

Chhattisgarh State Electricity Regulatory Commission

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As per the provisions of Section 86(1) (b) of the Electricity Act 2003 (36 of 2003), the Chhattisgarh State Electricity Regulatory Commission has to regulate 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. The Commission made out a draft guidelines on which comments and suggestions were invited from all concerned within twenty-one days. After taking into consideration the suggestions/views received, the Commission has finalised this as follows:

GUIDELINES FOR POWER PURCHASE AND POWER PROCUREMENT PROCESS

Preliminary

1. Introduction

The power availability was adequate when the new State of Chhattisgarh was formed. However, very soon the State witnessed dramatic upswing in the demand for electricity. With rapid expansion in the distribution network, emphasis on rural electrification and rapid industrial growth, the power requirement of the State grew. In a short span, the power surplus State has now been facing power shortage.

In the present power market scenario, spot market transactions are not likely to account for a major share of purchase of power by the licensee, even in the medium term. Hence, the Commission considers that it has a special responsibility to ensure that such long-term as well as short-term contracts entered into by the licensee(s) are based on a demonstrated least cost method of power procurement. The process of power procurement starts from the preparation of load forecast and assessment of the additional capacity to be procured. This has to be followed by a structured competitive bidding process. Since power purchase costs constitute the largest single cost element for distribution licensees, competitive procurement of electricity is expected to reduce the overall cost of procurement of power and facilitate the development of the power market. As a matter of principle, the Commission would need to provide adequate scope for public and expert scrutiny of the load forecasts, power procurement plan and power procurement procedure. Guidelines covering all these aspects are being issued so as to ensure that the objectives of the Act are achieved.

Demand and Availability

2. Demand Forecast

- (1) The licensee shall make an assessment of demand, which shall be the unrestricted demand, for one year or for ten years. The short-term demand forecast for a year shall be on monthly basis, and the long-term for ten years, on annual basis.

- (2) The monthly forecast of demand should indicate demand during different time periods (peak, off-peak, normal) in order to estimate the seasonal demand in different time periods of the day.

3. Method and Techniques of Demand Forecasting

- (1) The assessment of demand for electricity shall be in MW.
- (2) The load forecast shall be based on trends and statistical analysis of historical data, future projections and forecasts expected to result from implementation of business plans and efficiency improvement programmes, investment plans; maintenance schedules of the licensee's self generation plants and the Central generating stations and other sources of power. The analysis must also consider the impact of the provisions of the Electricity Act and possible movement of consumers to open access and captive generation.
- (3) The load estimation shall consider the previous year's position, current year's projections and econometric and statistical forecasting of demand for the next ten years. It shall take into consideration the following, among other relevant informations and inputs:
 - a) Consumer category-wise demand growth forecast for ten years for normal, peak, and off-peak periods.
 - b) Unrestricted demand and load shedding.
 - c) Opportunity cost of load-shedding in comparison with cost of service and the projected marginal cost of power.
 - d) Plans for reducing the requirements in the forecast period through Demand Side Management measures.
 - e) Projected improvements on account of implementation of business plans and efficiency improvement measures.
- (4) In load forecast in the short-term the pending applications for electricity connection shall also be taken into account.

4. Assessment of Power Availability

- (1) Along with the demand forecast, the licensee shall consider availability of power at different time periods of the day for all months in the ensuing year and subsequent plan period of ten years.
- (2) The supply forecast shall consider the following, among other relevant information and inputs:
 - a) Existing shared sources of power including state-owned, Central Govt.-owned generating plants, non-conventional energy generators, CPPs and IPPs.

- b) Generating plants with exclusive contracts for power supply to the distribution licensees.
- c) Forecast of energy and capacity availability from each of the existing sources of power for the short-term / long-term plan period.
- d) New generating stations due for commissioning.
- e) Trend of frequency in the grid and the possibility of over-drawal without incurring high UI charges.
- f) Phase out of old stations or extended period of maintenance/up-gradation.

5. Consultation

- (1) The licensee shall make short-term and long-term demand and supply availability assessments in consultation with any or all concerned including state sector generating companies, transmission/distribution licensees, central sector generating companies and transmission companies, State/Regional/National Load Dispatch Centers and Central Electricity Authority.
- (2) The licensee may also make enquiries with the power trading licensees and surplus States to estimate the likely availability and price of power across the country for peak, off-peak and normal periods.

Power Procurement 6. Plan

Short-term Power Procurement Plan

- (1) The short-term power procurement plan presents power demand and supply positions for a time span of one year. Such a plan is required to plan
 - (a) short-term power purchase agreements;
 - (b) annual maintenance schedule of State Generators; and
 - (c) short-term spot trade.
- (2) The short-term power procurement plan shall be the least cost plan (least financial cost to the licensee), the ultimate objective being to make available secure and reliable power supply to all consumers with economically viable tariffs while satisfying power supply planning and security standards.
- (3) The short-term power procurement plan shall cover different periods of the day (i.e, off-peak, peak and normal) and take into account the following:
 - (a) Unrestricted demand and restricted demand forecast for the ensuing year;
 - (b) Forecast of energy and capacity availability from each of the existing sources of power;

- (c) Power purchase costs as per the ARR of the current year, approved by the Commission;
- (d) Impact of the above on the ARR for the ensuing year.
- (e) Trend of grid frequency in comparison to the earlier, to evaluate the possibilities of over-drawing from the grid as a substitute for firm short or long term trade agreements, without incurring high UI charges.

7. Long-term Power Procurement Plan

- (1) The long-term power procurement plan shall be prepared by the licensee on the basis of the demand forecast and assessment of power availability for a time span of 10 years. Such a plan is useful for
 - (a) the development of new generating sources in the State;
 - (b) power purchase agreements with Central sector plants; and
 - (c) power purchase agreements with Non-conventional energy sources, independent power producers (IPP) and captive power plants.
- (2) The long-term power procurement plan shall be the least cost plan (least financial cost to the licensee), the ultimate objective being to make available secure and reliable power supply to all consumers with economically viable tariffs, while satisfying power supply planning and security standards.
- (3) The licensee shall have to give the following details for the past three years along with long-term power procurement plan:
 - (b) Month wise details (with year-wise totals) indicating power produced by state generators, availability of power from Central sector generating units and any other generator with whom long-term power purchase agreement has been entered into, short-term purchases of electricity in MU and expenses along with per unit cost.
 - (c) Month-wise, category-wise energy sales and losses in his area of operation.

8. Approval of power procurement plan by Commission

- (1) The power procurement plan including the load forecast for the ensuing year commencing from the month of April, shall be submitted by the licensee to the Commission by the 30th November of each year.
- (2) The long-term plan for the following ten years shall also be submitted by 30th November of each year, duly updating the long-term power procurement plan submitted in the previous year as approved by the Commission, to take the latest developments into account.

- (3) The distribution licensee shall provide load forecast and power procurement plan for both short-term and long-term in the draft formats (appended to these guidelines), which will be finalised by the Commission. The Commission may call for such additional information and data as it may deem necessary for approving load forecast and power procurement plan and the licensee shall furnish such information within 2 weeks from being asked to do so.
- (4) The Commission may, at its discretion, ask the licensee to publish the main details of the power procurement plan in such form and in such manner as it may prescribe, so as to enable any member of the public who desires to file objections, comments or suggestions, to do so in the manner indicated in the Conduct of Business Regulations of the Commission. The Commission shall consider such representations before approval of the plan.
- (5) The Commission shall communicate its approval of the power procurement plan within 8 weeks from the date all necessary information requested as above has been furnished to the satisfaction of the Commission.

Power Procurement Procedure

9. Short-term power procurement procedure

- (1) For short-term power purchase, the Commission shall specify a price band for cost of power for the forthcoming year under consideration for different period of the day that is for peak, off-peak and normal hours.
- (2) As long as transparent and prudent bidding or institutional mechanism is adopted and commercial considerations are honoured, the licensee shall be free to procure power within the specified limit from any source for short-term purposes.
- (3) The licensee may undertake short-term (less than one year) purchase by entering into contracts for the same on the above basis. Approval of the Commission will not be necessary for such contracts. However, the details of such purchases shall be submitted to the Commission.

10. Long-term power procurement procedure

- (1) Long-term purchase shall be by competitive bidding process. The bidding process shall be as per the guidelines issued by the Central Govt. under section 63 of the Act.
- (2) The proposal of competitive procurement process should consider the following:
 - (a) The manner in which the licensee plans to advertise the proposal and notify potential bidders so as to attract the

maximum number of technically and financially qualified bidders to provide the required power.

- (b) The request for qualifications to be issued, to ascertain the technical suitability of potential bidders and the manner in which the eligibility of companies to bid for supply of power, by the licensee.
 - (c) The request for proposals clearly specifying the requirements of the licensee and the terms and conditions subject to which power is to be supplied, as embodied in a draft power purchase agreement (PPA).
 - (d) The procedure and criteria to be used by the licensee for evaluation of bids and for selection of the winner, including an explanation of the way in which the lowest bid would be evaluated to test its acceptability.
 - (e) The time schedule for conducting the above process and announcing its outcome.
 - (f) The power procurement process shall:
 - (i) ensure that the proposals obtained by the licensee conform to the technical, economic and other criteria in accordance with the Act and the guidelines of the Central Government, issued under Section 63 of the Electricity Act, 2003.
 - (ii) secure the integrity, transparency and effectiveness of the process.
- (3) The purchase tariff in cases of generating companies, which are not covered under the process of competitive bidding as per Section 63 of the Electricity, 2003 shall be determined under Section 62 of the Act.
- (4) Any long-term power purchase arrangements made through MOUs and PPAs with the generating companies by the distribution licensee prior to the issue of these guidelines will not come under the purview of these guidelines till its validity.
- (5) All power purchase for a period of more than one year and less than 10 years will also be treated at par with long-term power purchase.

11. General conditions of procurement

- (1) While effecting power purchase, merit order plan approved by the Commission shall be adhered to by the licensee.
- (2) The licensee shall also endeavour not to over-draw from the grid at low frequencies when the UI rate is high.
- (3) The licensee shall endeavour at all times when the voltage is low, not to import reactive power from the grid. Requirements of

reactive compensation in the State power system shall be based mainly on the State/ Regional Load Dispatch Center recommendations and study by the licensee itself.

12. Power purchase arrangements and agreements

Any long-term new power purchase arrangement and agreement, or amendments to existing Power Purchase Agreement (PPA) entered into by the licensee, shall be subject to the prior approval of the Commission. The Commission while approving the proposed agreement shall take into account the following:

- (a) Necessity.
- (b) Reasonability of cost.
- (c) Promoting efficiency, economy, equitability and competition.
- (d) Conformity with guidelines for investment approval.
- (e) Conformity with requirements of quality, continuity and reliability of supply.
- (f) Conformity with safety and environmental standards.
- (g) Conformity with criterion of power purchase as laid down by the Commission.
- (h) Conformity with policy directives including National Electricity Policy, National Tariff Policy and National Power Plan.

13. Intervention in the Procurement process

- (1) Once the licensee has begun to implement a procurement process in accordance with these guidelines, the Commission shall only issue an order interrupting the process prior to the declaration of the winning bidder only on the grounds -
 - (a) of mala-fide or improper conduct; and/or
 - (b) the manner in which the licensee is conducting the procurement process differs materially from its proposal as reviewed by the Commission; and
 - (c) on other reasonable grounds.
- (2) These provisions are without prejudice to the Commission's right to investigate and take appropriate action on credible information of malpractice becoming available to it.
- (3) Any investigation of a procurement process will be initiated by a notice of inquiry and conducted in accordance with the Commission's Conduct of Business Regulations. The licensee shall not enter into any commitment to procure power or act upon such a commitment pending the outcome of the investigation.

- (4) If the Commission determines that the procurement process was unsatisfactory with reference to criteria given in these guidelines, the Commission may order the licensee to take necessary corrective steps, including requiring it temporarily to suspend the procurement process, or to cancel it and declare the results null and void.
- (5) If the results of the procurement process are declared null and void, the licensee shall so notify to the public and bidders.
- (6) Nothing in these guidelines shall prevent the Commission from investigating or taking such other action, as it deems appropriate, with respect to a completed power purchase agreement in the exercise of its responsibilities under the Act.

14. General

- (1) The Commission may, at any time add, vary, alter, modify or amend any of the provisions of these guidelines.
- (2) If any difficulty arises in giving effect to any of the provisions of these guidelines, 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.
- (3) Nothing in these guidelines 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 to prevent abuses of the process of the Commission.

By order of the Commission

(N.K.Rupwani)
Secretary