

KERALA STATE ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

No.1/1/KSERC-2006/

Dated, Thiruvananthapuram 6th August,2007

KSERC (Supply of Power from Captive Generating Plants to Distribution Licensees) Regulations, 2007.

STATEMENT OF OBJECTS AND REASONS

In exercise of powers conferred under section 181 read with section 86 (1) (a), 86 (1) (b) and 86 (1) (e) of the Electricity Act, 2003, and all other powers enabling in this behalf, the Kerala State Electricity Regulatory Commission hereby makes the following regulations, namely:

CHAPTER I

GENERAL

1. Short title and commencement.- (1) These regulations may be called the **Kerala State Electricity Regulatory Commission (Supply of Power from Captive Generating Plants to distribution licensees) Regulations, 2007.**

(2) These regulations shall come into force from the date of notification in Kerala Gazette and, unless reviewed earlier or extended by the Commission, shall remain in force for a period of 2 years.

(3) Words and expressions used in these regulations and not defined herein but defined in the Act shall have the meaning assigned to them under the Act.

2. Definitions.-

(a) "Act" means the Electricity Act, 2003 (36 of 2003);

(b) "Authority" means the Central Electricity Authority referred to in sub-section (1) of section 70 of the Act;

(c) "Banking" of power is the process under which a generating plant supplies power to the grid not with the intention of selling it to a third party, but with the intention of exercising its eligibility to draw back this power from the grid in future.

(c) "Captive Generating Plant" means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by

any cooperative society or association of persons for generating electricity primarily for use of members of such cooperative society or association;

(d) "Co-generation" means a process which simultaneously produces two or more forms of useful energy (including electricity);

(e) "Commission" means the Kerala State Electricity Regulatory Commission;

(f) "Dedicated Transmission Lines" means any electric supply-line for point to point transmission which are required for the purpose of connecting electric lines or electric plants of a captive generating plant referred to in section 9 of the Act or generating station referred to in section 10 of the Act to any transmission lines or sub-stations or generating stations or the load centre, as the case may be;

(g) "Distribution Licensee" means a Licensee authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;

(h) 'Generating Station' or 'Station' means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, switchyard, cables or other appurtenant equipment, if any, used for that purpose and the site thereof; a site intended to be used for a generating station, and any building used for housing the operating staff, of a "generating station", and where electricity is generated by water-power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-stations.

(i) "Generate" means to produce electricity from a generating station for the purpose of giving supply to any premises or enabling a supply to be so given;

(j) "Grid Code" means the Grid Code specified by the Kerala State Electricity Regulatory Commission under clause (h) of sub-section (1) of Section 86 of the Act;

(k) 'Grid' means the high voltage backbone system of interconnected transmission lines, sub-stations and generating plants;

(l) "Open Access" means the non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the Appropriate Commission;

(m) "Peak Hours/Off Peak Hours" means the hours declared as such by the State Load Dispatch Centre from time to time

(n) "Power Purchase Agreement (PPA)" means an agreement between a generating company and a distribution licensee for supply of power on the terms and conditions specified therein and with the provisions that the tariff for sale of power shall be as determined by the Commission from time to time.

(o) "Renewable Energy Source" means sources of energy like, wind, solar, small hydro, biogas, biomass/bagasee, agro-based fuels or any other source as defined by the Ministry of New and Renewable sources of Energy that can be used for power generation;

(p) "State Load Dispatch Centre" means the centre established in Kerala State under sub-section (1) of section 31 of the Act or STU till such time the State Load Despatch Centre is established;

(q) "State Transmission Utility" means the Board or the Government Company specified as such by the State Government under sub-section (1) of section 39 of the Act;

(r) "Sub station" means a station for transforming or converting electricity for the transmission or distribution thereof and includes transformers, converters, switchgears, capacitors, synchronous condensers, structures, cable and other appurtenant equipment and any buildings used for that purpose and the site thereof;

(s) "Wheeling" means the operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined by the Commission under section 62 of the Act.

3. Scope and extent of application.-

(1) These regulations shall apply to Captive Generating Plants in the state of Kerala.

(2) A power plant shall qualify as a 'captive generating plant' under section 9 read with section 2(8) of the Act only when:

a. In case of a power plant

i) at least twenty six percent of the ownership is held by the captive user(s), and

ii) at least fifty one percent of the aggregate electricity generated in such plant, determined on an annual basis, is consumed for the captive use:

Provided that in case of power plant set up by registered cooperative society, the conditions mentioned under paragraphs at (i) and (ii) above shall be satisfied collectively by the members of the co-operative society:

Provided further that in case of association of persons, the captive user(s) shall hold not less than twenty six percent of the ownership of the plant in aggregate and such captive user(s) shall consume not less than fifty one percent of the electricity generated, determined on an annual basis, in proportion to their shares in ownership of the power plant within a variation not exceeding ten percent;

- b. In case of a generating station owned by a company formed as special purpose vehicle for such generating station, a unit or units of such generating station identified for captive use and not the entire generating station satisfy (s) the conditions contained in paragraphs (i) and (ii) of sub clause (a) above:

Explanation .-

(1) The electricity required to be consumed by captive users shall be determined with reference to such generating unit or units in aggregate identified for captive use and not with reference to generating station as a whole; and the equity shares to be held by the captive user(s) in the generating station shall not be less than twenty six per cent proportionate to the equity of the company related to the generating unit or units identified as the captive generating plant.

(2) It shall be the obligation of the captive users to ensure that the consumption by the Captive Users at the percentages mentioned in sub-clauses (a) and (b) of sub-rule (1) above is maintained and in case the minimum percentage of captive use is not complied within any year, the entire electricity generated shall be treated as if it is a supply of electricity by a generating company.

Explanation : For the purpose of this regulation.-

"Annual Basis" shall be determined based on a financial year;

"Captive User" shall mean the end user of the electricity generated in a Captive Generating Plant and the term **"Captive Use"** shall be construed accordingly;

"Ownership" in relation to a generating station or power plant set up by a company or any other body corporate shall mean the equity share capital with voting rights. In other cases ownership shall mean proprietary interest and control over the generating station or power plant;

"Special Purpose Vehicle" shall mean a legal entity owning, operating and maintaining a generating station and with no other business or activity to be engaged in by the legal entity.

(3) Captive generating plants shall be deemed to be generating station and all obligations and duties assigned to such generating stations under the Act shall apply to such plants

4. Obligations of the Captive Generating Plant.-

(1) Any person may establish, operate and maintain Captive Generating Plant, sub-station, tie lines and dedicated transmission lines connected therewith in accordance with the regulations specified by the Authority regarding technical standards, safety requirements, operational standards and standards for metering.

(2) The supply of electricity from the captive generating plant through the grid shall be regulated in the same manner as the generating station of a generating company.

(3) The captive generating plants synchronized with the grid shall follow provisions under Kerala State Electricity Grid Code, 2005 (KSEGC, 2005), the directions and instructions of SLDC /STU for proper maintenance of grid discipline

(4) In case of dispute with reference to quality, safety, security and integrated operation of the grid or in relation to any direction issued by the State Load Dispatch Centre, the matter shall be referred to the Commission for adjudication.

(5) As and when Intra-State ABT system is introduced or such regulations are in force, the captive generating plants shall be regulated in such manner as provided under intra-state ABT.

(6) The Captive Generating Plant shall furnish details as required by the Commission for determination of tariff if such plant is supplying electricity to any distribution licensees in Kerala.

(7) The captive generating plants seeking open access to transmit electricity to the destination of use shall pay Transmission and wheeling charges including line losses as determined by the Commission. Such plants shall be regulated in the same manner as provided under Kerala State Electricity Regulatory Commission (Open Access) Regulations, 2005.

Provided that the captive generating plants generating infirm power from renewable energy sources shall pay Transmission and wheeling charges including losses at 5% of wheeled energy.

(8) *Reactive power.*- Captive Wind energy generators shall maintain their own capacitors and shall not draw reactive power as far as possible. Wind Energy Generating Stations drawing reactive power upto 10% of net active energy generated shall be charged 25 Ps/KVARh. For drawing reactive power more than 10% of net active energy generated 50 Ps/KVARh shall be charged for the total drawal, considering its negative impact on the grid.

(9) *Banking of Power.*- In case of captive generating plants with seasonal generation or infirm generation such as small hydel projects or wind, the distribution licensee may provide adequate facilities for banking of surplus power, provided such captive generating plants agree to pay banking charges.

Provided that such banking shall not be allowed if such plants sell energy to other persons.

Provided further that it shall not be the obligation of the distribution licensee to allow banking in cases where control over the fuel supply is possible or in cases where scheduling and dispatch is possible.

(10) Banking charges shall be 5% of the energy banked and banking period shall be of 8 months starting from 1st of June every year. Withdrawal of banked energy shall be done on slot to slot basis within monthly billing cycle as follows.

- (a) Peak hour generation with peak hour consumption
- (b) Off peak hour generation with off peak hour consumption
- (c) Normal hour generation with normal hour consumption.

Generation during higher tariff TOD slot may be consumed at lower tariff TOD slot at the option of generators/users, but the reverse shall not be allowed. The unutilized banked energy as on first of February shall be treated as sold to the licensee at 75% of the normal purchase rate. Excess drawal at any point of time will be charged under respective tariff applicable to the user. The peak hour extra charges and off-peak hour rebate shall be on net energy consumption after deducting captive generation during respective periods.

(11) Provided that in case of captive generating plants with infirm or seasonal generation, the distribution licensee shall provide relief in fixed/demand charges as determined by the Commission from time to time.

5. Sale of surplus Power.-

(1) Captive generating plants with surplus energy willing to sell to persons other than the owners shall be regulated in the same manner as a generating company for such sale of power

(2) Distribution licensee if required may purchase future requirements of power from a captive generating plant .

Provided that for such requirements of firm power for long term and medium term, the distribution licensee shall follow through competitive bidding as per the guidelines notified by the Central Government in accordance with section 63.

Provided further that for seasonal or infirm requirement of power, the distribution licensee or captive generating plant may approach the Commission for determination of tariff for such requirement of power till such time the CERC issue guidelines as per clause 6.4 (3) of Tariff Policy.

(3) The distribution licensee shall obtain the approval of PPA from the Commission before commencement of purchase under this clause. The agreement shall contain sufficient payment security mechanism as provided in these regulations.

(4) In case of co-generation plants the tariff for procurement by distribution Licensees shall be determined by the Commission on a case to case basis. For non-conventional plants the purchase of power by distribution licensee shall be regulated as per the provisions of the Regulations issued by the Commission.

6. Provision of backup supply.-

(1) Distribution Licensee may require emergency assistance following an extensive failure in the system subject to technical feasibility, in such cases, the captive generating plant may, if requested by the licensee, extend power supply from its generating station to the licensee's system. In such circumstances, the tariff for such supply shall be on mutually agreed terms and conditions.

(2) If any captive power plant require backup supply from the distribution licensee, the same shall be provided by the distribution Licensee on the charges determined by the Commission for such back up supply.

7. Evacuation of Power.-

(1) The captive generating plant seeking connection to distribution system or grid shall be through a 11 KV or higher voltage line terminating at the nearest EHT Substation as per the voltage and capacity given below:

- i) upto 4 MW on 11 KV,
- ii) upto 15 MW on 33 KV;
- iii) upto 25 MW on 66 KV
- iv) upto 40 MW 110KV
- v) above 40 MW 220 kV

Provided that in case of existing plants, the connectivity shall be the same as existing on the date of these regulations coming into effect:

Provided also that the voltage of supply can be enhanced subject to use of conductors of high current carrying capacity

Provided also that in case of plants where the scheme for connectivity has already been approved and the same are commissioned after the date of these regulations coming into effect, the connectivity as per the approved scheme shall be allowed:

Provided further that in case of generation from renewable energy sources other than cogeneration the Commission may allow evacuation of power at 11 KV / 33KV with required number of circuits.

(2) The cost of laying the transmission line to the sub-station, the required bay, terminal equipments and associated synchronization equipment, shall be borne by the captive generating plant and such work shall be undertaken under the supervision of the Licensee of the area in which the plant is located.

Provided also that the construction of the power evacuation system for transmission at 66 KV or higher voltage shall be carried out under the approval and supervision of the State Transmission Utility.

(3) In case the generating company opts to get the dedicated transmission line constructed by persons other than STU/distribution licensee, the supervision charges shall be payable to distribution licensee or STU as the case may be.

8. Maintenance of Transmission lines and Equipment.- The captive generating plant shall be responsible for the maintenance of terminal equipment at the generating end and the dedicated transmission lines. However, distribution licensees or STU, as the case may be, shall carry out the maintenance of the dedicated transmission line if so desired by the generating company on mutually agreed charges.

9. Metering Arrangement.- The captive Generating Plants shall provide ABT compatible Special Energy Meters as per CEA specification at the point of injection and point of drawal and shall comply with all metering requirements as notified by the State Transmission Utility.

Provided that the point of injection for the purpose of recording and billing purposes shall be the substation of the licensee and point of drawal shall be the consumer premises.

Provided also that metering at generator terminal shall be provided as per the guidelines issued by the Authority.

10. Energy Accounting and Billing.- The State Load Dispatch Centre shall arrange energy accounting and billing and the same shall be communicated to the utilities interacting with the grid .

Provided that in case of sale to the distribution licensee of the area, the power purchase agreement may provide for joint metering and in such cases, energy accounting and billing shall be done by the generating plant in association with the concerned distribution licensee.

11. Power to Remove Difficulties.- If any difficulty arises in giving effect to these regulations, the Commission may, on its own motion or otherwise, by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, as may appear to be necessary for removing the difficulty.

12. Power to Relax.- The Commission, for reasons to be recorded in writing, may vary any of the provisions of these regulations on its own motion or on an application made before it by any interested party.

Sd/-
MEMBER(F)

Sd/-
MEMBER(E)

Sd/-
CHAIRMAN

By Order of the Commission

Secretary (in charge)