

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

Shri P.K. Pujari, Chairperson

Dr. M.K. Iyer, Member

Shri I.S. Jha, Member

File No. L-1/132/2013-CERC

Date: 12 June, 2019

In the matter of Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) (Fifth Amendment) Regulations, 2019.

STATEMENT OF REASONS

1. Introduction:

1.1. The Commission vide notification dated 18.4.2019 issued the Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) (Fifth Amendment) Regulations, 2019 along with Explanatory Memorandum seeking comments/ suggestions/ observations from the stakeholders/public.

1.2. Comments were received from 58 stakeholders, organizations, and individuals, etc., which included State Power utilities, State Load Dispatch Centres, Power System Operation Corporation (POSOCO), generating companies in central sector including associations. Thereafter, the Commission conducted public hearing on 22.5.2019. Sixteen organizations / individuals made oral submissions and seven organizations / individuals made presentations during the public hearing. List of stakeholders/individuals who submitted written comments and who made oral submissions/power point presentation during the public hearing is given at Appendix-I and Appendix-II respectively. The detailed comments are available on www.cercind.gov.in. After due consideration of the comments / suggestions / objections

received, the Commission has finalized the Fifth Amendment to the Regulations on Deviation Settlement Mechanism and Related Matters.

1.3. The amendments proposed in the draft regulations, deliberation on the comments / suggestions offered by the stakeholders, statutory bodies and individuals, etc., on the proposed amendments and the reasons for decisions of the Commission are given in the succeeding paragraphs.

Issue-1: Removal of daily deviation volume limit [third Proviso to Clause 1 of Regulation 7]

- a. Comments / Observations:** *While some stakeholders welcomed the proposal for deletion of the clause, some others suggested retention of the proviso in the interest of secure grid operation. One of the stakeholders observed that the volume limits may be increased from 3% and 1% (for drawee and generating entities respectively) to 5% and 3% respectively.*

Through the CERC DSM 4th Amendment, the Commission introduced the daily deviation limit with the objective to bring about the desired discipline in grid operation. However, the relevant clause had provided a future date for implementation, with the intent, in any case to implement this provision at a later date after duly considering the implementation experience of the CERC DSM 4th Amendment. Based on a review, when the Commission deems appropriate, suitable amendments will be considered by the Commission for implementation of daily deviation volume limit, at a future date.

Issue-2: Norm for “Sign Change (Zero Crossing)” and “Tolerance band of +/- 10 MW” [Clause 10 of Regulation 7]

- a. Comments / Observations:** *Some of the stakeholder opined that Sign Change norm should be linked to frequency and this requirement should not be insisted when the frequency is above 50.05 Hz and below 49.85 Hz, as this might*

contradict with the philosophy of discouraging over-injection / under-drawl during high frequency and over-drawl / under-injection during low frequency.

The Regulations intend to create a framework seeking to discourage the entities from deviating from their schedules. The entities are expected to adhere to their schedules, in such case the need to resort to over-injection / under-drawl during high frequency and over-drawl / under-injection during low frequency, would not arise. Nevertheless, the Commission has already provided a tolerance band for sign change requirement, which should address the concerns, if any in this context.

- b. *Comments / Observations:*** *Some of the stakeholders suggested continuation of the provisions of Clause 7(10)(a) even for the period beyond 31.3.2020.*

The Commission, while driving the entities to adopt measures to adhere to sign change norm, intends to facilitate operational flexibility to the entities. Accordingly, it has been decided to enhance the tolerance band from +/- 10 MW to +/- 20 MW with reference to schedule, which would be a subset of the existing deviation flexibility of 150 MW/200MW/250MW as provided under Regulations 7(1) and 7(2). However, in order to ensure better grid discipline by the entities, the Commission has decided to provide differential norms from 1.4.2020, in terms of the number of time blocks for sign change and for levy of additional charge for violation of sign change norm.

It should be noted that the DSM regulations and subsequent amendments are aimed at maintaining grid discipline and grid security as envisaged under the Grid Code through the commercial mechanism. Over the years, the Commission has been emphasizing on the urgent need for taking steps by the stakeholders to channel their short term energy requirement through organized markets and refrain from leaning onto the grid, besides developing their own reserve pool to meet contingencies. In this regard, the Commission would like to draw the

attention of the stakeholders to the recommendations of the Enquiry Committee on “Grid Disturbance in Northern, Eastern & North-Eastern Region during July 2012” (August, 2012), Report of the MoP Technical Committee on “Large Scale Integration of Renewable Energy” (April, 2016), deliberations of the Forum of Regulators (57th Meeting) on “Model DSM framework” and the Recommendations of the Expert Group on “steps required to bring power system operation closer to the national reference frequency” (Vol-I Nov, 2017 and Vol-II Dec, 2017). Clear message in all these reports is that grid security cannot be compromised and all stakeholders have to undertake suitable measures to ensure safe and secure operation of the grid. The Commission would, therefore like to reiterate that the stakeholders are expected to take initiatives, at the earliest, for improved forecasting and planning for procurement, maintenance of the quantum of reserves as per CERC Roadmap for Reserves, monitoring of ‘Area Control Error (ACE)’ etc.

- c. **Comments / Observations:** Some of the stakeholders observed that owing to differences between meter readings of SCADA – SEM, it has become difficult to adhere to sign change norm. While acknowledging relief due to tolerance band of +/- 10 MW, they requested for increasing the tolerance band in terms of MW or as percentage of scheduled capacity or graded tolerance band be provided commensurate with the generation capacity. It was also felt by some of the stakeholders that they may be given access to SEM readings on real time basis, else additional charges on account of violation of sign change norm due to differences in meter readings of SCADA and SEM, be borne by SLDC/STU/CTU, as the case may be.*

Some of the stakeholders also observed that sign change norm is adhered to as per visibility they get from SCADA meters and post facto corrections of schedules by RLDC on account of nuclear power or due to any other reason, shifts the scale for sign change resulting in great difficulty to the entities.

The Commission is of the view that any mismatch between the SCADA and SEM meter data must be resolved in an appropriate manner by coordinating with the entity responsible for maintaining such infrastructure in line with the Regulations laid down for Communication Infrastructure in Power Sector for augmenting and strengthening the existing communication infrastructure. It is expected that all stakeholders shall maintain accuracy of both SCADA and SEM data in the interest of secure and reliable grid operation.

However, the Commission, while recognizing the current operational constraints, has decided to allow a tolerance band of +/- 20 MW from schedule (as against the proposed tolerance band of +/- 10 MW), which would be a subset of the existing deviation flexibility of 150 MW/200MW/250MW as provided under Regulation 7(1) &7(2). It is felt that this tolerance band would be sufficient to subsume various inadvertent deviations including those arising out of SCADA-SEM metering inaccuracies.

The Commission reiterates that SCADA – SEM mis-match etc. are operational issues and must be resolved at the earliest by the concerned stakeholders. Grid security cannot be compromised, on account of inaction on such issues.

d. Comments / Observations : Some of the stakeholders observed that Ministry of Power has notified Hydro Generation as RE source and accordingly, the same may also be exempted from adhering to sign change norm. Further, it was also commented that hydro plants with small pondage, Run of the River (ROR) projects with pondage may also be exempted from observing sign change norm

The Commission is of the view that the recognition of large hydro as renewable by the Ministry of Power was for a specific purpose, including for purchase obligation by the obligated entities. The Ministry of Power's notification itself clarifies, that large hydro projects would not be automatically eligible for various special dispensations available to the renewables viz. small hydro projects. As

such, the exemptions from the requirement of sign change granted to the RE projects include, *inter alia*, the SHPs and not the large hydro projects (except for RoR projects without pondage).

The Commission had proposed exemptions with due consideration of the constraints for some of the entities and has decided to retain the same without further expanding or reducing the scope for such exemptions at this stage.

- e. Comments / Observations : Some of the stakeholders observed that in specific time blocks, RGMO / FGMO instructions, fall contrary to the need to change sign and therefore, violation of the norm to change the sign may be exempted in cases where such violation took place in the process of adherence to RGMO / FGMO instructions.*

Some of the stakeholders observed that Reserves Regulation Ancillary Services (RRAS) and Security Constrained Economic Dispatch (SCED) which are in operation, causing difficulty in adherence to sign change norm.

The Commission while considering the technical and operational constraints, decided to introduce allowable range of +/- 20 MW from schedule, which would be a subset of the existing deviation flexibility of 150 MW/200MW/250MW as provided under Regulation 7(1) &7(2). It is felt that this tolerance band would be sufficient to subsume the reported constraints on account of RGMO / FGMO instructions, change in schedule owing to RRAS and SCED instructions etc.

- f. Comments / Observations: BARC sought exemption from sign change norm as their schedule is based on nuclear power generation from TAPS 3&4 of NPCIL, which is inflexible.*

Some of the stakeholders sought exemption from adhering to the sign change norm on account of Natural calamities / Grid disturbance / Non-availability of

real-time data / forced outages / unit tripping due to black-out / line failure etc. Some of the stakeholders also sought exemption from sign change norm in respect of plants based on Heat-recovery mechanism / Waste to energy etc, while some have sought exemption to all RE rich States from adherence to the sign change norm.

Some of the stakeholders observed that all RE transactions (other than Regional Entities) may be exempted from adhering to the sign change norm.

The Commission has decided not to enlarge the list of exemptions. As already stated in the Explanatory Memorandum, the tolerance band for sign change requirement is meant to address some of the operational constraints highlighted by entities like BARC etc. The limit has been further enhanced to +/- 20 MW, and the Commission expects that the stakeholders would align their requirements and contingencies to the stipulations provided in the Regulations, which are aimed at ensuring safe and secure operation of the grid.

RE projects have already been exempted from sign change requirement. It is further clarified that the exemption is applicable to regional entity RE generators as they are under the jurisdiction of CERC. It is expected that similar dispensation would be extended to the intra-State entities by the respective SERCs.

- g. Comments / Observations: Some of the stakeholders have sought exemption levy of additional charges on STOA transactions. It was also commented that captive generation may also be exempted from sign change norm as captive plants are established to meet the need for continuous supply of power by the captive consumer.***

The issue highlighted by the stakeholder, especially in the context of the provision of revision of schedule two days ahead for STOA transactions is beyond the scope of the current proposal of amendment to DSM Regulations. The premise for larger duration for sign change requirement is also based on the same ground. It is expected that the stakeholders would suitably align themselves to the requirement under the Regulations.

Issue-3: Cap rate of 303.04 paise / kWh

- a. Comments / Observations: Some stakeholders submitted for determination of “Energy Charge as billed for previous month” as the cap rate, while some of the stakeholders sought for determination of cap rate @ Rs. 2 per unit in respect of bio-mass plants. Some of the stakeholders also sought the Commission to determine cap rate for in-firm injection by solar / wind generation.*

As already highlighted in the Explanatory Memorandum, the Commission has decided to provide a uniform cap rate for all entities and index it to the already available reference of 303.04 Paise/kWh.

Further, determination of rates for in-firm injection by solar / wind generation is beyond the scope of these Regulations.

Issue-4: Date of Implementation

- b. Comments / Observations: Some stakeholders submitted for implementation of the CERC DSM 5th Amendment with effect from 1.1.2019 thereby superseding the provisions of CERC DSM 4th Amendment. They are sought the Commission to waive-off the charges / additional charges levied under CERC DSM 4th Amendment.*

The Commission is of the view that the DSM 5th Amendment cannot be made effective retrospectively, as the accounting and settlement of charges payable and receivable are carried out on weekly basis and residual funds if any, have already been transferred to Power System Development Fund.

**Sd/-
(I.S. Jha)
Member**

**Sd/-
(Dr. M.K. Iyer)
Member**

**Sd/-
(P.K. Pujari)
Chairperson**

Appendix – I

S.No.	Organization
1	Abellon Clean Energy Ltd.
2	AD Hydro Power Ltd.
3	Mr. Anil Thomas
4	Association of Power Producers
5	Bhabha Atomic Research Centre
6	Bihar State Power Holding Company Limited
7	BSES Rajdhani Power Limited
8	BSES Yamuna Power Limited
9	CESC Limited
10	Chhattisgarh State Power Transmission Company Limited
11	DANS Energy Private Limited
12	Dhariwal Infrastructure Limited
13	Delhi Transco Limited
14	Eastern Regional Power Committee
15	Electricity Department, Government of Puducherry
16	Faridabad Industries Association
17	FICCI
18	GMR Energy Limited
19	GRIDCO Limited
20	Gujarat Biomass Energy Developers Association
21	Gujarat Energy Transmission Corporation Limited
22	Himachal Pradesh State Electricity Board Limited
23	IA Hydro Energy Private Limited
24	IWPA
25	Jharkhand Bijli Vitran Nigam Limited
26	Jhabua Power Limited
27	JITPL
28	Karnataka Power Transmission Corporation Limited
29	Maithon Power Ltd.
30	MB Power (Madhya Pradesh) Limited
31	MP Power Management Company Limited
32	Maharashtra State Electricity Distribution Co. Ltd.
33	NABHA Power Limited
34	NHPC Limited
35	NLC India Limited
36	Noida Power Company Limited
37	Northern Regional Power Committee
38	NTPC Limited
39	Penna Cement Industries Limited
40	Power Company of Karnataka Limited
41	Power System Operation Corporation Limited
42	Pragati Power Corporation Limited
43	Punjab State Power Corporation Limited

44	Punjab State Transmission Corporation Limited
45	Ministry of Railways (Railway Board)
46	The Southern India Mills' Association
47	Sitapuram Power Limited
48	Southern Regional Power Committee
49	Talwandi Sabo Power Limited
50	TATA Power
51	TCAPL
52	THDC India Limited
53	Tata Power-DDL
54	Torrent Power Limited
55	Transmission Corporation of Telangana Limited
56	UHBVN
57	U.P. Power Corporation Limited
58	WBSEDCL

Appendix – II

Oral Submissions

S.No.	Organization
1	Tata Power Delhi Distribution Limited
2	Punjab State Power Corporation Ltd
3	CESC Limited
4	NHPC
5	POWERGRID
6	SJVN Ltd.
7	NHPC
8	Tata Power
9	POSO
10	WBSEDCL
11	GMR Energy
12	Sterlite Power
13	Noida Power Co. Ltd.
14	SLDC – GETCO, Gujarat
15	NTPC Ltd.
16	Manikaran Power Ltd.

Presentations

S.No.	Organization
1	Indian Wind Power Association
2	ERPC
3	BARC
4	Abellon Clean Energy Ltd.
5	MPPMCL
6	FIA (REMC Ltd. & Real Idea Consulting presented on their behalf)
7	NRPC