of Rs. 7002.6 Crore as against the total revenue requirement of Rs. 8520 crore projected by the petitioners. The revised tariff shall ensure the revenue of Rs 6993.10 Crore for the State as a whole leaving a gap of Rs. 9.5 crore. This gap does not take into account the accrual from fixed charges recoverable from domestic consumers and the collection on account of delayed payment charges. However, the Commission has neither considered delayed payment charges as revenue nor has considered interest/penal interest on overdue payments. If we look at company-wise position, it shows that East Discom has a revenue surplus of Rs 38.43 Crore, Central Discom has a revenue gap of Rs 33.33 Crore and West Discom has a revenue gap of Rs 14.6 Crore and it is assumed that the Distribution Licensees will bridge this through improved efficiency and higher sales to subsidising consumers.
- 1.33 The Commission is also of the view that the Distribution Licensees must regularly review the progress of sales and estimates of revenue and in the event of any serious imbalance must approach the Commission with request for an Order under section 23 of the Electricity Act 2003 for regulation of supply or consumption or use of electricity.
- 1.34 While the tariff rates have been kept uniform throughout the State as suggested by the GoMP, the Commission will review the position towards the close of the Control Period with a view to deciding the principles for sharing of gains and losses between the Licensees and the consumers.

**Implementation of the Order**

- 1.35 The Commission, in exercise of the powers vested in it under Section 64 of the Electricity Act, 2003, directs that the tariff determined by this order shall become effective immediately i.e. w.e.f from 1 April 2006 and further the Commission directs the petitioner to implement the Order giving seven (7) days public notice in accordance with clause 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. The public notice should be issued within three (3) days of the date of the issue of this Order. The tariff determined by this Order shall remain in force from 1 April 2006 till 31<sup>st</sup> March 2007, unless amended or modified by an Order of this Commission.

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- 1.36 The licensee shall be required to provide an estimate of the expected revenue from tariffs and charges being permitted to recover by this Order and to report to this Commission on a monthly basis. The licensee must take particular care to segregate the expected revenue from the sale of energy to various categories and sub categories of consumers as per this Order and present the data for each region under the company. The Commission is separately specifying the procedure under Sec 62(5) of the Electricity Act, 2003 and prescribing the forms in which the reports shall be submitted. The Commission would also expect the licensee to undertake a quarterly review of the trend of sales and revenues in order that the estimates do not vary significantly. Distribution licensees are required to conduct their business on commercial principles and hence must make vigorous efforts to ensure that the sale of electricity to consumer categories above or equal to average cost of supply is always maintained at an adequate level to ensure that sufficient revenue is earned from these categories to meet the cross subsidy requirement of consumer categories receiving supply below the average cost of supply. The distribution licensees must develop suitable programs and strategies for retaining the loyalty of their valued customers and provide them quality service in order that the risk of migration to other sources of supply is minimised. The licensees may consider designating an officer or cell at appropriate level for sales promotion amongst subsidising consumers.
- 1.37 The need for balancing the cross subsidy revenue and expenditure is apparent. The Commission has estimated on the basis of the present consumer mix of the three distribution licensees that the position is as follows :

**Table 2: Snapshot of Cross-subsidy requirement and contribution**

Discoms	Cross subsidy provided by subsidising consumers		Cross subsidy provided to subsidised consumers	
	MUs	Rs. crore	MUs	Rs. crore
East	2734	354.18	3282	315.43
West	2748	406.88	5113	421.48
Central	2473	332.64	3739	365.67
<b>Total</b>	<b>7954</b>	<b>1093.71</b>	<b>12134</b>	<b>1102.59</b>

- 1.38 On the basis of the information provided by the petitioners concerning the projected number of consumers and their consumption, as also the revenue required for purchase of power and for meeting other costs, the Commission has approved the aggregate revenue requirement with modifications which indicates that the average cost of supply during FY 07 shall be Rs 3.49/unit. The average cost of supply in FY 05 was Rs 3.66/unit. The lowering of the average cost of supply has been possible mainly on account of reduced distribution losses as allowed by the Commission. The reduced level of allowed losses results in reduced requirement of power purchase and consequently reduced average cost of supply. In future years, the distribution losses shall be allowed by the Commission in keeping with the indicated trajectory and therefore there is hope for the average consumer that average CoS may go down further. The extent of cross subsidy burden of consumers paying above average CoS will also come down and hopefully the target given in the National Tariff Policy of bringing it within 20% of the average CoS will be achieved. This necessarily implies that the consumer categories receiving a higher proportion of cross subsidy will be required to pay a little more in future for their per unit consumption of electricity. To give an example, the agriculture consumers, for the minimum slab, are being charged 43% below average cost of supply (Rs 2 per unit against average cost of Rs 3.49). This will need to be increased gradually to reach 80% of the average CoS by 2011, unless arrangements for direct Government subsidy are made by the State Government. Most of the domestic category consumers are already being charged close to the average cost of supply. The exception is the sub category of lifeline consumers having monthly consumption upto 30 units who are being charged, 24% below average CoS.
- 1.39 As per the provisions of National Tariff Policy and the regulations specified by the Commission, the licensees are required to file their estimates of revenue requirement for a control period of three years. The baselines need to be developed by undertaking suitable studies and the licensees are required to undertake steps to ensure that the next filing in October 2006 meets the requirements for a MYT filing for the full duration of present control period and is accompanied by the results of the field studies undertaken to provide a sound basis for estimating sales to each consumer category and sub category.

1.40 Before parting with this order, the Commission wishes to briefly highlight the implications of the order of GoMP, issued on 31<sup>st</sup> May 2005. As provided in the Transfer Scheme, notified in Sept 2003 and as elaborated in the above mentioned order of 31<sup>st</sup> May 2005, the MPSEB continues to discharge the functions which have not been assigned to the newly formed companies. The most important function to be discharged by a distribution licensee is to make sound projections of demand in its area of supply and to make reliable arrangements for procuring electricity through long term agreements including meeting short term gaps by short term purchases. For discharging these and other crucial responsibilities, particularly the development and maintenance of a coordinated distribution system, the distribution licensee must have control over its revenues and be answerable for the prudent use of revenues according to the terms and conditions of the license and the provisions of the Electricity Act, 2003. From a reading of the Transfer Scheme notified in September 2003 and the GoMP Order of 31<sup>st</sup> May 2005, it is apparent that the three distribution companies neither have full control over their revenues nor over the power procurement process. These crucial functions are with the MPSEB, which has been allowed to function as a Trading Licensee till 9<sup>th</sup> June 2006 vide State Government's notification of 24<sup>th</sup> November 2005 issued with the consent of the Ministry of Power, Government of India in accordance with the proviso to Sec 172 (a) of the Electricity Act, 2003. Here, it will be relevant to quote from the National Tariff Policy which states in paragraph 8.4 sub paragraph 2 as follows:

*“(2) The National Electricity Policy states that existing PPAs with the generating companies will need to be suitably assigned to the successor distribution companies. The State Government may make such assignments taking care of different load profiles of the distribution companies so that retail tariffs are uniform in the State for different categories of consumers. Thereafter the retail tariffs would reflect the relative efficiencies of respective distribution companies in procuring power at competitive costs, controlling theft and reducing other distribution losses.”*

1.41 The assigning of existing PPAs to the Distribution Licensees has not been done. Instead, the Order provides that all long-term allocations of power from Central Generating Stations and from the state-owned generating stations shall be operated by the Trading Licensee i.e. MPSEB. Section 131(2) of the Electricity Act 2003 provides as follows:-

*“(2) Any property, interest in property, rights and liabilities vested in the State Government under sub-section (1) shall be re-vested by the State Government in a Government company or in a company or companies, in accordance with the Transfer Scheme so published along with such other property, interest in property, rights and liabilities of the State Government as may be stipulated in such scheme, on such terms and conditions as may be agreed between the State Government and such company or companies **being State Transmission Utility or generating company or transmission licensee or distribution licensee, as the case may be.”***

It is noteworthy that this clause does not make any mention of a Trading Licensee or a Holding Company to be vested with the rights and liabilities vested in the State Government under sub-section (1) of section 131 of Electricity Act 2003. The Commission would therefore urge the State Government to have the matter reviewed in the context of the above mentioned provision and to consider whether the proposed new Central Company, which is to replace MPSEB after 9<sup>th</sup> June 2006 should also be a distribution licensee so as to qualify for being re-vested with the rights and liabilities vested in the State Government under sub-section (1) of section 131 of Electricity Act 2003.

- 1.42 In our view, the MPSEB was functioning as a deemed distribution licensee with effect from 10<sup>th</sup> June 2004 and continued doing so even after the GoMP Order of 31<sup>st</sup> May 2005 till 9<sup>th</sup> June 2005. After this day the MPSEB is only functioning as a Trading Licensee as per the notification of the State Government. In the present arrangement, the responsibilities of the three regional distribution entities are getting diluted and these companies are not discharging all the responsibilities of a distribution licensee as envisaged under the license conditions. The basic requirement of making investment decisions for developing and maintaining a coordinated distribution system and decision for procuring energy to meet the needs of consumers in its area of supply is not being fulfilled because both these activities are in the hands of the Trading Licensee. The distribution licensee also does not have full control over its personnel and the several orders issued so far as part of the transfer scheme only indicate that the employees of the erstwhile MPSEB shall continue to remain employees of MPSEB. The Commission is therefore advising the State Government to consider the various issues mentioned above and to reach a decision that will bring greater certainty and clarity in the management of electricity distribution post restructuring. The average consumer of the State is vitally affected by any uncertainty in the affairs of the various successor entities of MPSEB and the larger interest of the consumers as well as the electricity industry as a whole will be better served if the period of transition is over early and an atmosphere of clear accountability and responsibility is ensured. The Commission is offering this advice under the provisions of Sec 86(2)(iv) of the Electricity Act, 2003.
- 1.43 Section 166(4) of the Electricity Act 2003 provides for a very important role to be played by the Coordination Forum for ensuring smooth and coordinated development of the power system in the State. This benefit can be fully derived if participation of all members and stakeholders is ensured on a regular basis. The issues, constraints and progress in respect of the above mentioned challenges can be best resolved by a coordinated action using the above provision of the Act.
- 1.44 The Commission has thus accepted the petitions of the distribution licensees with modifications and conditions, and has determined the retail tariffs and charges recoverable by the distribution licensees in the state of Madhya Pradesh during financial year 2006-07 and further directs that this order be implemented along with directions given and conditions mentioned in the detailed order and schedules attached. It is further order that the distribution licensees in the state are permitted to issue bills to consumers only in accordance with this tariff order with immediate effect and not on the basis of any other or earlier tariff order.



**ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

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Ordered as above, read with attached detailed reasons, grounds and conditions,

Sd/-

**(R. Natarajan)**  
**Member (Econ.)**

Sd/-

**(D. Roy Bardhan)**  
**Member (Engg.)**

Sd/-

**(P.K.Mehrotra)**  
**Chairman**

Dated: March 31, 2006

Place: Bhopal

**DETAILED REASONS AND GROUNDS, TARIFF SCHEDULES AND CONDITIONS ATTACHED WITH TARIFF ORDER ISSUED BY MPERC ON 31<sup>st</sup> MARCH, 2006 IN PETITIONS NUMBER 141/05, 142/05 AND 144/05**

Following is the detailed Order with grounds and reasons determining the tariff and charges recoverable during FY07 by the distribution licensees in Madhya Pradesh. The detailed Order is divided into sub-chapters discussing the functional and financial performance of the licensees and includes a status report on the compliance of Commission's Directives as well as the response of the licensees and Commission's observations on the suggestions and comments received from consumers to the tariff proposals.

**A2: AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY'07: LICENSEE'S PROPOSAL AND COMMISSION'S ANALYSIS/OBSERVATIONS**

**Commission's observations on performance of licensees for FY'06**

2.1 The Distribution Licensees, in their tariff petitions for FY'07, have provided the cost and revenue information pertaining to FY'06 as well. However, it needs to be made clear at the outset that this Tariff Order of the Commission pertains to FY'07; hence the Commission has not undertaken a close scrutiny of the Licensees' estimated financial position for FY'06. The Commission, in its Tariff Order for FY06, has clearly mentioned that in case the Distribution Licensees so choose they can file their petitions for determination of ARR to determine the gap by 31<sup>st</sup> July 2005, and if they fail to do so the amount will be considered as a Regulatory Asset to be recovered during the Control Period. Since the Discoms have not filed the ARR by 31<sup>st</sup> July 2005, the Commission decides to determine the ARR of the Discoms once the audited accounts for FY06 are made available to the Commission. The Commission shall also decide at that time the methodology of recovery of revenue gap, if any, during such exercise.

**Summary of Sales Forecast as proposed by the licensees**

2.2 The total sale of the three discoms during FY'07 is projected at 20,110 MUs. The sales in LT category is projected as 12,963.65 MUs and in HT category as 7,146.26 MUs (or 35.54 % of total sales).

**Table 3: Projected Sales of the three Distribution Companies for FY'07**

Category			Sales in MU - FY'07			
			West Discom	Central Discom	East Discom	Total Discoms
L T CONSUMERS	LV 1	Domestic Light Fan and Power	1539.24	1546	1386.49	4471.73
	LV 2	Non-Domestic Light Fan and Power	361.86	440	251.38	1053.24
	LV 3	Water Works and Street Lights	120	132	100	352
	LV 4	LT Industrial	364.69	208	176.44	749.13
	LV 5	Agricultural Consumers	3064.43	1896	1375.93	6336.62
		<b>TOTAL (LT)</b>	<b>5450.33</b>	<b>4222</b>	<b>3290.32</b>	<b>12962.46</b>
H T CONSUMERS	HV 1	Railway Traction	338.26	695	458.07	1491.33
	HV 2	Coal Mines	0.00	41	513.52	554.52
	HV 3	Industrial and Non Industrial	1682.69	1172	1053.79	3908.48
	HV 4	Seasonal	0.00		2.59	2.59
	HV 5	HT Irrigation and Public Water Works	202.79	100	59.85	362.64
	HV 6	Township and Residential Colony	0.00		638.52	638.52
	HV 7	Bulk Supply to Exemptees	186.18	2		188.18
		<b>TOTAL (HT)</b>	<b>2409.92</b>	<b>2010</b>	<b>2726.34</b>	<b>7146.26</b>
<b>TOTAL LT + HT</b>			<b>7860.25</b>	<b>6232</b>	<b>6016.66</b>	<b>20108.72</b>
<b>Ratio of HT to total sale (%)</b>			<b>30.66</b>	<b>32.25</b>	<b>45.31</b>	<b>35.54</b>

### Consumer Category-wise Demand Forecast

#### Projections of Consumers and Connected Load and Sales

#### Licensee's Proposal

##### West Discom

2.3 The Licensee has submitted that the sales forecast for the Current Year (FY 06) is based on actual sales for first five months up to August 05 and proportionately extended thereafter. For FY'07, the estimated sales to each category are extrapolations based on growth rates for the past seven years.

**Central Discom**

- 2.4 The Licensee has submitted that the sales forecast for the Current Year (FY 2005-06) is based on actual sales for first five months up to August 31<sup>st</sup> 2005 and the estimated sales for the next seven months of the year. The Licensee has stated that CAGR for past 5 years has also been considered and keeping in mind these factors, an ‘appropriate’ growth rate has been considered for estimating FY’06 sales. For FY’07 projections, the Licensee has submitted that primarily 5 year CAGR has been used. The Licensee has also stated that it has considered external factors such as migration to captive consumption (specific example of HEG, Mandideep has been cited), policy initiatives, economic development, etc. while developing the forecast.

**East Discom**

- 2.5 The Licensee has submitted that the sales forecast for the Current Year (FY 2005-06) is based on actual sales for first five months upto August 31<sup>st</sup> 2005 and the estimated sales for the next seven months of the year. For FY’07, the Licensee submits that the estimated sales to each category are extrapolations based on previous actual sales and estimated sales for FY’06, duly incorporating consumer category specific factors such as increase in metered sales, increase in number of services, schemes such as RGGVY expected to increase the number of consumers in rural areas, etc.

**Consumer category-wise demand forecast**

**Domestic**

**Licensee’s submission**

*West Discom*

- 2.6 The Licensee has projected a total sale of 1539 MUs for FY’07. The Licensee has also informed that there will be no un-metered consumers left in domestic category by the end of FY07. Therefore, the Licensee has not projected any consumption by un-metered domestic consumers in FY’07.

*Central Discom*

- 2.7 The Licensee has projected a total sale of 1546 MUs for this category for FY’07. These sales figures include 1353 MUs for metered domestic connections and 193 MUs for un-metered connections respectively for these years. The Licensee has stated that while making projections for this category, an increase of 70000 new connections envisaged under RGGVY scheme has been considered.

## **ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

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### *East Discom*

- 2.8 The Licensee has projected a total sale of 1386 MUs for this category for FY'07. These sales figures include 1200 MUs for metered domestic connections and about 186 MUs for un-metered connections. The Licensee has stated that while making projections for this category, a growth factor of 1.51% has been considered for projecting the number of consumers, which has been considered on the basis of 127452 new connections envisaged under RGGVY scheme during FY'07. For estimation of connected load, the load of new consumers has been added on the basis of average connected load per consumer for previous year, while load of existing un-metered consumers to be converted into metered consumers has been added assuming the load per consumer of 80 Watts.
- 2.9 For projecting metered consumption under this category, the Licensee has submitted that for FY'07, per kW consumption of new consumers shall be similar to the trend of existing consumers, while the consumption of un-metered services has been projected using the Commission specified method of assuming 100 units per month per consumer for urban consumers and 65 units per month per consumer for rural consumers.

### **Agriculture**

#### **Licensee's submission**

### *West Discom*

- 2.10 The Licensee has projected a sale of 3064 MU to this category for FY'07. This is composed of 791 MU to metered consumers and 2273 MU to un-metered consumers.

### *Central Discom*

- 2.11 The Licensee has submitted that the Load Factor of agriculture consumers is expected to go up on account of increased surveillance and a load factor of 20.01% is applied to arrive at the consumption for this category during FY'07. The total sales projected for this category for FY'07 is 1896 MU. While making these projections, the Licensee has also considered a sale of 21 MUs towards "free agriculture" for FY'07.

### *East Discom*

- 2.12 The Licensee proposes to increase the supply hours from the present 6 hours per day to 7 hours per day for this category. Also, the Licensee anticipates an addition of 10,000 consumers in this category during FY'07. The total sales projected for this category works out to 1375.93 MU.

### **Other categories of consumers**

- 2.13 Projections for other categories of consumers are based on past trends.

**Energy Balance and Power Purchase**

**Licensee's submission**

- 2.14 Distribution Licensees have computed the energy requirement for FY'07 by grossing up allowable distribution losses and transmission losses. The Distribution Licensees did not file their power purchase requirements as per MPERC (Power Purchase and Procurement) Regulations 2004. The Distribution Licensees claim that the power purchase price has been communicated to them by MPSEB, which as a trader is procuring power on their behalf. This is as per the provisions of the transfer scheme notified by GoMP. In the absence of source wise procurement and price details the Commission could not determine the exact quantum of power supplied to each Distribution Licensee from individual generation source, nor could the Commission check whether the merit order purchase principle has been meticulously observed by the discoms. Another requirement relating to procurement of at-least 0.5 % of total energy requirement from wind energy generation sources could not be ascertained. In view of the conscious decision conveyed by the State Government in the transfer scheme to the effect that the entire generation capacity of MP Genco and the Central generating stations' capacity allocated to Madhya Pradesh shall be handled by MPSEB, the Commission is of the view that the obligations applicable to a Distribution Licensee should be discharged in this respect by the trading licensee or the central company which is envisaged to be setup shortly to handle this task.
- 2.15 The Discoms have however conveyed their power purchase requirements and the cost in the petition for FY'07 as under:

**Table 4: Bulk Supply Cost of each Distribution Licensee for FY'07**

(Figures in Rs. Crore)

Sl. No.	Particulars	East	Central	West	Total
1.	Total Projected Energy Sales (MU)	6016.64	6232	7860.25	20108.9
2.	Distribution Losses (%)	32.5	38*	30.0	33.4
3.	Distribution Losses (MU)	2896.9	3819.6	3368.7	10085.2
4.	Transmission Losses (%)	5.00	6.00**	5.00	5.3
5.	Transmission Losses (MU)	469.13	641.6	591.0	1701.7
6.	External Losses (%)	##	##	2.50	0.7
7.	External Losses (MU)	##	##	303.07	303.07
8.	Net Energy Requirement (MU)	9382.67	10693	12123.0	32198.67
9.	Rate***	1.88	1.71	1.84	1.808
10.	Bulk Supply Cost (Rs. Cr.)	1763.94	1828.54	2230.63	5238.11

\*As Per Commission's Regulations, the specified loss level for Central Discom is 37% for FY'07

\*\* On going through the calculations, it appears that a loss level of 5% has been considered

\*\*\* As indicated by MPSEB to discoms ## Not claimed

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

2.16 Section 86(1)(b) of the Electricity Act stipulates that regulating electricity purchase and procurement process of Distribution Licensees including the price at which electricity shall be procured from the generating companies or Licensees or from other sources through agreements for purchase of power for distribution and supply within the State is a function to be discharged by the State Commission. Since the power purchase cost constitute around 75% of the input cost of the distribution Licensees therefore a close scrutiny of the power purchase cost is warranted. The Commission asked MPSEB to file the power purchase details showing the amount and the price from each source. After much delay, MPSEB provided the details. The details are provided in the table below:

**Table 5: MPSEB's estimate of power purchase quantum and expenses for FY'07**

Sl. No.	Particulars		FY'07		
			MU	Amount (Rs. Crore)	Paise/Unit
1.	Central Sector	Korba	3260	297.31	91.20
2.	Western Region	Vindhyachal-I	2980	430.69	144.53
3.		Vindhyachal-II	2240	349.51	156.03
4.		Kawas	660	181.48	274.98
5.		Gandhar	950	90.19	239.61
6.		KAPP	550	143.13	260.24
7.		TAPPS 3&4	770	210.04	272.78
8.		Total	11410	1851.79	162.30
9.		ER	Farrakka + Talcher +Kahalgaon	390	57.39
10.	Bilateral Purchases*	RSEB	350	95.90	274.0
11.	Other Sources	NHDC (Indira Sagar)	2700	567.54	210.20
12.		JV-Sardar Sarovar	1590	318.0	200
13.		CPP/Wind	12	305	254.17
14.		Short term purchases*	1124	449.60	400
15.		UI	500	175.00	350
16.		Total	5926	1513.19	255.35
17.	Net Power Purchases		18076	3518.27	194.64
18.	Transmission Charges	PGCIL	11800	115.14	9.76
19.		GRIDCO + CSEB	130	1.54	11.84
20.	Total		11930	116.68	9.78

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

Sl. No.	Particulars	FY'07		
		MU	Amount (Rs. Crore)	Paise/Unit
21.	Grand Total	18076	3634.95	201.09
22.	MPGENCO	14755	2173.26	147.29
23.	Total Power Purchase	32831	5691.53	173.36
24.	Losses in the PGCIL Network	691.43		
25.	Total Energy Input in MPPTCL's system	32140		

\* Bilateral or other sources must be approached after approval of rate by the Commission, which has not been done.

2.17 MPSEB is functioning as a trading licensee and has not become a party to the petition. The petitioners are distribution licensees and have provided information on their transactions. For the transactions undertaken by MPSEB, the Commission has only relied upon the information made available by MPSEB informally without becoming a formal party to the petition. MPSEB has estimated the power availability and power purchase cost on the basis of the following:

- (a) *NTPC's Stations in Western Region (Korba, VSTPS-I, VSTPS-II, Kawas and Gandhar) and Eastern Region (Farakka, Khalgoan and Talcher):* The computation of fixed costs is based on the petition filed by NTPC before CERC for the determination of tariff for the period FY'04 to FY'09. The fixed cost as projected by NTPC for the year FY'07 has been considered in the petition. The FPA computation has been done on the basis of the increase in the coal price. The other charges like ED and Cess have been considered at actual charges paid up to December 05. The incentive payment has been calculated (for Korba, VSTPS I & II and ER Stations) on the same basis as eligible for incentive during FY'05. Advance tax claimed by NTPC for FY'06 has been considered for FY'07 as well.
- (b) *Nuclear Power Corporation's Plants (Kakrapar & Tarapur):* Rate for Kakrapar has been considered as per Government of India's notification. For Tarapur rate applicable for Rajasthan Atomic Power Project (RAPP) has been considered.
- (c) *Inter State:* MPSEB has claimed 110% of the tariff rate of Badarpur for the energy deemed to be supplied from Rajasthan. The Badarpur rate for September 2005 with a hike of 5% has been considered as the base rate. For Hirakund (Orissa), present tariff rate of 48 paise/unit along with a wheeling charge of 25 paise per unit has been considered for FY'07.
- (d) *NHDC/Sardar Sarovar:* For Indira Sagar project fixed cost (Rs. 431.30 Crore) has been considered as per the petition filed by NHDC with CERC for the period FY'04 to FY'09. A variable charge at 50.46 paise/unit equivalent to lowest energy charge of a thermal station in the western region has also been



## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

considered. Income tax has been claimed at FY'05 levels. For Sardar Sarovar a rate of Rs. 2 per unit as communicated by the Energy department of GoMP has been considered by MPSEB.

- (e) *CPP/Wind*: The actual power received from CPPs and Wind Generators during the period April to August 05 has been used for projecting energy that will be available from these sources in F07. For determining the power purchase cost from these sources applicable rate of 275 paise per unit for CPP and 225 paise per unit for wind generators in FY'06 has been considered.
- (f) *Short term Purchases*: MPSEB have taken the prevailing rate for short-term purchases as the basis for FY'07 procurement also.
- (g) *UI Charges*: MPSEB have taken the actual outgo on account of UI charges for the period April 05 to December 05 as the basis for FY'07..
- (h) *Transmission Charges*: The transmission charges for western region transmission system are based on the petition filed by PGCIL for FY'04 to FY'09 before the CERC. For computing the transmission charges payable for transmission system of ER for FY'07, the same percentage rise that has been observed in the rates of transmission system of WR during the period FY'04 to FY'07 has been applied. Transmission Charges for Gridco has been considered as 11.60 paise/unit as per CERC order dated 3.1.2005 and wheeling charges of CSEB has been taken as 0.24 paise/unit as per WREB's letter dated 30.4.2004.

### **Commission's analysis of sales and power purchase**

#### **Sales and power purchase quantum (MU)**

2.18 The Commission has adopted a top-down approach to arrive at the sales forecast and power purchase requirement of the Licensees. The Commission has considered the trend in the power purchase quantum of three Distribution Licensees combined over the last four years (including FY'06, which is on-going). This is presented in the table below:

**Table 6: Power Purchase trend in MP**

<b>Year</b>	<b>Total power purchase quantum</b>	<b>Y-o-Y growth</b>	<b>CAGR</b>
FY'02-03	27,094.10		
FY'03-04	28,598.91	5.55%	
FY'04-05	30,622.10	7.07%	6.31% (FY'03-FY'05)
FY'05-06 (Actual up to Dec. 05)	32,183.76	5.10%	5.91% (FY'03-FY'06)

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FY'07 as filed by Discoms	32,198.67		
FY'07 as intimated by MPSEB	32,831		

- 2.19 It can be seen from the table above that the power purchase requirement of the Discoms has been growing steadily at around 5-6% annually. At this rate (6%), the estimated power purchase quantum for FY'07 would work out to 34,407 MU (FY'05 quantum compounded annually at 6% for two years). The Discoms have, in their petitions filed a requirement of 32,199 MU as shown above, while the MPSEB have stated this figure as 32,831 MU.
- 2.20 It can be observed from the Table 6 above, wherein the Distribution Licensees have computed their energy requirement, different transmission loss percentages have been considered by the Distribution Licensees. Some of the Distribution Licensees have not accounted for energy losses in PGCIL's transmission system. The Commission recomputed the energy requirement adopting the approach proposed by Distribution Licensees. The transmission losses have been considered at 5% as approved by the Commission for FY'07 and the external losses have been considered at 5.35% on purchases from central sector (both WR and ER) and short-term purchases. The energy requirement computed by the Commission is 32212.16 MU as per details given in the table below:

**Table 7: Energy Requirement of each Distribution Licensee for FY'07**

Sl.	Particulars	East	Central	West	Total
1.	Total Energy Sales (MU)	6017	6211*	7860	20109
2.	Distribution Loss (%)	32.5	37	30.0	33.05
3.	At T-D Interface (MU)	8914	9892	11229	30035
4.	Transmission Loss of MPPTCL (%)	5.0	5.0	5.0	5.0
5.	At G-T interface of MPPTCL	9383	10413	11820	31616
6.	External Losses (PGCIL) (%)	5.35	5.35	5.35	5.35
7.	External Losses (MU)	187.56	207.46	236.28	631.30
8.	Net Energy Requirement (MU)	9570.3	10585.7	12056.2	32212.16

\* Sales amounting to 21.06 MU forecast for "Free Agriculture" has not been considered

- 2.21 In the light of power purchase trend in the state observed for the last four years (presented in Table 6), this quantum of power purchase for FY'07 appears fairly reasonable. Therefore, the Commission approves this quantum of power purchase by the Discoms for FY'07. Consequently, the sales forecast as given in the Table 7 above (Sl. No. 1) for FY'07 is also approved by the Commission.

**Power Purchase Cost**

2.22 The Commission has considered energy availability from MPPGCL at 15,633 MU as per its order for MPPGCL dated 7<sup>th</sup> March 2006. This is the entire generation from power plants of MPPGCL located in MP. The share of Rajasthan in STPS and share of MP in the Chambal complex have to be considered according to the sharing agreement between the two states. However, the tariff for the energy used by distribution licensees in Madhya Pradesh has to be determined by MPERC under section 64(5) of the Electricity Act 2003. So far, the discoms in the state have not filed any application before MPERC for this purpose. As per this clause the State Commission having jurisdiction in respect of the Licensee which intends to distribute electricity and make payments thereof is entitled to determine the purchase price for such interstate supply, which in the instant case is of MPERC. The Commission has also recorded reasons in its order dated 10<sup>th</sup> December 2004 for not considering bilateral purchases. Considering the energy availability from various central power stations including Indira Sagar and Sardar Sarovar projects as per the availability projections done by MPSEB, the total availability of energy is coming to 33,359 MU. The availability of energy as estimated by MPSEB and that determined by the Commission are shown in the following table:

**Table 8: Energy availability (in MU) for FY07**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Estimated by MPSEB</b>	<b>As estimated by Commission</b>
1.	Central Sector (WR)	11410	11410
2.	Central Sector (ER)	390	390
3.	Bilateral purchases	350	Nil
4.	NHDC (Indira Sagar)	2700	2700
5.	Sardar Sarovar	1590	1590
6.	CPP/Wind	12	12
7.	Short-Term purchases	1124	1124
8.	UI	500	500
9.	MP Genco	14755	15633
10.	<b>Total</b>	<b>32831</b>	<b>33359</b>

## **ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

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- 2.23 As indicated earlier, the Commission has determined the energy requirement of the Distribution Licensees at 32,212 MU. Since availability of energy exceeds requirement, energy, which has the highest marginal cost, has been excluded to the extent of excess availability over requirement. The Commission also disallows 7 MU of energy purchased from CPP as the Licensees have not approached the Commission for getting the rate of power procurement fixed. Thus, projected short term purchases to the extent of 1124 MU, UI to the extent of 16 MU and CPP/Wind to the extent of 7 MU have not been allowed by the Commission. However, in accordance with the National Tariff Policy, depending on the actual availability of energy from the various sources, the Licensees are free to approach the Commission for short-term purchases if any shortfall occurs in supply from the identified sources.

### **Central Generating Stations - Western Region**

- 2.24 NTPC's Stations in Western Region (Korba, VSTPS-1, VSTPS-II, Kawas and Gandhar): The energy availability as projected by MPSEB is being considered. The Commission is not inclined to accept the fixed and the variable cost considered by MPSEB as this cost is yet to be approved by CERC. The approved cost may differ significantly from the cost proposed by NTPC. The Commission for these stations considers the fixed cost approved for FY'04 as per CERC order, which is being currently paid by MPSEB. The variable cost is as per the latest bill of January 2006. Similarly FPA has been considered as per the latest bill of January 2006. Incentive has been computed for generation in excess of normative generation at 80% PLF and at 25 paise per unit. Incidence of income tax has been considered at FY'06 level. ED and Cess per unit has been considered at cumulative level up to December 2005.
- 2.25 For KAPP and TAPPS 3&4 single part tariff is payable and the applicable tariff rates are as per the notification of Department of Atomic Energy GoI. The proposed rates are therefore acceptable.
- 2.26 The allocation of share to MP in these stations has been considered as per the CEA's letter dated 13<sup>th</sup> December 2005, which is applicable for the period 1<sup>st</sup> January 2006 to 31<sup>st</sup> March 2006.

**Table 9: Allocation from Central Generating Stations in WR to MP**

<b>Sl. No.</b>	<b>Western Region CGS</b>	<b>Installed Capacity (MW)</b>	<b>Share (%)</b>	<b>Energy availability MU</b>
1.	KTPS	2100	21.37	3260
2.	VSTPS-I	1260	33.34	2980
3.	VSTPS-II	1000	30.12	2240
4.	KGPS	656.2	24.15	660
5.	GGPS	657.4	20.64	950
6.	KAPP	440	23.99	550
7.	TAPP 3&4	540	17.76	770

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2.27 The charges allowed as discussed in the earlier paragraphs are given in the following table:

**Table 10: Charges allowed for CGS in WR**

Western Region CGS	Fixed Charges (Rs. Cr.)	Energy Charges (Paise/U)	FPA Charges (Paise/U)	Incentive (Rs. Cr)	Income tax (Rs. Cr.)	ED & Cess etc. (Paise/U)	Total (Rs. Cr.)
KTPS	83.23	46.87	9.06	2.88	16.53	2.03	291.58
VSTPS-I	105.96	76.0	15.77	0.90	15.99	16.26	444.79
VSTPS-II	134.73	73.33	15.24	3.23	0	12.0	363.24
KGPS	61.20	102.69	6.24	0	6.96	0.27	140.23
GGPS	98.85	102.1	38.99	0	2.96	1.06	236.85
KAPP		260.24					143.13
TAPPS 3&4		272.78					210.04
<b>Total</b>							<b>1829.86</b>

### Central Generating Stations - Eastern Region

2.28 For determination of allowable costs from the plants in the eastern region the principle followed for power plants in the western region is being adopted. The shares in these plants have been considered as per the CEA's letter dated 13<sup>th</sup> December 2005, which is applicable for the period 1<sup>st</sup> January 2006 to 31<sup>st</sup> March 2006.

**Table 11: Allocation from Central Generating Stations in ER to MP**

Sl. No.	Western Region CGS	Installed Capacity (MW)	Share (%)	Energy availability MU
1.	Farakka	1600	1.46	390*
2.	Talcher	840	1.44	
3.	Kahalgaon	1000	1.46	

\*In proportion to capacity allocated in MW

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2.29 The charges allowed are given in the following table:

**Table 12: Charges allowed for CGS in ER**

Western Region CGS	Fixed Charges (Rs. Cr.)	Energy Charges (Paise/U)	FPA Charges (Paise/U)	Incentive (Rs. Cr)	Income tax (Rs. Cr.)	ED & Cess etc. (Paise/U)	Total (Rs. Cr.)
Farakka	8.49	107.32	16.36	0.98	0.29	0	63.94*
Talcher	7.32	41.06	26.42		0	0	
Kahalgaon	5.30	107.48	13.2		0	0	

\* In proportion to capacity allocated in MW

### **Indira Sagar (NHDC) and Sardar Sarovar Projects**

2.30 For FY'07, the Commission considers only the annual fixed charges approved by CERC by its order dated 1/5/2004. CERC vide this order had approved fixed annual charges at Rs. 241.41 Crore for VII machines. Now that all VIII machines have become operational the Commission allows a proportionate increase in fixed cost with a further increase of 10% on the computed cost. The Commission thus allows Rs. 300 Crore as Annual Fixed charges. MPSEB has wrongly claimed variable cost in addition to the annual fixed cost. MPSEB should have reduced the annual fixed charges by the amount claimed as energy charges. The design energy of this project is 1980 MUs and for generation in excess of the design energy secondary energy charges are payable. Secondary energy charges are equal to primary energy charges. The allowable cost has been accordingly computed. The Commission also allows an income tax of Rs. 3.79 Crore claimed by NHDC for Indira Sagar project for FY'05 although this amount has not been included in the cost computation by MPSEB.

2.31 MPSEB for Sardar Sarovar Hydel Project has considered a provisional rate of Rs. 2.0 per unit. This rate is as per the provisional rate fixed by GoMP vide its letter dated 30<sup>th</sup> November 2005. As per section 62(1) of the Electricity Act, only appropriate Commission has the authority to determine rate of supply of power by a generating company to a Distribution Licensee. Further as per section 64(5) of the Electricity Act 2003 only the State Commission having jurisdiction in respect of the Licensee which intends to distribute electricity and make payment therefore is entitled to determine the generation tariff. For Sardar Sarovar project it is MPERC which shall determine the tariff for the energy to be purchased by the Distribution Licensee of the State. MPSEB till date has not filed any petition before MPERC for determination of the tariff. The Commission in its suo-motu petition 59/05 and petition 62/2005 in the matter of purchase of power during FY'06 had adversely commented upon this issue and had directed MPSEB to disclose the terms and conditions and the rates at which power is being received from this project. For FY'07, the Commission computes the allowable cost at highest per unit rate allowed to hydro plant of MPPGCL. The rate thus being allowed is 95.40 paise per unit, which is equivalent to the rate allowed for Rajghat project. The Commission may consider a different rate when the petition in this regard is filed before the Commission.

**Table 13: Allowed cost for Indira Sagar and Sardar Sarovar project**

(Amount in Rs. Crore)

Sl. No.	Project	Energy available (MU)	Annual Fixed charges Rs. Cr.)	Incentives (Rs. Cr.)	Total Charges (Rs. Cr.)
1.	Indira Sagar	2700	300	33.75	337.55*
2.	Sardar Sarovar	1590	151.68	0.00	151.68

\* Also includes Income Tax

- 2.32 As has been stated above, the Commission has considered the annual fixed charges for the Central Generating Stations based on the latest bill of NTPC (for ER and WR stations) and for NHDC based on CERC Order of 1/5/2004, because for all these stations, the CERC has not yet finalised the rates for FY'07. *The Commission, therefore, is willing to consider the revised fixed charges as when they are finalised by CERC for FY'07. If the same happens during the course of FY'07, the Commission shall allow a true up of the same in the ARR for FY'08.*

**CPP/Wind/Short Term Purchases/UI**

- 2.33 MPSEB has estimated that it is likely to procure power from Captive Generators during peak hours for the entire year at Rs. 2.75 per unit. The energy supply from wind generator is likely to be 5 MUs at Rs. 2.25 per unit. This is accepted. The procurement projections from CPPs are not acceptable to the Commission at this point of time as no approval for sourcing energy from this source has been sought from the Commission. The Commission shall consider the energy and its procurement price from this source for inclusion in the ARR only when the approval of the Commission has been sought. The Commission in this order considers 5 MUs to be procured from Wind Generators along with the projected cost .
- 2.34 The balance 484.34 MU left after accounting for all long term sources of generation are being allowed at the approved pooled price of generation from Central Generating Stations i.e. 153.88 paise per unit as against 350 paise per unit projected by MPSEB. The Commission has not considered procurement from short term sources as projected by MPSEB as sources from which this amount is likely to be procured have not been indicated and also the approval as required under MPERC (Power Purchase and Procurement) Regulations 2004 has not been sought. The Commission may consider the actual cost incurred in procuring this amount of power in subsequent tariff orders after the approval for higher than the anticipated price is sought. The Commission is also not considering energy likely to be received from Unscheduled Interchange (UI) as projected by MPSEB as this can not be considered as a regular source available for meeting predictable energy requirement. Incidences of such exchanges have to be kept at minimum as such draws amount to grid indiscipline.

**Table 14: Allowed cost for power procured from CPP/Wind Generators and UI**

(Amount in Rs. Crore)

Sl. No.	Project	Energy available (MU)	Rate per unit (Rs./U)	Total Charges (Rs. Cr.)
1.	CPP	0	275	0.00
2.	Wind	5	225	1.125
3.	Other sources	484.34	153.88	74.53

**MPPGCL**

2.35 The Commission, for the computation of energy available from MPPGCL, has considered the net generation and fixed and variable cost as approved by it in its order dated 25<sup>th</sup> January 2006. However, the Commission in its order had inadvertently missed adding prior period charges in the computation of allowable fixed charges of STPS (although, prior period charges had been explicitly allowed in the Order referred). As it is an error apparent from the records, the Commission considers the prior period charges in the fixed cost of STPS and consequent to this change, some changes were also necessary in the interest allowed on working capital. The working capital requirement computed on normative basis exceeds total loans considered towards working capital requirement. Thus interest cost has been considered at normative levels. The recomputed station wise fixed cost and the total cost considered in determining allowable purchase cost are as given in the table below:

**Table 15: Recomputed fixed cost of MPPGCL's stations**

(Amount in Rs. Crore)

Sl. No.	Project	Energy available (MU)	Annual Fixed charges	Variable Charges (paise/u)	Total Charges
	<b>Thermal</b>				
1.	ATPS	1150	47.27	117	181.82
2.	STPS	7076	285.79	135	1241.05
3.	SGTPS	5021	302.47	103	819.63
	Total Thermal	13247	635.53	169	2242.50
	<b>Hydel</b>				
4.	Gandhi Sagar	342.6	10.37		10.37
5.	Pench	312.52	11.15		11.15
6.	Bargi	503	9.44		9.44
7.	Bansagar	1094	93.62		93.62



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8.	Birsinghpur	44.6	3.87		3.87
	<b>Total Hydel</b>	<b>2385.82</b>	<b>136.95</b>		<b>136.95</b>
	<b>Total MPPGCL</b>	<b>15632.82</b>	<b>772.48</b>		<b>2379.45</b>

- 2.36 The tax liability computed by the Commission for MPPGCL for FY07 has not been considered in this order. The Commission shall consider the impact of the actual tax liability of MPPGCL as passed on by the Company to the Discoms while determining the allowable cost in the next tariff order.

### Inter-State Transmission Charges

- 2.37 The PGCIL charges to be paid by MP consist of charges to be paid for transmission system of WR and ER. The charges to be paid for PGCIL system have been computed on the basis of approved charges for FY'04 and not on the basis of the charges filed by PGCIL before CERC. The charges considered for FY'07 are given in the table below:

**Table 16: Transmission Charges for WR**

	Name of Transmission Line	Annual Tariff 03-04 (Rs. Crore)
<b>WR System</b>		
	Korba Stage I & II	27.8943
	VSTPS I	28.6492
	Kawas I	4.6522
	Kakrapar	6.8855
		16.7389
	Gandhar	15.0609
		0.7787
	50 MVAR Chandrapur	0.7759
	VSTPS Addl.	87.276
		69.5698
	VSTPS II	28.9416
		4.6767
		5.8737
	Kolhapur Mapusa	11.7205
	FSC / TCSC at Raipur	14.5218

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	Name of Transmission Line	Annual Tariff 03-04 (Rs. Crore)
	Tarapur Pagde	
	Raipur Chandrapur	
	Harsi Dhule	
	<b>Sub- Total</b>	<b>324.0157</b>
<i>Interregional System (50% of the charges to be paid by WR)</i>		
	VSTPS HVDC	7.742
	Ramagundam Chandrapur	3.497
	Chandrapur HVDC	36.331
	Raipur Rourkela	11.714
	Korba Budhipadar (payable by MPSEB only)	3.311
	<b>Sub Total</b>	<b>62.595</b>
<b>Total Transmission Charges for WR</b>		<b>383.300</b>
MPSEB's total power share in WR		25.036%
<b>Transmission Charges payable by MPSEB (Rs. Crore)</b>		<b>99.274</b>
<b>Transmission Charges payable by MPSEB for ER (Rs. Crore)</b>		<b>2.99</b>
<b>Total PGCIL charges to be paid by MPSEB*</b>		<b>104.61</b>

\* Also includes Income Tax charges of Rs. 2.35 Crore

- 2.38 The Charges to be paid to Gridco and CSEB are in accordance with the CERC's order and WREB's order and hence are acceptable.

**Power Purchase cost allowed by the Commission for FY'07**

- 2.39 The Power Purchase cost allowed by the MPERC for FY'07 is as given in the table below:

**Table 17: Commission's estimate of power purchase expenses**

(Amount in Rs. Crore)

Sl. No.	Particulars		FY'07		
			MU	Amount	Paise/Unit
1.	Central Sector	Korba	3260	291.58	89.44
2.	Western Region	Vindhyachal-I	2980	444.79	149.26
3.		Vindhyachal-II	2240	363.24	162.16

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Sl. No.	Particulars		FY'07		
			MU	Amount	Paise/Unit
4.		Kawas	660	140.23	212.47
5.		Gandhar	950	236.85	249.32
6.		KAPP	550	143.13	260.24
7.		TAPPS 3&4	770	210.04	272.78
8.		Total	11410	1829.86	160.37
9.	ER	Farrakka + Talcher +Kahalgaon	390	63.94	163.95
10.	Bilateral Purchases	RSEB	0	0	0
11.	Other Sources	NHDC (Indira Sagar)	2700	337.55	125.02
12.		JV-Sardar Sarovar	1590	151.68	95.40
13.		CPP/Wind	5	112.50	225.00
14.		Short term purchases	0	0	0
15.		Other sources (to be identified by Licensee)	484.34	74.53	153.9
16.		Total	4779	564.88	118.19
17.	Net Power Purchases		16579	2458.68	148.30
18.	Transmission Charges	PGCIL		104.61	8.87
19.		GRIDCO + CSEB		1.54	11.84
20.		<b>Total</b>		<b>106.15</b>	<b>9.00</b>
21.	Sub-total		16579.34	2664.84	154.70
22.	MPGENCO		15632.82	2379.45	152.22
23.	<b>Total Power Purchase*</b>		<b>32212.16</b>	<b>4944.29</b>	<b>153.49</b>

\* Includes external losses of PGCIL at 5.35% amounting to 631.30 MU

- 2.40 The Distribution Licensees shall be required to seek approval of the Commission if in case their individual requirement exceeds the quantum of energy determined by the Commission. The Distribution Licensees would not be required to approach the Commission if the supply from any identified source in this Order is more than the anticipated quantum as long as it is within the total approved quantum of energy. However they would be required to seek prior approval of the Commission in case the power is sourced from any other source. Failure to do so shall result in disallowance of the cost incurred for such purchases.

**Intra-State Transmission Charges**

2.41 The Commission in its order dated 13<sup>th</sup> March 2006 has approved the total annual charges at Rs. 598.69 Crore for FY'07. The total allowable expense has to be recovered from the three Distribution Licensees on the basis of the transmission capacity allocated to them. Transmission charges payable by each of the three Distribution Licensees during FY'07 are given in the table below:

**Table 18: Transmission charges payable by Distribution Licensees**

Sl. No.	Details	Transmission Capacity (MW)	Transmission Charges (Rs. Cr.)
1.	East Discom	1783	177.59
2.	Central Discom	1958	195.41
3.	West Discom	2259	224.69
4.	SEZ	10	1.00
	<b>Total</b>	<b>6011</b>	<b>598.69</b>

2.42 The tax liability computed by the Commission for MPPTCL for FY07 has not been considered in this order. The Commission shall consider the impact of the actual tax liability of MPPTCL as passed on by the Company to the Discoms while determining the allowable cost in the next tariff order.

**SLDC charges**

2.43 Under the Electricity Act, the Commission has to determine SLDC fees and charges. As and when these charges are fixed by the Commission cost incidental on the Discoms on this account shall be considered for true-up during the ARR/Tariff determination process for FY08.

**Capital Servicing Costs**

**Licensees' submission**

2.44 The Capital Servicing costs consist of Depreciation, Interest on loans and security deposits and Return on Equity. The Licensees have made the following submissions in this regard:

**Table 19: Capital servicing costs as claimed by the Licensees for FY'07**

(Amount in Rs. Crore)

Discom	Depreciation	Interest			RoE
		Project Loans	Working Capital	Consumer Security Deposit	
East	61.23	37.79	29.16	22.69	53.37
West	78.21	75.74	56.57	15.69	84.63
Central	65.20	52.29	24.40	0.65	56.00
<b>Total</b>	<b>204.64</b>	<b>165.82</b>	<b>110.13</b>	<b>39.03</b>	<b>194.00</b>

**Commission's overall approach for approving capital servicing costs for FY'07**

2.45 In the following paragraphs, the Commission has put forward its overall approach towards allowing expenses related to depreciation, interest and financing costs and Return on Equity. This approach emanates from the Commission's stated philosophy of allowing a pass through of only prudently incurred costs. Commission has put in place certain regulatory structures with the objective of inculcating a more professional and pragmatic business approach in the Licensees, in the areas of planning, operations and management of their licensed businesses. The compliance of these regulatory structures will also result in the consumer being provided a more efficient, economical and reliable service by the Licensees.

2.46 The Commission has taken the following steps, namely:

- (a) *Framed the "Guidelines for Capital Expenditure by the Licensees in MP"*: The Guidelines require, in short, the Licensees to seek the Commission's approval for all investment schemes costing more than Rs. 1.5 Crore. The Guidelines also require the Licensees to provide a set of technical and commercial details of each scheme for which Commission's approval is sought. This ensures that the prudence in technical planning, the time-lines for execution of the scheme, and the availability of financial resources is established before the scheme can be included in the aggregate revenue requirements for recovery of related interest and depreciation costs through tariffs.
- (b) *The Commission has time and again directed the Licensees to finalise their asset registers*: This ensures that the Licensee's claims of depreciation are related to assets that are used and useful for the business.
- (c) *The Commission has directed the Discoms to submit completion reports of works that get completed in the concerned financial year*. This is required to ensure that the depreciation, Return on Equity and interest on loans borrowed

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are allowed only for those assets that are used in the business of electricity distribution and supply.

- 2.47 The importance of these actions has been stressed by the Commission in numerous meetings with the Licensees' officers. The Commission has also made clear to the Licensees, its approach in dealing with these expenses if the requirements are not complied with. However, the Commission is disappointed to observe that the Licensees have not paid much heed to Commission's advice and have either not complied or have only partially complied with these directions. Therefore, the Commission, acting in the interest of the consumer, is forced to resort to some strong measures in this Tariff Order. The status of compliance by the Licensees and the Commission's approach towards allowing these costs is given in the following table:

**Table 20: Commission's approach towards allowing costs**

(Amount in Rs. Crore)

Year	Requirement	Yes	No	Depreciation	Interest	RoE
FY'06	Submission of Capex plan as per guidelines	√			Loans recognised only to the extent of approved capex plan but interest on these loans not allowed. Completion reports not submitted so works are treated as CWIP. The interest expenses can be capitalised on completion	On opening equity (to the extent identified with assets) only since completion report for assets constructed during FY'06 not submitted
	Submission of Completion reports		√	Asset addition not considered. So depreciation not allowed on assets added during the year		
FY'07	Submission of Capex plan as per guidelines		√	Investments proposed in the filling cannot be considered unless the capex plan is approved by the Commission	No fresh loan is allowed since capex plan is not approved.	No fresh equity is allowed since capex plan has not been submitted
	Submission of Completion reports	Not Applicable				
<b>End result:</b>						
<ul style="list-style-type: none"> <li>• <b>Interest:</b> Allowed only on loans to the extent identified with completed projects as per opening B/S</li> <li>• <b>Depreciation:</b> Allowed only on GFA as per opening B/S</li> <li>• <b>RoE:</b> Allowed on opening equity to the extent identified with completed projects as per opening B/S</li> </ul>						

- 2.48 With its overall approach stated above, the Commission proceeds to analyse the capital servicing costs as claimed by the Licensees in their respective petitions.

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### Depreciation

#### *East Discom's submission*

- 2.49 The Discom has submitted the opening balance of GFA and Accumulated Depreciation which are in line with the opening balance sheet notified by the GoMP. These are stated at Rs. 1251.54 Crore and Rs. 758.81 Crore respectively as on 31<sup>st</sup> May 2005.
- 2.50 The Licensee, in its submission to the Commission, has provided the following accounting code-wise break-up of the opening balances of the fixed assets and accumulated depreciation:

**Table 21: Accounting code wise Opening Gross & Net Block for FY'06**

(Amount in Rs. Crore)

A/c Code	Particulars	Gross Value	Accum. Dep.	Net Value	Net value as a % of GV (%)
10.1	Land & Land rights	2.02	0.1	1.92	95.05
10.2	Building & Civil works	15.29	11.03	4.26	27.86
10.3	Hydraulic Works	9.67	6.42	3.25	33.61
10.4	Other Civil Works	2.75	1.23	1.52	55.27
10.5	Plant & Machinery				
	- Transformers, etc	274.47	176.62	97.85	35.65
	- Communication Equipment	2.61	2.30	0.31	11.88
	- Batteries	2.02	0.06	1.96	97.03
10.6	Lines Cable Networks etc				
	- Meters	246.23	97.71	148.52	60.32
	- Others	687.95	457.84	230.11	33.45
10.7	Vehicles	2.89	2.60	0.29	10.03
10.8	Furniture & Fixtures	1.61	1.17	0.44	27.33
10.9	Office Equipments	4.03	1.73	2.30	57.07
	Any other items				
	<b>Total</b>	<b>1251.54</b>	<b>758.81</b>	<b>492.73</b>	<b>39.37 %</b>

- 2.51 The Licensee has calculated the depreciation on the basis of rates specified by the Commission in the MPERC (Terms and Conditions for Determination of Tariff for distribution & retail Supply of electricity) Regulations, 2005.

**Table 22: Depreciation projected for FY'06 & FY'07**

(Amount in Rs. Crore)

A/c Code	Particulars	Rate (%)	FY06	FY07
10.1	Land & Land rights	0.00	0.00	0.00
10.2	Building & Civil works	1.80	0.28	0.32
10.3	Hydraulic Works	2.57	0.25	0.25
10.4	Other Civil Works	1.80	0.05	0.06
10.5	Plant & Machinery			
	- Transformers	3.60	9.88	13.75
	- Communication Equipment	6.00	0.05	0.20
	- Batteries	18.00	0.36	0.38
10.6	Lines Cable Networks etc			
	- Meters	6.00	14.77	16.15
	- Others	3.60	24.77	28.95
10.7	Vehicles	18.00	0.00	0.71
10.8	Furniture & Fixtures	6.00	0.10	0.10
10.9	Office Equipments	6.00	0.24	0.36
	Any other items			
	<b>Total</b>		<b>50.75</b>	<b>61.23</b>

*West Discom's submission*

- 2.52 The Discom has submitted the opening balance of GFA and Accumulated Depreciation which are in line with the opening balance sheet notified by GoMP. These are stated at Rs. 1499.42 Crore and Rs. 868.02 Crore respectively.
- 2.53 The Licensee, in its submission to the Commission has provided the following accounting code-wise break-up of the opening balances of the fixed assets and accumulated depreciation:

**Table 23: Accounting code wise Opening Gross & Net Block for FY'06**

(Amount in Rs. Crore)

A/c Code	Particulars	Gross Value	Accum. Dep.	Net Value	Net value as a % of GV
10.1	Land & Land rights	3.99	0.05	3.94	98.75%
10.2	Building & Civil works	27.64	10.09	17.55	63.49%
10.3	Hydraulic Works	6.55	2.86	3.69	56.34%
10.4	Other Civil Works	2.93	1.4	1.53	52.22%
10.5	Plant & Machinery				
	- Transformers	449.37	258.68	190.69	57.57%



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	- Communication Equipment	0.55	0.36	0.19	34.55%
10.6	Lines Cable Networks etc				
	- Meters	316.04	99.19	216.85	68.61%
	- Others	682.22	488.29	193.93	28.43%
10.7	Vehicles	5.19	4.67	0.52	10.02%
10.8	Furniture & Fixtures	1.89	1.35	0.54	28.57%
10.9	Office Equipments	3.05	1.08	1.97	64.59%
	Any other items				
	<b>Total</b>	<b>1499.42</b>	<b>868.02</b>	<b>631.40</b>	<b>42.11%</b>

- 2.54 The Licensee has calculated the depreciation on the basis of rates specified by the Commission in the MPERC (Terms and Conditions for Determination of Tariff for distribution & retail Supply of electricity) Regulations, 2005.

**Table 24: Depreciation projected for FY'06 & FY'07**

(Amount in Rs. Crore)

A/c Code	Particulars	Rate (%)	FY'06	FY'07
10.1	Land & Land rights	0.00	0.00	0.00
10.2	Building & Civil works	1.80	0.50	0.64
10.3	Hydraulic Works	2.57	0.17	0.17
10.4	Other Civil Works	1.80	0.05	0.05
10.5	Plant & Machinery			
	- Transformers	3.60	16.18	24.76
	- Communication Equipment	6.00	0.03	0.03
10.6	Lines Cable Networks etc			
	- Meters	6.00	18.96	19.33
	- Others	3.60	24.56	32.34
10.7	Vehicles	18.00	0.00	0.00
10.8	Furniture & Fixtures	6.00	0.11	0.11
10.9	Office Equipments	6.00	0.18	0.23
	Any other items			
	<b>Total</b>		<b>60.75</b>	<b>78.21</b>

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

### *Central Discom's submission*

- 2.55 The Discom has submitted the opening balance of GFA and Accumulated Depreciation which are in line with the opening balance sheet notified by GoMP. These are stated at Rs. 1280.88 Crore and Rs. 788.18 Crore respectively.
- 2.56 The Licensee, in its submission to the Commission, has provided the following accounting code-wise break-up of the opening balances of the fixed assets and accumulated depreciation:

**Table 25: Accounting code wise Opening Gross & Net Block for FY'06**

(Amount in Rs. Crore)

A/c Code	Particulars	Gross Value	Accum. Dep.	Net Value	Net value as a % of GV
10.1	Land & Land rights	3.77	0.42	3.35	88.86
10.2	Building & Civil works	16.53	6.09	10.44	63.16
10.3	Hydraulic Works	3.58	1.71	1.87	52.23
10.4	Other Civil Works	0.87	0.36	0.51	58.62
10.5	Plant & Machinery				
	- Transformers	416.21	297.33	118.88	28.56
	- Batteries	0.30	0.21	0.09	28.56
	- Others	21.57	15.41	6.16	28.56
	- Communication Equipment	0.72	0.51	0.21	28.56
10.6	Lines Cable Networks etc				
	- Meters	204.03	116.15	87.88	43.07
	- Others	606.43	345.22	261.21	43.07
10.7	Vehicles	3.34	3.01	0.33	9.88
10.8	Furniture & Fixtures	1.31	0.97	0.34	25.95
10.9	Office Equipments	2.22	0.78	1.44	64.86
	Any other items				
	<b>Total</b>	<b>1280.88</b>	<b>788.18</b>	<b>492.70</b>	<b>38.47</b>

- 2.57 The Licensee has calculated the depreciation on the basis of rates specified by the Commission in the MPERC (Terms and Conditions for Determination of Tariff for distribution & retail Supply of electricity) Regulations, 2005.

**Table 26: Depreciation projected for FY'06 & FY'07**

(Amount in Rs. Crore)

<b>A/c Code</b>	<b>Particulars</b>	<b>FY'06</b>	<b>FY'07</b>
10.1	Land & Land rights	0.00	0.00
10.2	Building & Civil works	0.42	0.54
10.3	Hydraulic Works	0.07	0.07
10.4	Other Civil Works	0.02	0.02
10.5	Plant & Machinery		
	- Transformers	19.00	23.03
	- Batteries	0.08	0.10
	- Others	1.10	1.20
	- Communication Equipment	0.05	0.05
10.6	Lines Cable Networks etc		
	- Meters	12.24	12.24
	- Others	25.95	27.74
10.7	Vehicles	0.00	0.00
10.8	Furniture & Fixtures	0.08	0.08
10.9	Office Equipments	0.13	0.13
	Any other items		
	<b>Total</b>	<b>59.14</b>	<b>65.20</b>

**Commission's analysis of Depreciation claims**

2.58 The Commission has noted that the Discoms have claimed Depreciation for FY06 on the basis of the opening gross block as on 1<sup>st</sup> June 2005 and have claimed to have added capital assets during FY06 and accordingly claimed depreciation for FY07 on the opening gross block considered by them as on 1<sup>st</sup> April 2006. Thus, it looks to be that the Discoms have claimed depreciation as per the previous practice of claiming depreciation on assets added in a financial year only from the next financial year. As per the provisions of the Regulations notified by the Commission, the depreciation can also be claimed on assets added during a financial year on a pro-rata basis. The Commission wishes to point out that the Licensees have submitted capital expenditure projections for FY'06 in their petitions, which differ from the plans approved by the Commission earlier. The plans approved by the Commission show an investment of Rs. 93.98 Crore, Rs. 102.69 Crore and Rs. 108.50 Crore for East, West and Central Discoms respectively, whereas the Licensees have, in their petitions, projected investment of Rs. 158.14 Crore, Rs. 404.76 Crore and Rs. 382.69 Crore, which shall be capitalised over a period of three years.

- 2.59 The Licensees have not submitted any project completion reports to substantiate the claims of asset capitalisations during the year. This makes it difficult for the Commission to determine how much is the capitalisation for FY'06 in respect of completed schemes and how much is to be added to Capital works-in-progress for ongoing schemes. In absence of the desired information, no addition to fixed assets has been considered by the Commission during FY'06. This will reduce the depreciation charge for FY'07, to the extent of additions not considered during FY'06, by Rs. 10.53 Crore, Rs. 17.46 Crore and Rs. 26.28 Crore respectively for East, West and Central Discoms.
- 2.60 Further, the FY'07 investment plan submitted by the Licensees in their Tariff Petitions is not in accordance with Clause 2.46 of MPERC (Terms and Conditions for Determination of Tariff for distribution & retail Supply of electricity) Regulations, 2005. This clause states that:
- (a) *The Distribution Licensee shall file a business plan in July every year, which shall comprise but not be limited to detailed capital investment plan, financing plan and physical targets in accordance with guidelines issued by the Commission in this regard for the tariff period for meeting the requirement of load growth, reduction in distribution losses, increase in collection efficiency, improvement in quality of supply, reliability, metering, consumer services etc.*
- (b) *The Capital plan shall show separately, on going projects that will spill into the year under review and new project (along with justification) that will commence but may be completed within or beyond the tariff period. The Commission shall consider and approve the licensee's capital investment plan for which the Distribution Licensees may be required to provide relevant technical and commercial details. The Distribution Licensee shall get the Capital Investment Plan approved by the Commission before filing the tariff application. **The costs corresponding to the approved investment plan of the Distribution Licensee for a given year actually incurred shall be considered for its revenue requirement.***

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

- 2.61 The Licensees had submitted Business Plans (including investment plans) to the Commission for its approval in 2005. A lot of discrepancies were observed by the Commission in these plans, which were communicated by the Commission vide its Order dated 12<sup>th</sup> August 2005. Further, the Commission, vide its Letter No.2236 dated 13<sup>th</sup> September 2005, directed the Licensees to submit their capital investment plan for FY'07 in accordance with above regulations along with revised business plans containing the details of each work proposed in the plan with justification of the proposal in terms of its technical requirements. These plans were also expected to indicate the cost benefit analysis of each proposed work in respect of system improvement and financial saving corresponding to loss reduction along with its pay back period. The Licensees have failed to respond to this letter and so a reminder was sent on 25<sup>th</sup> November 2005 and till date no reply has been received by the Commission. In absence of these details, the Commission reserves its approval of the Capital Expenditure plan for FY'07 **and directs the Licensees to submit their annual capital expenditure plans in accordance with the Commission's guidelines, together with the source of funding the works envisaged in these plans, in order to claim depreciation on asset addition and financing costs in their future filings.**
- 2.62 The Licensees have submitted that the CWIP as per the opening balance sheet shall be capitalised from FY'06 to FY'08 in the following proportions:

**Table 27: Capitalisation of opening CWIP as proposed by Licensees**

(Amount in Rs. Crore)

<b>Discom</b>	<b>FY'06</b>	<b>FY'07</b>	<b>FY'08</b>
East	1/3 <sup>rd</sup>	1/3 <sup>rd</sup>	1/3 <sup>rd</sup>
West	30%	40%	30%
Central	38%	38%	24%

- 2.63 No details of the progress made and the completion reports for the works completed in relation to opening CWIP has been submitted by the Licensee. The Commission, therefore, disallows the projected capitalisation of opening CWIP during FY06 and FY07.

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

- 2.64 Before proceeding to present the allowed depreciation provision for FY'07, the Commission also wishes to highlight that the Licensees have computed the depreciation on the opening gross block of the year at rates specified by the Commission, which is an incorrect method for computation as depreciation has been considered on some of the assets that constitute the gross block and have depreciated to 90% of the historical values. The better method is considering the asset year wise capitalisation and the applicable rates. No computation of depreciation should be done on assets when it reaches 90% of value. The Commission has not undertaken this exercise for FY'07, however, **the Licensees are directed that in future the Licensees shall claim depreciation based on year wise addition of the assets as per the categories and depreciation rates defined in the regulations ensuring that no depreciation is claimed on assets which have already depreciated to 90% of the historical cost.** For this purpose, the Commission plans to undertake a sample audit of the depreciation schedules of the Licensees to determine the appropriateness of depreciation accounting.
- 2.65 As stated earlier, the Commission has not considered any asset addition during FY06 and FY07 and therefore allows depreciation for FY07 only on the opening balance of fixed assets as on 31<sup>st</sup> May 2005. The depreciation allowed for FY07 for each Discom is as shown below:

**Table 28: Depreciation allowed for FY'07**

(Amount in Rs. Crore)

A/c Code	Particulars	East	West	Central	Total
10.1	Land & Land rights	0.00	0.00	0.00	0.00
10.2	Building & Civil works	0.28	0.50	0.30	1.08
10.3	Hydraulic Works	0.25	0.17	0.09	0.51
10.4	Other Civil Works	0.05	0.05	0.02	0.12
10.5	Plant & Machinery				
	- Transformers	9.88	16.18	14.98	41.04
	- Batteries	0.36	0.00	0.00	0.36
	- Others	0.00	0.00	0.78	0.78
	-Communication Equipment	0.00	0.03	0.04	0.07
10.6	Lines Cable Networks etc				
	- Meters	14.77	18.96	12.24	45.97
	- Others	24.77	24.56	21.83	71.16
10.7	Vehicles	0.00	0.00	0.00	0.00
10.8	Furniture & Fixtures	0.10	0.11	0.08	0.29
10.9	Office Equipments	0.24	0.18	0.13	0.55
	Any other items				
	<b>Total</b>	<b>50.70</b>	<b>60.75</b>	<b>50.49</b>	<b>161.94</b>

- 2.66 Considering the importance, therefore, of capitalization of works, the Commission lays down the following requirements to be fulfilled before accepting inclusion of the value of a capitalized work in the GFA:

- (a) **On completion of a capital work, a Works Completion Certificate (WCC) to the effect that the work in question has been fully executed and the assets created are put to use.**
  - (b) **The WCC shall be accompanied or followed by a Financial Completion Certificate (FCC) to the effect that the assets created have been duly entered in the Fixed Assets Register by transfer from the CWIP register to GFA.**
  - (c) **The above-mentioned certificates have to be submitted to the Commission within 60 days of completion of work, at the latest.**
- 2.67 The Commission may also inspect or arrange to inspect, at random, a few of the capitalized works included in the GFA to confirm that the assets created are actually being used and are useful for the business.
- 2.68 The Licensees, except Central Discom, have submitted their asset registers as per directions of the Commission. However, after going through these registers, the Commission finds that the value of assets shown by the Licensee in the ARR filed for the purpose of tariff determination is differing from the value as appearing in these registers. For the purposes of this Tariff Order, the Commission thus considers the value notified by the GoMP in the transfer scheme rather than the value shown in asset registers. Further, **the Commission directs the Central Discom to submit its asset register and also directs all the Discoms to reconcile the asset registers with their respective opening notified balance sheets. The Commission further directs the Discoms to update its fixed assets registers in accordance with the Companies Act and codify all its assets. The licensees shall submit a compliance report in this regard within three months of the date of this order. The Codification of assets shall be completed by October 2006 and failure to comply with this direction may result in non-allowance of depreciation for FY'08.**

**Commission's analysis of Interest on loans and deposits and Return on Equity**

*Allocation of Opening balance of Equity and loans between completed projects and CWIP*

- 2.69 As per the Government of Madhya Pradesh Order of 31<sup>st</sup> May 2005, the Licensee had been allocated Equity of Government of MP and project specific capital liabilities from PFC, REC and ADB loan (through Government of MP), in addition to loans from MPSEB. The break-up is shown in the table below :

**Table 29: Equity and Loans as allocated to the Licensees as per opening B/S**

(Amount in Rs. Crore)

<b>Particulars</b>	<b>East</b>	<b>West</b>	<b>Central</b>
Equity	317	533	316
PFC Loan	96	133	74
ADB Loan	45	45	45
REC Loan	154	80	101
Generic Loan (MPSEB)	252	494	316

- 2.70 The Licensees have not indicated any amount of equity as invested in completed Works or Capital Works-in-Progress. It is necessary, therefore, to allocate the equity into completed works and Capital Works-in-Progress because the Commission, as per the relevant regulations, will allow return on equity only on commissioned projects.
- 2.71 For the purpose of carrying out this division, the Commission has considered a normative capital structure of 70:30 for identifying the funding of the GFA and CWIP. The Equity allocated to completed projects is considered as 30% of opening GFA. The balance Equity, if any, is considered as having utilised for funding the assets which are Works in Progress.
- 2.72 The MPSEB loan allotted to the Licensees by GoMP has no associated details of the purpose or utilisation of these loans. Thus, the entire MPSEB loan is being considered by the Commission as that utilised for funding the Capital Works-in-Progress.
- 2.73 After carrying out the allocations as discussed above, the balance CWIP, if any, is considered as having been funded through the project specific loans of PFC, ADB and REC. Further on, any balance left from project specific loans is then considered as having utilised for funding assets which are already commissioned.
- 2.74 The deployment of equity and loans in capital works and working capital as discussed above, is summarised, for ready reference, in the table below:



**Table 30: Allocation of equity and loans between completed works and CWIP**

**East Discom**

(Amount in Rs. Crore)

S. No.	Source of funds	Amount as per notified balance sheet	Fixed Assets	Capital Works-in-Progress (CWIP)
1.	Equity	317	317	0
2.	Project specific loans	294	35	259
3.	MPSEB loan	252	0	252

**West Discom**

(Amount in Rs. Crore)

S. No.	Source of funds	Amount as per notified balance sheet	Fixed Assets	Capital Works-in-Progress (CWIP)
1.	Equity	533.00	449.7	83.3
2.	Project specific loans	258.00	130.3	127.7
3.	MPSEB loan	494.00	0	494

**Central Discom**

(Amount in Rs. Crore)

S. No.	Source of funds	Amount as per notified balance sheet	Fixed Assets	Capital Works-in-Progress (CWIP)
1.	Equity	316	316	0
2.	Project specific loans	220	75	145
3.	MPSEB loan	316	0	316

*Interest on Project Loans*

- 2.75 The Licensees have claimed interest on project loans (i.e. those claimed to be utilised for creation of capital assets) as following:

**Table 31: Source-wise interest on loans projected for FY'07**

(Amount in Rs. Crore)

S. No.	Particulars	East	West	Central	Total
1.	PFC	7.14	10.74	4.83	22.71
2.	ADB	7.92	14.89	66.79	121.43

**ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

<b>S. No.</b>	<b>Particulars</b>	<b>East</b>	<b>West</b>	<b>Central</b>	<b>Total</b>
3.	REC	1.67	0.00		
4.	NABARD	0.00	0.20		
5.	APDRP	10.52	19.44		
6.	RGGVY	1.32	0.00		1.32
7.	JBIC	0.60	0.00		0.60
8.	MPSEB	27.22	53.32	32.23	112.77
9.	Others (Short-Term Loans)	6.65	24.14	0.00	30.79
10.	Additional Equity not eligible for RoE	0.00	3.51	0.00	3.51
11.	Total	62.98	126.24	103.85	293.07
Less	Interest capitalised @ 40%	25.19	50.50	51.56	127.25
12.	Net Interest	37.79	75.74	52.29	165.82
Add	Other finance charges	1.35	1.97	0.00	3.32
<b>13.</b>	<b>Total interest on loans claimed in the petition</b>	<b>39.14</b>	<b>77.71</b>	<b>52.29</b>	<b>169.14</b>

2.76 The Commission, in its regulations on terms and conditions of tariff, has clearly stated that the interest expenses shall be allowed on project specific capital liabilities only i.e. the project loans must be identified with the assets created or proposed to be created for the purpose of inclusion of interest cost in the ARR. The Commission thus required the Licensee to identify all its existing loans (as per opening balance sheet) with the assets created or proposed. However, in the additional information submitted by the Licensee, only PFC loans have been identified with the works for which the loans were taken. Even in this case, the break-up of these works into on-going and completed has not been given by the Licensee. As for ADB and REC loans included in the opening balance sheet, no details of works undertaken have been provided by the Licensee. The Commission has therefore considered only the loans allocated to completed projects as per Table 30 above for the purpose of allowance of interest expenses in the revenue account. Since out of the opening loans, interest payment for REC loans commences from FY'08, the Commission has considered weighted average rates of PFC and ADB loans of each Licensee for allowing interest on the allocated component of loans for FY'07.

## **ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

- 2.77 The opening balance sheet includes MPSEB loans of Rs. 252 Crore, Rs. 494 Crore and Rs. 316 Crore for East, West and Central Discoms respectively. The Licensees have submitted that the interest computation for these loans has been done by taking the repayment period as 10 years and interest rate as 12%. The rate of interest and the repayment schedule has been supplied to the Licensees by the MPSEB. The Commission, as indicated in paragraph 2.72, considers these loans as being used for funding the Capital Works-in-Progress indicated in the notified opening balance sheet and since interest expenses during construction stage (IDC) can be capitalised, the Commission does not allow any interest expenses on MPSEB loans.
- 2.78 As for the fresh loans drawn during FY'06, the Licensee has not indicated whether these loans have been / are being utilised for funding creation of assets or not. Also, whether the works funded through these loans have been completed or are still work-in-progress has not been established by the Licensee. As stated earlier, the Licensee has not filed any completion reports with the Commission indicating the extent to which the works proposed to be funded through these loans have been commissioned. Also, as stated earlier, the capex plan filed by the Licensee in the petition differs from the approved capex plan for FY'06. Therefore, the Commission is treating these loans as funding those projects which are in construction / procurement stage and since interest expenses during construction stage (IDC) can be capitalised, the Commission does not allow any interest expenses on any fresh loans drawn during FY'06.
- 2.79 The interest expenses on loans projected to be drawn by the Licensee during FY'07 can be allowed only when the Licensee approaches the Commission for seeking approval of the capital investment plan for FY'07 as required under the Commission's guidelines for capital expenditure by Licensees. Since the Licensee has not sought any approval from the Commission, the Commission does not consider any fresh loan drawal during FY'07; consequently, the interest claim is also disallowed.
- 2.80 As per the discussion above, the interest expenses allowed by the Commission for FY'07 is worked out as below:

**Table 32: Source-wise interest on loans allowed for FY'07**

(Amount in Rs. Crore)

S. No.	Particulars	East	West	Central	Total
1.	PFC	1.45	6.14	2.82	10.41
2.	ADB	1.13	3.35	2.88	7.36
3.	REC	0.00	0.00	0.00	0.00
4.	MPSEB	0.00	0.00	0.00	0.00
5.	NABARD	0.00	0.00	0.00	0.00
6.	APDRP	0.00	0.00	0.00	0.00
7.	Others (Short-Term Loans)	0.00	0.00	0.00	0.00

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

S. No.	Particulars	East	West	Central	Total
8.	Total	2.58	9.49	5.70	17.77
Add	Other finance charges	1.35	1.97	0.00	3.32
<b>10.</b>	<b>Total interest and finance charges on project loans</b>	<b>3.93</b>	<b>11.46</b>	<b>5.70</b>	<b>21.09</b>

### *Interest on working capital loans*

**2.81** The Licensees have worked out their respective working capital requirements based on the norms prescribed in the Commission's Regulations, which include –

- (a) O&M expense for one month
- (b) Maintenance spares @ 1% of the historical cost
- (c) Receivable equivalent to two months of average billing

**2.82** It needs to be noted that in addition to above items, the Commission's Regulations under section 61 of the Act also require the Licensee to subtract power purchase cost equivalent to one month and consumer security deposit, while arriving at the working capital requirement, which the Licensees have not done.

**2.83** The interest rate for the purpose of computation of working capital has been considered by the Licensees as 12.75%.

**Table 33: Working Capital as claimed by the Licensees**

(Amount in Rs. Crore)

S. No.	Particulars	East	West	Central	Total
1.	Working Capital Required	243.01	446.70	191.41	<b>881.12</b>
2.	Interest on Working Capital	29.16	56.57	24.40	<b>110.13</b>

**2.84** The Commission has recomputed the working capital requirement considering the approved cost and the interest rate of 12.25%. The interest rate is equal to the short term lending rate of State Bank of India (10.25%) plus 2% margin. The computation is provided in the table below:

**Table 34: Working Capital approved by the Commission for FY'07**

(Amount in Rs. Crore)

S. No.	Particulars	East	West	Central	Total
1.	O&M expenses of 1 month	32.43	35	26.77	94.2
2.	Maintenance Spares (1% of GFA)	12.52	14.99	12.81	40.32
3.	Receivable (2 Months)	365.73	439.09	368.25	1173.07
	Less: Power purchase cost of one month	122.41	154.21	135.40	412.02
	Less: Consumer Security Deposit as per opening B/S	273	405	278	956
4.	Total Working capital requirement	<b>15.26</b>	<b>(70.12)</b>	<b>(5.57)</b>	
5.	<b>Interest on WC (@12.25%)</b>	<b>1.87</b>	<b>0.00</b>	<b>0.00</b>	<b>1.87</b>

**Note:** Approved O&M expenses for FY'07 have been discussed in the relevant section

- 2.85 As noted above, the working capital requirement of West Discom works out to be negative, which means the Licensee does not require any working capital to manage its business, and the day-to-day expenditure can be fully met through the deposits and revenue receipts of the Licensee. Thus the Commission does not allow any working capital interest to the West Discom for FY'07.

**Interest on Consumer Security Deposit**

- 2.86 For the purpose of determining interest on CSD, the Commission has considered the Consumer Security Deposit as allocated to the Licensee as per the opening balance sheet. This amounts to Rs. 273 Crore, Rs. 405 Crore and Rs. 278 Crore for East, West and Central Discoms respectively.
- 2.87 As per the Commission's Regulations on the subject, the Commission has allowed an interest at the rate of 6% on this amount, which works out to Rs. 16.38 Crore, Rs. 24.30 Crore and Rs. 16.68 Crore respectively for East, West and Central Discoms. This is allowed by the Commission for inclusion in the Licensees' ARR.

## **Return on Equity and Tax**

### **Licensee submission**

#### *East Discom*

- 2.88 GoMP vide its notification dated 31<sup>st</sup> May 2005 has provided for an equity base of Rs. 317 Crore for the Licensee. On the basis of the capital expenditure plan for FY'06 and FY'07 submitted by the Licensee in the petition, the Licensee has worked out the additional equity that shall be infused during these years for the purpose of asset creation. This amounts to Rs. 9.92 Crore during FY'06 and Rs. 6.62 Crore during FY'07. Thus the equity value as claimed by the Licensee at the end of FY'06 is Rs. 326.92 Crore and that at the end of FY'07 is Rs. 333.54 Crore. Leaving aside the portion of capital grants and consumer contribution during these years, the total debt outstanding as claimed by the Licensee is Rs. 612.88 Crore at the end of FY'06 and Rs. 804.71 Crore at the end of FY'07. The Licensee has then worked out the eligible equity as 30% of the total of debt and equity at the end of FY'06 and FY'07, which works out to Rs. 281.94 Crore and Rs. 333.54 Crore respectively.
- 2.89 The Licensee has computed the Return on Equity as 16% of this 'eligible equity'. This works out to Rs. 46.10 Crore and Rs. 53.37 Crore for FY'06 and FY'07 respectively. This leaves balance equity of Rs. 44.98 Crore for FY'06, which is treated as loan by the Licensee. On this amount, the Licensee has claimed additional interest expenses of Rs. 4.12 Crore at weighted average rate of 12% for FY'06.

#### *West Discom*

- 2.90 GoMP vide its notification dated 31<sup>st</sup> May 2005 has provided for an equity base of Rs. 533 Crore for the Licensee. On the basis of the capital expenditure plan for FY'06 and FY'07 submitted by the Licensee in the petition, the Licensee has worked out the additional equity that shall be infused during these years for the purpose of asset creation. This amounts to Rs. 25.15 Crore during FY'06, and no addition projected for FY'07. Thus the equity value as claimed by the Licensee at the end of FY'06 and FY'07 is Rs. 558.15 Crore. Leaving aside the portion of capital grants and consumer contribution during these years, the total debt outstanding as claimed by the Licensee is Rs. 1000.60 Crore at the end of FY'06 and Rs. 1204.94 Crore at the end of FY'07. The Licensee has then worked out the eligible equity as 30% of the total of debt and equity at the end of FY'06 and FY'07, which works out to Rs. 467.63 Crore and Rs. 528.93 Crore respectively.
- 2.91 The Licensee has computed the Return on Equity as 16% of this 'eligible equity'. This works out to Rs. 74.82 Crore and Rs. 84.63 Crore for FY'06 and FY'07 respectively. The balance equity i.e. Rs. 90.52 Crore for FY'06 and Rs. 29.22 Crore for FY'07 is treated as loan by the Licensee. On this amount, the Licensee has claimed additional interest expenses of Rs. 10.86 Crore and Rs. 3.51 Crore at weighted average rates of 12% for FY'06 and FY'07 respectively.

*Central Discom*

- 2.92 GoMP, vide its notification dated 31<sup>st</sup> May 2005, has provided for an equity base of Rs. 316 Crore for the Licensee. The Licensee has claimed that the Govt. of MP shall, during FY'07, infuse equity of Rs. 84 Crore in the business, taking the equity base at the end of FY'07 to Rs. 400 Crore. The Licensee has computed Return on Equity @ "14%", which works out to Rs. 44.24 Crore for FY'06 and Rs. 56 Crore for FY'07.

**Commission's analysis for Return on Equity and Tax**

- 2.93 As has been indicated in Table 30 above, the Commission identifies equity worth Rs. 317 Crore, Rs. 449.7 Crore and Rs. 316 Crore and loans worth Rs. 35 Crore, Rs. 130.3 Crore and Rs. 75 Crore as associated with completed projects for East, West and Central Discoms respectively, as per the opening balance sheet. Also, as explained in the previous sections, no addition of assets has been recognised by the Commission during FY'06 and FY'07 respectively. Therefore, although the Commission agrees that there may be some fresh equity infused during FY'06 on account of the capital structure of various projects being undertaken by the Licensee, the Commission cannot associate this equity with the used and useful assets of the business, since the Licensee cannot establish whether the assets have been put to use or not.

Therefore, for the purpose of computing Return on Equity, the total equity considered by the Commission as associated with used and useful assets is the same as given in paragraph 2.93 above. The RoE @16% on this eligible equity as allowed by the Commission for FY'07 is Rs. 50.72 Crore, Rs. 71.95 Crore and Rs. 50.56 Crore respectively for East, West and Central Discoms.

- 2.94 The tax liability that the Licensee would be required to meet on the allowable return at 30% corporate tax rate, surcharge thereon @ 10% and educational CESS at 2%.
- 2.95 The Commission, based on assumptions given in the above paragraph, has computed the tax liability that the Licensee would be required to meet. The tax liability for FY'07, it is likely to be Rs. 17.07 Crore, Rs. 24.23 Crore and Rs. 17.02 Crore for East, West and Central Discoms respectively. However, the tax liability of a Distribution Licensee is based on other expenses also and will be known only when the accounts are finalized. Therefore, the Commission, for the purpose of FY'07 ARR is not making any provision for Income Tax for the Licensees, which will be allowed at the time of review.
- 2.96 **The Licensees are directed that in future they shall maintain accurate details of utilisation of all sources of funds for the purpose of creation of fixed assets and meeting working capital requirement.**

## **Operations and Maintenance Costs**

### **Licensee submission**

- 2.97 The Licensees have not claimed O&M expenses on a normative basis as specified by the Commission in its Regulations under section 61 of the Act. They have instead claimed these expenses under separate heads of R&M, Employee and A&G expenses. These expenses, as claimed by the Licensees for FY'07 are as under:

**Table 35: O&M Expenses as claimed by the Licensees for FY'07**

(Amount in Rs. Crore)

<b>Particulars</b>	<b>East</b>	<b>West</b>	<b>Central</b>	<b>Total</b>
R&M	46.65	57.67	91.30	<b>195.62</b>
Employee expenses	328.10	314	329.47	<b>971.57</b>
A&G expenses	51.00	45.28	55.00	<b>151.28</b>
Less: Expenses capitalised	28.39	12.01	0.00	40.40
<b>Net total O&amp;M expenses</b>	<b>397.36</b>	<b>404.94</b>	<b>475.77</b>	<b>1278.07</b>

### **Commission's analysis for O&M cost**

- 2.98 The Commission in *its terms and conditions for determination of tariff for distribution and retail supply* had already specified the norms for the determination of the O&M for the control period from FY'07 to FY'09. The norms for O&M expenses have been fixed on the basis of metered consumers, metered sales, 33 & 11kV network length and transformation capacity of power transformers. These norms exclude terminal benefits to be paid to employees, taxes to be paid to the Government or local authorities and fees to be paid to MPERC, which the Distribution Licensee shall claim separately.
- 2.99 It has been explained in the previous sections that the Commission has not considered any additions to the asset base during FY'06 and further during FY'07. Therefore, for the purpose of determining O&M expense allowance, the HT network length and Transformation capacity has been considered as that existing at the end of FY'05. As far as metered consumers and metered sales are concerned, the Commission has accepted these numbers as forecast by the Licensee for FY'07.



## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

2.100 The net O&M expenses for each year of the tariff period have been computed on the basis of projected number of metered consumers, metered sales, total network length of 11 & 33kV, voltage levels and allowable rates for each of these parameters for the year under consideration. These are elaborated in the table below –

**Table 36: O&M expenses as allowed for FY'07**

	<b>O&amp;M charges</b>	<b>East</b>	<b>West</b>	<b>Central</b>	<b>Total</b>
<b>A</b>	<i>Metered consumers</i>	2056017	2180617	1351597	5588231
	<i>Multiplying Factor - A</i>	6.10	6.10	6.10	
	<i>O&amp;M – A (Rs. Lakh)</i>	<b>12541.70</b>	<b>13301.76</b>	<b>8244.74</b>	<b>34088.2</b>
<b>B</b>	<i>Additional pre-paid meters to be installed during the year</i>	0.00	0.00	0.00	0.00
	<i>Multiplying Factor - B</i>	0.50	0.50	0.50	
	<i>O&amp;M – B (Rs. Lakh)</i>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>C</b>	<i>Metered Sales (MU)</i>	5244.88	5586.87	4311.10	15142.85
	<i>Multiplying Factor - C</i>	2.21	2.21	2.21	
	<i>O&amp;M – C (Rs. Lakh)</i>	<b>11591.19</b>	<b>12346.98</b>	<b>9527.53</b>	<b>33465.70</b>
<b>D</b>	<i>HT Network Length ('00 ckt-km)</i>	70539	62507	62827	195873
	<i>Multiplying Factor - D</i>	15.10	15.10	15.10	
	<i>O&amp;M – D (Rs. Lakh)</i>	<b>10651.39</b>	<b>9438.48</b>	<b>9486.94</b>	<b>29576.81</b>
<b>E</b>	<i>Transformation Capacity (MVA)</i>	2557	4609.80	3264	10430.8
	<i>Multiplying Factor - E</i>	1.44	1.44	1.44	
	<i>O&amp;M – E (Rs. Lakh)</i>	<b>3682.73</b>	<b>6638.11</b>	<b>4699.66</b>	<b>15020.50</b>
<b>F</b>	<i>Items not covered in formulae (MPERC License fee, Taxes) (Rs. Crore)</i>	<b>4.43</b>	<b>2.78</b>	<b>2.25</b>	<b>9.46</b>
	<b>Total O&amp;M (A+B+C+D+E+F) in Rs Crore</b>	<b>389.10</b>	<b>420.03</b>	<b>321.29</b>	<b>1130.42</b>

2.101 The Commission would like to point out that the reduction in O&M expenses in case of Central Discom is on account of the lesser number of metered consumers and consequent lesser quantum of metered sales, as can be seen from the table above. It is imperative that the Central Discom achieves its meterisation plan and thus get the additional O&M expenses. Even though in this Order, the Commission has introduced a tariff for sale through metered DTRs, neither the consumers who are connected to such DTRs would be considered as metered consumers nor the sales would be counted as metered sales.

2.102 The Commission's regulations provide for Terminal Benefits to be provided over and above the normative amount of O&M expenses. As at present, the terminal benefits are being taken care of by the MPPTCL in the absence of creation of a pension trust as envisaged in the GoMP Order dated 31<sup>st</sup> May 2005, no separate provision for Terminal Benefits has been considered in this Order for the Distribution Licensees.

**Other items of ARR**

2.103 Apart from the components of expenses discussed above, there are certain other items which form part of the Aggregate Revenue Requirement. These include provision for Bad Debts, other miscellaneous expenditure, any prior period expenses / credits and Non-Tariff Income.

**Bad and doubtful debts**

2.104 With regard to provision for Bad Debts, the Commission has tested the Licensee's claim vis-à-vis the maximum provision permissible as per the Commission's regulations under section 61 of the Act, which state that the maximum bad and doubtful debts permitted to the Distribution Licensee are 1% of the sales revenues. The following table gives the amount of bad debts claimed by the Licensee and those approved by the Commission for FY'07:

**Table 37: Bad and Doubtful debts for FY'07**

(Amount in Rs. Crore)

<b>Particulars</b>	<b>East</b>	<b>West</b>	<b>Central</b>	<b>Total</b>
Claimed by Licensee	16.52	98.76	10.00	<b>125.28</b>
1% of sales revenues	21.94	26.35	22.09	<b>70.38</b>
Allowed by Commission	16.52	26.35	10.00	<b>52.87</b>

**Note:** Sales revenue has been computed at tariff rates approved by the Commission for FY'07.

2.105 As seen from the table above, the claims of East and Central Discom are lower than the maximum permissible amount under Commission's regulations, while the claim of West Discom is far in excess of the same amount. Therefore, the Commission allows bad debts provision to East and Central Discoms as claimed by these Licensees, while for West Discom this provision is limited to Rs. 28.09 Crore as worked out by the Commission for FY'07. This shall be reviewed again at the end of the financial year and the amount actually written off will be considered subject to the maximum prescribed in the regulations (1% of sales revenue), and any excess or shortage will be adjusted in the ARR/Tariff determination process for FY08.

## **ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

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### **Other Income**

2.106 The Licensees, except East Discom, in their submissions have included Delayed Payment Surcharge while working out the Other Income. Clause 2.42 of the Commission's regulations clearly state that the income from late payment surcharge shall not be considered as income for the purpose of determination of gap between aggregate revenue requirement and tariff and other income. Therefore, the Commission has reduced the claims of West and Central Discoms to the extent of income from delayed payment surcharge as considered by these Licensees. The "Other Income" as allowed by the Commission for FY'07 is shown in the following table:

**Table 38: Other Income for FY'07**

(Amount in Rs. Crore)

<b>Particulars</b>	<b>East</b>	<b>West</b>	<b>Central</b>	<b>Total</b>
Claimed	37.02	165.72	243.47	<b>446.21</b>
DPS amount included in claim	0.00	106.99	200.00	<b>306.99</b>
Allowed by Commission	37.02	58.73	43.47	<b>139.22</b>

### **Other miscellaneous expenditure**

2.107 The Licensees have claimed miscellaneous expenditure including prior period debits/credits, income from trading and manufacturing activities, past losses written off, etc. This amounts to Rs. (1.58) Crore for West Discom and Rs. 2.67 Crore for East Discom. Central Discom has not claimed anything under this head. This is allowed by the Commission for inclusion in the ARR.

### **Aggregate Revenue Requirement**

2.108 Based on the discussion above, the aggregate revenue requirement permitted by the Commission for FY'07 is shown below. The Licensees' claim is also shown along with for ready reference.

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**Table 39: Approved Aggregate Revenue Requirement for FY'07**

(Amount in Rs. Crore)

Particulars	East		West		Central		Total	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
Power Purchase cost	1931.14	1468.95	2446.66	1850.53	2019.00	1624.80	6396.80	4944.27
Transmission cost		177.61		225.03		195.05	0.00	597.69
O&M cost	425.75	389.10	416.70	420.03	463.00	321.29	1305.45	1130.42
Interest and finance charges	62.60	22.18	138.00	35.76	77.00	22.38	277.60	80.32
Depreciation & Related Debits	61.21	50.70	78.21	60.75	66.00	50.49	205.42	161.94
Return on Equity	72.89	50.72	84.63	71.95	56.00	50.56	213.52	173.23
Provision for Bad Debts	23.17	16.52	0.00	26.35	0.00	10.00	23.17	52.87
Other debits / (credits)		2.67	97.17	-1.58	0.00	0.00	97.17	1.09
<b>Gross ARR</b>	<b>2576.76</b>	<b>2178.46</b>	<b>3261.37</b>	<b>2688.82</b>	<b>2681.00</b>	<b>2274.56</b>	<b>8519.13</b>	<b>7141.83</b>
Less: Other Income	37.02	37.02	165.72	58.73	243.47	43.47	446.21	139.22
<b>Net ARR</b>	<b>2539.74</b>	<b>2141.44</b>	<b>3095.65</b>	<b>2630.09</b>	<b>2437.53</b>	<b>2231.09</b>	<b>8072.92</b>	<b>7002.61</b>

**Revenue Gap at existing tariffs**

2.109 It has been stated earlier in the Order that the Commission has accepted the sales forecast of the Distribution Licensees since the power purchase quantum as computed using this sales forecast appears reasonable considering the trend in power purchase over the last few years in the state of MP. This also means that the sale forecast of each individual category as projected by the Discom has been accepted by the Commission (except for 21.06 MU towards “free agriculture” as projected by Central Discom).

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

2.110 The revenues at existing tariffs have been worked out by the Commission using this sales forecast. The revenue gap is worked out using these revenues and the approved ARR as shown in the table above. The sales revenues and the revenue gap at existing tariffs are presented in table below. The revenue gap as filed by the Licensees is also reproduced for ready reference:

**Table 40: Revenue gap with approved ARR for FY'07 at existing tariffs**

(Amount in Rs. Crore)

Discom	Revenue gap as filed	Revenues at existing tariffs as worked out	Approved ARR	Revenue Gap at existing tariffs
East	(490.16)	2107.82	2141.44	(33.62)
West	(778.36)	2487.19	2630.09	(142.90)
Central	(388.00)	2078.99	2230.09	(151.10)
<b>Total</b>	<b>(1656.52)</b>	<b>6674.00</b>	<b>7002.61</b>	<b>(328.61)</b>

2.111 The licensees had proposed to bridge the gap partly by means of tariff hike and partly by means of creation of regulatory asset. The Commission has made suitable modifications to the tariff proposals to meet the total revenue gap indicated above and has not agreed for creation of any regulatory asset for FY 07. This decision has been taken by the Commission in view of the fact that the gap, if any, for FY 06 has to be bridged only by means of a regulatory asset as the financial year is already over and the National Tariff Policy has stated that creation of regulatory asset should be resorted to only, as an exception.

2.112 The expected revenues from revised tariffs for each distribution licensee is shown in Table below

**Table 41 : Revenue from revised tariffs**

Amount in Rs. Crore

Discom	Revenue gap as filed	Expected Revenues at revised tariffs	Approved ARR	Revenue (Gap)/surplus at revised tariffs
East	(490.16)	2179.87	2141.44	38.43
West	(778.36)	2615.48	2630.09	(14.60)
Central	(388.00)	2197.76	2231.09	(33.33)
<b>Total</b>	<b>(1656.52)</b>	<b>6993.12</b>	<b>7002.61</b>	<b>(9.50)</b>

**ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07**

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2.113 The Commission has thus ensured that with uniform tariff throughout the state, the financial position of individual licensees is not seriously affected. The position of surplus or shortfall will be reviewed during the control period.

**A3: PUBLIC OBJECTIONS & COMMENTS ON THE LICENSEE'S PETITION**

**Introduction**

- 3.1 On admission of the petitions filed by the three Discoms viz. M.P.Poorva Kshetra Vidyut Vitaran Company Limited, M.P.Pashchim Kshetra Vidyut Vitaran Company Limited and M.P.Madhya Kshetra Vidyut Vitaran Company Limited, salient features of the petitions were published in the newspapers along with Commission's approach to the determination of tariff. The Commission had invited stakeholders' response on the petitions filed by the Discoms for which last date was fixed as 13.1.2006 (for Central Discom) and 19.1.2006(for East/West Discoms).
- 3.2 The Commission was not satisfied with the contents of the public disclosure and directed the Discoms to publish along with additional information in accordance with Section 64(2) of the Electricity Act 2003. The last dates of filing the objections/comments were fixed as 19.1.2006 (for Central Discom) and 20.1.2006 (for East/West Discoms), which was further extended till 31.1.2006. The Commission has received 202 objections/comments/suggestions from various stakeholders. The Commission has also considered all the responses received within due dates and after the due dates. Details of persons and organizations who had filed these responses are given in Annexure- I. The Commission has sought response of the Discoms on the comments received from stakeholders.
- 3.3 The Commission held public hearings as per following schedule in the Conference hall of the Commission at its headquarters at Bhopal.

<b>S.No.</b>	<b>Name of Discom</b>	<b>Date of public hearing</b>
1.	West Discom	20.2.2006
2.	Central and East Discoms	28.2.2006

- 3.4 The Commission has also invited NON Government Organizations to take part in the process of tariff determination to represent interest of all consumers.
- 3.5 The issues and concerns voiced by various stakeholders have been carefully examined by the Commission. Major responses, including the ones raised in the public hearings, have been grouped together according to the nature of the response and are summarized in this Chapter.

***Issue No. 1: Power Purchase Cost***

**Issue raised by stakeholders**

- 3.6 Some of the respondents made strong objections against considering power purchase cost based on Differential Bulk Supply Tariff (DBST) as per State Government's notification dated 31.5.05. They have contended that these tariffs are provisional and as the Commission has already determined tariffs for MP Power Generating Co. and MP Power Transmission Co. for FY'06, the DBST may be revised accordingly for FY'06 and FY'07. By this, the power purchase cost shall be reduced and there would be no revenue gap.

**Response from Discoms**

- 3.7 Efforts are being made to obtain Bulk Supply Tariff for each Discom from MPSEB and the same shall be considered accordingly for FY'06 and FY'07.

**Commission's views**

- 3.8 The Commission fully agrees with the stakeholders' observations. The Commission has directed the Discoms to re-work out the power purchase cost based on revised DBST, which shall only be allowed for FY'06 and accordingly projection for FY'07 shall also be made.

***Issue No. 2: Uniform tariff for all Discoms***

**Issue raised by stakeholders**

- 3.9 Some of the respondents made suggestions to have uniform tariff for all the Discoms. They have contended that different tariffs for each Discom shall not be feasible especially for industrial sector because it will lead to shifting of industries from one Discom to other.

**Response from Discoms**

- 3.10 Being a policy matter, the Commission may decide whether uniform tariff shall be applicable to all the three Discoms.

**Commission's views**

- 3.11 The Commission has considered the views of the stakeholders' suggestions. The Commission is in the view that at present it would not be feasible to have different tariffs for the three Discoms unless all the Discoms are made independent in all respect.



***Issue No. 3: Regulatory asset***

**Issue raised by stakeholders**

- 3.12 Some of the respondents made strong objections against considering the part of the revenue gap as Regulatory Assets i.e. recovery of expenses in future years. They have contended that as per National Tariff Policy, regulatory asset should only be allowed in exceptional cases i.e. under force majeure conditions. Therefore they made the representation that the facility of regulatory asset may not be allowed to the Discoms.

**Response from Discoms**

- 3.13 The Company has submitted proposal for creation of regulatory assets so that unbearable tariff hike may be passed on to the consumers in phased manner depending upon efficiency improvements to be made by the Distribution Company as expected by the Commission which would also require support from the consumers.

**Commission's views**

- 3.14 The Commission is of the view that creation of Regulatory Asset is an unhealthy phenomenon and should be undertaken only in exceptional cases, when the revenue gap cannot be met through tariff changes in the same financial year, due to unforeseen circumstances. Moreover, the Commission has assessed the actual gap for FY'06 and FY'07, which works out to much lesser than that estimated by the Discoms.

***Issue No. 4: Delayed payment surcharge***

**Issue raised by stakeholders**

- 3.15 Some of the respondents made strong objections against not including huge amount of revenue collected through delayed payment surcharge from consumers. They have contended that during last few tariffs, the revenue income from this surcharge has increased considerably. They made a request to devise a way through which the revenue is accounted for.

**Response from Discoms**

- 3.16 The Commission had opined that delayed payment surcharge received by the company is not a source of income. Hence it is not included in the income of the company.

**Commission's views**

- 3.17 The Commission has considered that the entire revenue billed shall be collected by the company. Delayed payment surcharges are on account of delayed payment/non payment of dues by the consumers. Since, the Commission has considered that the company shall collect its dues in a timely manner, the Commission has not taken delayed payment charges for the purpose of tariff determination. The Commission will not be allowing interest / penal interest on overdue principal repayment while calculating ARR as the Licensees are expected to collect 100% of billed amount. This is also in line with the Multi-Year Tariff principles as it will be very difficult to determine the interest / penal interest on overdue payments and also estimate the surcharge income when the Licensees are expected to file their petitions for the Control Period.

***Issue No. 5: Employee expenses, A&G expenses and R&M expenses***

**Issue raised by stakeholders**

- 3.18 Some of the respondents made strong objections against increased provisions of employee expenses, A&G expenses and R&M expenses. They have contended that 15% increase of employee expenses, 70% increase in A&G expenses and 100% increase in R&M expenses are not justified.

**Response from Discoms**

- 3.19 The Commission had notified MPERC (Terms and conditions for determination of tariff for distribution and retail supply of electricity), Regulations, 2005 wherein norms for O&M expenses (sum of employee expenses, A&G expenses and R&M expenses) are fixed for FY'07 to FY'09. Accordingly, the above expenses have been taken.

**Commission's views**

- 3.20 The Commission had already notified MPERC (Terms and conditions for determination of tariff for distribution and retail supply of electricity), Regulations, 2005 wherein norms for O&M expenses (sum of employee expenses, A&G expenses and R&M expenses) are fixed for FY'07 to FY'09 by considering an escalation at the prevailing rates of inflation for the year as notified by Central Government. For the first control period from FY'07 to FY'09, it is taken as 6% p.a. However, increase in O&M charges on account of force majeure conditions, the Commission may consider increase in O&M expenses for a specified period. Moreover, the above norms exclude terminal benefits to be paid to employees, taxes to be paid to the Government or local authorities and fees to be paid to MPERC, which the Discom shall claim separately.

***Issue No. 6: Return on Equity***

**Issue raised by stakeholders**

- 3.21 One of the respondents made objections against the provision of 16% ROE. It is proposed by him that an ROE @ 12% as per CERC norms for generation & transmission may be taken initially.

**Response from Discoms**

- 3.22 The ROE has been taken as per MPERC (Terms and conditions for determination of tariff for distribution and retail supply of electricity), Regulations, 2005.

**Commission's views**

- 3.23 The Rate of return on equity has been considered by the Commission as 16% (post tax) in MPERC (Terms and conditions for determination of tariff for distribution and retail supply of electricity), Regulations, 2005. However, the allowable rate of return shall be linked to the performance as defined in Supply Code and Performance Standards applicable to the Distribution Licensee. Moreover, the business of distribution and retail sale of electricity is more risky than of generation and transmission of electricity.

***Issue No. 7: Separate tariff for Mini Steel Plants***

**Issue raised by stakeholders**

- 3.24 The representative of an association of industries suggested that "Power Intensive Industry" tariff abolished in tariff order dated 29.6.05 needs to be restored as it is.

**Response from Discoms**

- 3.25 It is the prerogative of the Commission to decide whether separate category is needed for Mini Steel Plants.

**Commission's views**

- 3.26 The Commission's endeavour has been to align the tariff with average cost of supply, reduce cross subsidy as per National Tariff Policy and to rationalize the tariff structure. Therefore, various HT industrial and non industrial categories were merged and consumers have been given the facility to choose their option for tariff out of three options available for them. The Commission does not find any proper justification for considering a separate category for Mini Steel Plants.

***Issue No. 8: Power factor Incentive***

**Issue raised by stakeholders**

- 3.27 Some of the objectors suggested that “Power Factor Incentive” in the range of 0.90 to 0.95 be increased from ½% to 1%.

**Response from Discoms**

- 3.28 The above request is not acceptable as for the energy consumed at 91% power factor the company shall get less amount as compared to the incentive to be passed on to a consumer.

**Commission’s views**

- 3.29 The Commission is of the opinion that it is the responsibility of the consumer to maintain power factor at a minimum level as specified from time to time so that minimum reactive power shall flow in power system, so that Distribution Company has to compensate for such loss to a minimum extent. Therefore consumers shall be liable to pay penalty as specified by the Commission on account of variation on lower side from specified power factor. Moreover, the consumer has inbuilt advantage on improvement in power factor as the active energy drawn by the consumer shall be less for the same load. As such, Commission does not find any justification for providing additional incentive to the consumer even if he puts loss to the Discom by drawing reactive energy from power system.

***Issue No. 9: Increase in rebate during off-peak hour use***

**Issue raised by stakeholders**

- 3.30 The stakeholders suggested that rebate during off-peak hours use needs to be allowed so that the load on the system can be diverted from peak hours to off peak hours.

**Response from Discoms**

- 3.31 The existing rate of rebate is sufficient and therefore it does not require any change.

**Commission’s views**

- 3.32 The Commission has already recognized that there is a need to incentivise off-peak consumption, while dis-incentivising peak hour consumption for HT consumers so that they are motivated to shift from peak to off-peak hours. The Commission has fixed Time of Day surcharge for four hours (from 6 PM to 10 PM) and rebate for eight hours (10 PM to 6 AM). The Commission does not find any justification in enhancement of rate of rebate to be provided.

***Issue No. 10: Increase in integration period for recording maximum demand***

**Issue raised by stakeholders**

- 3.33 The stakeholders suggested that 15 minutes integration period in the tariff be restored to 30 minutes for recording maximum demand.

**Response from Discoms**

- 3.34 Due to Availability Based Tariff (ABT) regime, the Company would be required to pay towards power purchase depending upon scheduled/ unscheduled draws in block intervals of every 15 minutes. Therefore, integration of maximum demand at the interval of 15 minutes is a must to observe the discipline.

**Commission's views**

- 3.35 The Commission agrees with the point of view of the Company. The Commission is of the view that integration period should be considered for 15 minutes so that fluctuating loads should be recorded under maximum demand because these does not contribute much to the energy but allow system demand to increase.

***Issue No. 11: Railway Traction Tariff***

**Issue raised by Railways**

- 3.36 The representatives from Railway Traction the following submission regarding traction tariff:
- (a) Concept of simultaneous maximum demand for all the traction sub stations (Discom wise) may be introduced.
  - (b) Integration period of 30 minutes with fixed window principle for recording maximum demand may be kept.
  - (c) The cross subsidy may be reduced by 20% from the existing level.

**Response from Discoms**

- (a) The Railways have been provided with separate connections at different locations and hence it would not be feasible to consider simultaneous maximum demand for billing purposes.
- (b) Since the traction load is highly fluctuating, 15 minutes integration period is adopted using sliding window principle in accordance with clause 18 of the agreement entered into by the Railways. Also, due to Availability Based Tariff (ABT) regime, the Company would be required to pay towards power purchase depending upon scheduled/ unscheduled draws in block intervals of

every 15 minutes. Therefore, integration of maximum demand at the interval of 15 minutes is a must to observe the discipline.

- (c) It is the prerogative of the Commission to decide the rate of reduction in cross subsidy to various categories of consumers.

**Commission's view**

- 3.37 The Commission agrees with the views of the Company and does not find any justification for considering simultaneous maximum demand for a group of traction sub stations and for allowing integration period of 30 minutes for recording maximum demand. Regarding reduction in cross subsidy, the Commission is considering to issue a road map for reduction in cross subsidy in terms of National Tariff Policy.

***Issue No. 12: Rebate of 4% on 33kV tariff instead of 2.5% for computing tariff at 132kV (HV-3)***

**Issue raised by stakeholders**

- 3.38 One of the stakeholders made representation that a rebate of 4% on 33kV tariff may be allowed instead of 2.5% for computing tariff at 132kV(HV-3).

**Response from Discoms**

- 3.39 The standard allowable transformation losses at 132kV/33kV level been pegged at 2.5% by the Commission. It is felt that the existing rate fixed by the Commission should continue.

**Commission's view**

- 3.40 The Commission agrees with the views of the Company to continue the existing rate of rebate and does not find any justification for increasing rebate.

***Issue No. 13: Minimum charges for all categories***

**Issue raised by stakeholders**

- 3.41 One of the stakeholders made representation that the minimum charges of all categories of consumers at any voltage shall be equal to Demand Charges. The minimum charges based on Load Factor be abolished

**Response from Discoms**

- 3.42 The Licensee has to maintain and keep its infrastructure available for all consumers at all given time. The concept of minimum charges helps to make up for committed payments of recurring nature, especially committed payments for purchase of power and transmission costs. However, if the Commission considers, it may take a view on rationalizing the minimum charges for industrial consumers availing supply at 132kV in the interest of industrial growth in the State.

**Commission's view**

- 3.43 The Commission is of the view that demand charges cannot be made equal to the minimum charges for all categories of consumers. However, for some of the categories, the Commission shall, if find suitable, consider the issue.

***Issue No. 14: Additional security deposit***

**Issue raised by stakeholders**

- 3.44 Some of the stakeholders made representation that the additional cash security deposit arising out of tariff revision may be allowed to deposit through Bank Guarantee instead of cash security deposit.

**Response from Discoms**

- 3.45 The Licensee is accepting security deposits in accordance to the ruling of the Commission. Further, if the additional security deposits are provided in the form of bank guarantees, it does not provide any liquidity support to the licensee. Liquidity support is critical to the Discoms because the late-paying and non-paying consumers cannot be excluded on an immediate basis from the system. The ARR shows that the company is in loss and hence liquidity management is critical.

**Commission's view**

- 3.46 The Commission agrees with the views of the Company and opined that the present system of accepting cash security deposit shall continue.

***Issue No. 15: Connected load, p.f. incentive and TOD tariff for LT two part tariff consumers***

**Issue raised by stakeholders**

- 3.47 One of the stakeholders made representation that where two part meters are installed the demand will only be reckoned for billing purpose. The connected load will have no relevance. Also for this category of consumers, power factor incentive and TOD tariff be introduced.

**Response from Discoms**

- 3.48 There should be some limit demarking the LT and HT consumer categories. LT connections are being provided up to load of 75kW. They also have a choice to opt for demand-based tariff-thereby choosing their contract demand to any extent out of permissible connected load of 75kW. Therefore it is not necessary to permit any change in the existing system.

**Commission's view**

- 3.49 The demand based tariff for LT industrial connection is in two slabs i.e. one tariff is for connected load up to 100HP and another is for more than 100HP and up to 150HP. Also, for the LT consumers, the transformer is maintained by the Discom and in case of failure of transformer, the same is being replaced by the Discom free of cost. Therefore, the Commission agrees with the views of the Company and opined that the present system shall continue.

***Issue No. 16: Abolishing of the dedicate feeder charges***

**Issue raised by stakeholders**

- 3.50 One of the stakeholders made representation that maintenance charges levied on dedicated feeders may be withdrawn as the same is not consistent with Supply Code.

**Response from Discoms**

- 3.51 The dedicated feeders are laid as per the request/ requirement of the consumer to get uninterrupted quality supply. Having independent supply arrangement, the possibilities of injecting impurities by other consumers are removed. This independent feeder is maintained by the Discom and therefore the consumer is required to pay for the service in terms of the Miscellaneous levied on the dedicated feeder. Therefore, the issue of waiving miscellaneous charges on the dedicated feeder can not be recommended by the Discom.

**Commission's view**

- 3.52 As per Electricity Supply Code, 2004, the feeders laid by the Discom irrespective of the fact the consumer has paid the cost, shall be the property of the Discom. The Discom shall maintain it at its cost and shall also have the right to use the same for supply to other consumers provided it shall not adversely affects the supply to the consumer who paid the cost of that feeder. The Commission agrees with the views of the Discom that for good quality and uninterrupted supply, the consumer has to bear some cost and it is decided to continue the above charges.



***Issue No. 17: Delayed payment surcharge should be on outstanding amount only***

**Issue raised by stakeholders**

- 3.53 Some of the stakeholders made representation that the delayed payment surcharge should be imposed on remaining unpaid amount only.

**Response from Discoms**

- 3.54 The imposition of delayed payment surcharge is not intended to be a source of income for the Discom, but it is rather an attempt to curb the habit of the consumers to delay their payments. Also, the rate of surcharge was decided so that cost of energy bill withheld should not be cheaper than the market loan. The Discom has made a request to restore the rate of surcharge as 2% for the first 30 days and 2.5% thereafter on unpaid amount on daily basis.

**Commission's view**

- 3.55 The Commission agrees that the delayed payment surcharge should be charged on outstanding amount only. The details of its rates and terms and conditions shall be determined in next tariff order.

***Issue No. 18: Agriculture connections should be un-metered only***

**Issue raised by stakeholders**

- 3.56 Some of the agriculture consumers made representation that meters should not be installed for agricultural connections.

**Response from Discoms**

- 3.57 The meterisation is being done as per provisions of the Act. Also to compute total actual consumed units, it is necessary to install meters on each connection.

**Commission's view**

- 3.58 The Commission agrees with the views of the Discom and decided to continue with implementation of the provisions of the Electricity Act 2003.

***Issue No. 19: Tariff for permanent and temporary connections for agriculture should be same***

**Issue raised by stakeholders**

- 3.59 Some of the agriculture consumers made representation that tariff for permanent and temporary connections for agriculture should be kept same because the Discom is not required to incur any expenditure for allowing temporary connections.

**Response from Discoms**

- 3.60 During rabi season in which temporary connections are being served to agricultural consumers, additional power is purchased at higher rates and therefore it is necessary that tariff for temporary connections to agricultural consumers should not be at par with permanent connections.

**Commission's view**

- 3.61 The Commission agrees with the views of the Discom and decided to continue with different tariffs for temporary and permanent agricultural connections.

***Issue No. 20: Restrictions of water supply, sewage ,general and street lighting load for township and residential colonies category***

**Issue raised by stakeholders**

- 3.62 The West Central Railway made a representation to remove specified limits of 10% each for Water supply & Sewage and street lighting and non domestic/ commercial & general purpose as the HT connections to their colonies are for domestic use for their departmental employees.

**Response from Discoms**

- 3.63 The billing is being done as per provisions of tariff dated 29.6.05 as determined by the Commission. However, if the Commission considers it suitable, it may take a view.

**Commission's view**

- 3.64 The Commission has considered the issue and decided to remove the limits in the rate schedule under Townships and residential colonies for water supply & sewage, street lighting, hospital with the condition that other non residential/commercial use put together should not exceed 10% of the contract demand.

***Issue No. 21: Separate tariff for Power Intensive Units***

**Issue raised by stakeholders**

- 3.65 One of the Stakeholders made a representation to determine separate tariff for Power Intensive Industries which may include Cement Industries, Paper Industries, Mini Steel Plants etc. Alternatively, an additional subcategory be introduced as Option-D suitable for load factor of more than 80% with reduced energy charges.

**Response from Discoms**

- 3.66 The billing is being done as per provisions of tariff dated 29.6.05 as determined by the Commission. However, if the Commission considers it suitable, it may take a view.

**Commission's view**

- 3.67 The Commission is of the view that the tariffs for various categories/ sub categories of consumers should further be rationalized has considered the issue and decided accordingly to modify the tariff structure for HT Industrial consumers.

***Issue No. 22: Slabs under HV-3 rate schedule for each Option be removed***

**Issue raised by stakeholders**

- 3.68 One of the Stakeholders made a representation to remove various slabs under HV-3 rate schedule for Industrial and Non- Industrial consumers.

**Response from Discoms**

- 3.69 The billing is being done as per provisions of tariff dated 29.6.05 as determined by the Commission. However, if the Commission considers it suitable, it may take a view.

**Commission's view**

- 3.70 The Commission agrees with the views of the stakeholder and decided to remove the slabs under HV-3 rate schedule for Industrial and Non- Industrial consumers and rationalized the tariff.

***Issue No. 23: Fixed charges under domestic and non domestic categories should not be based on previous year's consumption***

**Issue raised by stakeholders**

- 3.71 One of the Stakeholders made a representation that fixed charges under domestic and non domestic categories should not be based on previous year's consumption but it should be linked with current consumption only.

**Response from Discoms**

- 3.72 The billing is being done as per provisions of tariff dated 29.6.05 as determined by the Commission. However, if the Commission considers it suitable, it may take a view.

**Commission's view**

- 3.73 The Commission agrees with the views of the stakeholder and decided to link the billing of fixed network charges for domestic and non domestic consumers with authorized load based on current consumption.

***Issue No. 24: Slabs under HV-3 rate schedule for each Option be removed***

**Issue raised by stakeholders**

- 3.74 One of the Stakeholders made a representation to remove various slabs under HV-3 rate schedule for Industrial and Non- Industrial consumers.

**Response from Discoms**

- 3.75 The billing is being done as per provisions of tariff dated 29.6.05 as determined by the Commission. However, if the Commission considers it suitable, it may take a view.

**Commission's view**

- 3.76 The Commission agrees with the views of the stakeholder and decided to remove the slabs under HV-3 rate schedule for Industrial and Non- Industrial consumers and rationalized the tariff.

## **A4: TARIFF DESIGN AND TARIFF SCHEDULES**

### **Legal Position**

- 4.1 The Commission has determined the Revenue Requirement for the three Distribution companies based on the Regulations issued under Sec 61 of the Electricity 2003. The revenue requirement approved by the Commission for the Generating Company Transmission Company and the Distribution companies forms the primary basis for recovery of charges from consumers through retail tariffs.
- 4.2 The Commission has also separately issued Regulations under Sec 45 (2) of the Electricity Act, which specify the methods and principles for fixation of charges recoverable by the distribution licensee for supply of electricity.
- 4.3 Further, in determining the consumer category wise tariffs, the Commission is also guided by the provisions of the National Tariff Policy (NTP), notified by the Government of India in Jan 2006.

### **Implementation of MYT framework**

- 4.4 The National Tariff Policy requires the Commission to adopt a Multi Year Tariff (MYT) framework for determination for any tariffs from 1 April 2006. The Commission has issued the regulations for MYT implementation for the generating company and transmission and distribution licensees on 5<sup>th</sup> December 2005. However, the filings made by the distribution company are only for a one year period and not for three years as required under the regulations. The existing MIS and regulatory reporting systems of the distribution licensees appear to be inadequate and there is lack of preparedness for implementation of MYT framework on the part of distribution licensees. The Commission urges upon the licensees to have well staffed and competent unit for preparing Multi Year Tariff proposals to be filed in October 06 for the remaining years of the control period i.e. upto the end of FY09.

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

### **Uniform vs. Differential Retail Tariffs**

- 4.5 The Commission is in receipt of a letter from the State Government of Madhya Pradesh (letter no. 1469113/06 dated 7/3/2006), relevant portion of which is reproduced below:

**“The Government of M.P. recognises that the distribution companies are inherently different on various significant parameters including the consumer mix (i.e. the proportion of different consumer categories), losses and cost structure which result in different cost and revenue structures. These factors are also dynamic and keep changing over time. However, it is the intention of the Government of M.P. that:**

- (a) **At least in the foreseeable future, the tariffs of various consumer categories in the state must remain similar;**
- (b) **At the same time, it also believes that no major differences should arise among the Discoms in terms of revenue gap or surplus.**
- (c) **The government intends to provide or any other form of financial assistance only to identified consumers as per government's policy.**
- (d) **While ensuring the aforesaid, it would in no way like the financial interests of the Discoms to be jeopardized;**
- (e) **However, there should also be adequate incentives available to the Discoms for efficiency enhancement.**

**The Commission may be aware that recently the State Government has decided that the bulk power purchase and supply function will be carried out by a trading company to be set up for this purpose separately. The Commission may determine differential bulk supply tariff (DBST) at which the MPSEB / Successor Trading company will supply electricity to the three Discoms so as to keep uniform retail tariff in the State.”**

- 4.6 The Commission is of the view that under an arrangement of differential bulk supply tariff, the efficiency gains of better performing Discom is not fully available to the consumers of that Discom but is passed on to the inefficient Discom. To promote competitiveness and encourage concern for achieving better performance standards including lower AT&C loss levels, it is better to keep the companies conscious of their true state of affairs. However, the objective of uniform retail tariff at the beginning of the control period is a more practical approach and has been ensured by the Commission. However, distribution licensees must note that the determination of the combined revenue requirement is based on their specific loss levels and operating norms as agreed and set for FY'07 and does not in anyway compromise on the targets set and expected of them.

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

- 4.7 In determining the tariffs, the Commission has given due consideration to the requirement that consumer tariffs should reflect the cost of supply. The National Tariff Policy mandates that by 2010-2011, the tariffs should be within +/- 20% of the Average cost of supply”. The table below shows a the cost coverage on account of revised tariffs:

**Table 42: Comparison of tariff v/s average cost of supply**

Category/Sub-Category	New Tariff Structure (FY'07)		
	Avg. realisation (Rs./Unit)	Avg. CoS (Per unit)	Realisation attained
Domestic	3.01	3.49	86%
Non-Domestic	5.86	3.49	168%
Pub. Water Works	2.95	3.49	84%
Street Lights	3.53	3.49	101%
LT Industry	5.19	3.49	149%
Irrigation Pumps for agriculture	2.15	3.49	62%
Railway Traction	4.64	3.49	133%
Coal Mines	5.50	3.49	158%
Industrial and Non-Industrial	4.72	3.49	135%
Seasonal	5.25	3.49	151%
HT Irrigation and Water Works	3.19	3.49	91%
Bulk Residential users	3.60	3.49	103%
Bulk supply to Exemptees	3.33	3.49	95%

- (a) The Commission has introduced a concept of un-interrupted supply for domestic in areas where the utility is in a position to provide uninterrupted supply of electricity for Domestic and Non-domestic categories. The Commission feels that in the current scenario of Demand-supply imbalance for electricity, those areas where the utilities are able to provide uninterrupted supply of electricity should pay a premium for the services rendered to them. The salient features of this are:
- a. All consumers falling under the domestic category receiving uninterrupted supply will have to pay a premium fixed network charge for getting the facility of uninterrupted supply from the utility. The concept of Fixed Network charge has been discussed later in the chapter.
  - b. The Licensee shall keep a complete log of the interruptions in these areas in order to claim the amount as per the tariff schedule for fixed network charge. A periodic MIS will also be made accessible to the

commission on the area-wise interruptions for the specific areas as mentioned above.

- c. The Commission has allowed 1% of the total no. of hours in a particular month as the grace for utility for unforeseen interruptions. In a month of 30 days, a utility shall be allowed a maximum period of 7.2 hours in the entire month to be eligible to claim the tariff for un-interrupted supply of electricity.
- d. In case the period of interruption goes beyond the 'specified limit' as mentioned above, the utility will not charge/refund the additional tariff under the "uninterrupted supply" category as the case may be.
- e. If a consumer feels that the licensee has violated the 'specified limit' of interruptions in a particular month and still charged the consumer under un-interrupted supply, he/she can represent to the Forum for redressal of consumer grievances

The Commission feels that the concept of 'un-interrupted supply' will not only benefit the licensee but also pave the way for better quality of services to the consumer as the utility will have to take extra responsibility for keeping the network system under control for giving the facility to the consumers.

## **Introduction of Fixed Network Charge**

### **Background**

- 4.8 The Commission has repeatedly come across instances of unwillingness or inability of the distribution licensee in providing new connections to consumers using irrigation pump set as also for domestic users. New connections are delayed on grounds of inadequacy of funds for taking up expansion and / or strengthening of distribution system. A very large number of prospective consumers in distant parts of an electrified village (majra/para) keep waiting for their turn to be connected only because the funds for extending the system are not available.
- 4.9 The problem is equally serious in the newly developed residential colonies coming up on the periphery of urban areas where occupants are not in a position to individually meet the cost of the new higher capacity transformer. In many instances, they are required to meet the cost of putting up the substation too because of either inadequate network coverage or insufficient capacity of the existing network.
- 4.10 The Licensees also need to make substantial capital expenditure to augment, upgrade and maintain the network which will help in providing reliable and quality supply to consumers, which in turn will require adequate funds. In the following sections, the Commission has analysed the performance of licensees with regard to delay in connections and the need for strengthening the distribution network.



## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

- (a) **Delay in new connection/load augmentation:** The Commission has specified distribution licensees' performance standards for releasing the new connection / augmenting connected load within prescribed time limits. Following table indicates the performance of the distribution licensees for FY'06 as on 30<sup>th</sup> September 05:

**Table 43: Licensee's responsiveness to applications for new connections**

Discom	Urban Area			Rural Area		
	No. of Applications received	No. of Applications processed within prescribed time limit	% Achievement	No. of Applications received	No. of Applications processed within prescribed time limit	% Achievement
West	18,483	17,849	96.57%	4,075	4,072	99.93%
Central	17,731	17,558	99.02%	8,497	8,327	98.00%
East	7,724	7,460	96.58%	6,047	5,983	98.94%

While the above table presents the data on responsiveness to new connections which is above 98%, the scenario is very different when we look only at cases where extension work is required for new connections, particularly for agriculture pumpsets.

- (b) **Release of new connections for irrigation pump sets:** There are a large number of pending applications for LT irrigation pump energisation. Following table shows the Discom wise status of pending applications as on 30.09.2005:

**Table 44: Delays in providing connection to agriculture pump sets**

Discom	Where extension work is required				
	No. of applications pending	Age of application		Responsible for delay	
		6 months or less	More than 6 months	Delay by consumer (in formalities)	Delay by licensee
West	48858	0	48858	0	48858
Central	27190	40	27150	6	27184
East	32008	5	32003	2	32006

The above statistics shows that in almost all cases, applications are pending for more than six months. The primary reason for delay in releasing new connection is either inadequate network coverage or insufficient capacity of the existing network. Licensees will, thus have to invest large sum to improve coverage and capacity of the network specifically in remote/rural areas.

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

- (c) **Distribution transformer failures:** The Commission has laid down year wise benchmarks for limiting the failure rate of power and distribution transformers, which was increasing since past few years. The distribution licensees are now furnishing information about failure and replacement of distribution transformers on daily basis through e-mail to the Commission. The Commission has observed the following status in respect of failure of distribution transformers:

**Table 45: Failure rate of distribution transformers**

Discom	Distribution transformers in service	Total failure as on 13.01.06	% Failure during FY'05-06 up to 13th Feb '06	% Failure during FY'04-05
West	73,799	8,592	11.64%	22.27%
East	46,262	7,133	15.42%	16.60%
Central	55,591	10,730	19.30%	21.24%

In general, the distribution licensees have reduced the failure rate of Distribution transformers during FY'06 as on 13<sup>th</sup> February 2006. However, the Central Distribution Company has exceeded the limit of 17.5% set by the Commission for FY'06 in the regulation on performance standards.

One of the major reasons for DTR failures is overloading of the DTRs and inadequate maintenance. Licensees will thus need to augment existing overloaded DTRs and install new DTRs to reduce the failure rate.

- (d) **HT/LT Ratio:** HT/LT ratio for distribution network represents mix of HT lines and LT lines in the network which is indicator of the network health. Low HT/LT ratio indicates that the network has more LT lines compared to HT lines and hence higher losses since technical losses are much higher in LT lines than HT lines. The following table indicates trend of HT/LT ratio for three discoms.

**Table 46: HT/LT ratio for sub-transmission and distribution networks**

Discom	As on	HT lines (Ckt. Kms)	LT lines (Ckt. Kms)	HT/LT Ratio
West	31-Mar-2002	58300	126651	0.460
	31-Mar-2003	59595	130265	0.457
	31-Mar-2004	60476	130740	0.463
	31-Mar-2005	61544	131311	0.469
Central	31-Mar-2002	57736	92417	0.625
	31-Mar-2003	61021	96697	0.631
	31-Mar-2004	61465	97221	0.632
	31-Mar-2005	62833	98178	0.640

## ARR AND RETAIL TARIFF DETERMINATION FOR FY06-07

Discom	As on	HT lines (Ckt. Kms)	LT lines (Ckt. Kms)	HT/LT Ratio
East	31-Mar-2002	66179	101338	0.653
	31-Mar-2003	68615	104105	0.659
	31-Mar-2004	69957	107101	0.653
	31-Mar-2005	69494	107532	0.646

The trend indicates that the HT/LT ratio within the Discoms has remained more or less same in last four years. However, Central and East discoms have better network compared to West discom because of higher HT/LT ratio. For higher HT/LT ratio, discoms need to invest in constructing new HT lines in the distribution system.

- (e) **Transformer overloading:** High transformer loading results in to higher losses, lower reliability and deteriorated quality of supply. Following table shows the Discom wise status of power transformers (PTR) loading as on 31.03.2005:

**Table 47: Overloading of power transformers**

Discom	Total No. of PTRs	No. of PTRs overloaded	% PTRs overloaded	No. of PTRs proposed to be augmented	No. of new PTRs proposed
West	1266	407	32.15%	69	127
Central	941	117	12.43%	64	118
East	823	76	9.23%	63	13

Following table shows the Discom wise status of distribution transformers (DTR) loading as on 31.03.2005:

**Table 48: Overloading of distribution transformers**

Discom	Total No. of DTRs	No. of DTRs overloaded	% DTRs overloaded	No. of DTRs proposed to be augmented	No. of new DTRs proposed	Extension of 11kV line involved (kms.)
West	73799	10693	14.49%	5305	3245	--
Central	55591	3358	6.04%	1850	3419	--
East	46262	2766	5.98%	956	1810	905

**MPSEB's practice for recovery of connection charges**

- 4.11 Until recently, the recovery of connection charges was being done by MPSEB by recovery of System Strengthening Charge. However, the Commission has discontinued the right to recover these charges as it is iniquitous to new consumers, who are required to bear a heavy burden.
- 4.12 The Commission has decided to spread the charges more evenly to all users of the system which will help the licensee in developing and maintaining an adequate and coordinated system through the recovery of Fixed Network Charges. By leveraging the fixed network charge, the licensee will be in a position to offer connection to a new applicant without delay and build adequate redundancy to cater to future demand growth.
- 4.13 As a result of this introduction, the domestic category consumers will be required to pay a small amount per connection each month, and the burden on the small consumer has been kept very light.

**Legal grounds for Fixed Network Charge**

- 4.14 Sec 26(7)(b) of the MP Vidyut Sudhar Adhiniyam 2000 specifies that the Commission shall be entitled to include in the tariffs of the licensee an amount to be appropriated to Special Funds which the Commission, in its opinion, consider necessary to meet the expenses required for implementing projects to enable supply of Electricity to consumers in different places in the area of supply of the licensee.

**Utilisation and Monitoring of proceeds**

- 4.15 The Commission shall separately issue the guidelines for the management of the special fund.

**A5: STATUS OF COMPLIANCE OF COMMISSION'S DIRECTIVES GIVEN IN PREVIOUS TARIFF ORDERS**

5.1 The Commission in its earlier Tariff Orders had given several important directives to the licensee on improvements in operational and financial performance and customer services. The Commission in its Tariff Order of June 29, 2005 has also pointed out that the Madhya Pradesh State Electricity Board has not comprehensively responded to the observations and directives given by the Commission in its earlier tariff orders of 26<sup>th</sup> September 2001, 30<sup>th</sup> November 2002 and 10<sup>th</sup> December 2004. Some of the important directives related to :-

- (a) Maintenance of Asset Registers
- (b) Reduction of T&D Losses
- (c) Estimation of Agriculture category consumption
- (d) Prior Approval of Commission for Power Purchases
- (e) Status of Border Villages
- (f) Manpower Planning
- (g) Arrangements for better consumer care
- (h) Modification of R-15 (Revenue monitoring ) formats
- (i) Reduction in transformer failure
- (j) Improvement of Recovery and liquidation of arrears
- (k) DTR metering
- (l) Consumer metering
- (m) Timely intimation to consumers regarding bills by SMS
- (n) Energy Auditing
- (o) Introduction of spot billing
- (p) Appointment of Reporter of Compliance

5.2 The Commission has been regularly monitoring the implementation of these directives but is constrained to point out that all distribution licensees are not moving forward with equal alertness and dedication. The Commission will consider further delay in ensuring satisfactory compliance as a matter fit for action under the provisions of the Act.

**New Directives in this Tariff Order**

5.3 The Commission directs licensees to initiate action on the following fresh directives and report compliance to each of them through Reporter of Compliance:

- (a) The Commission has prescribed the minimum off-take of energy from Non conventional energy sources for the licensees in MP and has also prescribed the tariff for purchase from Wind energy sources. The Discoms are directed to report the progress to the Commission in this regard.
- (b) Submission of a comprehensive and realistic Business Plan by each of the Discom
- (c) MYT filing for distribution
- (d) Finalise Transmission Services Agreement
- (e) Implementation of Intra-state ABT mechanism
- (f) Induction of full-time Directors for finance and operations in Discoms
- (g) Design franchisee model for rural electrification
- (h) Submission of Work and Financial completion certificates of all completed assets to claim depreciation
- (i) Develop a time-bound programme for implementation of SCADA and data management system.
- (j) Implement pilots for pre-paid meters
- (k) Implement pilots of High Voltage Distribution System (HVDS) in high loss area
- (l) Licensee to initiate process to maintain voltage-wise costing records
- (m) Submission of Annual Capital Expenditure plans in accordance with guidelines issued by the Commission
- (n) Reconciliation of Asset Registers

- (o) Accounting separation of distribution and retail supply businesses for determination of wheeling charges at different voltages
  - (p) Initiate studies for segregation of technical and commercial losses
  - (q) Develop roadmap for reduction of loss levels so as to bring it to comparable international levels by 2012
- 5.4 The Commission shall review the status of implementation of these directives during the year and will issue, detailed guidelines to facilitate implementation.
- 5.5 One of the important directives given in the tariff order passed on 29 June 05 related to the refund of a percentage of fixed charges to consumers of such areas where supply was interrupted for a duration longer than specified. The distribution licensees have reported that refunds have been given to affected consumers. The Commission will verify the details and pursue this matter in the coming months
- 5.6 Another important issue on which the common citizen / consumer has expressed dissatisfaction is the complexity of the tariff and the details given in the bill. In order to simplify the tariff design and to explain the various components and charges included in the bill, the Commission is now directing the distribution licensees to ensure that a tariff card in Hindi language is sent to each consumer explaining in simple language the contents of the tariff and charges payable by a particular consumer category. This must be done within two months i.e. before 31st May 2006 and compliance must be reported to the Commission. The distribution licensee will also obtain prior approval of the Commission in regard to the text of the matter to be printed on the tariff card.
- 5.7 The Commission wishes to put on record its appreciation for the hard work and the spirit of dedication demonstrated by the staff of the distribution licensees and also the staff of the Commission and the Consultants to the Commission, M/s PricewaterhouseCoopers. The cooperation and valuable suggestions received from various stakeholders have made it possible for the Commission to complete the work within the specified time.

**ANNEXURE TO TARIFF ORDER PASSED BY MPERC FOR**  
**Financial Year 2006-07**

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**

**TARIFF SCHEDULES FOR LOW TENSION CONSUMERS**

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## TARIFF SCHEDULES

### Schedules for Low Tension Consumers

#### Rate Schedule-- LV-1

##### DOMESTIC :

###### **Applicability:**

This tariff is applicable only for light, fan and power for residential use. Dharamshalas, Hostels for students or working women, old age houses, rescue houses and orphanages, places of worship, religious Institutions, nursing homes and private hospitals where beds for patients are maintained and also Government Hospitals and Government medical care facilities including Primary Health Centres will also be covered under this category.

**Note: Consumers using more than 10% of contract demand for any professional activity shall be charged at appropriate non-domestic tariff for the consumption assessed to be made for professional activity.**

#### **2. Tariff for Energy Charges and Fixed Charges:**

The sub- category of tariff shall be based on current monthly consumption as per following table:

**(i) Energy Charge – For actual consumption**

S.No.	Monthly consumption of	Energy cost charges for all units consumed with no telescopic benefit (paise/unit)	Minimum charges (Rs. per connection per month)
1	First 30 units	265	30
2	31 to 50	270	
3	51 to 100 units	300	
4	Above 100 units	340	
5	Temporary connection	510	350
6	Through DTR meter	245	NIL

(ii) **Fixed Charge** – recoverable per connection per month in addition to energy charge.

S.No.	Monthly consumption	Fixed Charge in Rs. Per month	
		In areas with continuous supply	In other areas with non continuous or interrupted supply
1	Up to 30 units	NIL	NIL
2	31 to 50 units	5	2
3	51 to 100 units	10	5
4	101 to 200 units	30	15
4	Above 200 units	15 per half kW or part thereof(*)	10 per half kW or part thereof(*)
5	Temporary connection	30 per half kW or part thereof (*)	20 per half kW or part thereof(*)
6	Through DTR meter	Nil	Nil

(\*) Shall mean the authorized load as defined in Electricity Supply Code

**Important Note:**

(a) Continuous or un interrupted supply is taken to mean supply for an average duration of 23 and a half hours or more per day.

(b)The licensee shall ensure installation of meters on the premises of un-metered consumers immediately and pending installation on individual premises shall install DTR meters and billing for un-metered connections may only be done accordingly.

( c)The licensee shall be entitled to recover fixed charges at the rates shown in the column for continuous supply only if uninterrupted supply is maintained in the area during the billing month, failing which the licensee may only charge at the rate shown in the column for interrupted/non continuous supply. The licensee shall be required to intimate to the Commission at the end of the month the duration of average daily supply in each City/O&M Division and this information shall also be displayed by the licensee prominently on the bill sent to each consumer for the billing month. Licensee shall also arrange to display the tariff rates at each collection centre. If the licensee is unable to ensure continuous supply in any area where such supply is made during an earlier period, the licensee is required to intimate the Commission the reasons for change in supply hours and the Commission’s approval will be necessary for such changeover.

(d) **Delayed payment Surcharge:** Surcharge may be recovered at the following rate subject to maximum of 25 % of outstanding amount :--

- (i) For outstanding amount up to Rs. 500.00 ---- @ Rs. 1.00 per day after due date.
- (ii) For outstanding amount exceeding Rs 500 and upto Rs. 1000.00 ---- @ Rs. 2.00 per day after due date.
- (iii) For outstanding amount exceeding Rs 1000 ---- @ Rs. 5.00 per day or 1 % p.m. of the outstanding amount after due date, whichever is more.

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

## **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, Government Offices, Circuit Houses, Government Rest Houses, Educational Institutions, Shops/showrooms, Parlours, Offices belonging to public/private organisations, guest houses, X-ray plant, professional's chambers, ITIs, recognized Small Scale Service Institutes, workshops & laboratories of Engineering Colleges / Polytechnics, public buildings, town halls, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, private clinics, farm houses, marriage gardens, marriage houses, advertisement services, training institutions, petrol pumps and service stations, tailoring shops, laundries, and any other establishment which is required to pay Commercial tax/service tax/value added tax (VAT)/entertainment tax/luxury tax under any Central/State Acts.

#### **2. Tariff:**

The sub- category of tariff shall be based on current monthly consumption as per following table:

##### **(i)Energy Charge – For actual consumption**

<b>S.No.</b>	<b>Sub category</b>	<b>Energy cost charges for all units consumed with no telescopic benefit (paise/unit)</b>	<b>Minimum charges (Rs. per connection )</b>
1	For all units consumed	580	90 per month
2	Temporary connection	870	1500 per week
3	For X-Ray plant	Additional charges(Rs. per machine per month)	
	Single Phase	400	
	Three Phase	600	

**Note**

- 1: For the consumers having connected load of 10 kW and above, the licensee shall provide Tri vector/Bi vector Meter capable of recording Demand in KVA/KW, KWH, KVAh and Time of Use consumption.
- 2: **TOD Surcharge** : A surcharge equivalent to 15 % of energy charge shall be payable by the consumer having a connected load of 10 KW and above for consumption recorded during 1800 hours to 2200 hours.
3. **Delayed payment Surcharge:** Surcharge may be recovered at the following rate subject to maximum of 25 % of outstanding amount :--
  - (i) For outstanding amount up to Rs. 500.00 ---- @ Rs. 1.00 per day after due date.
  - (ii) For outstanding amount exceeding Rs 500 and upto Rs. 1000.00 ---- @ Rs. 2.00 per day after due date.
  - (iii) For outstanding amount exceeding Rs 1000 ---- @ Rs. 5.00 per day or 1 % p.m. of the outstanding amount after due date, whichever is more.
4. Other terms and conditions shall be as specified under General Terms and Conditions.

## Tariff Schedule – LV - 3

### Public Water works and Street light

#### **Applicability**

The tariff 3.1 is applicable for Public Utility Water Supply Schemes, sewage treatment plants, Sewage Pumping Installations run by P.H.E. Department, Local Bodies and Gram Panchayats or any organization made responsible by the Government to supply/ maintain public water works / Sewerage Installations and also electric crematorium maintained by local bodies.

The tariff 3.2 is applicable to traffic signals and lighting of public streets or public places including parks, monuments and its institutions, Public toilets, Public Libraries and reading rooms run by Government.

#### **2. Tariff:**

	<b>Category of consumers</b>	<b>Fixed Cost Charges (Rs./KW/month)</b>	<b>Energy Cost Charges paise per unit</b>	<b>Minimum Charges</b>
<b>3.1</b>	<b><u>Public Water Works</u></b>			
A	Municipal Corporation/ Cantonment board	60	280	No Minimum Charges
B	Municipality/ Nagar Panchayat	60	255	
C	Gram Panchayat	60	220	
D	Temporary	90	420	
<b>3.2</b>	<b><u>Street light</u></b>			
A	Municipal Corporation/ Cantonment board	120	310	No Minimum Charges
B	Municipality/ Nagar Panchayat	120	300	
C	Gram Panchayat	120	260	

**3. Delayed payment Surcharge:** If the bills are not paid by the consumers within the due date prescribed, a surcharge of 1 % per month of the amount outstanding (including outstanding arrears) will be payable in addition.

**4. Other terms and conditions** shall be as specified under General Terms and Conditions.

## Tariff Schedule – LV - 4

### INDUSTRIAL

#### Applicability:

These tariffs are applicable to light and 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, nurseries growing flowers/ plants/ saplings/ fruits, fisheries ponds, aquaculture, sericulture, dairy, hatcheries, poultry farms, cattle breeding farms, grasslands and mushroom growing farms, gur (jaggery) making machines, flour mills, hullers, khandsari units, ginning and pressing units, sugar cane crushers, power looms, dal mills, besan mills, and ice factories and any other manufacturing or processing units producing/processing food items or processing agriculture produce for preservation/increasing its shelf life, if these units are situated in areas other than rural areas notified by State Government under Electricity Act, 2003.

#### 2. Tariff: For Non seasonal and seasonal consumers

	Category of consumers	Fixed Cost Charges (Rs.per month per HP of contract demand)	Energy Cost Charges paise per unit
A	Non seasonal consumers		
4.1 a	LT industries upto 10 HP	50	320
4.1 b	LT industries more than 10 HP and upto 25 HP	60	330
4.1 c	Demand based tariff ( upto 100 HP)	Rs. 120 per kVA or Rs. 150 per kW per month of contract demand	400
4.1 d	Demand based tariff ( Above 100 HP & up to 150 HP* ) ( <b>For existing consumers only</b> )	Rs 160/kVA or Rs. 200/ kW of contract demand	420
4.1 e	Temporary connection	320	495

<b>B Seasonal Consumers (for period from 15<sup>th</sup> March to 15<sup>th</sup> Oct only)</b>			
4.1 f	During season ( from 15 <sup>th</sup> March to 15 <sup>th</sup> Oct only)	Normal tariff as for Non seasonal consumers	
4.1 g	During Off season i.e. from 16 <sup>th</sup> Oct to 14 <sup>th</sup> March (The consumer shall be required to restrict his consumption to 15 % of average consumption during season)	30 % of normal tariff as for Non-seasonal consumers	120 % of normal tariff as for Non-seasonal consumers

**Note (a) \*** In addition, these consumers are also liable to pay transformation losses at 3% and transformer rent as per the order for Miscellaneous and general charges.

- (b) The maximum demand of the consumer in each month shall be four times the largest amount of kilovolt ampere hours delivered at the point of supply of the consumer during any consecutive fifteen minutes in that month.
- (c) Any consumer may opt for demand based tariff, however for the consumers having connected load 25 HP and above, 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. .

### **3. Minimum Charge:**

The consumer will guarantee a minimum monthly consumption (kWH) equivalent to 15 % load factor of the contract demand for the month. An average power factor of 0.80 will be applied for the calculation of corresponding units at 15% load factor on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

### **4. Additional Charge**

- a) The consumers availing supply at Tariff 4.1 c and 4.1 d should at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds the contract demand, the said tariff shall apply only to the extent of the contract demand. The demand in excess of contract demand (hereinafter referred to as “Excess Demand”) shall be treated as power supplied and availed of separately for billing purposes. The excess demand so availed, if any, in any month shall be charged at 1.5 times Fixed Cost Charges prescribed in the tariff applicable to the consumer and while doing so, the other terms and conditions of tariff , if any, shall also be applicable on the said excess demand.



(b) For the consumers availing supply other than at tariff 4.1 c and 4.1 d if the actual connected load in any month exceeds the sanctioned load, the said tariff shall apply only to the extent of the sanctioned load. The load in excess of sanctioned load (hereinafter referred to as "Excess Demand") shall be treated as power supplied and availed of separately for billing purposes. The excess demand so availed, if any, in any month shall be charged at 1.5 times Fixed Cost Charges prescribed in the tariff applicable to the consumer and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand.

(c) The above excess billing at 1.5 times the normal tariff, applicable to consumers is without prejudice to the licensee's right to ask for revision of agreement.

**5.Delayed payment Surcharge:** If the bills are not paid by the consumers within the period (due date) prescribed, a surcharge of 1 % per month of the amount outstanding (including outstanding arrears) will be payable in addition.

**6.**Other terms and conditions shall be as specified under General Terms and Conditions.

—————

## Tariff Schedule – LV - 5.1

### Irrigation Pumps for Agriculture

#### **Applicability:**

These tariffs are applicable to agricultural pump connections, chaff cutters, thrashers, winnowing machines, irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle.

#### **2. Duration of supply:**

These rates are for 6 hours of three phase supply six days a week.

#### **3. Tariff:**

S.No.	Sub-Category	Energy Cost Charges paise per unit
	<b>Metered consumers</b>	
<b>1</b>	Permanent connections	
a)	First 300 units per month	200
b)	Rest of the units in the month	250
c)	Temporary connections	300
<b>2</b>	<b>OYT DTR metered consumers</b>	
a)	For all units	220

#### **Note:**

(a) Consumers opting for temporary supply shall have to pay the charges in advance for one month subject to replenishment from time to time for extended period and adjustment as per final bill after disconnection.

(b) Following **incentive\*** shall be given to the agricultural consumers on installation of energy saving devices to the satisfaction of the licensee:--

S.No.	Particulars	Rate of rebate in tariff
1.	For installation of ISI motors for pump sets	10 paise per unit
2.	For installation of ISI motors for pump sets and use of frictionless PVC pipes and foot valve	20 paise per unit
3.	For installation of ISI motors for pump sets and use of frictionless PVC pipes and foot valves along with installation of shunt capacitor of appropriate rating	30 paise per unit

\* **Incentive** in the normal tariff for installation of energy saving device under demand side management will only be admissible if full bill is paid within due dates failing which all consumed units will be charged at normal rates as the case may be. Incentive will only be admissible from the month following the month of installation and its verification by a person authorized by the licensee. The licensee is required to arrange wide publicity for above incentive in rural areas. The licensee is required to place quarterly information regarding incentives provided on its web site.

**Notes :**

- i) One 40 W lamp is permitted at or near the pump in the power circuit.
  - ii) The use of three phase agriculture pump by installing external device during the period the supply is available on single phase, shall be treated as illegal extraction of energy and action as per prevailing rules and regulations shall be taken against the defaulting consumer.
- 4. Delayed payment Surcharge:** If the bills are not paid by the consumers within the period (due date) prescribed, a surcharge of 1 % per month of the amount outstanding (including outstanding arrears) will be payable in addition.
- 5.** Other terms and conditions shall be as specified under General Terms and Conditions.

## **Tariff Schedule – LV - 5.2**

### **Agriculture related use in rural areas**

#### **Applicability:**

These tariffs are only for rural areas notified by State Government under Electricity Act,2003 and are applicable to cold storage, nurseries growing flowers/ plants/ saplings/ fruits, fisheries ponds, aquaculture, sericulture, dairy, hatcheries, poultry farms, cattle breeding farms, grasslands and mushroom growing farms, gur(jaggery) making machines up to 15 HP, flour mills, hullers, khandsari units, ginning and pressing units, sugar cane crushers, power looms, dal mills, besan mills, and ice factories and any other manufacturing or processing units producing/processing food items or processing agriculture produce for preservation/increasing its shelf life.

#### **2. Character of service:**

The Character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

#### **3. Tariff:**

<b>S.No.</b>	<b>Sub-Category of consumers</b>	<b>Energy Cost Charges paise per unit</b>
	<b>Metered</b>	
<b>1</b>	Permanent connections	
	All Units consumed	350
<b>2</b>	Temporary connections	
	All Units consumed	1.5 times of the permanent connection

#### **Note:**

- Consumers opting for temporary supply shall have to pay the charges in advance for three months subject to replenishment from time to time for extended period and adjustment as per final bill after disconnection.
- The use of three phase motor by installing external device during the period the supply is available on single phase, shall be treated as illegal extraction of energy and the action as per the prevailing rules and regulations shall be taken against the defaulting consumer.

#### **4. Minimum Charge:**

Charges equivalent to 720 units per annum per HP or part thereof of the connected load shall be payable by Consumers under metered supply.

5. **Delayed payment Surcharge:** If the bills are not paid by the consumers within the period (due date) prescribed, a surcharge of 1 % per month of the amount outstanding (including outstanding arrears) will be payable in addition.
6. Other terms and conditions shall be as specified under General Terms and Conditions.

## GENERAL TERMS AND CONDITIONS OF LOW TENSION TARIFF

### 1. Rounding off

All bills will be rounded off to the nearest rupee.

### 2. Temporary Supply at LT

Temporary supply can not be demanded by a prospective 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 shall be treated as a separate service and charged subject to following conditions. However service under Tatkal Scheme shall be made available within 24 hours according to the charges specified in the Schedule of Miscellaneous Charges.

- a) Fixed Cost Charge and energy cost charges to be billed at 1.5 times the normal tariff as applicable to all categories if not specified otherwise specifically.
- b) **Advance payment** - Estimated energy consumption charges are payable in advance before serving the temporary connections subject to replenishment from time to time and adjustment as per final bill after disconnection.
- c). The sanctioned /connected load should not exceed 75 KW/100 HP/100 KVA.
- d). The month for the purpose of temporary supply shall mean 30 days from date of connection or further part thereof.
- e) Any expenditure for line extension up to point of supply shall be paid by the consumer as per prescribed procedure.
- f) Connection and Disconnection Charges shall be paid separately.

### 3. Other Terms and Conditions

- a) For advance payment made before commencement of consumption period for which bill is prepared, a rebate of 0.5 % per month on the amount which remains with the licensee at the end of calendar month, shall be credited to the account of the consumer (excluding security deposit) after adjusting any amount payable to the licensee.
- b) The sanctioned /connected load/contract demand should not exceed 75 KW/100 HP/100 KVA. If the consumer exceeds his demand beyond authorized limit of 75 KW/100 HP/100 KVA on more than two occasions, the licensee may insist that the consumer shifts to HT supply.
- c) **Meter Rent** – Meter Rent shall be charged as per the Schedule of Miscellaneous Charges. Part of a month will be reckoned as full month for purpose of billing.
- d) In case the cheque presented by the consumer is dishonored a service charge at the rate of Rs. 150 per cheque shall be levied in addition to delayed payment surcharge as per rules.
- e) Other charges as stated in miscellaneous charges shall also be applicable.
- f) 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 capacitors of prescribed capacity have not been installed.
- g) For purposes of computing the connected load in kW of the welding transformers, a power factor of 0.6 shall be applied to the maximum current or kVA rating of such welding transformers.
- h) Welding Surcharge of 75 (seventy five) paise per unit shall be levied for the consumption of the entire installation during the month in respect of all LT installations with welding

transformers in the connected load unless suitable capacitors are installed so as to ensure power factor of not less than 0.8 lagging.

- i) Existing LT power consumer shall have to ensure that LT capacitor of proper rating is provided. However, Madhya Pradesh Electricity Supply Code, 2004 may be referred for guidance. It shall be the responsibility of the consumer to ensure that overall average power factor during any month should not be less than 0.8. In case of failure of the above criteria the consumer shall be liable to pay low power factor surcharge of 26 (twenty six) paise per unit in respect of consumption of the entire installation during the month.
- j) Levy of welding/ power factor surcharges as indicated herein 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) **Load Factor Concession** : Following slabs of concessions shall be allowed for consumers billed under demand based tariff :

Load factor	Concession in energy charges
For load factor above 25% and up to 30 % load factor on contract demand	10 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 30% and up to 40 % load factor on contract demand	20 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 40% load factor on contract demand	30 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month

- l) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final and binding.
- m) 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 be payable by the consumer in addition to the tariff charges.
- n) The delayed payment surcharge will not be applicable after a consumer is permanently disconnected.
- o) In case of conversion of LT connection into HT connection, it is mandatory on the part of consumer and the licensee both to get the HT agreement executed before availing supply at HT.
- p) In case minimum charge is levied to consumer, he has to pay either minimum charges or sum of fixed charges and energy charges, whichever is more. Other charges shall be billed separately.
- q) All conditions prescribed herein shall be applicable to the consumer notwithstanding the provisions, if any, contrary to the agreement entered into by the consumer with the licensee.

**ANNEXURE TO TARIFF ORDER PASSED BY MPERC**

**For Financial Year 2006-07**

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**

**TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS**

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## Schedules for High Tension Consumers

### Rate Schedule – HV – 1

#### Railway Traction

##### Applicability

- 1.1 This Tariff shall apply to the Railways for Traction loads only. The contract demand shall be expressed in whole number only.

##### Character of service

- 1.2 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

##### Point of Supply

- 1.3 The supply at each sub-station shall be separately metered and charged.

##### Tariff:

	Category of Consumer	Fixed Cost Charges (Rs./ kVA of contract demand/month)	Energy Cost Charges (Paise per unit)
1.3	Railway Traction on 220kV / 132kV	150	385

**Note : (1) In order to attract faster electrification and growth of Railway network in the State , rebate of 10 % in Fixed Cost Charges and Energy Cost Charges for new Railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which agreements for availing supply from Board are finalised during FY07.**

- (2) The dedicated feeder charges shall not be applicable.**

##### *Minimum Consumption*

- 1.4 The consumer will guarantee a minimum annual consumption (kWH) equivalent to 20% load factor of the contract demand for the month. An average power factor of 0.85 will be applied for the calculation of corresponding units at 20% load factor on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

##### *Determination of the Demand*

- 1.5 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 consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

- 1.6 Provided that simultaneous maximum demand for all the traction points under one licensee shall be taken into account for the purpose of computing excess demand during billing month over and above sum of the contract demand of aforesaid traction points.
- 1.7 Provided further that the simultaneous maximum demand during the billing month shall not be taken less than the sum of the average of maximum demand for previous three months of all the traction points under one licensee.

## Incentives and Penalties

### Load Factor Concession (at all voltages)

Load factor	Concession in energy charges
For load factor above 60 % and up to 75 % load factor on contract demand	25 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 75 % and up to 85 % load factor on contract demand	35 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 85% load factor on contract demand	45 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month

### Power Factor Penalty

- 1.8 If the average monthly power factor of the consumer falls below 85 percent, penalty will be payable for each one percent by which the average monthly power factor falls below 85 percent, at the rate of 1% (one percent) on the amount of bill under the head of “Energy Cost Charges” . **For the determination of power factor, only lag logic shall be used and no power factor penalty shall be levied if leading power factor is recorded.**
- 1.9 Should the power factor fall below 70%, the Licensee will have the right to levy a higher level of penalty charges calculated at 2 % for low power factor below 70 %.
- 1.10 For this purpose, the “average monthly power factor” is defined as the ratio of total Kilo Watt hours to the total kilo volt Ampere hours recorded during the month. This ratio will be rounded off to two figures, 5 or above in the third place of decimal being rounded off to the next higher figure in the second place of decimal.
- 1.11 An average power factor of 0.85 will be applied for calculation of corresponding units at different load factors on contract demand.

- 1.12 Notwithstanding what has been stated above, if the average power factor of a new consumer is found to be less than 85% at any time 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 85% subject to following condition:
- a. This period of six months shall be reckoned from the date on which the average power factor was found for the first time to be less than 85%.
  - b. In all cases, the consumer will be billed penal charges for low power factor, but in case the consumer maintains the average power factor in subsequent three months (thus in all four months) to not less than 85%, 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 consumers whose average power factor is less than 85% at any time during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 85%, shall be payable as by any other consumer.

OTHER TERMS AND CONDITIONS :-- As mentioned in General Terms and Conditions of Tariff.

## Rate Schedule – HV - 2

### Coal Mines

#### Applicability

- 2.1 This Tariff shall apply to the Coal Mines for power, ventilation, lights, fans, coolers etc. which shall mean and include all energy consumed for coal mines and lighting in the offices, stores, canteen, compound lighting etc and the consumption for residential use therein. The contract demand shall be expressed in whole number only.

#### Character of service

- 2.2 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

#### Point of Supply

- 2.3 The power will be supplied to the consumers ordinarily at a single point for the entire premises. The power may, however, be supplied on the request of the consumer, subject to technical feasibility, at more points than one, but in such a case, metering and billing will be done for each point of supply separately.

#### Tariff

	Category of consumers	Fixed Cost Charges (Rs./ kVA of contract demand /month)	Energy Cost Charges (Paise per unit)
<b>2.3</b>	<b>Coal Mines</b>		
	11 kV supply	400	435
	33 kV supply	400	410
	132 kV supply	400	395
	220 kV supply	400	385

### **Minimum Consumption**

*For Supply at 220/132 KV voltages*

2.4 The consumer will guarantee collective minimum consumption (kWH) for the total period of six billing months from April to September equivalent to 30% load factor of the contract demand and for the total period of six billing months from October to March equivalent to 20% load factor of the contract demand. An average power factor of 0.90 will be applied for the calculation of corresponding units at different load factors on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

*For Supply at 33KV/11 KV voltages*

2.5 The consumer will guarantee collective minimum consumption (kWH) for the total period of six billing months from April to September equivalent to 20% load factor of the contract demand and for the total period of six billing months from October to March equivalent to 10% load factor of the contract demand. An average power factor of 0.90 will be applied for the calculation of corresponding units at different load factors on contract demand. An average power factor of 0.90 will be applied for the calculation of corresponding units at different load factors on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

### **Rebate / penalties**

#### **Load Factor Concession (at all voltages)**

Load factor	Concession in energy charges
For load factor above 60 % and up to 75 % load factor on contract demand	25 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 75 % and up to 85 % load factor on contract demand	35 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 85% load factor on contract demand	45 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month

OTHER TERMS AND CONDITIONS :-- As mentioned in General Terms and Conditions of Tariff.

## Rate Schedule – HV - 3

Industrial and Non Industrial

### Applicability

- 3.1 The tariff 3.5.1(Industrial) shall apply to all HT industrial consumers including mines other than coal mines for power light and fan etc. which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting etc.
- 3.2 The tariff 3.5.2 (Non Industrial) shall apply to establishments like Railway Stations, Offices, Hotels, Institutions etc. 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.

### Character of service

- 3.3 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

### Point of Supply

- 3.4 The power will be supplied to the consumers ordinarily at a single point for the entire premises.

### 3.5 Tariff

S.No.	Sub category of consumer	Fixed cost charges (Rs. Per kVA of contract demand)	Energy cost charges (paise per unit)
<b>3.5.1</b>	<b>Industrial</b>		
	11 KV supply	150	410
	33 KV supply	200	375
	132 KV supply	400	330
<b>3.5.2</b>	<b>Non Industrial</b>		
	11 KV supply	150	430
	33 KV supply	200	395
	132 KV supply	400	350

**Note :** Standby power may be supplied by the licensee @ 1.5 times of the energy charges subject to the consumer not being defaulted in payment.

### **Minimum Charge**

*For Supply at 220/132 KV voltages*

3.6 The consumer will guarantee collective minimum consumption (kWH) for the total period of six billing months from April to September equivalent to 30% load factor of the contract demand and for the total period of six billing months from October to March equivalent to 20% load factor of the contract demand. An average power factor of 0.90 will be applied for the calculation of corresponding units at different load factors on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

*For Supply at 33KV/11 KV voltages*

3.7 The consumer will guarantee collective minimum consumption (kWH) for the total period of six billing months from April to September equivalent to 20% load factor of the contract demand and for the total period of six billing months from October to March equivalent to 10% load factor of the contract demand. An average power factor of 0.90 will be applied for the calculation of corresponding units at different load factors on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

### **Load Factor Concession (at all voltages)**

Load factor	Concession in energy charges
For load factor above 60 % and up to 75 % load factor on contract demand	25 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 75 % and up to 85 % load factor on contract demand	35 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 85% load factor on contract demand	45 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month

### **Time of Day Surcharge / Rebate**

3.8 This condition is applicable for different periods of the day i.e. normal period, peak load and off-peak load period. The maximum demand and the consumption recorded in different periods shall be billed according to the following rates:

**TOD Surcharge / Rebate:**

	<b>Fixed Cost Charges</b>	Normal rate of Fixed Charge
	<b>PLUS</b>	
	<b>Energy Charge</b>	<b>Rate (Paise per unit)</b>
	<b>Period of Energy Consumption</b>	
(i)	Normal period (6.00 AM to 6 PM)	Normal Rate of Energy Cost Charges
(ii)	Evening peak load period (6PM to 10 PM)	15% of Normal rate of Energy Charge as Surcharge
(iii)	Off peak load period (10 PM to 6 AM next day)	7.5 % of Normal rate of Energy Charge as Rebate

OTHER TERMS AND CONDITIONS :-- As mentioned in General Terms and Conditions of Tariff.



## Rate Schedule – HV - 4

### Seasonal

#### Applicability

4.1 This tariff will be applicable to such seasonal industries / consumers requiring energy during the period from 15<sup>th</sup> March to 15<sup>th</sup> October in a financial year.

4.2 The licensee may allow this tariff to any industry. The contract demand shall be expressed in whole number only.

#### Character of service

4.3 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

#### Point of Supply

4.4 The power will be supplied to the consumers at a single point for the entire premises.

#### Tariff

	Category of consumers	Fixed Cost Charges (Rs./ kVA of contract demand/month)	Energy Cost Charges (Paise per unit)
<b>4.4</b>	<b>Seasonal</b>		
	11 kV supply	180	420
	33 kV supply	200	400

*Note: In case it is found that the consumer has utilised power for production purposes during peak demand season i.e. from 16<sup>th</sup> October to 14<sup>th</sup> March, the connection shall be treated under HV-3.5.1 (Industrial) and shall be billed accordingly for that financial year.*

#### Minimum Charge

The tariff is subjected to payment of Energy Cost Charges for a minimum annual consumption of 900 units per kVA of contract demand.

## Load Factor Concession (at all voltages)

Load factor	Concession in energy charges
For load factor above 60 % and up to 75 % load factor on contract demand	25 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 75 % and up to 85 % load factor on contract demand	35 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month
For load factor above 85% load factor on contract demand	45 paise per unit concession on the normal energy cost charges for all energy consumption during the billing month

## Time of Day Surcharge / Rebate

4.5 This condition is applicable for different periods of the day i.e. normal period, peak load and off-peak load period. The maximum demand and the consumption recorded in different periods shall be billed according to the rates below:

### TOD Surcharge / Rebate:

	Fixed Cost Charges	Normal rate of Fixed Charge
	PLUS	
	Energy Charge	Rate (Paise per unit)
	Period of Energy Consumption	
(i)	Normal period (6.00 AM to 6 PM)	Normal Rate of Energy Cost Charges
(ii)	Evening peak load period (6PM to 10 PM)	15% of Normal rate of Energy Charge as Surcharge
(iii)	Off peak load period (10 PM to 6 AM next day)	7.5 % of Normal rate of Energy Charge as Rebate

OTHER TERMS AND CONDITIONS :- As mentioned in General Terms and Conditions of Tariff.

## Rate Schedule – HV - 5

### HT Irrigation and Public Water Works

#### Applicability

5.1 The Tariff 5.4.1 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.

5.2 The tariff 5.4.2 shall apply to supply of power to lift irrigation schemes, group agriculture pump connections, connection for dairy, hatcheries, poultry farms, cattle breeding farms, grasslands, vegetable, fruits, floriculture, Mushroom growing units etc.

#### Character of service

5.3 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

#### Point of Supply

5.4 The power will be supplied to the consumers ordinarily at a single point for the entire premises.

#### Tariff

	Category of consumers	Fixed Cost Charges (Rs./ kVA of contract demand/month)	Energy Cost Charges (Paise per unit)
<b>5.4.1</b>	<b>Public Water Works</b>		
	11 kV supply	100	300
	33 kV supply	100	280
	132 kV supply	96	250
<b>5.4.2</b>	<b>Group Irrigation and other agricultural users</b>		
	11 kV supply	140	320
	33 kV supply	130	300
	132 kV supply	120	280

***Minimum Charge***

5.5 The tariff is subject to payment for a minimum annual consumption of 720 units per kVA of the highest Maximum Demand recorded during the year or the contract demand, whichever is higher.

OTHER TERMS AND CONDITIONS :- As mentioned in General Terms and Conditions of Tariff.

## Rate Schedule – HV - 6

### Bulk Residential Users

#### Applicability

6.1 This tariff is applicable for supply to industrial or any other town ships (e.g. University or academic institutions), residential colonies desirous of taking HT supply ( including townships of industries, hospitals, MES and Border villages) for domestic purpose only such as lighting, fans, heating etc. provided that the connected load for essential common facilities such as Non-domestic supply in residential area, street lighting shall be within the limits specified hereunder :--

(i) Water supply & Sewage pumping, Hospital—No limit

(ii) Non-domestic/Commercial and other General purpose put together-- 10 % of total connected load

#### Character of service

6.2 The character of service shall be as per Madhya Pradesh Electricity Supply Code,2004.

#### Point of Supply

6.3 The power will be supplied to the consumers ordinarily at a single point for the entire premises. However, the power may be supplied on the request of the consumer, subject to technical feasibility, at more than one point, but in such case, metering and billing will be done for each point of supply separately.

#### Tariff

	Category of consumers	Fixed Cost Charges (Rs./KVA of contract demand)	Energy Cost Charges (Paise per unit)
<b>6.3</b>	<b>For Bulk Residential users</b>		
	11 kV supply	100	340
	33 kV supply	110	320
	132 kV supply	120	300

### ***Minimum Charge***

There shall be no minimum charge condition for initial five years from the date of connection. Thereafter the following conditions shall apply:

#### *For Supply at 132 KV voltages*

The consumer will guarantee a minimum monthly consumption (kWH) equivalent to 10% load factor of the contract demand for the month. An average power factor of 0.90 will be applied for the calculation of corresponding units at 10% load factor on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

#### *For Supply at 33KV/11 KV voltages*

The consumer will guarantee a minimum monthly consumption (kWH) equivalent to 10 % load factor of the contract demand for the month. An average power factor of 0.90 will be applied for the calculation of corresponding units at 10% load factor on contract demand. The deficit if any from the actual consumption (i.e. minimum guaranteed consumption – actual consumption) shall be charged at the prevailing rate of Energy Cost Charges as Tariff minimum difference.

OTHER TERMS AND CONDITIONS :-- As mentioned in General Terms and Conditions of Tariff.

## Rate Schedule – HV - 7

### Bulk Supply to Exemptees

#### Applicability

- 7.1 This Tariff shall also apply to Rural Co-operative Societies, any local authority, Panchayat Institution, users' association, Co-operatives, non-government organisations or franchisees i.e. consumers who have been granted permission under section 13 of the Electricity Act 2003 (36 of 2003).

#### Character of service

- 7.2 The character of service shall be as per Madhya Pradesh Electricity Supply Code, 2004.

#### Point of Supply

- 7.3 The power will be supplied to the consumers ordinarily at a single point for the entire premises. However, the power may be supplied on the request of the consumer, subject to technical feasibility, at more than one point, but in such case, metering and billing will be done for each point of supply separately.

#### Tariff

	Category of consumers	Fixed Cost Charges (Rs./KVA of contract demand)	Energy Cost Charges (Paise per unit)
7	Bulk Supply to exemptees under section 13		
	Rural Co operative Societies having mixed use	110	260
	Mixed domestic and agriculture use in rural areas notified by State Government (maximum 10 % non domestic use permitted)	60	220
	Mixed domestic and non domestic use (limited to 10 % of total) in urban areas	110	270

**Note :** Supply shall be given at 33 KV and above only. The exemptees will have to limit their charges recoverable from individual consumers to the tariff specified for respective category.

OTHER TERMS AND CONDITIONS :-- As mentioned in General Terms and Conditions of Tariff.

## **GENERAL TERMS AND CONDITIONS FOR HT CONSUMERS**

**The following terms and conditions shall be applicable to all HT consumer's categories subject to specific terms and conditions for that category as mentioned in the tariff schedule of respective category:**

### *Determination of the Demand*

1. 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 consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

## **Rebate / penalties**

### Power Factor Incentive

2. If the average monthly power factor of the consumer increases above 95%, incentive shall be payable for each one percent increase by which the average monthly power factor is above 95% as follows:

Power Factor	Incentive payable
Above 95% and upto 99 %	1.0 % (one percent) on the total amount of bill under the head of "Energy Cost Charges".
Above 99 %	2.0 % (two percent) on the total amount of bill under the head of "Energy Cost Charges".

### *Power Factor Penalty*

3. If the average monthly power factor of the consumer falls below 90 percent, the consumer shall, for each one percent by which his average monthly power factor falls below 90 percent, in addition pay 1% (one percent) on total amount of bill under the head of "Energy Cost Charges".
4. If the average monthly power factor of the consumer falls below 85 percent, the consumer shall, for each one percent by which his average monthly power factor falls below 85 percent, in addition pay 2% (two percent) on the total amount of bill under the head of "Energy Cost Charges".
5. Should the power factor fall below 70%, the Board reserves the right to disconnect the consumer's installation till steps are taken to improve the same to the satisfaction of the Board; this is, however, without prejudice to the levy of penalty charges for low power factor in the event of supply not being disconnected.



6. For this purpose, the “average monthly power factor” is defined as the ratio of total Kilo Watt hours to the total kilo volt Ampere hours recorded during the month. This ratio will be rounded off to two figures, 5 or above in the third place of decimal being rounded off to the next higher figure in the second place of decimal.

7. Notwithstanding what has been stated above, if the average power factor of a new consumer is found to be less than 90% at any time 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:

7.1 This period of six months shall be reckoned from the date on which the average power factor was found for the first time to be less than 90%.

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

7.3 The facility, as mentioned herein, shall be available not more than once to new consumers whose average power factor is less than 90% at any time during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as by any other consumer.

## **Additional Charge**

### *For Excess Demand*

8. The consumers should at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds the contract demand, the foregoing tariffs shall apply to the extent of the contract demand only. The demand in excess of contract demand (hereinafter referred to as “excess demand”) shall be treated as power supplied and computed separately for billing purposes. The excess demand so computed, if any, in any month shall be charged at one and a half times the normal tariff applicable to the consumer and while doing so other provisions of electricity tariff (such as tariff minimum charge etc. ) will also be applicable on aforesaid excess demand, unless otherwise provided specifically.

9. The excess demand computed in any month shall be charged along- with the monthly bill and shall be payable by the consumer.

10. The billing of excess demand at one and a half times the normal tariff applicable to consumer is without prejudice to the Board’s right to discontinue the supply in accordance with the provisions contained in the Electricity Supply Code.

*For Delayed Payment*

11. Surcharge at 1% per month 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 a consumer is permanently disconnected.

*For Advance Payment*

12. For advance payment made before commencement of consumption period for which bill is prepared, a rebate of 0.5 % per month on the amount which remains with the licensee at the end of calendar month, shall be credited to the account of the consumer (excluding security deposit) after adjusting any amount payable to the licensee.

*Service Charge for Dishonored Cheques*

13. In case the cheque presented by the consumer is dishonoured a service charge at the rate of Rs 1000/- per cheque shall be levied in addition to delayed payment surcharge as per rules.

*Rounding off*

14. All bills will be rounded off to the nearest rupee.

**Temporary supply at HT**

(i) If any consumer requires an additional supply for a temporary period, the temporary additional supply shall be treated as a separate service and charged subject to the following conditions :--

(a) Fixed Cost Charges and Energy Cost Charges shall be charged at 1.5 times the standard tariff with FCA/VCA charges if any.

(b) 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.

(c) The month for the purpose of temporary supply shall mean 30 days from date of connection or for further part thereof.

(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.

(e) Any expenditure up to point of supply shall be paid by the consumer as per prescribed procedure.

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

(g) Connection and Disconnection Charges shall be paid separately.

## Other Terms and Conditions

15. The foregoing tariffs for different supply voltages are applicable for loads with contract demand as below:

<b>Standard Supply Voltage</b>	<b>Minimum Contract Demand</b>	<b>Maximum Contract Demand</b>
11 kV	60 kVA	300 kVA
33 kV	100 kVA	10000 kVA
132 kV	2500 kVA	50000 kVA
220 kV	40000 kVA	

16. The deviation, if any, in respect of above provisions on account of technical reasons may be permitted on merits after obtaining specific approval of the Commission and any aggrieved consumer may approach the Commission.

17. The existing 11kV consumers 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 Cost Charges, Energy Cost Charges and VCA charges, if any billed in the month.

18. The existing 33kV consumers with contract demand exceeding 10000 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 Cost Charges, Energy Cost Charges and VCA charges, if any billed in the month.

19. The existing 132kV consumers with contract demand exceeding 50000 kVA who want to continue to avail supply at 132kV at his request, shall be required to pay additional charge at 2% on the total amount of Fixed Cost Charges, Energy Cost Charges and VCA charges, if any billed in the month.

20. Meter rent shall be charged as per schedule of Miscellaneous Charges. Part of a month will be reckoned as full month for purpose of billing.

21. An average power factor of 0.9 will be applied for calculation of corresponding units at different load factors on contract demand in kVA.

22. 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.

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

24. In case minimum charge is levied to consumer, he has to pay either minimum charges or sum of fixed charges and energy charges, whichever is more. Other charges shall be billed separately.

25. In case a consumer at his request availing 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 levied and no extra charges shall be charged on account of higher voltage.

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