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To

The Secretary,
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New Delhi.

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Memo No. 519

Date 10.05.2019

Sub: **Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019.**

Ref: Public Notice no. L-1/132/2013-CERC dated 18.04.19

The comments/suggestions/objections in the matter are enclosed herewith as Annexure-"A" for further necessary action please.

DA/As above

-Sd/-

Dy.C.E./PR,
PSPCL, Patiala.

Annexure-A

1. A prerequisite to the implementation of this Regulation (7(10)(a)(b)) is an infrastructure which can provide accurate and reliable real time data. Hon'ble Commission has proposed a tolerance band of only +/- 10 MW on the schedule and that too to take care of deviations due to post facto revision of schedules in case of Nuclear Plants, the auxiliary consumption by the generating stations during shutdown, lack of flexible hydro generating resources etc. Evidently it has been safely presumed that there is no mismatch between the real time SCADA data and the SEM data However, in practice this is not the case, especially for the State of Punjab. There remained mismatch of around 50-100 MW persistently (in each time block) between the real time and SEM data during the last 3-4 months and the mismatch increased manifolds during the period of suspected real time data on account of communication failures etc. The telemetry is quite fragile as some of the drawal points get suspected very frequently rendering it impossible to remain close to the schedule. It lacks redundant communication/route diversity to compensate any communication failure on a particular route. Clearly, telemetry infrastructure is not robust enough for such a close tolerance band. Moreover, there shall remain inherent inaccuracies between SEM and SCADA data due to different accuracy class of metering, time drifting of SEMs, post facto revisions in schedule by RLDCs etc. Therefore, under the circumstances with the available infrastructure, it is impossible to operate the system within a tolerance band of +/- 10 MW i.e. close to the schedule as per the intent of Regulation.

   In view of the above position, it shall not be appropriate to implement Regulation 7(10)(a)(b) of the proposed amendment. Implementation should be effected only after the availability of accurate SEM data on real time basis to the DISCOMs or when infrastructure with sufficient redundancy /accuracy is provided to make available real time SCADA data round the clock as per already laid down Regulations by the Hon'ble Commission for Communication Infrastructure in Power Sector for augmenting and strengthening the existing communication infrastructure. However, in case the Regulation is to be implemented, the tolerance needs to be on much higher side i.e. +/- 100 MW (from proposed level of +/-10 MW) or at least +/- 3% of drawal schedule, whichever is higher.

2. In case of Distribution utility, the method to change sign from positive to negative is possible only with the imposition of load shedding, but as 24x7 supply has to be ensured to the consumers as per the policy of GoI, therefore, the only option left is by way of keeping adequate spinning reserve and regulating the Generation (up

and down) of the State Generators (Owned by Buyer Utility/SGS/IPPs). However, as per the Regulation the SGS/IPPs have also to do sign reversal (over-inject / under-inject) and sometimes they are in the process of over-injection while the requirement of Utility (Buyer Utility) is for under-injection and vice versa. Evidently, the applicability of sign reversal penalty on both SGS (SGS owned by Buyer/IPP) and Utility (Buyer) as a whole being one entity is conflicting and eventually either the State Generator or Utility has to suffer for no fault of theirs. SGS (owned by buyer) and IPP (with Buyer having 100% allocation) have a common goal to regulate the generation (ramp up/ramp down) in order to meet with the variable demand of Distribution Utility and the Distribution Utility has also to fulfil its obligation of sign reversal through this ramp up/ramp down and therefore, applicability of sign reversal for both State Generators and Distribution Utility is not reasonable. Moreover, this requirement does not seem to be in the interest of secure integrated grid operation. Hence this requirement needs to be revoked with regard to applicability to both the State Generators as well as DISCOMs.

3. In real time, utility is sometimes forced to overdraw at low frequency and under-draw at high frequency for sign reversal leading to financial loss and it also endangers grid security e.g. when the utility is under-drawing consistently and has to change sign (overdraw) after 6^{th} block even though the grid conditions are not favourable i.e. frequency is below 49.85 Hz. by virtue of which it gets penalized at a DSM of Rs.16.00 per unit and above all, grid security is compromised. Vice versa when utility has to under-draw after consistent over-drawal with frequency above 50.05 Hz, it gets penalized at Area Clearing Price and again endangers grid security. Therefore, the stated Regulation does not seem to aid the power system to remain within the prescribed frequency band as the entities are forced to cause Grid indiscipline. In view of the same, sign change penalty should not be made applicable when the utility is under-drawing at low frequency (less than 50 Hz.) and over-drawing at high frequency (more than 50 Hz.).

4. The basic issue is in respect of mismatch between SEM and real time SCDAD data. The inaccurate and unreliable real time data has put an increased financial burden on PSPCL since the implementation of 4^{th} amendment to DSM Regulation. For illustration, a comparison between SEM and SCADA data for the last three months is as below:

Month	Real Time Data		SEM data		Total DSM Charges
	Deviation (LUs)	Sustained Deviation Violations (nos.)	Deviation (LUs)	Sustained Deviation Violations (nos.)	Rs. In Crores
January-19	56.52 (UD)	49	449.46 (OD)	233	49.56 (29.10)*
February-19	311.6 (UD)	9	70.81 (UD)	53	3.49 (1.70)*
March-19	454.33 (UD)	10	138.41 (UD)	61	4.48 (2.21)*
April-19 (up to 21.04.19)	302.61 (UD)	15	120.52 (OD)	88	13.42 (6.41)*

(*Note: Figure in parenthesis indicate amount on account of sustained deviation only)

As can be seen from the above, the operator has in real time effected the sign change on most of the occasions but due to mismatch between Real Time/SEM data the sign change has not take place in actual. Thus inaccurate real time data has resulted into huge financial liability on account of sustained deviation violation; alone. Besides, deviation/additional deviation charges also increase due to mismatch between SEM/SCADA. It is thus suggested that there should be some commercial mechanism to penalize agencies for unreliable/inaccurate data and for not maintaining the communication channel availability at stipulated level of 99.9% annually as per the (Communication System for inter-State transmission of electricity) Regulations, 2017 as compensation to DISCOMs instead of penalizing DISCOMs alone, through DSM Regulations.

So,DISCOMs DSM charges need to be based on SCADA data and additional charges (DSM account based on SEM data) on account of SEM/SCADA difference should be charged to SLDC/STU/CTU for not providing reliable/accurate real time data.

5. Hon'ble CERC has already introduced draft 5th amendment relaxing the sustained deviation Regulation from the prevailing one to a large extent, since the existing Regulation was impracticable to implement.

Therefore, sustained deviation violation penalties made applicable as per 4th amendment w.e.f. 01.01.19, should not be imposed on the State and be waived off.