

KARNATAKA ELECTRICITY REGULATORY COMMISSION

No.9/2, 6th & 7th Floor, Mahalaxmi Chambers,
M.G.Road, Bangalore-560 001.

Present: Shri K.P.Pandey Chairman

Shri S.D.Ukkali Member

In the matter of: 'Harnessing surplus Captive Power Generation' in the State

ORDER

No.D/01/03/

Dated: 09.07. 2008

I. Preamble:

The Commission had issued an Order on 27.02.2007 on 'Harnessing captive power' in the State. The validity of this order was one year from the date of the Order, to be reviewed thereafter based on the feedback from all the stakeholders.

Accordingly, to review the earlier Order dated 27.02.2007, the Commission floated a discussion paper to elicit views/suggestions of the stakeholders in the matter of amending certain clauses of the Commission's earlier Order dated 27.02.2007. The issues placed before the stake holders were:

1. Applicability of the Order with respect to the Capacity of the plant.
2. Tariff for purchase of surplus captive power by the licensee.
3. Allowing wheeling & Banking
4. Fixing charges for unutilized portion of banked energy in case banking is to be allowed.
5. Charges to be levied for excess drawal by captive consumers.

The Commission held a public hearing on 15.05.2008 in the court hall of the Commission at Bangalore to elicit views of the stakeholders and interested persons. Many Stakeholders inclusive of representatives from KPTCL, ESCOMs and generators participated in the hearing.

The main objective of this order is to enable distribution licensee to procure surplus power available with captive power generators. After considering the oral and written suggestions/comments of various stakeholders the Commission has finalised this order on 'Harnessing surplus captive power generation' in the State as follows:

1. Applicability of the Order with respect to the Capacity of the plant.

This order is applicable to the Captive Power Plants agreeing to supply a capacity of **one MW and above** (other than wind and mini-hydel) to the distribution licensees duly complying with the terms indicated in this order. This order is not applicable to wind and mini-hydel captive power plants as these sources cannot be scheduled to supply firm power to meet the demands of distribution licensees.

2. Tariff for purchase of surplus captive power by the licensee.

In view of the different sizes, fuels & processes being used and considering a large number of small captive power plants of small capacity, it would be difficult to adopt a cost plus approach for fixing the tariff.

The Commission classifies power purchase from captive sources as under:

- i. Firm power:** Supply of 700 units or more per hour per MW is defined as 'Firm Power'. This is based on the normative load factor of 70%.
- ii. Infirm power:** Any supply, which is less than 700 units per hour per MW capacity, is defined as 'Infirm Power'.

Further, Supply of power for periods of more than THREE years would be termed as long-term supplies and all supplies for a period of less than three years are termed as short-term supplies for the purpose of this order.

The licensee shall procure power on long term contracts only through competitive bidding process. For power procurement through competitive bidding, the Commission specifies a ceiling rate of Rs. 4.33 per unit [based on average of the floor rate and ceiling rate of UI as discussed below]. This ceiling rate has been specified by the Commission as per Sec.60 of the EA 2003 in order to avoid market dominance.

In case of short term power purchase i.e., for a period of less than 3 years, the Commission decides to adopt a tariff based on UI mechanism to procure power from the Captive Power Plants as discussed hereunder:

The UI rates applicable as per the prevailing norms issued by CERC are as follows,

Average frequency in Hz for a time block		UI Rate (Paise per KWH)
Below	Not below	
***	50.50	0.00
50.50	50.48	8.00
50.48	50.46	16.00
....
....
49.84	49.82	272.00
49.82	49.80	280.00
49.80	49.78	298.00
49.78	49.76	316.00
49.76	49.74	334.00
49.74	49.72	352.00
49.72	49.70	370.00
49.70	49.68	388.00
49.68	49.66	406.00
49.66	49.64	424.00
49.64	49.62	442.00
49.62	49.60	460.00
49.60	49.58	478.00
49.58	49.56	496.00
49.56	49.54	514.00
49.54	49.52	532.00

49.52	49.50	550.00
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49.04	49.02	982.00
49.02	49.00	1000.00

UI Rates applicable for Firm and Infirm supplies from CGPs:

For Firm Power, the Commission fixes a floor rate of Rs. 3.16 per unit and a ceiling rate of Rs. 5.50 per unit (UI rates at intersecting frequency of 49.76 Hz and 49.50Hz respectively). Accordingly, supplies made during a prevailing system frequency of 49.76 Hz or higher are entitled for payment at a floor rate of Rs.3.16 per unit only. Similarly, all supplies made during a prevailing system frequency of below 49.50 Hz or lower would be entitled for payment at a ceiling rate of Rs.5.50 per unit only. All supplies in between the said frequency range of 49.76 Hz and 49.50Hz would be entitled for payment as per the existing UI rates. The above rates are applicable for firm purchases made for a period of less than three years.

For Infirm Power, the Commission fixes a floor rate of Rs. 2.84 per unit and a ceiling rate of Rs. 4.95 (90% of UI rates at intersecting frequency of 49.76 Hz and 49.50Hz respectively). Accordingly, supplies made during a prevailing system frequency of 49.76 Hz or higher are entitled for payment at a floor rate of Rs.2.84 per unit only. Similarly, all supplies made during a prevailing system frequency of 49.50 Hz or lower would be entitled for payment at a ceiling rate of Rs.4.95 per unit only. All supplies in between the said frequency range of 49.76 Hz and 49.50Hz would be entitled for payment of 90% of existing UI rates.

The UI Rates are as prescribed by CERC and are subject to revision by CERC. In case of revision, the revised rates shall be applicable.

3. Allowing wheeling & Banking:

The Commission observes that, since the licensee is the off-taker of power, the question of wheeling and banking does not arise. The licensee, basically procures power from captive sources to meet his increasing demands and hence the power procured will be consumed at the same point of time and there would not be any scope for wheeling and banking of energy.

4. Fixing charges for unutilized portion of banked energy in case banking is to be allowed and Charges to be levied for excess drawal by captive consumers:

The Commission decides that, since wheeling and banking is not applicable for sale of power to the distribution licensees, the question of fixing charges for unutilized portion of banked energy in case banking is to be allowed does not arise. Further, since this order is concerned only on power procurement by distribution licensees from captive generators, the issue of levying charges for excess drawal by captive consumers is not relevant.

OTHER RELATED ISSUES:

a) Power Purchase Agreement: The Captive power generator shall enter into an agreement with the distribution licensee for sale of power and the same shall be done through the PPA route only in respect of contracts for power supply of more than six months (as specified under clause 21.2 of the KERC (Licensing) Regulations, 2004(Form-3). The Distribution Licensees shall draft the PPA duly considering the various provisions made in this order and the same shall be got approved from the Commission. The distribution licensees shall also submit a standard format for approval of the Commission.

- b) Metering:** All Captive Power Plants desirous of selling power to Distribution Licensee shall install ABT compliant meters at interface points as per the prevailing CEA regulations as amended from time to time.
- c) Billing and Accounting:** The distribution licensee buying power from one or more CPPs shall settle payment within fifteen days after the completion of the billing cycle. The billing cycle shall be one month. The Distribution Licensee shall open a letter of credit for an amount equivalent to one month's power purchase bill towards the firm power and long-term contracts.
- d) Operational characteristics of the CPP:** The captive power plant shall be capable of being synchronised and operated in the system within nominal system parameters of voltage, frequency and power factor range specified by the licensee.
- e) Power to remove difficulties:** If any difficulty arises in giving effect to any of the provisions of this order, the Commission may, by general or special order, take such action which appears to it be necessary or expedient for the purpose of removing the difficulties not being inconsistent with the provisions of the Act.

This Order is effective from the date of its issue.

This order is signed and issued by Karnataka Electricity Regulatory Commission on this 9th day of July 2008.

Sd/-
K.P.Pandey
Chairman

Sd/-
S.D.Ukkali
Member