

# **JAMMU & KASHMIR STATE ELECTRICITY REGULATORY COMMISSION.**

## **NOTIFICATION**

**No. 4/JKSERC/2005**

**Jammu dated 21 June 2005.**

In exercise of powers conferred under section 36 read with section 8 (1) (c) of the Jammu & Kashmir State Electricity Regulatory Commission Act, 2000 the Jammu & Kashmir 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 Jammu & Kashmir State Electricity Regulatory Commission (Power Purchase and Procurement) Regulations 2005.

(2) They shall come into the force from the date of their publication in government gazette.

(3) Words or expressions used in these Regulations shall have the meaning respectively assigned to them in the Jammu & Kashmir Electricity Act, samvat 1997 or the Jammu & Kashmir Electricity Duty Act, 1963 or the Jammu & Kashmir State Electricity Regulatory Commission Act 2000

### **CHAPTER-2**

#### **Layout of the Regulations**

2. The Power Procurement Regulations are divided into two parts (a) Long-term Power Procurement Regulations and (b) Short-term Power Procurement Regulations.

#### *3. Long-Term Power Procurement Regulations*

(1) The Long-term Power Procurement Regulations present a framework for long-term forecasting of power demand and supply positions and the need for development of

- a) State-owned new generation sources.
- b) Power purchase agreements (PPAs) with central sector plants.
- c) Power purchase agreements with independent power producers (IPP).

(2) For the purpose of the Long-Term Power Procurement Regulations, utility/licensee shall consider a time frame of five years. The utility/licensee shall approach the Commission every year with its rolling

five- year Long- Term Power Procurement Plan outlining its projections and plans for the ensuing five years.

#### 4. *Short-Term Power Procurement Regulations*

(1)The Short-term Power Procurement Regulations present a framework for short-term forecasting of power demand and supply positions to plan for

- a) Short-term power purchase agreements.
- b) Annual maintenance schedule of state generators.
- c) Short-term spot trades plan.

(2) For the purpose of the Short-Term Power Procurement Plan, utility/ licensee shall consider a time frame of one year. Utility/licensee shall approach the Commission every year with its Short-Term Power Procurement Plan outlining its projections and plans for the next year.

### **CHAPTER-3**

#### **Framework for Power Procurement Planning**

5 Utility/licensee shall approach the Commission well in advance of the concerned period with its plans for power generation and procurement and seek explicit approval for undertaking power purchases.

6. The petition of utility/licensee in this regard must include:

- a) Projected demand.
- b) Forecast generation from owned stations and purchases from all stations or sources with which utility/licensee has long-term PPA's.
- c) Assessment of the gap.
- d) Plans with regard to what portion of the gap utility/licensee shall bridge, and the means by which it shall do so.

## CHAPTER-4

### The Long- Term Power Procurement Plan

#### *Long-Term Demand Forecast*

7. The utility/licensee shall be responsible for making an assessment of demand for electricity (in MW) for the next five years. The five-year forecast shall include' the unrestricted demand forecast for all major categories.
8. For this purpose all categories whose total connected load is more than 5% of total system connected load will be considered a major category and shall include HT Industry, HT Railways, HT Mines, Agriculture, Domestic, SLP, L T Industry, LT Commercial and any other existing, new or merged category.
9. Utility/licensee shall estimate the current demand levels for the morning peak hours (06.00-10:00), evening peak hours (18:00-22:00), and the remaining off-peak hours for all categories combined. This estimate shall suitably consider load curtailment plans.
10. The definition of peak hours may be changed on a petition from utility/licensee or by notification by the Commission.
11. This forecast shall be considered for each year in a five-year period.

#### *Tools and Techniques to be used for Forecasting Demand*

12. This assessment shall be based on trends and statistical analysis of historical data, future projections and forecasted results of implementation of business plans and efficiency improvement programs, investment plans, maintenance schedules of the self generation plants, the central generating stations and other sources of power.
13. The estimation shall consider the previous year's observations, current year projections and econometric and statistical forecasting of demand for the next five years. It shall take into consideration the following among other relevant information and inputs:
  - a) Overall economic growth projections.
  - b) Category-wise forecast for demand growth for five years for morning peak, evening peak and off-peaks.
  - c) Considerations to unrestricted demand and load curtailments.
  - d) Opportunity cost of load curtailment and comparisons with cost of service and the projected marginal cost of power.

- e) Plans for reducing the requirements in the forecast period through demand side management measures.
- f) Projected improvements on account of implementation of business plans and efficiency improvement measures.

#### *Assessment of Availability*

14. Along with the demand forecast, utility/licensee shall consider availability of power for the morning peak, evening peak and off-peak periods for all months in the five -year planning periods.

15. The supply forecast shall consider the following among other relevant information and inputs:

- a) Existing shared resources including state-owned, central owned and IPP owned generating plants.
- b) Generation with exclusive contracts with the supply utility/licensees.
- c) Forecast for the planned period of energy and capacity availability from each of the existing sources of power
- d) New generation stations due for commissioning
- e) Phase out of old stations or extended period of maintenance/upgradation

#### *Assessment to Involve Consultation*

16. Utility/licensee shall make long-term demand and supply availability assessments in consultation with any or all concerned including state sector generating companies, discoms private distribution licensees, central sector generating companies and transmission companies, Regional Electricity Board, National /Regional/State Load Dispatch Centers and the Central Electricity Authority.

#### *Long- Term Power Procurement Plan*

17. On the basis of the above load forecast and assessment of availability, utility/licensee shall prepare a Long-Term Power Procurement Plan for the next five years.

18. The Long-Term Power Procurement Plan shall consider the balance requirement of power and energy during the plan period after accounting for new stations expected to come on stream, from power procurement arrangements already entered into, plans for procuring additional capacity, load curtailments, proposed method of competitive solicitation, including the criteria for evaluation of alternative options.

19. The Long-Term Power Procurement Plan shall be a least cost plan (least financial cost to the utility/licensee), the ultimate objective being to make available secure and reliable power supply at to

all consumers with economically viable tariffs while satisfying power supply planning and security standards.

20. The utility/licensee shall, give month wise details of past years (with year wise totals) indicating power produced by state generators, central sector generating units, Any other generator with whom long term power purchase agreement has been entered into, short term purchases in MU and Lac Rupees along with per unit cost.

21. The utility/licensee will also give the month wise category wise sale and losses in its area of operation

#### *Deadline for Submission of Long-Term Power Procurement Plan*

22. The plan for the following year shall be submitted by the 31<sup>st</sup> day of October each year, duly updating the Long-Term Power Procurement Plan for the previous year as approved by the Commission and included in the annual Aggregate Revenue Requirement (ARR) filing, taking the latest developments into account.

#### *Review by the Commission*

23. The Commission may call for such additional information and data as it may deem necessary for reviewing the Long-Term Power Procurement Plan within two weeks of receiving the Plan and the utility/licensee shall furnish such information within two weeks of being asked.

24. The Commission may at its discretion, ask the utility/licensee to publish the main details of the Power Procurement Plan in such form and in such manner as the Commission may prescribe, specifying in such notice that any member of the public who desires to file objections may do so within a period of two weeks. Comments or suggestions may do so in the manner indicated in the Conduct of Business Regulations of the Commission. The Commission shall consider such representations.

25. On completion of this process, the Commission shall pass on the Long-Term Power Procurement Plan with such amendments, as it may consider necessary within 60 days from the date of receipt of complete information.

#### *Other Considerations*

26. Based on the assessment of requirement, utility/licensee shall effect power purchase or enter into long-term or short-term power purchase agreements or arrangements complying with the criteria to be established with the approval of the Commission. The criteria shall take into account the Commission's directives if any on power purchase, allocation of power from different sources and generation from conventional and non-conventional energy sources within the State.

27. There shall be a mechanism of consultation among utilities/licensees for:  
a) Meeting power shortages

- b) Providing spinning reserve or frequency control capacity etc
- c) Spot or bilateral purchase or overdrawal / underdrawal of active and reactive power.
- d) Other activities related to development of power procurement plan.

28. The criteria for power purchase will in general follow the principle of least cost commensurate with power system stability, system voltage, and frequency profile and system losses. The criteria shall also provide for power purchases and load shedding during the under frequency periods.

29. Utility/licensee shall endeavor 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 Regional Electricity Board or the Regional Load Dispatch Center recommendations.

30. Utility/licensee shall also endeavor not to over-draw from the grid at low frequencies when the UI rate is high.

31. Any new power purchase arrangements and agreements or amendments to existing power purchase agreements (PPA's) entered into by the licensee shall be subject to the prior approval of the Commission in view of necessity, reasonableness of cost of power purchase and promotion of working in an efficient, economical and equitable manner.

## **CHAPTER-5**

### **The Short-Term Power Procurement Plan**

#### *Overall Framework*

32. Utility/licensee shall at all times purchase power from the most economical source and shall undertake the competitive bidding process. For short-term purchases, the Commission shall outline a band of prices for various levels of projected demand so that licensee may undertake short-term purchases expeditiously without needing to consult the Commission every time. However, the Commission may at any time choose to oversee the process in order to ensure that commercial sense and financial prudence is observed at all time. It may also choose to verify the forecast demand and availability that the utility/licensee computes and assess the validity of the assumptions made by it.

#### *Assessment of Power Requirement*

33. The first step in the process shall be a detailed forecast of demand. Utility/licensee shall be responsible for making an assessment of demand for electricity (in MW) for the next one-year on a monthly basis. For each month, the demand in the morning peak period, evening peak period and off-peak period for unrestricted and restricted demand must be projected for all major categories of consumers. The purpose of this is to forecast the demand in summer, winter and other seasons and for any other special reasons (such as festivals, or sudden change in weather impacting demand) so that it is possible to pre-plan procurement.

34. This assessment shall be based on trends and statistical analysis. of historical data, future projections and forecasts of results of implementation of business plans and efficiency improvement programs, investment plans, maintenance schedules of the self generation plants, the central generating stations and other sources of power.

#### *Assessment of Power Availability*

35. Along with the demand forecast, utility/licensee shall consider availability of power for the morning peak, evening peak and off-peak periods for all months in the ensuing quarter

36. The supply forecast shall consider the following among other relevant information and inputs:

- a) Existing shared resources including state-owned, central owned and IPP owned generating plants.
- b) Generation with exclusive contracts with the supply licensees.
- c) Forecast for the plan period of energy and capacity availability from each of the existing sources of power
- d) New generation stations due for commissioning

#### *Assessment to Involve Consultation*

37. Utility/licensee shall also make the assessment of power availability on a monthly basis for peak period, off-peak period and normal period. Utility/licensee shall make this assessment in consultation with state sector generating companies, distribution licensees, central sector generating companies and transmission companies, Regional Electricity Board, National / Regional /State Load Dispatch Centers and the Central Electricity Authority. It shall also make enquiries with the trading companies and surplus states to estimate the likely availability and price of power across the country for peak, off-peak and normal periods

#### *Short- Term Power Procurement Plan*

38. On the basis of the above load forecast, utility/licensee shall prepare an Annual Power Procurement Plan for the forthcoming year and file the same before the Commission for obtaining approval of the Power Procurement Plan.

39. The Short - Term Power Procurement Plan shall consider the balance requirement of power and energy during the year, time when it is required, after accounting for existing arrangements, possibilities of short-term trades, load curtailments, proposed method of competitive solicitation, including the criteria for evaluation of alternative options.

40. The Short-Term Power Procurement Plan shall be a least cost plan (least financial cost to the utility/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.

41. Each annual plan submission shall cover the following for morning peak, evening peak and off-peak periods:

- a) Category-wise unrestricted demand forecast for the coming quarter morning peak, evening peak and off-peak periods.
- b) Category-wise restricted demand forecast for the coming quarter morning peak, evening peak and off-peak periods.
- c) Forecast for the plan period of energy and capacity availability from each of the existing sources of power.
- d) Plans for reducing the requirements in the forecast period through demand side management measures.
- e) Allowed power purchase costs as per the approved ARR of the ongoing year
- f) Impact of the above to the ARR filed and approved for the ongoing year in terms of deviations from target purchase and generation of units and on the financial implications of the same.
- g) Behavior of grid frequency for the previous quarter for the ongoing year, current quarter for the ongoing year and the ensuing quarter for the previous year to evaluate possibilities of over-drawing from the grid as a substitute for firm short or long term trade agreements.

42. After approval of the Short-term Power Procurement Plan, the utility /licensee shall refine and detail it on a month-before and week-before basis. The week-before plan must forecast demand on an hourly basis. These Plans must consider things such likely rainfall, forecast on change of weather, upcoming holiday or festival etc.

*Deadline for Submission of Short-Term Power Procurement Plan.*

43. Plan for forthcoming year shall be submitted to the Commission by the 31<sup>st</sup> October each year.

*Review by the Commission*

44. The Commission may, within two weeks of receipt of the Short-Term Power Procurement Plan call for such additional information and data as it may deem necessary for reviewing it and the utility/licensee shall furnish such information within two weeks from being asked to do so.

45. The Commission shall communicate its views on the Power Procurement Plan within two weeks from the date all necessary information requested has been furnished to the satisfaction of the Commission. The Commission shall specify a band for cost of power for the forthcoming year under consideration for morning peak, evening peak and off-peak periods.



46. Utility/licensee may, then, procure power within such specified limits from any source available as long as a transparent and prudent bidding or institutional mechanism is adopted and commercial considerations are honoured.

*Criteria for Power Purchases*

47. The criteria for power purchase will in general follow the principle of least cost commensurate with power system stability, system voltage, frequency profile and system losses. The criteria shall also provide for power purchases and load shedding during the under frequency periods.

**CHAPTER-6**

**Miscellaneous**

48 *Savings*.- Nothing in these Regulations shall be deemed to limit or otherwise affect the power of the Commission to make such orders as may be necessary to meet the ends of justice.

- (1) Nothing in these Regulations shall bar the Commission from adopting in conformity with provisions of the Act, a procedure that 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, deems it just or expedient for deciding such matter or class of matters.
- (2) Nothing in these Regulations shall, expressly or impliedly, bar 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, as it considers just and appropriate.

49. *Powers 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 give direction, not being inconsistent with the Act, which appears to the Commission to be necessary or expedient for the purpose of removing difficulties.

50. *Power to Amend*.- The Commission may, at any time add, vary, alter, modify or amend any provision of these Regulations.

By order of the Commission,

Sd/-  
(R.C. Sharma)  
Secretary