

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**No.L-1(1)/2009-CERC**

**New Delhi, the 30<sup>th</sup> March 2009**

**NOTIFICATION**

In exercise of the powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

**1. Short title and commencement**

- (1) These regulations may be called the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) Regulations, 2009.
- (2) These regulations shall come into force on 1.4.2009.

**2. Definitions and Interpretation**

- (1) In these regulations, unless the context otherwise requires,-
  - (a) '**Act**' means the Electricity Act, 2003 (36 of 2003);
  - (b) '**actual drawal**' in a time-block means electricity drawn by a beneficiary or a buyer, as the case may be, measured by the interface meters;
  - (c) '**actual injection**' in a time-block means electricity generated or supplied by the generating station or seller, as the case may be, measured by the interface meters.

- (d) '**beneficiary**' means the person purchasing electricity generated from the generating station;
- (e) '**buyer**' means a person, other than the beneficiary, buying electricity through a transaction scheduled in accordance with the regulations of the Commission applicable for open access, medium term access and long term access;
- (f) '**generating station**' means a generating station whose tariff is determined by the Commission under clause (a) of sub-section (1) of Section 62 of the Act;
- (g) '**Grid Code**' means the Grid Code specified by the Commission under clause (h) of sub-section (1) of Section 79 of the Act
- (h) '**Commission**' means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- (i) '**interface meters**' means interface meters as defined by the Central Electricity Authority under the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time;
- (j) '**Load Despatch Centre**' means National Load Despatch Centre, Regional Load Despatch Centre or State Load Despatch Centre, as the case may be, responsible for coordinating scheduling of the generating station in accordance with the provisions of Grid Code;
- (k) '**scheduled generation**' at any time or for any period or time block means schedule of generation in MW or MWh ex-bus given by the concerned Load Despatch Centre;
- (l) '**scheduled drawal**' at any time or for any period or time block means schedule of despatch in MW or MWh ex-bus given by the concerned Load Despatch Centre;

- (m) **'seller'** means a person, other than a generating station supplying electricity through a transaction scheduled in accordance with the regulations specified by the Commission for open access, medium term access and long term access;
- (n) **'time-block'** means block of 15 minutes, for which specified electrical parameters and quantities are recorded by special energy meter, with first time block starting at 00.00 Hrs;
- (o) **'Unscheduled Interchange'** in a time-block for a generating station or a seller means its total actual generation minus its total scheduled generation and for a beneficiary or buyer means its total actual drawal minus its total scheduled drawal.

(2) Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in these regulations and not defined, but defined in the Act, or the Grid Code or the Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulations, 2009 shall have the meanings assigned to them respectively in the Act or the Grid Code or the Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulations, 2009.

### **3. Objective**

The objective of these regulations is to maintain grid discipline as envisaged under the Grid Code through the commercial mechanism of Unscheduled Interchange Charges by controlling the users of the grid in scheduling, dispatch and drawal of electricity.

#### 4. Scope

These regulations shall be applicable to –

- (i) the generating stations and the beneficiaries, and
- (ii) sellers and buyers involved in the transaction facilitated through open access or medium term access or long-term access in inter-State transmission of electricity.

#### 5. Unscheduled Interchange (UI) Charges:

The charges for Unscheduled Interchange for all the time-blocks when grid frequency is between 50.3 Hz and 49.2 Hz shall be payable for over-drawal by the buyer or the beneficiary and under-injection by the generating station or the seller and receivable for under-drawal by the buyer or the beneficiary and over-injection by the generating station or the seller and shall be worked out on the average frequency of the time-block at the rates given hereunder:-

Average frequency of time block (Hz)		UI Rate
Below	Not below	(Paise per kWh)
----	50.30	0
50.30	50.28	12
50.28	50.26	24
-----	-----	-----
-----	-----	-----
50.04	50.02	168
50.02	50.00	180
50.00	49.98	192
-----	-----	-----
-----	-----	-----
49.52	49.50	480
49.50	49.48	497
49.48	49.46	514
-----	-----	-----
-----	-----	-----
49.24	49.22	718
49.22	49.20	735

(Each 0.02 Hz step is equivalent to 12.0 paise/kWh in the 50.3-49.5 Hz frequency range and to 17.0 paise/kWh in the 49.5-49.2 Hz frequency range)

Provided that Unscheduled Interchange rate shall be capped at 408 paise per kWh (“hereinafter UI Cap Rate”) for all generating stations using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel, in case when actual generation is higher or lower than the scheduled generation in the frequency range between 50.3 Hz and upto 49.2 Hz

**Note:** The Unscheduled Interchange charges including UI Cap rate shall be reviewed by the Commission on six-monthly basis or earlier, and revised, if necessary, through separate orders from time to time.

## **6. Declaration, scheduling and elimination of gaming**

(1) The provisions of the Grid Code and the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations 2008, as amended from time to time, shall be applicable for declaration of capacity, scheduling and elimination of gaming.

(2) The generating station, as far as possible, shall generate electricity as per the day-ahead generation schedule finalised by the Regional Load Despatch Centre in accordance with Grid Code.

Provided that the revision in generation schedule on the day of operation shall be permitted in accordance with the procedure specified under the Grid Code.

(3) Any generation from the generating stations other than hydro generating stations up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be considered as gaming, and the generating station shall be entitled to UI charges for such excess generation above the scheduled generation.

(4) For any generation from the generating stations other than hydro generating stations beyond the specified limits, the Regional Load Despatch Centre shall investigate so as to ensure that there is no gaming. Generating stations shall be entitled to recover the Unscheduled Interchange charges only if the investigation establishes that there is no gaming. If gaming is found by the Regional Load Despatch Centre, the corresponding Unscheduled Interchange charges payable to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI pool account of the beneficiaries in the ratio of their capacity share in the generating station.

(5) The hydro generating stations are expected to respond to grid frequency changes and inflow fluctuations. The hydro generating stations shall be free to deviate from the given schedule, without indulging in gaming and causing grid constraint, and a compensation for difference between the actual net energy supply by a hydro generating station and the scheduled energy (ex-bus) over a day shall be made by the concerned Regional Load Despatch Centre in the day-ahead schedule for the 4<sup>th</sup> day (day plus 3). If the gaming is found by the Regional Load Despatch Centre, the corresponding Unscheduled Interchange charges payable to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI pool account of the beneficiaries in the ratio of their capacity share in the generating station.

## **7. Limits on UI volume and consequences of crossing limits**

- (1) The over-drawal of electricity from the schedule by any beneficiary or a buyer during a time-block shall not exceed 12% of its scheduled drawal or 150 MW (whichever is lower) when frequency is below 49.5 Hz, and 3% on a daily aggregate basis.
- (2) The under-injection of electricity from the schedule by a generating station or by a seller during a time-block shall not exceed 12% of the scheduled injection of such generating station or seller when frequency is below 49.5 Hz, and 3% on daily aggregate basis.
- (3) In addition to UI Rate corresponding to frequency of 49.2 Hz, as stipulated under regulation 5, an Additional Unscheduled Interchange Charge at the rate equivalent to 40% of the UI Rate corresponding to frequency of 49.2 Hz shall be applicable for over-drawal or under-injection of electricity for each time-block when grid frequency is below 49.2 Hz.

Provided that for under-injection of electricity during the time-block when grid frequency is below 49.2 Hz for the generating stations using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel, Additional Unscheduled Interchange Charge shall be equivalent to 40% of the UI Cap Rate.

**Note:** The Additional Unscheduled Interchange Charge shall be reviewed by the Commission on six-monthly basis or earlier, and revised, if necessary through separate orders.

- (4) Payment of Unscheduled Interchange Charges under regulation 5 and the Additional Unscheduled Interchange Charge under Regulation 7(3) above, shall be without prejudice to any action that may be considered appropriate under section 142 and section 149 of the Act for contravention of the over-drawal and under-generation limit specified in these regulations, for a time block when frequency is below 49.5 Hz.
- (5) The Commission may from time to time, if considered necessary, prescribe the Additional Unscheduled Interchange Charge for over-drawal or under-injection of electricity during the time-block when grid frequency is below 49.5 Hz and up to 49.2 Hz.
- (6) Any over-drawal and under-injection of electricity shall be computed in accordance with the methodology used for preparation of 'Regional Energy Accounts'.

Provided that the Regional Load Despatch Centre shall prepare and publish on its website the records, on monthly basis, of the UI Accounts, specifying the quantum of over-drawal/under-generation and corresponding amount of UI paid/received for each beneficiary or buyer and generating station or seller for the time-blocks when grid frequency was below 49.2 Hz and between 49.5-49.2 Hz separately.



## **8. Compliance with instructions of Load Despatch Centre**

Notwithstanding anything specified in Regulations 6 and 7, the generating station, the seller, the beneficiary and the buyer shall follow the instructions of the Regional Load Despatch Centre on generation and drawal.

## **9. Unscheduled Interchange Charges Accounting**

All payments on account of Unscheduled Interchange charges including the Additional Unscheduled Interchange Charges levied under these regulations and interest received on late payment thereof shall be credited to a Fund called the “Unscheduled Interchange Pool Account Fund”, which shall be maintained and operated in accordance with provisions of the Grid Code.

## **10. Schedule of Payment of Unscheduled Interchange Charges**

(1) All payments for Unscheduled Interchange charges including the Additional Unscheduled Interchange Charge shall be made to the “Unscheduled Interchange Pool Account Fund” within 10 days of issue of Unscheduled Interchange account statement by the Regional Power Committee.

(2) If any payments for the Unscheduled Interchange charges on the Additional Unscheduled Interchange Charge are delayed by more than two days, that is to say, payments are made beyond a period of 12 days of issue of the statement by the

Regional Power Committee, simple interest @0.04% for each day of delay shall be payable.

(3) All payments from the Unscheduled Interchange Pool Account Fund to the entities entitled to receive any amount shall be made within 5 days of crediting of the amount to “Unscheduled Interchange Pool Account Fund”.

#### **11. Application of fund collected through UI**

(1) The amount left after final settlement of claims of Unscheduled Interchange charges of the generating station and the beneficiaries shall be utilised, with the prior approval of the Commission, for either or both of the following activities:

(a) Servicing of investment for transmission schemes of strategic importance,

Provided that the Central Transmission Utility in consultation with Central Electricity Authority shall identify the inter-State transmission schemes of strategic importance, not being utilised up to optimum level and seek prior approval of the Commission for servicing of capital costs during the initial years from amount left in the “Unscheduled Interchange Pool Fund” after settlement of claims of Unscheduled Interchange Charges.

Provided further that when utilisation of such transmission line or transmission system included in the transmission schemes of strategic importance reaches the optimum level of utilisation, the cost of such

scheme shall be recovered from the users of the scheme in accordance with the methodology specified by the Commission.

(b) Providing ancillary services including but not limited to 'load generation balancing' during low grid frequency as identified by the Regional Load Despatch Centre, in accordance with the procedure prepared by it, to ensure grid security and safety:

(2) The amount of fund, allocable for the purposes specified under clause (1), shall be decided by the Commission from time to time.

## **12. Power to Relax.**

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected by grant of relaxation, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

## **13. Power to Amend.**

The Commission may, at any time, vary, alter, modify or amend any provisions of these regulations.

**Sd/-  
(Alok Kumar)  
Secretary**