MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

Guidelines For
In-Principle Clearance of
Proposed Investment Schemes.

I] BACKGROUND

- The Electricity Act, 2003 has given State Electricity Regulatory Commissions wide-ranging powers and flexibility to regulate the power sector.
- Under Section 61, the Commission has the power to specify the terms and conditions for the determination of tariff and in doing so it is required to be guided by the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments so that generation, transmission, distribution and supply of electricity is conducted on commercial principles and the consumer's interest is safeguarded. Under the proviso to Regulation 4.1 of the Tariff Regulations, the need to link tariff adjustments to increases in the productivity of capital employed is also to be kept in view.
- While Capital Investment is required to be made by Licensees for various purposes like the creation of new infrastructure to meet load growth, to meet statutory requirements, to strengthen the existing system and increase its efficiency, replace old/ obsolete assets, any such capital investment increases the capital base and consequently the reasonable return thus affecting the tariff to consumers. It is therefore necessary to ensure that such capital investment schemes being proposed are necessary and justified, and do not impose an unnecessary burden on consumers by way of tariff.
- During the Tariff Determination processes undertaken so far, various objectors raised the issue of the prudence of the capital investment being made by Licensees.
- After examining all aspects in this regard, the Commission directed Licensees Tata Power Company (TPC) and Reliance Energy Limited (REL) to submit details in respect of all proposed Capital Investments exceeding Rs. 10 crores for approval to the Commission.
- For evaluation of these and future proposals in respect of all Licencees, the methodology and evaluation criteria are outlined below.

II] OBJECTIVES

The objectives are:

- To lay down the approach and methodology for ex-ante assessment of major investment schemes for considering in-principle clearance.
- To spell-out the evaluation criteria for such ex-ante assessment.
- To lay down guidelines for the submission of Feasibility Reports so as to facilitate easy evaluation and monitoring of such proposed investment schemes against benchmark figures.

III] METHODOLOGY

The following is the methodology adopted by the Commission:

A) Submission of Three-Year Capital Investment Plan:

- The Licensees shall submit a 3–year Rolling Capital Investment Plan outlining the major schemes proposed for each Financial Year. The capital investment plans should be internally consistent and reconcilable with other relevant proposals and supporting information presented in the submission such as demand projections, network reliability and design criteria.

B) Capital Investment Schemes :

- For the purpose of these guidelines, a Capital Investment Scheme means any non-recurring capital expenditure programme for the acquisition, construction or improvement of a permanent facility in a particular sector (i.e. Generation, Transmission, Distribution, General, etc.) or a geographical region.
- The Scheme shall be planned considering a 3-5 year investment horizon for Generation and transmission related investments, and a 1-3 year horizon for Distribution-related investments.
- The scope of investments included in each Scheme shall be any of the following:

(i) Works of a similar or related nature
For example: New Receiving Stations proposed at different locations within the licence area must be clubbed together and presented as a Scheme for New Receiving Stations, Schemes for modernization / augmentation of the Transmission cables must be presented together, Information Technology Schemes, SCADA and Communication Equipment at the region/State level, Schemes for Major Replacement of Old Equipment etc.

(ii) Different types of Works within a geographical area, say in a District
For example, all capital investments covered under a District Integrated Scheme can be presented together as a Scheme.

(iii) An independent identifiable project as would be submitted to a financial institution like REC, PFC, etc or for funding under APDRP.

C) Submission of Feasibility Reports (FRs):

- For those Capital Investment Schemes exceeding Rs. 10 crores, the Licensee should submit Feasibility Reports for the Commission's In-Principle Approval with a broad Cost-Benefit Analysis. These capital investment proposals should constitute a least cost plan.
- The FRs must clearly outline the scope and objectives of the proposed Scheme and explain how the Scheme meets the evaluation criteria mentioned herein.
- The FRs must be accompanied by such information, particulars and documents to support the details contained in the plan including technical reports, design criteria, supplier/contractor quotations, term sheets of financing agencies etc., as may be required to enable assessment of the nature involved in ex-ante, in-principle clearance.
- The Commission may, from time to time, also lay down formats for submission of FRs so as to facilitate assessment and.
- The FRs should address all the various aspects of the Scheme as set out below. (The enclosed format is only the scrutiny sheet the Commission would use for assessment of the Scheme with a view to granting In-Principle Clearance.)

D) Evaluation of the Feasibility Report:

- The Commission plans to adopt a 2-Stage Approval Process.
  - In-Principle Clearance
  - Final Approval during the Tariff Determination Process and/or ARR Review
- When submitting an application for In-Principle Clearance of the proposed Capital Investment Scheme, the Licensee will be expected to indicate clearly and separately **(a) the Scope and (b) the Objectives** of the proposed Scheme. The application should cover all the aspects mentioned in these guidelines and should explain how the Scheme measures up to the evaluation criteria. In this stage, the Scheme would be given clearance considering primarily its scope and objective, while keeping in view the criteria.
- During the Tariff Determination Process and/or ARR Review, the following will be borne in mind when granting final approval to the Scheme.
  - To what extent the scope and objectives given at the time of In-Principle Clearance have been achieved.
  - What is the actual expenditure incurred by the Licensee, as against the amount considered while granting In-Principle Clearance with justification for significant variations, particularly on the higher side.
  - Actual benefits and results achieved or to be achieved.

- The Capital Investment Scheme Proposals will be, inter alia, subjected to the following evaluation and filtering mechanism:
  1) Statutory/Safety Requirement
  2) Need for the Investment
     a. Demand Side Requirement
     b. Technical Justification
     c. Urgency
     d. Prudence of the Investment
  3) Cost Assessment and Possibility of Phasing the Investment
  4) Benefits and Costs to Consumers

1) Statutory / Safety Requirement

- Is the investment necessary to discharge the duties / obligations as per E.A. 2003 or to meet any other statutory or safety requirement?
- Is the investment likely to constitute or result violation of any of the provisions of the E.A. 2003, and if so, the safeguards.

2) Need for the Investment

a. Demand Side Requirement *(For T&D Schemes)*

- ❖ Whether equipments are operating close to their rated capacities and capital investment is necessary -

(a) To reduce the load on the existing equipment to prolong the life of the equipment

(b) To increase the reliability of the system.

(c) To facilitate the creation of back-up facilities during scheduled maintenance operations.

- ❖ Whether the capital investment is necessary to set-up the infrastructure required to meet normal load growth or to reach new Consumers
- ❖ Whether the investment is necessary for increasing administrative efficiency which in turn will result in better services to the consumers.
- ❖ Are the assets or facilities being created multiple use assets which can be used in some other business, and to what extent.

b. Technical Justification

- ❖ Does the Scheme meet Design Criteria which are in keeping with prevailing norms/standards
- ❖ Whether Replacement of Old Equipment is necessary for equipment which has outlived its normal life-span.
- ❖ Is the Useful life of the equipment reasonable?
- ❖ What is the average rate of technology obsolescence for that equipment?
- ❖ Does the investment increase the efficiency in Operations and Maintenance & improve reliability of Supply.

- ❖ Whether the investment is necessary for a reduction in the T&D Losses *(for T&D Schemes)*

c. Urgency

- ❖ Whether the capacity planned is commensurate with demand growth
- ❖ Is it possible to defer the investment for its optimization.

d. Prudence of the Investment

- ❖ Whether other alternatives have been considered, with brief details of the results, and the basis on which the proposed alternative was selected.
- ❖ Whether the investment results in duplication of existing infrastructure (owned by any other Licensee, or that Licensee itself)
- ❖ Is the proposed investment a necessity for the conduct of business, or is it a luxury, the burden of which is being passed on to consumers.

3) Cost Assessment and Possibility of Phasing the Investment

- Whether Cost Estimates and likely escalations are reasonable and in keeping with market rates
- Whether Recurring Costs associated with the Scheme are reasonable
- Whether the least cost option has been considered
- What is the actual amount of expenditure, if any, on the Scheme incurred to date by the Licensee

4) Benefits to Consumers

- What are the broad quantitative and qualitative benefits to consumers
- Is the Return on Investment justifiable from the consumer's point of view
- What is the likely net impact on consumers over a 5-year period considering the recurring costs and broad Cost-Benefit analysis.
- What are the results / benefits observed so far, if applicable.

IV Time Frame for Submission of FRs.

The Licensees are expected to submit a 3-year rolling Capital Investment Plan along with the relevant FRs each year by the end of the third quarter of the previous Financial Year (by the end of the last Quarter of the current year in case of the next 3-year period).

These Guidelines issue with the approval of the Maharashtra Electricity Regulatory Commission.

(A.M. Khan),
Secretary, MERC.

Dated : 9th February, 2005.

FORMAT (for use by the Commission)
Illustrative Assessment of FRs for Transmission and Distribution Schemes.

I. In-principle Clearance stage:

A] Particulars furnished in the Application

1. Title (Name of Scheme)	
2. Brief Scope of work	
3. Objective / Justification	
4. Estimated Cost	
5. Cost benefit analysis	
6. Impact on tariff for next 5 years	
7. Proposed Funding Arrangement	

B] Particulars furnished in the Feasibility Report

1. Title (Name of Scheme)	e.g. Commissioning of 33/11 KV, 2x20 MVA Transformer at new ___ R.S.
2. Estimated Cost	Rs. ________ Rs. ________ with escalation
3. ROI/ Cost benefit	Rs. ________ Reduction in loss Rs. ________ Addl. Sale of energy Rs. ________ Other Benefits
4. Scope of work in brief (major items)	e.g. i) 33 Kv UG cable ___ Km. ii) 33/11 Kv transformer 2x20 MVA iii) 11 Kv cable _____ Kms.

5. Objective / Justification	e.g. i) To meet load growth ii) For catering new consumer iii) Improvement in reliability
6. Funding Arrangement	e.g. APDRP, REC, Banks, etc.
7. Time frame/ phasing out of expenditure	Completion period. Expenditure 2005-06 Rs. ________ 2006-07 Rs. ________ 2007-08 Rs. ________

Observations / Comments on FR	
1. (a) Prudence of Investment (b) Technical Justification	1. Safety / Statutory requirement 2. Need / necessity 3. Cost benefit analysis 1. Design Criteria 2. Justification for Replacement
2. Reasonability of Cost Estimate	1. Alternatives considered & Justification for option considered 2. Reasonableness of Project Cost 3. Possibility of Phasing the Capex
3. Comments on Cost benefit analysis	1. Quantitative Parameters (A*dditional Sales, Loss Reduction etc.)* 2. Qualitative Parameters 3. Impact of Tariff for the next 5 years
2. Discrepancy / shortcoming observed	
3. Remarks / Specific comments, if any	

II. During final approval stage similar formats will be used and comparison of final Vs original will be made.