

**Comments on Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021**

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With reference to Public Notice ref L-1/260/2021/CERC dtd 07-09-2021, comments on the draft regulation are as below:

1. Indian Electricity Grid Code regulations 2010 (Fifth amendment), Clause 5.2(f) mandates that all 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, which are synchronised with the grid, irrespective of their ownership, shall have their governor in operation at all times in accordance with provisions quoted below from said regulation:

“Governor Action

(i) Following Thermal and hydro (except those with up to three hours pondage) generating units shall be operated under restricted governor mode of operation with effect from the date given below:

- (a) Thermal generating units of 200 MW and above,
  - (1) Software based Electro Hydraulic Governor (EHG) system: 1.8.2010
  - (2) Hardware based EHG system: 1.8.2010
- (b) Hydro units of 10 MW and above: 1.8.2010
- (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

(ii) The restricted governor mode of operation shall essentially have the following features:

- (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

(b) Ripple filter of +/- 0.03 Hz. shall be provided so that small changes in frequency are ignored for load correction, in order to prevent governor hunting.”

2. This essentially means that in the event of frequency change of grid (Ripple filter of +/- 0.03 Hz), generating units as specified above with governor in operating condition, will have deviations from schedule up to the tune of 5% automatically, irrespective of seller action i.e.

If a generating unit of 200 MW with governor on, experiences a frequency change (ripple filter of 0.03 Hz) then there could be a deviation of 10 MW, irrespective of seller action.

3. As per the clause 8 of draft DSM regulations 2021, Charges for deviation are as below:

Entity	Charges for deviation payable to Deviation and Ancillary Service Pool Account	
Seller	Deviation by way of over injection	Deviation by way of under injection
For a general seller other than an RoR generating station or a generating station based on municipal solid waste	(i) Zero up to 2% Deviation-general seller (in %);  (ii) @ 10% of the normal rate of charges for deviation beyond 2% Deviation-general seller (in %)	(i) @ normal rate of charges for deviation up to 2% Deviation-general seller (in %);  (ii) @ 110% of the normal rate of charges for deviation beyond 2% Deviation-general seller (in %).
For a general seller being an RoR generating station	Zero	(i) @ normal rate of charges for deviation up to 12% Deviation-general seller (in %);  (ii) @ 110% of the normal rate of charges for deviation beyond 12% Deviation-general seller (in %).
For a general seller being a generating station based on municipal solid waste	Zero	(i) Zero up to 20% Deviation-general seller (in %);  (ii) @ normal rate of charges for deviation beyond 20% Deviation-general seller (in %). limit.
For WS seller	Zero	(i) Zero up to 10% Deviation-WS seller (in %);  (ii) @ 10% of the normal rate of charges for deviation beyond 10% Deviation-WS seller (in %);  Provided that such seller shall pay back to the Deviation and Ancillary Service Pool Account for the total shortfall in energy against its schedule in any time block due to under injection, (a) at the contract rate at which it has been paid based on schedule, or (b) in the absence of a contract rate at the rate of the Area Clearing Price of the Day Ahead Market for the respective time block.

4. Hence, at one hand we are allowing upto 5 % deviation by virtue of governor action (which is not in control of seller) and at other hand we are denying any compensation (for RoR seller) or very meagre compensation (for general seller and deviation >2%) for that deviation.
5. Currently, there is no way of segregating the deviation by seller into deviation by governor action and deviation by seller action. Thus, it would be not be right to devoid the seller of rightful charges of deviation which occurred on account of governor action.
6. Thus, it is submitted and suggested to pay the deviation charges for at least upto 5 % of deviation % which is bound to occur by virtue of governor action.

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