

**Central Electricity Regulatory Commission
New Delhi**

Notification

Date: 12th April, 2017

No. L-1/18/2010-CERC – In exercise of powers conferred under clause (h) of sub-section (1) of Section 79 read with clause (g) of sub-section (2) of Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, the Central Electricity Regulatory Commission hereby makes the following regulations to amend the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 including the first to fourth amendments thereof (hereinafter referred to as “the Principal Regulations”), namely:-

1. Short title and commencement

- (1) These regulations shall be called the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fifth Amendment) Regulations, 2017.
- (2) These regulations shall come into force with effect from 1st May, 2017.

2. Amendment of Regulation 2 in General Part of Principal Regulations

- (1) In Regulation 2(1)(sss) of General Part of Principal Regulations, the definition of ‘Spinning Reserves’ shall be substituted as under:

(sss) Spinning Reserve means: "the Capacities which are provided by devices including generating station or units thereof synchronized to the grid and which can be activated on the direction of the System Operator and effect the change in active power."

- (2) Regulation 2(2) of General Part of the Principal Regulations shall be substituted as under:

"Words and expressions used in these regulations and not defined herein but defined in the Act or other relevant Regulations of the

Commission shall have the meaning as assigned to them under the Act or relevant Regulations of the Commission."

3. Amendment in Part 1 of Principal Regulations- The following provision shall be added at the end of Regulation 1.4 (v) of Part 1 of the Principal Regulations

"This section will also cover scheduling and despatch of power of ISGSs for operation of Ancillary Reserve Services, for utilization of Un-requisitioned surplus power and for operation of Spinning Reserves with the process of the flow of information between the Generating Stations, National Load Despatch Centre, Regional Load Despatch Centre, Power Exchanges, the State Load Despatch Centres and other concerned users."

4. Amendment in Part 2 of Principal Regulations

(1) Regulation 2.2.2(i) Part 1 of the Principal Regulations shall be substituted as under:

"(i) NLDC shall be the nodal agency for collective transactions and Ancillary Services including Spinning Reserves."

(2) The following shall be added as Regulation 2.2.2(iii) after Regulation 2.2.2(ii) of Part 2 of the Principal Regulation as under:

"(iii) Coordination with ISGSs, Regional Load Dispatch Centers, State Load Dispatch Centers and Regional Power Committees for implementation of Ancillary services, prudent utilization of Un-requisitioned power, and identification and operation of Spinning Reserves at inter-State level as per Detailed Procedure and Regulations specified by the Commission."

(3) Regulation 2.3.2(g) of Part 1 of the Principal Regulations shall be substituted as under:

"(g) Operation of Ancillary Services including Spinning Reserves."

(4) The following provision shall be added as Regulation 2.4.2 (i) and (j) after Regulation 2.4.2(h) of Part 2 of the Principal Regulations:

"(i) To perform the functions as mandated under the Central Electricity Regulatory Commission (Ancillary Services Operation) Regulations, 2015.

(j) To maintain the accounts of energy transacted under Ancillary Services Operation including Spinning Reserves."

5. Amendment in Part 5 of the Principal Regulations:

(1) In Regulation 5.2(f) of Part 5 of the Principal Regulations, the words: "All thermal generating units of 200 MW and above and all hydro units of 10 MW and above" shall be substituted with words "All Coal/lignite based thermal generating units of 200 MW and above, Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of capacity more than 50 MW each and all hydro units of 25 MW and above".

(2) In Regulation 5.2(f)(i)(a) of Part 5 the Principal Regulations, the words "Thermal generating units" shall be substituted with words "Coal/lignite based thermal generating units."

(3) In Regulation 5.2(f)(i)(b) of Part 5 of the Principal Regulations, the word and number "10 MW" shall be substituted with the word and number "25 MW".

(4) The following clause shall be added after Regulation 5.2(f)(i)(b) of Part 5 of the Principal Regulations :

“(c) Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of capacity more than 50 MW each: with effect from 01.10.2017”

(5) Regulation 5.2(f)(ii)(a) of Part V of the Principal Regulations shall be substituted as under:

“(a) There should not be any reduction in generation in case of improvement in grid frequency to a level below 50.00 Hz. (For example, if grid frequency changes from 49.9 to 49.95 Hz, or from 49.95 to 49.99 Hz there shall not be any reduction in generation). For any fall in grid frequency, generation from the unit should increase as per generator droop upto a maximum of 5% of the generation subject to ceiling limit of 105% of the MCR of the unit having regard to machine capability”.

(6) In Regulation 5.2(f)(iii) of Part 5 of the Principal Regulations, the words "Gas Turbine/Combined Cycle Power Plants" shall be deleted.

(7) The first sentence of Regulation 5.2(h) of Part 5 of the Principal Regulations, shall be substituted as under:

"All coal/lignite based thermal generating units of 200 MW and above, Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of more than 50 MW each and all hydro units of 25 MW and above operating at or up to 100% of their Maximum Continuous Rating (MCR) shall have the capability of (and shall not in any way be prevented from) instantaneously picking up to 105%, 105% and 110% of their MCR, respectively, when the frequency falls suddenly."

(8) The following shall be added at the end of Regulation 5.2 (h) of Part 5 of the Principal Regulations:

"For the purpose of ensuring primary response, RLDCs/SLDCs shall not schedule the generating station or unit (s) thereof beyond ex-bus generation corresponding to 100% of the Installed capacity of the generating station or unit(s) thereof. The generating station shall not resort to Valve Wide Open (VWO) operation of units whether running on full load or part load, and shall ensure that there is margin available for providing Governor action as primary response. In case of gas/liquid fuel based units, suitable adjustment in Installed Capacity should be made by RLDCs/SLDCs for scheduling in due consideration of prevailing ambient conditions of temperature and pressure vis-à-vis site ambient conditions on which installed capacity of the generating station or unit (s) thereof have been specified:

Provided that scheduling of hydro stations shall not be reduced during high inflow period in order to avoid spillage:

Provided further that the VWO margin shall not be used by RLDC to schedule Ancillary Services."

(9) The following proviso shall be added at the end of Regulation 5.2 (g) of Part 5 of the Principal Regulations :

"Provided that periodic checkups by third party should be conducted at regular interval once in two years through independent agencies selected by RLDCs or SLDCs as the case may be. The cost of such tests shall be recovered by the RLDCs or SLDCs from the Generators. If deemed necessary by RLDCs/SLDCs, the test may be conducted more than once in two years."

6. Amendment of Part 6 of the Principal Regulations:

(1) In Regulation 6.4.2(c), the word "including" shall be substituted by the word "and".

(2) In Regulation 6.5.3 of the Part 6 of the Principal Regulations, the words "8 AM" shall be substituted by words "6 AM".

(3) In Regulation 6.5.4 of Part 6 of the Principal Regulations, the words "10 AM" shall be substituted by words "8 AM".

(4) New Clauses (4a), (4b), (4c) and (4d) shall be added after Regulation 6.5.4 of Part 6 of the Principal Regulations as under :

"4(a) The original beneficiary shall communicate its consent to the ISGS by 9.45 AM each day about the quantum and duration of power for next day for sale in the market.

4(b) The original beneficiary may also provide a standing consent to the ISGS for sale of power in the market for specified duration and specified quantum.

4(c) The ISGS shall not sell the power of any beneficiary in the market without its express consent.

4(d) The beneficiary shall not be allowed to schedule the power for which consent has been given by the beneficiary to the ISGS except in cases where power is still available with the ISGS after sale through bilateral and collection transactions.

4(e) The ISGS shall intimate the details of the share of power of individual beneficiaries sold in the market to the respective RLDC.

(5) The following provision shall be added as first proviso at the end of Regulation 6.5.3.19 of Part 6 Principal Regulation:

"Provided that the generator or trading licensee any other agency selling power from the generating station or unit(s) thereof may revise its estimated restoration time once in a day and the revision schedule shall become effective from the 4th time block, counting the time block in which the revision is advised by the generator to be the first one."

7. A New Regulation shall be added after Regulation 6.5 of the Principal Regulations as under:

"6.5 (A) Scheduling and commercial settlement of energy exchanged under Ancillary services including Spinning Reserves and URS:

- (a) The Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2015 provides detailed frame work of scheduling and despatch, withdrawal, energy accounting and commercial settlement of Reserves Regulation Ancillary Services.
- (b) In case of spinning reserves, the scheduling and commercial settlement of energy exchanged shall be as per the Detailed Procedure to be notified separately by the Commission in consultation with POSOCO (NLDC).
- (c) In case of sale of share of original beneficiaries in market by ISGS for which consent has been given, the realized gains shall be shared between the ISGS and the concerned beneficiary in the ratio of 50:50 or as mutually agreed by the ISGS and concerned beneficiary in the billing of the following month. This gain shall be calculated as the difference between selling price of such power and fuel charge including incidental expenses.

Provided that such sale of power by ISGS shall not result in any adverse impact on the original beneficiary(ies) including in the form of higher average energy charge vis-à-vis the energy charge payable without such sale:

Provided further that there shall be no sharing of loss between the ISGS and the beneficiary(ies):

Provided also that, the liability of fixed charge in such cases shall remain with original beneficiary(ies) as determined in accordance with the Tariff Regulations notified by the Commission from time to time.

-Sd-
(Sanoj Kumar Jha)
Secretary

Note: Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 were notified in Part III, Section 4 No. 115 of the Gazette of India (Extraordinary) dated 28.4.2010 and amended vide:-

- (a) Corrigendum published in Part III, Section 4, No. 168 of the Gazette of India (Extraordinary) dated 03.07.2010.
- (b) Addendum published in Part III, Section 4, No. 168 of the Gazette of India (Extraordinary) dated 03.07.2010.
- (c) First Amendment Regulations, 2012 published in Part III, Section 4, No. 60 of the Gazette of India (Extraordinary) dated 06.03.2010.
- (d) Second Amendment Regulations, 2014 published in Part III, Section 4, No. 08 of the Gazette of India (Extraordinary) dated 07.01.2014.
- (e) Corrigendum published in Part III, Section 4, No. 64 of the Gazette of India (Extraordinary) dated 21.2.2014.
- (f) Third Amendment Regulations, 2015 published in Part III, Section 4, No 271 of the Gazette of India (Extraordinary) dated 10.08.2015
- (g) Fourth Amendment Regulation, 2016 published in Part III, Section 4, No 162 of the Gazette of India (Extraordinary) dated 29.04.2016