

KERALA STATE ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

No./ /KERC-2004/

Dated, Thiruvananthapuram, .2004

STATEMENT OF OBJECTS AND REASONS

Section 61 of the Electricity Act, 2003 (Central Act 36 of 2003) stipulates that the Appropriate Commission shall, subject to the provisions of the Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided interalia by the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees and the National Electricity Policy and National Tariff Policy notified by the Central Government. Subsection (1) (d) of Section 62 of the Electricity Act, 2003 stipulates that the appropriate Commission shall determine the tariff for retail sale of electricity in accordance with the provisions of the Act. The Regulations hereunder have been framed in pursuance of the above provisions of the Act.

REGULATIONS

In accordance with the provisions of Subsection (1) of Section 181 of the Electricity Act, 2003 (Central Act 36 of 2003) read with Subsection 2(zd) of Section 181 of the Act, the Kerala State Electricity Regulatory Commission hereby makes the following Regulations, namely: -

CHAPTER 1 GENERAL

1. **Short title and commencement** : (1) These Regulations may be called the Kerala State Electricity Regulatory Commission (Terms and Conditions of Tariff for Retail Sale of Electricity) Regulations, 2004.

(2) They shall come into force at once.

2. **Definitions** : (1) In these Regulations, unless the context otherwise requires.

- (a) "Act" means Electricity Act, 2003 (36 of 2003);
- (b) "Commission" means The Kerala State Electricity Regulatory Commission;
- (c) "Distribution Licensee" means a licensee authorised to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;
- (d) "Regulation" means these regulations;
- (e) "State Government" means the Government of Kerala State;
- (f) "Operation and Maintenance Expenses (Or O&M Expenses)" means the expenditure incurred in operation and maintenance of the distribution system and

includes expenditure on employee costs, administrative and general expenses, repairs and maintenance, spares, consumables, insurance and other overheads;

(2) Words or expressions occurring in these Regulations and not defined herein, but defined in the Act shall bear the same meaning as in the Act.

CHAPTER II GENERAL PRINCIPLES

3 **Conditions for Revision of Tariff:** (1) Tariff revision may be called for in the event of a mismatch between the annual revenue requirement and the expected revenue from charges of a distribution licensee.

(2) Increase in tariff may be permitted when the annual revenue requirement of a distribution licensee exceeds the annual expected revenue from charges unless the gap can not be met by means other than tariff increase.

(3) In case the annual revenue requirement of a distribution licensee is less than the annual expected revenue from charges, the difference may be shared with the consumers or consumers provided with corresponding tariff relief as decided by the Commission.

4. **Fillings for Aggregate Revenue Requirement (ARR), Expected Revenue from Charges (ERC) and Tariff Revision:** - (1) Commission may require the distribution licensees to make filling for Aggregate Revenue Requirement (ARR) and Expected Revenue from Charges (ERC) as specified in the Tariff Regulations of the Commission.

(2) The distribution licensee shall indicate in the ARR&ERC filing for the ensuing financial year the manner in which, the gap, if any, between the Aggregate Revenue Requirement (ARR) and the Expected Revenue from Charges which he is permitted to recover (ERC), shall be filled up.

(3) If the gap is to be filled by revision of tariff, a tariff petition shall also be filed along with ARR&ERC filing

5. **Tariff Principle:** (1) While determining tariffs, the Commission may apply the principle that will reward performance and efficiency and reduction of losses and costs.

(2) Tariff should be based on the cost of providing electricity to various categories of consumers. The licensee should conduct a cost of service study based on embedded cost method and the report of the study indicating the cost of providing electricity to various categories of consumers should form part of tariff revision proposal.

(3) When tariff revision proposals are formulated, the licensee should ensure that increase in tariff is minimum for subsidizing category of consumers bearing maximum cross subsidy and should be increased in a graded manner to the consumers in subsidized categories so that maximum increase in tariff is for categories of consumers enjoying maximum subsidy.

(4) The Commission may consider moving towards a multi-year tariff regime as envisaged in the Act, the broader tariff principle in which case will also be based on a performance based regulatory regime to improve efficiency of operation. The Commission will ensure that the benefits from these efficiency gains are reasonably shared with the consumers.

(5) The Commission may require a long-term business plan from a distribution licensee for the purpose of a multi year tariff regime.

(6) It may be necessary for the distribution licensee to evolve accounting policy and charter of accounts considering the major changes in the structure of the power sector, to improve the content of raw data, intended to support a more scientific financial and costing analysis.

CHAPTER III EXPECTED REVENUE FROM CHARGES

6. **Metering:** (1) The licensee shall ensure that supply to all the consumers served by it is made through appropriate meters of specified quality and accuracy.

(2) The licensee, under intimation to the Commission, should evolve a scheme for periodically identifying faulty meters and replacing them.

(3) The licensee should computerize the billing operations as per a programme as approved by the Commission.

7. **Forecast of Sales:** (1) The licensee shall forecast, the number of consumers, load profile of each consumer category and energy sales, for the period under consideration. The Commission will examine these forecasts by the licensees for reasonableness, consistency of principles across all licensees, past trends, etc., before accepting and adopting them.

(2) The licensee should develop a robust database of all consumers with desired particulars such as their demand, energy consumption, etc., so as to facilitate accurate forecasting process in future.

8. **Forecast of revenue from sales:** (1) Revenue accruals from sales during the period under consideration shall be estimated by applying the tariff rates for different slabs under different categories of consumers.

(2) Revenue accruals from non-tariff income shall be projected on the basis of past trends and anticipated changes thereon.

CHAPTER IV AGGREGATE REVENUE REQUIREMENT

9. **Distribution loss:** (1) The licensee shall carryout proper loss estimation studies as required by the Commission, to set a realistic base line of loss estimates at different voltage levels and in relation to different consumer categories.

(2) The Commission shall approve a loss target for the year under consideration based on the opening loss levels, licensee's filings, submissions and objections raised by stakeholders. This approved loss target shall be used for computing power purchases/sale of power to consumers for that year.

(3) The licensee shall have to share, with the consumers, part of the financial gains arising from achieving higher loss reduction vis-à-vis the target. Losses on account of underachievement of loss reduction target will be entirely borne by licensee.

(4) As a measure of efficiency of distribution business, Aggregate Technical and Commercial (AT&C) losses shall be used. AT&C losses are defined as the difference between units input and units billed divided by the units input.

10. **Power Purchases:** (1) The quantity approved for power purchase generation may be the sum of targeted distribution loss and total forecasted sales under Regulation 9.

(2) The Commission will not consider the additional power purchase beyond the approved level of power purchases.

(3) The loss on account of additional power purchase shall not be passed on to the consumers.

(4) The licensee shall have the option of procurement of electricity through competitive bidding without being related to a particular source of generation.

(5) The Commission, based on merit order dispatch, may allow the licensee to procure power from generating companies/other sources in order to optimize the cost of power procured, considering-

- (a) load profiles during various seasons;
- (b) technical constraints;
- (c) avoidable costs (whether from own generation or power purchase) calculated after giving due consideration to valid contractual obligations.

(6) The power purchase expenses as determined, after due consideration for contractual obligations and technical constraints through the optimal merit order dispatch, shall be considered as pass through in the Annual Revenue Requirement.

(7) In the case of genuine short-term shortages, the licensee shall have the flexibility to procure energy from alternate sources. Commission may fix the maximum ceiling of tariff for purchase of electricity under such circumstances and the same shall be a pass through in the revenue requirement for the subsequent period.

(8) The fuel cost revision shall be automatic with the variation in fuel prices and shall include changes in fixed costs, variable costs and variations in mix of power purchases. The fuel price adjustments shall be claimed by way of truing up of costs at the end of each financial year.

(9) If the variation in actual purchase is on account of events beyond reasonable control of the licensee, the resultant financial gain or loss will be adjusted the next year's ARR.

11. **Capital Investments:** (1) The licensees shall propose in their filings a detailed capital investment plan covering spending on capital equipment that augments fixed assets, and capitalization of corresponding interest and expenses determined as per the applicable accounting policies and guidelines. Capital investments may address a variety of needs such as meeting load growth, refurbishment and replacement of equipment, reduction of losses, improvement of voltage profile, improvement of quality of supply and system reliability, metering, communication, computerization, etc

(2) The investment plan must separately show ongoing projects that will spill into the year under consideration, and new projects that will commence but may be completed within or beyond the tariff period. For the new projects, the filings must provide justification as per the guidelines prescribed by the Commission from time to time.

(3) The Commission will review the licensee's investment plan for approval, and for this purpose may require the licensees to provide relevant technical and commercial details. The costs corresponding to the approved investment plan of a licensee for a given year shall, normally, be considered for its revenue requirement.

(4) In addition to the approved capital investment plan, licensees can seek provision for additional capital expenditure any time during the tariff year to meet natural calamities involving substantial investments. The Commission will examine such demands and if satisfied shall approve the corresponding costs for inclusion in revenue requirement in the next period.

(5) In presenting the justification for new projects, the licensees shall detail the specific nature of the works, and outcomes sought to be achieved. The details must be shown in the form of physical parameters, e.g. new capacity added to be added, meters replaced, customer service centres set up, etc so that it is amenable to physical

verification. This is necessary to ensure that the approved investment plans are implemented and the licensees do not derive improper financial benefit by delaying or neglecting to make the proposed investment. In case of any significant shortfall in physical implementation, the Commission may require the licensees to explain the reasons, and may proportionately reduce the provision, including the interest and the return component, made towards revenue requirement, in the subsequent period.

(4) In case a licensee proposes to set up generation projects, details of tariff calculations for the electricity generated along with full justification there of should be furnished.

12. **Financing Costs:** (1) The costs corresponding to the approved investment plan of a licensee for a given year will normally be considered for its revenue requirement. For the past investments, actual values will be considered. While raising new finance, the licensee has the freedom to finance through any proportion of debt and equity to take best advantage of market conditions. However, a debt equity ratio of 70:30 shall normally be considered. Depreciation reserves to the extent available shall be utilized for financing the investments. The licensee will not be allowed to earn return from the assets created through this depreciation reserve.

(2) In its submission, the licensee must demonstrate that financing and investment requirements match. Thus, financing cost considered for revenue requirement is matched with what is needed for the approved level of capital expenditure and working capital. The licensee may have the freedom to raise loans from the consumers.

(3) For loans outstanding at the beginning of the year on the revenue account, the licensee shall indicate in their filings the expected interest outgo for each year. This will be considered towards revenues requirement of the licensees for such years. The licensee shall make efforts to reduce the cost of outstanding loans, in case of declining interest rates.

(4) To finance new investments, interest cost is used to determine revenue requirement for the portion financed through debt. For all loans, the permitted interest cost will be linked to the Prime Lending Rate of a Scheduled Bank plus a predetermined margin that realistically reflects the rate at which licensees can raise debt from the market.

(5) In their filings, licensee may individually propose their choice of PLR reference (Indian Loans) and the margin, for the Commission's approval. In proposing this, the licensees must keep in view the suitability of PLR reference to their business, prevailing market conditions, their financial position, etc. To ensure consistency, the Commission will use one single benchmark PLR, which may be of a bank that is commonly acceptable.

13. **Rate Base:** (1) The Commission shall determine appropriate rate base for computing returns by considering debt and equity separately.

(2) The Commission shall decide the rate of return to the licensees from time to time depending on the need to promote investment and safeguard consumer interest.

14. **Working Capital:** (1) Working capital requirement may reflect current level of collection efficiencies, available security deposit, billing cycles, requirement of spares, power purchase cost, etc. The licensees should submit the details of lead lag study for arriving at optimum working capital requirements and moving towards further efficiency levels for subsequent years.

15. **O&M Expenditure:** (1) The component of revenue requirement consists of employee cost, administration and general expenses, repairs and maintenance expenses and other miscellaneous expenses.

(2) These costs are to be taken at actuals or as allowed by the Commission whichever is lower and should be taken as base value.

(3) The approved base value may be indexed to predetermined indices such as Consumer Price Index, Wholesale Price Index or a combination of both indices for subsequent years. Base value of O&M can be indexed to 70% of CPI and 30% of WPI.

16. **Provision of bad debts:** (1) The Commission shall allow a provision for bad debts in the revenue requirement of the licensee, based on past data.

(2) Licensees shall be allowed to provide for opening balances of receivables as per policies developed by the management of the licensees and approved by the Commission.

(3) Commission may require utilities to implement suitable IT tools for tracking of receivables of all consumers in accordance with the amount outstanding, age profile and other relevant information.

17. **Depreciation:** (1) Rate of depreciation shall be linked to the useful life of the asset.

(2) The provision relating to depreciation should be harmonized with provisions of the Companies Act, 1956 and for the purpose of tariff determination, depreciation rate as per the schedule XIV of Companies Act, 1956 shall apply.

(3) Distribution licensees shall be treated under 'continuous process' plant for the purpose of determining the depreciation rate.

(4) However, a higher rate of depreciation may be permitted in case inadequacy of cash for debt repayment.

(5) Advance against depreciation shall be allowed subject to the condition that in any year the advance against depreciation and depreciation together do not exceed 1/12th of the original loan amount.

18. **Regulatory Asset:** (1) The Commission shall, at its discretion, provide for regulatory asset by specifying the amortization and financing rules of the regulatory assets submitted by the licensees and adopted by the Commission.

(2) Regulatory assets shall be allowed at the discretion of Commission and allowed to take care of force majeure or cost variations due to uncontrollable factors.

(3) Financing cost of regulatory asset shall be allowed to the licensees.

(4) Recovery of regulatory assets should be time bound and within a period normally not exceeding 3 years.

CHAPTER V MISCELLANEOUS

19. **Road map for cross subsidy reduction:** (1) The tariff charged to the consumer has to reflect the cost of service.

(2) A road map for cross subsidy reduction will be fixed by the Commission and will be reviewed on the basis of periodical cost of service study conducted by the Commission/licensees.

20. **Quality of Service:** (1) The Commission after consultation with the licensee, the consumers and persons likely to be affected shall specify realistic standards of performance (depending on local conditions) of the licensee and may improve upon it from time to time. In case of non-compliance of these standards, Commission may award compensation to the affected consumers at the cost of the licensee as determined by the Commission.

(2) The Commission may engage independent agencies to audit the data submitted by the licensee regarding performance and may also periodically conduct consumer satisfaction surveys through independent agencies.

21. **Miscellaneous:** (1) Power to remove difficulties –(i) In case of any difficulty in giving effect to any of the provisions of these Regulations, the Commission may by general or special order, direct the licensee to take suitable action, not being inconsistent with the provisions of Electricity Act, 2003, which appears to it to be necessary or expedient for the purpose of removing the difficulty.

(ii) The licensee may make an application to the Commission and seek suitable orders to remove any difficulty that may arise in implementation of these Regulations.