

## **Explanatory Memorandum**

A comprehensive review of IEGC provisions has been done in view of recent developments. The major changes proposed are as under:

1. The concept of control area:

The concept of control area has been defined in the new version of IEGC. Hitherto, generation was mostly owned by the Central or State governments and there were very few IPPs (Independent Power Producers). In the future there are a lot of upcoming generators belonging to the private sector, having various types of contracts, that is short term, medium term and long term. They could also switch from one type of contract to the other. Some IPPs have a contract for part of the generating capacity with the state in which they are located and contract for a part with states outside the host state. Further, an IPP may tie up contract for different generating units, as they get commissioned in stages, with different purchasers. Therefore, control area jurisdiction is becoming important. The control area jurisdiction has been defined.

2. Integration of Renewable Sources into the Grid:

In view of the national policy of encouraging renewable sources of energy, it was felt necessary that provisions regarding this be integrated into the IEGC, taking into account the variable nature of sources such as wind and solar energy. Therefore, an appropriate mechanism for dealing with unscheduled inter-change (UI) due to these sources has been included in the IEGC, keeping in view also other technical requirements related to such integration. The UI impact on renewable is proposed to be dealt with in a manner that solar and wind generators are not financially burdened for the variations in generation, which cannot be reasonably forecast. The Commission is committed to ensure that the renewable energy generators should get the returns as specified in the renewable energy regulations. The proposals in IEGC have been formulated with this spirit, while at the same time addressing the load management needs of the states where large quantities of wind/solar based generation is expected to come up in future.

3. Accountability of the States and distribution utilities

Since the states and their distribution utilities form an integral part of the grid, they have been mandated to become more accountable in carrying out demand management so as to ensure grid security, by mandating automatic demand management schemes.

4. Restricted free governor mode of operation

In view of CERC's order on petitions regarding free governor operation dated 20.8.2009 wherein restricted free governor operation was mandated instead

of free governor operation, in view of the shortage condition prevailing in the country, the IEGC has also been modified accordingly.

5. Enabling provision for RLDCs to report violation

RLDCs have been entrusted with higher responsibilities to bring to the notice of the Commission various violations of the IEGC, affecting grid security, through petitions.

6. Tightening of frequency band

In view of the anticipated additional generating capacity coming up in the future and utilization of hourly surplus power through the power exchanges, the shortages are expected to reduce. Hence, the frequency band has been tightened from 49.2-50.3 Hz to 49.5-50.2 Hz. for higher grid security. This should lead to more efficient operation of the power system.

7. Inclusion of medium term transactions in IEGC

CERC had notified the regulations on “Grant of Connectivity, Long Term Access and Medium-Term Open Access in Interstate Transmission”. In view of the same, changes have been made in the IEGC to also accommodate medium term transactions.

8. Transfer of detailed provisions of UI from IEGC to the CERC (unscheduled Interchange Charges and related matters) Regulations, 2009

Since the detailed Regulations on UI has been notified by the Commission, the detailed clauses from IEGC on UI have been removed.

9. Revision of schedule in case of forced outage

Provision for revision of schedule in case of forced outage for those stations who have a two part tariff based on capacity charge and energy charge for long term contracts, has been incorporated.

10. Increase in reactive energy charge:

The reactive energy charge has been increased from 6 paise per kVARh to 25 paise per kVARh, in order to induce all states to provide capacitors in their system to prevent low voltage profile in certain parts of the grid, which lead to grid security problems.

11. Provisions regarding scheduling and operations:

These provisions have been reviewed keeping in view the problem of large overdrawals by many constituents and the present approach of Commission for discouraging use of UI mechanism as trading route.