

**JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION,  
RANCHI**

**(BALANCING & SETTLEMENT CODE)**

**REGULATIONS, 2009**

Draft Regulation inviting suggestions / comments  
Regulation No. \_\_\_\_\_, dated \_\_\_\_ - 10 -2009

In exercise of the powers conferred by Section 181 read with Sections 42 (2), 66 and 94 (2) of the Electricity Act 2003 (36 of 2003) and all other powers enabling it in that behalf, the Jharkhand State Electricity Regulatory Commission hereby makes the following Regulations, namely: -

**A1: SHORT TITLE, COMMENCEMENT AND INTERPRETATION**

- 1.1 These Regulations shall be called the “Jharkhand State Electricity Regulatory Commission (Balancing & Settlement Code) Regulations, 2009”.
- 1.2 These Regulations shall extend to the whole state of Jharkhand.
- 1.3 These Regulations shall come into force on the date of its publication in the Jharkhand Gazette

**A2: DEFINITION**

- 2.1 In these Regulations, unless the context otherwise requires:
  - (a) “Act” means the Electricity Act, 2003 and subsequent amendments thereof;
  - (b) “Balancing & Settlement Code (BSC)” stands for the code specified by the Commission for the balancing of energy / demand accounts and settlement of differences between schedule and actual energy / demand among the state constituents in the state of Jharkhand;
  - (c) “Billing month” means the period between any two successive meter-reading dates, as provided in the Open Access Agreement;
  - (d) “Captive power plant (CPP)” or “Captive Generating Plant (CGP)” shall have the meaning assigned to the term under Clause 2.3 of the Jharkhand State Electricity Regulatory Commission (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2009’.

- (e) “JSERC or Commission” shall mean the Jharkhand State Electricity Regulatory Commission;
- (f) “CERC” means the Central Electricity Regulatory Commission referred to in subsection (1) of section 76;
- (g) “Day” means a continuous period starting at 00.00 hours and ending at 24.00 hours;
- (h) “Distribution Licensee or Discom” means a Licensee authorised to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;
- (i) “Extra High Voltage (EHV)” means the voltage, which exceeds 33,000 volts subject, however, to the percentage variation allowed under the Indian Electricity Rules, 1956;
- (j) “Grid” means interconnected network of transmission lines, distribution lines and sub-stations at EHV and HV level;
- (k) “Grid Code” means the JSERC (State Grid Code), Regulations, 2008 & its amendment from time to time and includes the Indian Electricity Grid Code.
- (l) “High Voltage (HV)” means the voltage higher than 650 volts but which does not exceed 33,000 volts 50 cycles under normal conditions subject, however, to the percentage variation allowed under the Indian Electricity Rules, 1956;
- (m) “Point of Drawal” or “Drawal point” means a connection at which electricity is transferred from the electricity transmission network or the electricity distribution network (as the case requires);
- (n) “Point of injection” or “Injection point” means a connection at which electricity is transferred to the electricity transmission network or the electricity distribution network;
- (o) “Month” means a continuous period of one month commencing from 00.00 hours on the first day of the month and ending at 24.00 hours on last day of the month;
- (p) “Open Access Agreement” means an agreement entered into between the Transmission and / or Distribution Licensees and the persons availing Open Access facility;

- (q) “Open Access Consumer (OAC)” means a means a person permitted under the JSERC (Open Access in Intra-State Transmission and Distribution) Regulations, 2005 and subsequent amendments thereof, to receive supply of electricity from another person other than the Distribution Licensee of his area of supply and includes a consumer availing wheeling facility for carrying the electricity from his captive generating plant (Type C consumer under JSERC (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2009’) to the destination of his own use and having a supply agreement with the Distribution Licensee of the area in which the consumer’s premises is located;
- (r) “Open Access Regulation” means the JSERC (Open Access in Intra-State Transmission and Distribution) Regulations, 2005 and subsequent amendments thereof;
- (s) “Open Access Generator (OAG)” means a generating company (including CPP) permitted under the “JSERC (Open Access in Intra-State Transmission and Distribution) Regulations, 2005” and subsequent amendments thereof, to supply electricity to open access consumer who has availed of or intends to avail of an open access;
- (t) “Outage Period” shall mean the duration (from date/time to date/time) as indicated by the Open Access Generator or as verified by the concerned Transmission/Distribution Licensee, during which the Open Access Generator was fully/partially not operating due to planned or forced outage;
- (u) “Schedule” denote the injection schedule in MW (in case of generator) or drawal schedule in MW (in case of consumer) provided by generator/consumer to the SLDC (in case of connected to transmission network) or to the Distribution Licensee (in case of connected to distribution network) in a manner as specified in this code;
- (v) “SLDC” means the State Load Despatch Centre (established under subsection (1) of section 31 of the Act) to ensure integrated operations of the power system and co-ordinating supply-demand in the state in real-time;
- (w) “Stand-by support” means contractual arrangement between Open Access Consumer and Distribution Licensee of its area of supply to provide stand-by power to the OAC in case of outages of OAC’s captive generator(s). The nature of outage can be ‘partial’ (outage of one or more units but not all in a generating station) or ‘full’ (outage of all units in a generating station);

- (x) “Stand-by Demand” is the extent of demand (in MW) that the Open Access Consumer has contracted under Stand-by Support;
  - (y) “State” means the State of Jharkhand;
  - (z) “State Transmission Utility (STU)” means the Board or the Government Company specified as such by the State Government under sub-section (1) of section 39 of the Act;
  - (aa) “Tariff Schedule” means the retail supply tariff to be levied on retail consumers in the State as determined by the JSERC through its Tariff Order from time to time;
  - (bb) “Time Block” means time block of 15-minute each for which special energy meters record specified electrical parameters and quantities with first time block starting and 00.00 hours;
  - (cc) “UI Rate” or “Unscheduled Interchange Rate” for a time block is the rate corresponding to the frequency prescribed by CERC and the Commission;
  - (dd) “VAR” shall mean the reactive power.
- 2.2 All other expressions used herein although not specifically defined herein, but defined in the Act, shall have the meaning assigned to them in the Act. The other expressions used herein but not specifically defined in this Code, JSERC (Open Access in Intra-State Transmission and Distribution) Regulations 2005, JSERC (State Grid Code) Regulations 2008 or in the Electricity Act 2003 but defined under any law passed by the parliament applicable to electricity industry in the State or stated in the tariff order shall have the meaning assigned to them in such law. Subject to the above the expression used herein but not specifically defined in this Code or the regulation in the Act or any law passed by the parliament shall have the meaning as is generally assigned in the electricity industry.

### **A3: SCOPE OF REGULATION AND EXTENT OF APPLICATION**

- 3.1 The Balancing & Settlement Code set out in these Regulations shall apply to Open Access Generators and Open Access Consumers.

#### **A4: SCHEDULING AND DESPATCH**

- 4.1 Open Access Generator and Open Access Consumer shall submit the power injection and drawal schedule to SLDC/STU/Distribution Licensee for a specified injection point for each 15 minute time block for a day on a day ahead basis by 10:00 hrs every day.
- 4.2 Uncontrollable sources (all renewable sources except Biomass based plants having installed capacity of 10 MW and above) would not be required to give day-ahead schedules. For such OAG, actual generation in each 15-minute time block recorded by ABT meter will be treated as schedule, which shall be used for the settlement of its concerned OACs. For such OAG, UI shall also be zero.
- 4.3 Revisions of the injection/drawal schedule shall not be permissible during the course of the day. Only in case of emergency situations, OAG/OAC can revise its injection/ drawal schedule which will become effective from the commencement of the 8th Time Block, with the first Time Block being the one in which the revision is advised by the OAC.

#### **A5: MONITORING**

- 5.1 SLDC shall monitor the system at Sub-station level for OAC and OAG and is authorized to direct the OAC and OAG to act in interest of system stability as per the Grid Code. The monitoring by SLDC shall be carried out on a real time basis during the period of open access.
- 5.2 All OAC above 1 MW shall provide and maintain proper infrastructure for monitoring in accordance with the Grid Code.
- 5.3 In case of OAC having its injection point and drawal point of open access within the area of supply of the same Distribution Licensee and connected to the network of such Distribution Licensee, then a separate open access agreement shall be required between :
  - (a) The Distribution Licensee and the OAC on one hand ; and
  - (b) The supplier of electricity at injection point and the OAC and / or Distribution Licensee on the other hand.
- 5.4 OAC and OAG shall be subjected to operational control under concerned area load despatch centre

## **A6: METER READING, ENERGY ACCOUNTING AND SETTLEMENT**

- 6.1 The monthly meter readings shall be taken by the respective Distribution Licensee at all the entry points at 33 kV & below and at all the exit point(s) of the OAG located in the Distribution Licensee's area.
- 6.2 However, where the entry point is connected to the Transmission system and the OAC has a supply agreement with the Distribution Licensee, such monthly readings shall be taken by the Distribution Licensee in co-ordination with STU. In case the OAC does not have a supply agreement with the Distribution Licensee and has an entry point at the Transmission systems, the monthly readings shall be taken by the STU.
- 6.3 SLDC shall undertake accounting of energy for each time block on monthly basis with the assistance of the Energy Billing Centre of the STU in respect of the OAG and the OAC who are connected to the transmission system. In respect of the OAG and the OAC who are directly connected to the distribution system, the Energy Billing Centre of the Distribution Licensee shall be responsible for energy accounting and settlement.
- 6.4 The responsibility of finalizing energy accounts and their settlement shall be with the SLDC, which will prepare settlement bill on a monthly basis as per the defined settlement mechanism and pass on the same to the concerned Distribution Licensee to serve on OAG and OAC.

## **A7: ACCOUNTING AND SETTLEMENT FOR OAC**

- 7.1 The accounting and settlement mechanism to be followed for the balancing and settlement mechanism for OAC shall be as under:

### **Demand charges**

- 7.2 The demand charges applicable shall be computed for each month and the settlement of such charges would be carried out on a monthly basis.
- 7.3 The Contract Demand charges to be paid to the concerned Distribution Licensee by the OAC for the contract demand maintained by OAC shall be according to the Tariff Schedule for the consumer category.
- 7.4 Stand-by Demand charges (if stand-by support has been contracted) shall be paid to concerned Distribution Licensee (with whom OAC has contracted the stand-by support), as under:
  - (a) Fixed charges (irrespective of usage of stand-by support):  
Rs. 20/kVA/month (or as per the order of the Commission as specified from time to time) for Stand-by Demand contracted.

- (b) Usage charges: Pro-rated HT Industrial consumer Contract Demand tariff at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) for Stand-by Demand contracted. The pro-rata shall be done on the basis of the usage.

### **Energy charges**

- 7.5 The energy charges shall be computed for each time block and the settlement of the charges would be carried out on a monthly basis.
- 7.6 Scheduled energy charges payable to the concerned Distribution Licensee by the OAC shall be according to the Tariff Schedule for the consumer category.
- 7.7 Scheduled Stand-by Energy Charges (if stand-by support is contracted) are to be paid to the concerned Distribution Licensee (with whom OAC has contracted the stand-by support) for additional energy scheduled during the outage period as per the following conditions:
  - (i).If conditions applicable for stand-by support as per Clause 9.6 of these regulations are met : 1.5 times of the HT Industrial consumer Energy charges at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) for energy equivalent to Stand-by Demand.
  - (ii).If conditions applicable for stand-by support as per Clause 9.6 of these regulations are not met: Nil (as entire stand-by energy will be treated as imbalance energy and will be charged at imbalance energy tariff)

### **Imbalance energy charges**

- 7.8 Imbalance energy charges are payable to/receivable from the concerned Distribution Licensee (of its area of supply) for energy deviations from the schedule, as per the following:
  - (a) If at Point of Drawal for a time block- OAC's actual consumption > OAC's scheduled consumption:  $1.05 \times (\text{UI Rate corresponding to Avg. frequency in time block}) \times (1/4) \times (\text{Actual consumption} - \text{Scheduled consumption}) \times 1000$ .  
*(OAC will pay to concerned Distribution Licensee)*
  - (b) If at Point of Drawal for a time block- Open Access Consumer's actual consumption < Open Access Consumer's scheduled consumption:  $0.95 \times (\text{UI Rate corresponding to Avg. frequency in time block}) \times (1/4) \times (\text{Actual consumption} - \text{Scheduled consumption}) \times 1000$ .  
*(OAC will receive from concerned Distribution Licensee)*

- 7.9 Imbalance energy charges are to be determined at the respective interface point of the OAC (with STU/Distribution Licensee) and shall not be linked to relationship between OAC and OAG in terms of scheduled transaction described as under:
- (a) For a given time block, over-drawal (actual drawal > scheduled drawal) by OAC shall not be compensated by over-generation (actual generation > scheduled generation) by its associated OAGs; or
  - (b) For a given time block, under generation (actual generation < scheduled generation) by OAG shall not be compensated by under consumption (actual consumption < scheduled consumption) by its associated OACs.
- 7.10 In both the above cases, both the parties (i.e. OAGs and OACs) involved in a given open access transaction shall settle their respective energy imbalances at their respective interface with the Distribution Licensee.
- 7.11 In case the total actual drawal by OAC goes below 99% of the scheduled drawal for the day, and if the less energy drawal is considered as gaming by SLDC then UI energy shall be reduced by that portion of less drawal below the said 99%. The ratio of reduced UI energy to the total UI energy shall be used to derive the quantum for disallowance of UI energy in each Time Block.
- 7.12 In addition if in any 15 minutes time block the drawal is less than 95% of the scheduled drawal and that less energy drawal is considered as gaming by SLDC, then the UI energy shall be reduced by that portion of less drawal below the said 95% for the Time Block. The reduced energy shall be adjusted in UI account of the injecting entity (ies) in the ratio of scheduled injection of the concerned injecting entity (ies).

## **A8: ACCOUNTING AND SETTLEMENT FOR OAG**

- 8.1 The accounting and settlement mechanism to be followed for the balancing and settlement for OAG shall be as under:

### **Demand charges**

- 8.2 The scheduled demand charges applicable shall be computed for each month and the settlement of such charges would be carried out on a monthly basis.
- 8.3 Scheduled demand charges receivable from the concerned OAC for the scheduled generation shall be payable as per the agreement between the OAG and the OAC.

### **Energy charges**

- 8.4 The energy charges shall be computed for each time block and the settlement of the charges would be carried out on a monthly basis.

- 8.5 Scheduled energy charges to be received from the concerned OAC for energy scheduled by the OAG shall be paid as per the agreement between the OAG and the OAC.

### **Imbalance energy charges**

- 8.6 Imbalance energy charges shall be paid to/received from the concerned Distribution Licensee (where OAG is physically located) for energy deviations from the schedule as follows:

- (a) If at Point of Injection for a time block : Open Access Generator's actual injection > Open Access Generator's scheduled injection :  $0.95 \times (\text{UI Rate corresponding to Avg. frequency in time block}) \times (1/4) \times (\text{Actual injection} - \text{Scheduled injection}) \times 1000$

*(OAG will receive from concerned Distribution Licensee)*

- (b) If at Point of Injection for a time block : Open Access Generator's actual injection < Open Access Generator's scheduled injection:  $1.05 \times (\text{UI Rate corresponding to Avg. frequency in time block}) \times (1/4) \times (\text{Scheduled injection} - \text{Actual injection}) \times 1000$

*(OAG will pay to concerned Distribution Licensee)*

- 8.7 UI charges shall not be applicable to uncontrollable sources (all Renewable sources except Biomass/ Bagasse based plants having installed capacity of 10 MW and above) and scheduled generation shall be equal to actual generation for entire period.

### **A9: STAND-BY SUPPORT**

- 9.1 The Stand-by support shall not be allowed for any OAC who is a third party consumer of a CPP, or is holding a supply contract with any other generator (not being captive) other than having a Contract Demand with the Distribution Licensee of such area of supply. For all other OAC, the Distribution Licensee shall be obliged to provide facility of Stand-by support.

- 9.2 For the purpose of Stand-by support, OAC and the Distribution Licensee shall have to enter into an agreement for such support and the agreement shall be submitted for approval to the Commission.

- 9.3 The Stand-by Demand under Stand-by support shall not exceed OAC's Contract Demand with the Distribution Licensee.

- 9.4 If OAC has not contracted Stand-by support and corresponding OAG is unable to generate at a given time, the SLDC can instruct OAC to limit its drawal from the Grid within the Contract Demand with the Distribution Licensee of its area of supply. In case no demand has been contracted from Distribution Licensee, SLDC can instruct OAC to curtail or to stop the drawal from the Grid.
- 9.5 For contracting Stand-by support, OAG shall pay to the Distribution Licensee of his area of supply a fixed charge and energy charge as mentioned in Section A7: of these regulations. The fixed charge shall be applicable uniformly for every month, irrespective of whether the OAG consumes stand-by power or not.
- 9.6 Following conditions shall be fulfilled by the OAG/OAC to avail Stand-by support. If any of the following conditions is not fulfilled, OAG/OAC will not be able to avail Stand-by support:
- (a) The total duration of all Outage Periods with respect to any OAC shall not be more than 1008 hours (42 days) during any financial year.
  - (b) OAC intimates details of outages (generating unit number, nature of outage, reason of outage, date and time of outage, date and time of restoration etc.) to Distribution Licensee of his area of supply and SLDC as per following:
    - (i) seven (7) days in advance, in case of planned (partial or full) outage of generator(s);
    - (ii) within one (1) hour of outage, in case of forced (partial or full) outage of generator(s);
    - (iii) within one (1) hour of restoration, in case of planned/forced (partial or full) outage of generator(s);
  - (c) OAC has to demonstrate that the corresponding OAG was unable to generate for the time period in consideration for availing the stand-by support.
- 9.7 In cases where the Stand-by support exceeds 1008 hours (42 days) in a financial year, the OAC shall have to revise the Contract Demand for Stand-by support with the Distribution Licensee or revise the open access contracted capacity.

## **A10: REACTIVE ENERGY CHARGES**

- 10.1 The OAC and OAG are expected to provide VAR compensation in such a way that there is no drawal/injection of reactive power from the transmission/distribution network.
- 10.2 The OAC and OAG will have to pay/receive reactive energy charge as per the clause 21 of the Open Access Regulations

## **A11: LOSS LEVELS**

- 11.1 The loss levels applicable for the open access settlement within the state shall be as per clause 31(iii) of the Open Access Regulations.

## **A12: SETTLEMENT DURING OUTAGE OF STU/DISTRIBUTION LICENSEE'S NETWORK**

### **Planned outage**

- 12.1 If OAG is unable to evacuate power on account of planned outage (scheduled maintenance, planned load shedding etc.) by STU/Distribution Licensee, actual injection of generating station shall be considered to have been revised to be equal to their scheduled generation for all the Time Blocks during such outage.
- 12.2 If OAC is unable to consume power on account of planned outage (scheduled maintenance or planned load shedding) by STU/Distribution Licensee, the OAC shall be compensated by Distribution Licensee through UI payment as per the Clause 7.8(b) of these regulations.

Provided that the OAC shall not be compensated in case the planned outage in the STU/Distribution System is due to the outage in the interface between the GRID and the Generating stations.

### **Unplanned outage**

- 12.3 If OAG is unable to evacuate power for more than 30 minutes/day on account of unplanned outage (unscheduled maintenance, fault etc.) in the system of STU/Distribution Licensee, actual injection of generating station has to be considered to have been revised to be equal to their scheduled generation for all the time blocks during such outage.
- 12.4 If OAC is unable to consume power on account of unplanned outage (unscheduled maintenance, fault etc.) in the system of STU/Distribution Licensee, OAC has to be compensated by Distribution Licensee through UI payment as per the Clause 7.8(b) of these regulations.

## **A13: OTHER REQUIREMENTS**

### **Metering**

- 13.1 Each OAG and OAC shall have to provide metering as specified under Clause 40 of the Open Access Regulations.

### **Communication**

- 13.2 For communication and real time monitoring each OAG and OAC connected at 132kV or above shall establish and operationalise broadband communication link such as VSAT, leased line with SLDC for real time data, voice and fax communication.
- 13.3 All other OAG and OAC connected below 132kV shall establish and operationalise at least one telephone line including fax facility with SLDC for on-demand data, voice and fax communications
- 13.4 Such communication facility as mentioned in Clause 13.2 and 13.3 of these regulations should be established to the satisfaction of Discom/SLDC before the commencement of open access transaction. OAC shall bear the cost of such arrangements.
- 13.5 Each OAC and OAG shall also provide at least one alternate communication facility (e.g. alternate phone line, mobile phone, internet / e-mail) to ensure back-up communication link with Distribution Licensee/SLDC in case primary communication link fails.

## **A14: LEVY OF SURCHARGE AND ADDITIONAL SURCHARGE**

- 14.1 Each OAC, in addition to the tariff and other charges mentioned, shall also be required to pay, wherever applicable, the surcharge in accordance with the provisions of the Clause 18 & 19 of the Open Access Regulations as also the applicable additional surcharge, if any, under Section 42 (4) of the Act.

## **A15: DISPUTE RESOLUTION**

- 15.1 All disputes and complaints shall be referred to the SLDC for resolution, which shall not decide a matter without first affording an opportunity to the concerned parties to represent their respective points of view. The decisions of the SLDC shall be binding on all parties.

Provided if the dispute is not resolved by SLDC or SLDC is also party to the dispute, then the dispute shall be referred to the Commission which shall decide the dispute after affording an opportunity to the concerned parties to represent their respective points of view.

## **A16: POWER TO REMOVE DIFFICULTIES**

- 16.1 In case of any difficulty in giving effect to any of the provisions of this Regulation, the Commission may by general or special order, issue appropriate directions to Open Access Generators, Open Access Consumers, Transmission Licensee(s), Distribution Licensee(s) etc., to take suitable action, not being inconsistent with the provisions of the Act, which appear to the Commission to be necessary or expedient for the purpose of removing the difficulty.
- 16.2 The Open Access Consumers, generators, Licensees and SLDC may make an application to the Commission and seek suitable orders to remove any difficulties that may arise in implementation of these regulations.

## **A17: POWER TO AMEND**

- 17.1 The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations after following the necessary procedures.

## **A18: SAVINGS**

- 18.1 Nothing in this Code shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuses of the process of the Commission.
- 18.2 Nothing in this Code shall bar the Commission from adopting in conformity with the provisions of the Act a procedure, which is at variance with any of the provisions of this Code, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.

- 18.3 Nothing in this Code shall, expressly or impliedly, bar the Commission dealing with any matter or exercising any power under the Act for which no Regulations or Code have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.

**(By order of the Commission)**  
**(A.K. Mehta)**

**Secretary**

**Jharkhand State Electricity Regulatory Commission**