

# Chhattisgarh State Electricity Regulatory Commission

Civil lines, G.E. Road, Raipur - 492 001  
Tele: 771-5073555, 5073551 Fax- 5073553  
E-mail: secretary@chhattisgarhserc.org  
Website: www.chhattisgarhserc.org

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No.12/CSERC/2006. In exercise of the powers conferred on it by Section 45,61and 62 read with Section 181(zd) of the Electricity Act 2003 (36 of 2003), the Chhattisgarh State Electricity Regulatory Commission hereby makes the following Regulations related to **terms and conditions for determination of tariff.**

## CSERC (TERMS AND CONDITIONS FOR DETERMINATION OF TARIFF) REGULATIONS, 2006

### CHAPTER - 1 PRELIMINARY

#### 1. Short title and commencement

- (1) These Regulations shall be called 'The Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2006.
- (2) These Regulations shall come into force from the date of their publication in the official gazette of the Government of Chhattisgarh.
- (3) The Regulations shall extend to the whole of the State of Chhattisgarh.

#### 2. Scope and extent of application

- (1) These Regulations shall apply in all cases where electricity tariff is to be determined by the Commission based on capital cost.
- (2) However, where tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government, the Commission shall adopt such tariff, as laid down in section 63 of the Act.

#### 3. Definitions

- (1) In these Regulations, unless the context otherwise requires,
  - (a) "Act" means the Electricity Act, 2003 (36 of 2003).
  - (b) "Bank rate" means the bank rate of Reserve Bank of India as on 1<sup>st</sup> April of the relevant year.
  - (c) "Central Commission" means the Central Electricity Regulatory Commission.
  - (d) "Commission" means the Chhattisgarh State Electricity Regulatory Commission (CSERC).

- (e) "Contracted Power" means the power in MW, which the distribution licensee has agreed to wheel on his distribution system.
  - (f) "Date of operation" in case of a distribution licensee, means the date of charging his electric lines or substations to its declared voltage level. In cases where line(s)/substation(s) are declared ready for charging but the licensee is not able to charge for reasons not attributable to the licensee. 'date of operation' in respect of such line(s)/substation(s) shall be reckoned as seven days after the line(s)/substations(s) have been declared ready for charging.
  - (g) "Declared Voltage" means the voltage as specified under Rule 54 of the Indian Electricity Rules, 1956.
  - (h) "Distribution loss" means the energy loss in the distribution system of a licensee.
  - (i) "Licensee" means a person who has been granted a license under section 14 and includes a person deemed to be a licensee under the same Section of the Act.
  - (j) "SLDC" means the State load despatch centre.
  - (k) "State Government" means the Government of Chhattisgarh.
  - (l) "Tariff" means the schedule of charges for bulk supply, wheeling and retail supply of electricity together with terms and conditions for application thereof.
  - (m) "Tariff period" means the period for which tariff and/or the Annual Revenue Requirement is determined by the Commission under these Regulations.
  - (n) "Year" means the financial year ending on 31<sup>st</sup> March, and
    - (i) "Current Year" means the year in which the statement of annual accounts or application for determination of tariff is filed;
    - (ii) "Ensuing Year" means the year next following the current year;
    - (iii) "Previous Year" means the year immediately preceding the current year.
- (2) Words or expressions used in these Regulations and not defined shall bear the same meaning as in the Act and the Regulations made by the Commission.

## CHAPTER - 2

### Tariff for Generating Company and Transmission Licensee

#### 4. Application for determination of tariff

The Generating company/ Transmission licensee shall make an application every year for determination of tariff (tariff petition) in the manner and in the formats as laid down in the CSERC (*Details to be furnished by licensee or generating company for determination of tariff and manner of making application*) Regulations, 2004. The formats may be modified by the Commission from time to time.

#### 5. Terms and Conditions

- (1) The Commission shall be guided by the principles as laid down in section 61 (a) to (h) of the Act, National Electricity Policy, National Tariff Policy and follow the principles and methodologies specified by the Central Commission in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, in the determination of tariff for Generating company (thermal and hydel) and for a Transmission licensee.
- (2) The Commission may follow relaxed norms in determination of tariff including the norms of target availability, plant load factor etc., than those contained in the Central Commission Regulations for the existing generating stations, based on the size and age of the stations and historical performance records etc.
- (3) In pursuance of the National Electricity Policy and the provisions of Section 61(h) of the Act, the Commission may also follow relaxed norms in determination of tariff of electricity generated by the method of co-generation and generation of electricity from renewable sources of energy.

## CHAPTER - 3

### Tariff for Distribution Licensee

#### 6. Application for determination of tariff

A distribution licensee shall make an application every year for determination of tariff (tariff petition) in the manner and in the formats as laid down in the CSERC (*Details to be furnished by licensee or generating company for determination of tariff and manner of making application*) Regulations, 2004. The formats may be modified by the Commission from time to time.

## **7. Terms and Conditions**

The Commission shall be guided by the principles as laid down in section 61 (a) to (h) of the Act, the National Electricity policy and National Tariff Policy in the determination of tariff for the distribution licensee.

## **8. Sales Forecast**

- (1) The licensee shall submit restricted demand (in MW) and unrestricted demand (in MW) for all consumer categories together and sale of electricity (in MU) for different categories of consumers in his area of supply for the previous year and forecasts for the current year and the ensuing year. The forecasts for category-wise sale of electricity shall generally be worked out on the basis of 5 years' CAGR.
- (2) The sales forecast for unmetered categories shall be validated with norms approved by the Commission on the basis of a proper study carried out by the licensee.
- (3) The Commission shall examine the forecasts for their reasonableness based on growth in the number of consumers, consumption, losses and demand of electricity in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve the sales forecast with such modifications as deemed fit.
- (4) Sale of electricity, if any, to electricity traders or other distribution licensees shall be separately indicated.
- (5) The distribution licensee shall also indicate category wise open access customers. The demand and energy wheeled for them shall be shown separately for
  - (a) supply within its area of supply and
  - (b) supply outside its area of supply.

## **9. Monitoring of sale of electricity to consumers**

- (1) On the basis of approved sales forecast, the licensee shall work out the requirement of monthly sales to different consumer categories, taking into account seasonal variations in demand in a year.
- (2) The licensee shall monitor the sales to different consumer categories and ensure that supply to any category of consumer is not unduly restricted.
- (3) If for any abnormal situation like drought, supply to any category of consumer is to be varied, the licensee shall obtain approval of the Commission.

## **10. Distribution losses**

- (1) The distribution loss at a particular voltage level shall be the difference between the energy injected into the distribution system at that voltage level and the sum of energy sold to all its consumers at that level and also energy delivered to voltage level below that particular level. Energy sold shall be the sum of metered sales and assessed unmetered sales based on approved norms. However, the licensee may submit the distribution loss for the total distribution system.
- (2) To set the base line of distribution loss, the Commission may either require the licensee to carry out proper loss estimation studies under its supervision, or initiate a study itself.
- (3) The study shall segregate losses into technical loss (i.e., ohmic/core loss in the lines, substations and equipments) and commercial loss (i.e, unaccounted energy due to metering inaccuracies/inadequacies, pilferages of energy etc.), supply voltage-wise and consumer category-wise.
- (4) The Commission shall approve a realistic and achievable loss target for the ensuing year based on the study. In the absence of such study, the Commission shall set such target on the basis of information on line losses submitted by the licensee as it considers reasonable.
- (5) The Commission may also fix targets, both long-term and short-term, for loss reduction to bring down the loss level gradually to acceptable norms of efficiency.
- (6) To generate local consensus for effective action for better governance, area/ locality specific surcharge for greater ATC loss could be considered. The Commission may also encourage suitable local area based incentive and disincentive schemes for the staff of the utilities linked to the reduction of losses, as per the provision of para 8.2.1(2) of the National Tariff Policy.
- (7) The distribution licensee shall be allowed to share a part of the financial gains derived from achieving higher loss reduction vis-a-vis the target fixed by the Commission. The Commission shall decide the extent of share.
- (8) The distribution licensee shall bear the losses on account of its failure to achieve the target set by the Commission.

## **11. Estimation of requirement of purchase of power**

- (1) Based on the estimated energy sales forecast by the licensee and the approved distribution losses for the ensuing year and the transmission losses approved by the Commission for the transmission licensee, the requirement of electricity to be purchased shall be worked out.
- (2) The Commission shall scrutinize and approve the requirement for purchase of power with such modifications as deemed fit for the ensuing year.

## **12. Debt-equity ratio**

- (1) In case of a new distribution line or substation commissioned or capacity expanded on or after 1.4.2005, the debt and equity in the capital cost of such a project shall be considered in the ratio of 70:30 for the purpose of determination of tariff.

Provided that where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. The interest rate applicable on the equity above 30%, treated as loan, has been specified in clause 20.

Provided that where actual equity employed is less than 30%, the actual equity shall be considered.

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the distribution company is able to establish to the satisfaction of the Commission that the deployment of equity higher than 30% was in the interest of general public.

- (2) In case of investments made prior to 1.4.2005 for the existing distribution system, the debt-equity ratio shall be accepted on the basis of audited accounts. In case the audited accounts for the year 2004-05 are not available, the distribution licensee shall submit the unaudited accounts for that year along with the latest audited accounts for any of the preceding years available.

## **13. Capital cost and capital structure**

- (1) Subject to prudence check by the Commission, the actual capital expenditure as on the date of operation shall form the basis for determination of tariff.
- (2) The capital cost shall include capitalised initial spares upto 1.5% of the original project cost.
- (3) Where power purchase agreement or transmission or wheeling agreement provides for a ceiling on the capital cost, the capital cost to be considered shall not exceed such ceiling.
- (4) In case of existing distribution system, the capital cost would be based on the audited accounts. In case the audited accounts are not available, it will be decided based on the provisional accounts.
- (5) Scrutiny of the cost estimates by the Commission shall be with regard to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters for determination of tariff.
- (6) Swapping of equity and loans shall be permitted, provided it does not affect the tariff adversely and the benefits accruing from such swapping is shared between the licensee and the consumers in the year following the year of such swapping, in a ratio as may be specified by the Commission.

- (7) Restructuring of capital cost, in terms of relative share of equity and loan, shall be permitted provided it does not affect the tariff adversely in the subsequent period. Any benefit from such restructuring shall be passed on to the consumers in a ratio as may be specified by the Commission.
- (8) The licensee shall file in accordance with the guidelines issued by the Commission, a detailed capital investment plan along with the financing plan for the ensuing year for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering, consumer services etc. The approved capital investment plan and the cost corresponding to the approved plan shall be taken into account in assessing the revenue requirement.

#### **14. Additional capitalization**

- (1) The following capital expenditure within the original scope of work actually incurred, after the date of operation, may be considered by the Commission, subject to prudence check:
  - (a) Deferred liabilities.
  - (b) Works deferred for execution.
  - (c) Procurement of initial spares included in the original project costs, subject to the ceiling norm laid down in clause 13.
  - (d) Liabilities to meet award of arbitration or compliance of order or decree of a court.
  - (e) Expenditure incurred on account of change in law.
  - (f) Any additional works/ services, which have become necessary for efficient and successful operation of a distribution system but not included in the original capital cost.

#### **Notes**

- I. Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in clause 12.
- II. Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original capital cost. Capital expenditure on replacement of old assets shall be allowed to the extent of total capital expenditure to be incurred less the scrap value of the old assets which will be available to the licensee.
- III. Any expenditure admitted by the Commission for determination of tariff on account of new works, not in the original scope of work, shall be serviced in the normative debt-equity ratio specified in clause 12.
- IV. Any expenditure admitted by the Commission for determination of tariff on renovation, modernization, life extension and restoration of

assets damaged due to natural calamities shall be serviced on normative debt-equity ratio specified in clause 12 after writing off the original amount of the replaced assets from the original capital cost.

- (2) The impact of additional capitalization on tariff may be considered once in a tariff period.

#### **15. Working capital**

Working capital shall consist of:

- (a) Operation and maintenance expenses for one month.
- (b) Maintenance spares for 2 months based on annual requirement considered at 1% of the gross-fixed assets at the beginning of the year.
- (c) Receivables equivalent to 60 days' average billing of consumers.
- (d) Receivables equivalent to 60 days' of wheeling charges from open access customers.

#### **Annual**

#### **Expenses 16.**

#### **Cost of purchase of power**

- (1) The licensee shall procure electricity in accordance with provisions of the Regulations/Guidelines made by the Commission in this regard.
- (2) The cost of power purchased from generating companies and cost of transmission shall be worked out based on tariff determined by the Commission for generation and transmission.
- (3) The cost of purchase of power from traders and other licensees shall be considered based on PPAs subject to sub-clause (1) above.
- (4) In case of shortage of power in the short-term, the licensee may procure electricity from any source at a tariff not exceeding the highest rate approved by the Commission.
- (5) In case of power purchased from co-generation units and renewable sources of energy, the cost shall be worked out, taking into account the minimum percentage of energy to be purchased from such sources, as per the policy approved by the Commission, if any, for such generators.
- (6) For the ensuing year the total power purchase cost for distribution licensee's requirement for sale to its consumers, shall be estimated on the basis of merit order principle.
- (7) SLDC charges, if paid separately in addition to charges for usage of network, shall be considered as expenses and included in the power purchase cost for the purpose of tariff determination.
- (8) UI charges may be allowed at the average of the allowed power purchase rates. However, higher costs can also be allowed if the Commission is satisfied that such power purchase is required to maintain adequate power supply in the licensee's area.

## 17. Operation & Maintenance expenses

- (1) The operation and maintenance (O&M) expenses comprise of the employee cost, repairs and maintenance (R&M) costs, administrative and general (A&G) costs and other miscellaneous expenses including insurance. The Commission may specify normative O&M expenses for the base year as certain percentage of the capital cost of the distribution system and also may specify separate norms for difficult terrain. The base year, for the purpose of O&M expenses, shall be the tariff year immediately after the notification of these Regulations.
- (2) O&M expenses of assets taken on lease and those created out of consumer's contributions shall be considered, if the licensee has the responsibility for its operation and maintenance and bears O&M expenses.
- (3) To arrive at the O&M expenses for the tariff year, the normative O&M expenses allowed for the base year shall be escalated on the basis of predetermined indices such as consumer price index, wholesale price index and other cost drivers such as network growth, energy sales, growth in consumer, wage revision of the employees of the licensee etc., subject to prudence check by the Commission.
- (4) Increase in O&M charges on account of war, insurgency, and change in laws, or such like eventualities may be considered by the Commission for a specified period.
- (5) The licensee shall be allowed to retain the savings against the permitted O&M expenses. Likewise, the licensee shall bear the losses if he exceeds the permitted O&M expenses, for that year.

## 18. Depreciation

- (1) For the purpose of tariff, depreciation shall be computed in the following manner:

The value base for the purpose of depreciation shall be the historical cost of the assets, i.e. actual expenses limited to approved /accepted capital cost.

Provided that the capital cost of assets created and works in progress as on 1.4.2005 shall be deemed to be approved; and the consumers' contribution or capital subsidy/ grant etc. shall be excluded from the values of assets for the purpose of depreciation.
- (2) The approved/accepted cost shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed.
- (3) Depreciation shall be calculated annually as per straight-line method over the useful life of the asset at the rate of depreciation laid down in the **Appendix** to these Regulations. These rates are

as laid down by the CERC (Terms and Conditions of Tariff) Regulations 2004. These may be amended by the Commission from time to time.

- (4) Provided that the total depreciation during the life of the asset shall not exceed 90% of the original cost of the asset.
- (5) On repayment of the entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
- (6) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on **pro rata** basis.

**19. Advance against depreciation (AAD)**

The distribution licensee may be permitted an advance against depreciation (AAD) in addition to allowable depreciation, in the manner given hereunder:

AAD = Loan repayment amount as per clause 20 subject to a ceiling of 1/10<sup>th</sup> of loan amount as per clause 12 minus depreciation as per schedule.

Provided that Advance Against Depreciation in a year shall be restricted to the extent the cumulative repayment exceeds cumulative depreciation up to that year.

**20. Interest and finance charges on loan capital**

- (1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of repayment, as per the terms and conditions of relevant agreements of loan, bond or debenture. The interest rate on the amount of equity above 30%, treated as loan, shall be the weighted average rate of the loan schemes of the licensee.

Provided that interest and finance charges of renegotiated loan agreements shall not be considered, if they result in higher charges.

Provided further that interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost.

- (2) In case any moratorium period is availed of, the depreciation allowed in the tariff during the years of moratorium shall be treated as repayment during those years and the loan capital shall be reduced to the extent of depreciation, for the purpose of calculation of interest.
- (3) Any benefit on account of swapping of loan and interest on loan shall be passed on to the consumers in such ratio as may be decided by the Commission.

**21. Interest charges on working capital**

The rate of interest, on working capital computed as per clause 15, shall be on normative basis. The interest on working capital shall be on normative basis even when the licensee has not taken working capital loan from any outside agency or his working capital loan exceeds the normative figures.

**22. Interest charges on security Deposit**

Interest charges on security deposits of consumers with the licensee, shall be considered at the rate as specified in the CSERC (Security Deposit) Regulations, 2005.

**23. Bad and doubtful debts**

The Commission may consider a provision for writing off of bad and doubtful debts of distribution licensee upto 1% of receivables subject to actual writing off of bad and doubtful debts in the previous year in accordance with procedure laid down by the licensee.

**24. Lease/ Hire Purchase charges**

Lease charges for assets taken on lease by a licensee shall be considered as per lease agreement, provided the Commission considers them reasonable.

**25. Contingency reserve**

- (1) The Commission may consider provisions for contingency reserve up to 0.5% of opening gross fixed assets to be invested in Government securities. The contingency reserve so created shall be utilized to meet cost of replacement of equipment damaged due to accident under force majeure conditions.
- (2) The interest on such securities shall be added back to this reserve.
- (3) The licensee shall be entitled to draw money from this reserve only with the prior permission of the Commission.
- (4) The Commission may allow a part of the reserve to be returned back to the consumers at the end of the control period to be decided by the Commission by way of reduction in the Annual Revenue Requirement.
- (5) The amount in this reserve shall not be treated as part of the equity reserves.

**26. Foreign Exchange Rate Variation (FERV)**

In respect of foreign currency loans, not passed on or swapped as rupee loan, the extra rupee liability towards interest payment and loan repayment actually incurred in the relevant year shall be admissible; provided it directly arises out of foreign exchange rate variation and is not attributable to any lapse of the licensee or its suppliers or contractors. This variation shall not exceed the exchange rate on 7<sup>th</sup> day after the due date of payment.

**27. Tax on income**

- (1) Income Tax, if any, on the income stream of the licensed business of the licensee shall be treated as an expense and shall be recoverable in tariff. However, the tax on any income stream, other than the licensed business, shall not constitute a pass-through component in the tariff. Tax on such other income shall be payable by the licensee.
- (2) Tax on income, if actually liable to be paid, shall be limited to tax on return on equity allowed, excluding incentives.
- (3) The benefits of tax holiday and the credit for carrying forward losses applicable as per the provisions of the Income Tax Act, 1961 shall be passed on to the customers.
- (4) Any under-recoveries or over-recoveries of tax on income shall be adjusted every year on the basis of return filed and income tax assessment under the Income Tax Act, 1961 as certified by the statutory Auditors.

**28. Provisional assessment of income tax and FERV**

Income tax and foreign exchange rate variation shall be provisionally estimated by the licensee for the purpose of determining tariff and shall be subject to adjustment as per actuals as provided in clauses 26 and 27.

**29. Return on Equity**

- (1) The rate of return notified by Central Commission for transmission may be adopted for distribution with appropriate modifications taking into account the higher risks involved as decided by the Commission, on the paid up equity capital determined in accordance with clause 12.
- (2) The premium raised by the licensee while issuing share capital and investment of internal resources created out of free reserve, if any, for the funding the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting capital expenditure of the distribution system.
- (3) Equity invested in foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

**30. Annual Revenue Requirement (ARR)**

- (1) The total annual expenses and return on equity of the licensee shall be worked out on the basis of expenses and return on equity allowed in terms of clause 29.

- (2) The annual revenue requirement of a distribution licensee shall be worked out by deducting the following from its total expenses and return worked out under the sub-clause (1) above:
  - (a) amount of other income as laid down in clause 32; and
  - (b) any grant received from the State Government other than the subsidy under section 65 of the Act meant for any consumer or class of consumers.
- (3) Necessary corrections on account of reasons beyond the control of the licensee shall be incorporated in the annual revenue requirement. In case the effect of such variation on ARR, caused by force majeure conditions, is large, this may be recovered over a period of more than one year, as may be decided by the Commission.

## **Revenue**

### **Estimation 31.**

#### **Tariff income**

Income from supply of electricity to consumers shall be estimated based on the tariff applicable to different category of consumers and the quantity of electricity estimated to be sold to them.

### **32. Other income**

The other income shall comprise of:

- (1) Income from investments.
- (2) Other non-tariff income from the levy of charges as provided in the schedule for Miscellaneous Charges and general charges under the CERC (*Details to be furnished by licensee or generating company for determination of tariff and manner of making application*) Regulations, 2004;
- (3) Wheeling charges from open access customers;
- (4) Income from surcharge, additional surcharge and late payment surcharge from Open Access Customers under Sections 39, 40 and 42 of the Act;
- (5) Revenue from other business shall be treated as income to the extent authorized by the Commission under Sections 51 of the Act.

### **33. Profit Sharing**

- (1) In case the income of the licensee from tariff is more than its annual revenue requirement in any year, the Commission may allow the licensee to treat the additional income beyond the approved reasonable return, in the following manner:
  - (a) One half of such amount may be retained by the licensee to be treated as part of equity or may be paid as dividend to the shareholders;

- (b) The other half amount may be kept as tariff balancing reserve to be used for reducing the ARR in future years as may be directed by the Commission.

**34. Refund of excess amount**

A licensee shall recover the charges as per the tariff determined by the Commission. If any licensee recovers charges exceeding the tariff determined by the Commission, the excess amount shall be refunded to the person who has paid such excess charges, along with interest equivalent to the bank rate without prejudice to any other liability incurred by the licensee.

**Tariff**

**Principles 35.**

**Multi-Year Tariff (MYT)**

- (1) The Commission may implement multi-year tariff for distribution licensees for a control period of five years. However, the initial control period may be of 3 years duration on account of data uncertainties and other practical considerations.
- (2) The Commission may determine tariff and revenue for the base year, after proper evaluation and verification of the submissions made by the licensee.
- (3) The Commission may seek assistance of experts to determine allowable costs of the licensees for each of the years of the control period.
- (4) All the uncontrollable costs shall be allowed as pass through in tariff and these will include (but not limited to ) the following:
  - (a) Cost of fuel;
  - (b) Costs on account of inflation;
  - (c) Taxes and duties
  - (d) Variation in power purchase unit cost from base line level including on account of change of hydro-thermal mix, in case of force majeure and adverse natural events like drought.
- (5) The Operation and Maintenance costs shall be controllable cost and shall be based on escalation indices or other mode determined during determination of tariff for the base year.
- (6) The target for reduction of technical and commercial losses during the control period shall be determined with reference to the loss level determined for the base year and such level shall have the flexibility to accommodate changes due to completion of metering arrangement for accurate measurement of losses. The financial loss, if any, due to failure to achieve the target shall be borne by the licensee and gain, if any, shall be shared with the consumers as decided by the Commission.
- (7) In addition to the annual review, a comprehensive review of implementation of the MYT regime may be undertaken at the end of the control period.

**36. Cost to Serve**

The tariffs for various categories/voltages shall progressively reflect the licensee's cost to serve a particular category at a particular voltage. Allocation of all costs prudently incurred by the distribution licensee to different category of consumers shall form the basis of assessing cost to serve of a particular category. Every licensee shall provide to the Commission an accurate cost to serve study for its area. The category-wise/voltage-wise cost to serve should factor in such characteristics as supply hours, load factor, voltage, extent of technical and commercial losses etc. Pending availability of information that reasonably establishes the category-wise/voltage-wise cost to serve, average cost of supply shall be used for determining tariffs taking into account the fact that existing cross subsidies will be reduced gradually.

**37. Tariff Structure Rationalisation**

In determination of tariff the Commission may resort to suitable mergers/demerger of categories and of sub-categories of consumers to evolve a simple, comprehensive and logical tariff structure.

**38. Tariff Component and TOD Tariff**

- (1) To promote demand side management and various energy conservation measures, two part tariffs featuring separate fixed and variable charges and a differential tariff for peak and off-peak hours shall be implemented.
- (2) The Commission shall stipulate the broad classification of consumers and timeframe for implementation of TOD tariff. While stipulating differential tariffs, the Commission may also indicate the peak, off-peak periods.
- (3) The State Commission may provide incentives to encourage metering and billing based on metered tariffs, particularly for consumer categories that are presently unmetered to a large extent. The metered tariffs and the incentives should be given wide publicity.

**39. Power Factor and Load Factor**

The Commission may provide rebates to the consumers for maintaining high power factor and load factor to promote efficiency of operation and optimum capacity utilization. The Commission may switch over from KWh tariff to KVAh tariff, which has the inbuilt benefit for a higher power factor. Demand charges shall, however, continue to apply even after switching over to KVAh billing.

**40. Cross subsidy**

- (1) The cost of supply to a category of consumers and realisation from that category of consumers shall form the basis for estimation of cross subsidy.
- (2) The Commission shall determine tariff in such a manner it progressively reflects the cost of supply and the cross subsidy is

reduced and eliminated over a period of time as may be stipulated by the Commission. However, till such time the tariff for any category of consumers does not reflect the cost of supply to that category and cross subsidisation is required, the tariff of the subsidised category shall be designed taking into account the cross subsidy allocated to that category.

#### **41. Wheeling charges**

- (1) The wheeling charges for a consumer category shall be based on the costs of distribution licensee for its pure "wire business". Thus all items of revenue requirement of the distribution licensee excluding cost of power purchase and interest on security deposit from consumers shall be the cost of distribution licensee for his wire business.
- (2) The wheeling charges shall be computed taking into account the input quantity of power for the projected units sold and wheeled through the distribution licensee for the ensuing tariff period. For this purpose the licensee has to specify the power to be wheeled in the ensuing year.
- (3) Wheeling charges so worked out shall be apportioned supply voltage-wise. However, till adequate information is available, the wheeling charges may have to be determined at a uniform rate irrespective of voltage.
- (4) Wheeling charges shall be single part chargeable in Rs. per kWh or Rs. per MW per day. However, the Commission may adopt a two-part tariff at a later stage.
- (5) The normative distribution system loss at the voltage at which the open access transaction is undertaken, shall be borne in kind and debitable to energy account of open access customers.

#### **42. Variable cost adjustment**

- (1) The Commission shall specify from time to time a variable cost adjustment formula for calculation of additional charges for adjustment of tariff on account of variation in fuel related costs of electricity generation, purchase of electricity, levy of water charges, change in tax structure, and any other unpredictable and unforeseen cost, not envisaged at the time of tariff fixation.
- (2) The licensee may calculate such charge in accordance with the specified formula and recover the same from such categories of consumers with due approval from the Commission.

#### **43. Bulk Supply Tariff**

As per the provisions of the Act, the distribution licensees may procure power from any generator of electricity and/or electricity trader. The Commission may adopt a differential bulk supply tariff mechanism to ensure uniformity in retail tariffs and different levels of cross-subsidies that exit on account of the consumer mix. This position shall, however, be reviewed by the Commission from time to time.

#### **44. Provision of subsidy**

- (1) If the State Government decides to subsidize any consumer or class of consumers, as per the provisions of section 65, it shall pay in advance the amount, to compensate the licensee affected by the grant of such subsidy in the manner as specified by the Commission.

Provided that no such direction of the State Government to grant subsidy shall be operative if the payment is not made in accordance with the provisions contained in the section 65 of the Act and the tariff fixed by the State Commission shall be applicable from the date of issue of orders by the Commission in this regard.

- (2) To ensure implementation of the provision of the Act, the Commission shall determine the tariff initially, without considering the subsidy commitment by the State Government and subsidised tariff shall be arrived at thereafter considering the subsidy by the State Government for the respective categories of consumers.

#### **45. Performance of licensee**

The quality of service provided by the distribution licensee to its consumers shall be an important consideration and shall be judged by the extent of adherence by the licensee to the standards of performance as may be laid down by the Commission in Regulations. The Commission may introduce a system of incentive and disincentive on the basis of performance of the licensee.

### **CHAPTER - 4** **Miscellaneous**

#### **46. Transitional Provision**

These Regulations shall apply mutatis mutandis to the State Electricity Board functioning as a distribution licensee, under section 172 of the Act. Till the Board continues to operate in terms of the provisions of the said section 172, the retail tariff is to be determined taking into account, the cost of generation, transmission and distribution taken together.

#### **47. Savings**

- (1) Nothing in these Regulations shall be deemed to limit or otherwise impede the inherent power of the Commission to revise/review and make such orders as may be necessary in the absence of sufficient data to meet ends of justice or to prevent abuses of the process of the Commission.

- (2) Nothing in these Regulations shall impede the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.
- (3) Nothing in these Regulations shall, expressly or impliedly, impede the Commission dealing with any matter or exercising any power under the Act for which no Regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.

**48. Power to remove difficulties**

If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by general or special order, do or undertake or direct the licensees to do or undertake such measures, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

**49. Power to amend**

The Commission may, at any time add, vary, alter, modify or amend any of the provisions of these Regulations. The Regulations may also be amended in view of National Electricity policy and National Tariff Policy, if deemed necessary.

**Note:** In case of any difference in the interpretation or understanding of the provisions of the Hindi version of these Regulations with that of the English version (the original version), the latter will prevail and in case of any dispute in this regard, the decision of the Commission shall be final and binding.

***By order of the Commission***

***(N.K.Rupwani)***  
***Secretary***

## Appendix

[Refers to clause 16(3)]

Description of Assets	Depreciation Schedule		Rate (Calculated w.r.t. 90%)	3=1*2
	Useful Life (yrs)	1		
A. Land owned under full title	Infinity		---	
B. Land held under lease:				
(a) for investment in land.	The period of lease or the period remaining unexpired on the Assignment of the lease.		---	
(b) for cost of clearing site	The period of lease remaining unexpired at the date of clearing the site.		---	
C. Assets:				
Purchased new:				
(a) Plant and machinery in generating Stations including plant foundations: -				
(i) Hydro-electric	35		2.57	90
(ii) Steam-electric NHRS & Waste Heat Recovery Boilers/Plants	25		3.60	90
(iii) Diesel-electric & gas plant	15		6.00	90
(b) Cooling towers and circulating water systems	25		3.60	90
(c) Hydraulic works forming Part of hydro-electric system including: -				
(i) Dams, Spilways weirs, canals reinforced concrete Flumes & syphons	50		1.80	90
(ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic control valves and other hydraulic works.	35		2.57	90
(d) Building & civil engineering works of a Permanent character, not mentioned above: -				
(i) Offices & showrooms	50		1.80	90
(ii) Containing thermo-electric generating plant	25		3.60	90
(iii) Containing hydro- electric generating plant	35		2.57	90
(iv) Temporary erection such as wooden structures	5		18.00	90
(v) Roads other than kutcha roads	50		1.80	90
(vi) Others	50		1.80	90

(e) Transformers, transformer (Kiosk) sub-station equipment & other fixed apparatus (including plant foundations)			
(i) Transformers (including foundations) having a rating of 100 kilo volt amperes and over	25	3.60	90
(ii) Others	25	3.60	90
(f) Switchgear, including cable connections	25	3.60	90
(g) Lightning arrestors:			
(i) Station type	25	3.60	90
(ii) Pole type	15	6.00	90
(iii) Synchronous condensor	35	2.57	90
(h) Batteries:	5	18.00	90
(i) Underground Cable Including joint boxes and disconnected boxes	35	2.57	90
(ii) Cable duct system	50	1.80	90
(l) Overhead lines including supports:			
(i) Lines on fabricated steel operating at nominal voltages higher than 66 KV	35	2.57	90
(ii) Lines on steel supports operating at nominal voltages higher than 13.2 Kilo volts but not exceeding 66 Kilo vols	25	3.60	90
(iii) Lines on steel or reinforced concrete supports	25	3.60	90
(iv) Lines on treated wood supports	25	3.60	90
(j) Meters	15	6.00	90
(k) Self propelled vehicles	5	18.00	90
(l) Air conditioning plants:			
(i) Static	15	6.00	90
(ii) Portable	5	18.00	90
(m) (i) Office furniture and fittings	15	6.00	90
(ii) Office equipments:	15	6.00	90
(iii) Internal wiring including fittings and apparatus	15	6.00	90
(iv) Street light fittings	15	6.00	90
(o) Apparatus let on hire:			
(i) Other than motors	5	18.00	90
(ii) Motors	15	6.00	90
(p) Communication equipment:			
(i) Radio and higher frequency carrier system	15	6.00	90
(ii) Telephone lines and telephones	15	6.00	90
(q) Assets purchased second hand and assets not otherwise provided for in the schedule			Such reasonable period as the competent Government determines in each case having regard to the nature, age and condition of the assets at the time of its acquisition by the owner.