

**Central Electricity Regulatory Commission
New Delhi**

Dated 20th November, 2018

AMENDMENT

No. L-1/132/2013-CERC – In exercise of powers conferred by Section 178 of the Electricity Act, 2003 and all other powers enabling it in this behalf and after previous publication, the Central Electricity Regulatory Commission, hereby makes the following regulations, to amend the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 (hereinafter referred to as the "Principal Regulations") namely:-

1. Short Title and Comments

- 1.1 These regulations may be called the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018.
- 1.2 These regulations shall come into force with effect from 01.01.2019 or on such other date as the Commission may appoint (through separate notification).

2. Amendment to Regulation 2 of the Principal Regulations:

- 2.1 A new sub-clause shall be added after sub-clause (c) of clause (1) of Regulation 2 of the Principal Regulations, as under :-

*“(ca) **“Area Clearing Price (ACP)”** means the price of a time block electricity contract established on the Power Exchange after considering all valid purchase and sale bids in particular area(s) after market splitting, i.e. dividing the market across constrained transmission corridor(s).”*

- 2.2 A new sub-clause shall be added after sub-clause (g) of clause (1) of Regulation 2 of the Principal Regulations, as under :-

“(ga) **“Day Ahead Market (DAM)”** means a market where physical delivery of electricity occurs on the next day (T+1) of the date of transaction (T) and is governed by the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 (as amended from time to time), the Rules and Bye-Laws of the Power Exchanges as approved by the Commission.”

2.3 Sub-clause (q) under clause (1) of Regulation (2) of the Principal Regulations shall be substituted as under :-

“(q) **“Time Block”** means the time block as defined in the CERC (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time”

3. Amendment of Regulation 5 (Charges for Deviations) of the Principal Regulations:

3.1 The table along with the note in parenthesis below the table in clause (1) of Regulation 5 of the Principal Regulations shall be substituted as under :-

“

Average Frequency of the time block (Hz)		Charges for Deviation (Paise/kWh)
Below	Not Below	
	50.05	0.0
50.05	50.04	Slope determined by joining the price at Not Below 50.05 Hz and identified price at 50.00 Hz, and as detailed in the note below this Regulation
50.04	50.03	
50.03	50.02	
50.02	50.01	Daily (simple) average Area Clearing Price discovered in the Day Ahead Market segment of power exchange
50.01	50.00	
50.00	49.99	Slope determined by joining the price
49.99	49.98	

49.98	49.97	identified at 50.00 Hz and price at below 49.85 Hz, and as detailed in the note below this Regulation
49.97	49.96	
49.96	49.95	
49.95	49.94	
49.94	49.93	
49.93	49.92	
49.92	49.91	
49.91	49.90	
49.90	49.89	
49.89	49.88	
49.88	49.87	
49.87	49.86	
49.86	49.85	
49.85		

Note:-

- i. *The Deviation Settlement Mechanism (DSM) rate vector will have a dynamic slope determined by joining the identified price points at 50 Hz. (daily simple average ACP), frequency of 49.85 Hz (Rs. 8 per unit) and 50.05 Hz (zero) on a daily basis.*
- ii. *The maximum ceiling limit applicable for average Daily ACP discovered in the DAM segment of Power Exchange at 50.00 Hz shall be 800 Paise/kWh.*
- iii. *Charges for deviation for each 0.01 Hz step shall be equivalent to the Slope determined by joining the price at 'Not below 50.05 Hz' and 'identified price at 50.00 Hz' in the frequency range of 50.05-50.00 Hz, and to the Slope determined by joining the 'price identified at 50.00 Hz' and price at 'below 49.85 Hz' in frequency range 'below 50 Hz' to 'below 49.85 Hz'.*
- iv. *The daily simple average ACP of the Power Exchange having a market share of 80% or more in energy terms on a daily basis shall be taken into consideration for linking to the DSM price vector. If no single Power Exchange is having a market share of 80% or more, the weighted average day-ahead price shall be used for linking to the DSM price.*

- v. *Daily simple average Area Clearing Prices (ACP) in the day-ahead market (exclusive of any transmission charges and transmission losses) shall be used as the basis for market linked DSM price at 50 Hz.*

Provided that based on a review of the above mechanism within one year or in such time period as may be decided by the Commission, if the Commission is satisfied that the market conditions permit, the basis for market linked DSM price shall be substituted, by the time-block-wise ACP in the day ahead market or as and when the real time market is introduced, by the hourly ACP or the ACP of such periodicity as may be considered appropriate by the Commission.

- vi. *In case of non-availability of daily simple average ACP due to no-trade on a given day, daily simple average ACP of the last available day shall be considered for determining the DSM charge.*

- vii. *Deviation price shall be rounded off to nearest two decimal places.*

- viii. *An illustration to the DSM price vector specified in table above, is provided as Annexure-I*

- ix. *The National Load Despatch Centre (NLDC) shall act as the Nodal Agency to declare the daily DSM rates and shall display all relevant information on its website.”*

- 3.2 Proviso (i) to clause (1) of Regulation 5 of the Principal Regulations shall be substituted as under :-

(i) the charges for the deviation for the generating stations whose tariff is determined by the Commission, when actual injection is higher or lower than the scheduled generation, shall not exceed the Cap Rate as per the methodology specified in clause (3) of Regulation 5 of the Principal Regulations.

- 3.3 Proviso (ii) to clause (1) of Regulation 5 of the Principal Regulations shall be substituted as under :-

“(ii) the charges for the deviation for the generating stations other than those covered under proviso (i) of this Regulation, irrespective of the fuel

source, when actual injection is higher or lower than the scheduled generation, shall not exceed the Cap Rate of 303.04 Paise/kWh.”

- 3.4 Sub-clause (b) of clause (2) of Regulations 5 of the Principal Regulations shall be substituted as under :-

"(b) The Charge for Deviation corresponding to grid frequency interval of 'below 50.01 Hz and not below 50.0 Hz' shall be daily average Area Clearing Price discovered in the Day-Ahead Market (DAM) segment of Power Exchange. The daily simple average ACP of the Power Exchange having a market share of 80% or more in energy terms on a daily basis shall be used for linking to the DSM price. If no single Power Exchange is having a market share of 80% or more, the weighted average daily simple average ACP shall be considered".

- 3.5 In sub-clause (c) of clause (2) of Regulation 5 of the Principal Regulations, the words "below 49.70 Hz" shall be substituted by the words "below 49.85 Hz".

- 3.6 Sub-clause (d) of clause (2) of Regulation 5 of the Principal Regulations shall be substituted as under :-

"(d) The Charge for Deviation at grid frequency 'below 49.85 Hz' shall be 800 Paise/KWh."

- 3.7 Clause (3) of Regulation 5 of the Principal Regulations shall be substituted as under :-

"(3) The Cap rate for the charges for deviation for the generating stations whose tariff is determined by the Commission shall be equal to its energy charges as billed for the previous month.

Provided that no retrospective revision of DSM account shall be allowed even if the energy charges are revised at a later date."

- 3.8 Clause (4) of Regulation 5 of the Principal Regulations shall be substituted as under :-

“(4) The linkage of deviation charges to frequency may be reviewed by the Commission, keeping in view the changing power market conditions.”

- 3.9 In clause (5) of Regulation 5 of the Principal Regulations, the words “RLNG Rs. 8.24 / kWh sent out” shall be substituted by “*RLNG Rs.8.00 / kWh sent out*”.

4. Amendment of Regulation 7 (Limits on Deviation volume and consequences of crossing limits) of the Principal Regulation:

- 4.1 In clause (1) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above and below 50.10 Hz” shall be substituted by the words “*49.85 Hz and above and below 50.05 Hz*”.

- 4.2 In first proviso to clause (1) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above and below 50.10 Hz” shall be substituted by the words “*49.85 Hz and above and below 50.05 Hz*”.

- 4.3 In second proviso to clause (1) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “*below 49.85 Hz*” and the words “50.10 Hz and above” shall be substituted by the words “*50.05 Hz and above*”.

- 4.4 A new Proviso to clause (1) of Regulation 7 of the Principal Regulations shall be added after the second proviso, as under :-

“Provided also that from a date not earlier than one year as may be notified by the Commission, the total deviation from schedule in energy terms during a day shall not be in excess of 3% of the total schedule for the drawee entities and 1% for the generators and additional charge of 20% of the daily base DSM payable / receivable shall be applicable in case of said violation.”

- 4.5 In clause (2) of Regulation 7 of the Principal Regulations, the words “49.70 Hz or above and below 50.10 Hz” shall be substituted by the words “*49.85 Hz or above and below 50.05 Hz*”.

- 4.6 In Proviso (i) to sub-clause (b) to clause (2) of Regulation 7 of the Principal Regulations, the words “49.70 Hz or above and below 50.10 Hz” shall be substituted by the words “49.85 Hz or above and below 50.05 Hz”.
- 4.7 In Proviso (iii) to sub-clause (b) of clause (2) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “*below 49.85 Hz*” and the words “50.10 Hz and above” shall be substituted by the words “*50.05 Hz and above*”.
- 4.8 In Proviso (v) to sub-clause (b) of clause (2) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “*49.85 Hz and above*”.
- 4.9 In clause (3) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “*49.85 Hz and above*”.
- 4.10 In Proviso (i) to clause (3) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “*49.85 Hz and above*”.
- 4.11 In Table-II to clause (3) of Regulation 7 of the Principal Regulations, the words “Cap Rate for Deviation of 303.04 Paise / kWh” wherever they occur, shall be substituted by the words “*Cap Rate being equivalent to the energy charges as billed for the previous month*”.
- 4.12 In clause (4) of Regulation 7 of the Principal Regulations, the words “50.10 Hz and above” shall be substituted by the words “*50.05 Hz and above*”.
- 4.13 In clause (6) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz in accordance with the methodology specified in clause (8) of this regulation and the same shall be equivalent to 100% of the Charge for Deviation of 824.04 Paise / kWh corresponding to the grid frequency of ‘below 49.70 Hz’ ” shall be substituted by the words “*below 49.85 Hz in accordance with the methodology specified in clause (8) of this regulation and the same shall be equivalent to 100% of the Charge for*”

Deviation of 800 Paise / kWh corresponding to the grid frequency of 'below 49.85 Hz'.

- 4.14 In Proviso to clause (6) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “*below 49.85 Hz*” and the words “Cap Rate for Deviations of 303.04 Paise / kWh” shall be substituted by the words “*Cap Rate equivalent to the energy charges as billed for the previous month*”.
- 4.15 In clause (7) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “*49.85 Hz and above*”.
- 4.16 In clause (8) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “*below 49.85 Hz*”.
- 4.17 In proviso to clause (8) of Regulation 7 of the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “*below 49.85 Hz*”.
- 4.18 In clause (9) of Regulation 7 of the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “*49.85 Hz and above*”.
- 4.19 Clause (10) of Regulation 7 of the Principal Regulations shall be substituted as under:

“In the event of sustained deviation from schedule in one direction (positive or negative) by any regional entity (buyer or seller), such regional entity shall have to change sign of their deviation from schedule, at least once, after every 6 time blocks. To illustrate, if a regional entity has positive deviation from schedule from 07.30 hrs to 09.00hrs, sign of its deviation from schedule shall be changed in the 7th time block i.e. 09.00hrs to 09.15hrs from positive to negative or vice versa as the case may be.

Provided that violation of the requirement under this clause shall attract an additional charge of 20% on the daily base DSM payable / receivable as the case may be.”

- 4.20 A new clause shall be added after clause (11) of Regulation 7 of the Principal Regulations, as under :-

“(11a) The additional charge for violation of sign change stipulation shall be leviable for each such violation during a day.

To illustrate, the change of sign should take place at least once after every six time blocks. Accordingly, the entity, starting from time block t_1 , should change the sign after time block t_6 . In case, sign change does not take place immediately after time block t_6 , but takes place from time block t_7 upto time block t_{12} , additional charge shall be levied equivalent to one violation. In case, sign change does not take place immediately after time block t_{12} , but takes place from time block t_{13} upto time block t_{18} , additional charge shall be levied equivalent to two violations.

Provided that in case of run of river projects without pondage, payment of additional charge for failure to adhere to sign change requirement shall apply from such date as may be notified by the Commission. Such generators shall, however, be required to follow the sign change requirement and report to POSOCO the reasons for non-adherence to the requirement”

5. Amendment of Annexure-I (Methodologies for the computation of Charges of Deviation for each regional entity for crossing the volume limits specified for the over-drawal / under-injection by Buyer / Seller [except Renewable Rich State]) of the Principal Regulations :-

- 5.1 In clause 1 of Annexure-I to the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “49.85 Hz and above”.
- 5.2 In Note under Illustration B of sub-clause B(iii) of clause 1 of Annexure-I to the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “49.85 Hz and above”.
- 5.3 In Note under Illustration B in sub-clause (B)(iii) of clause 1 of Annexure-I to the Principal Regulations, the words “Cap Rate for Deviations of 303.04 Paise / kWh” shall be substituted by the words “Cap Rate being equivalent to the energy charges as billed for the previous month”.
- 5.4 In clause 2 of Annexure-I to the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “below 49.85 Hz”.

5.5 In clause 2 of Annexure-I to the Principal Regulations, the words “824.04 Paise / kWh” shall be substituted by the words “800 Paise / kWh”.

5.6 In Note under clause 2 of Annexure-I to the Principal Regulations, the words “cap rate for deviations of 303.04 Paise / kWh” shall be substituted by the words “Cap Rate as specified in clause 5(3) of these Regulations”.

5.7 In Note under clause 2 of Annexure-I to the Principal Regulations, the words “below 49.70 Hz” shall be substituted by the words “below 49.85 Hz”.

6. Amendment of Annexure-I-A (Methodologies for the computation of Charges of Deviation applicable to Renewable Rich States for crossing the volume limits specified for the over-drawal / under-injection) of the Principal Regulation:

6.1 In clause 2 of Annexure-I-A to the Principal Regulations, the words “49.70 Hz and above” shall be substituted by the words “49.85 Hz and above”.

6.2 In clause 2 of Annexure-I-A to the Principal Regulations, the words “824.04 Paise / kWh” shall be substituted by the words “800 Paise / kWh”.

7. Amendment of Annexure-II (Methodologies for the computation of Charges of Deviation for each regional entity for crossing the volume limits specified for the over-drawal / under-injection by Buyer / Seller [except Renewable Rich State]) of the Principal Regulation:

7.1 In clause C of Annexure-II to the Principal Regulations, the words “50.10 Hz or above” shall be substituted by the words “50.05 Hz or above”.

8. Amendment of Annexure-II-A (Methodologies for the computation of Charges of Deviation applicable to Renewable Rich States for crossing the volume limits specified for the over-drawal / under-injection) of the Principal Regulation :-

8.1 In clause C of Annexure-II-A to the Principal Regulations, the words “50.10 Hz or above” shall be substituted by the words “50.05 Hz or above”.

Sd/-
(Sanoj Kumar Jha)
Secretary

Note:

The Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2014 were published in Part III, Section 4, No. 06 of the Gazette of India (Extraordinary) dated 07.01.2014 and amended vide,

- (a) Corrigendum published in Part III, Section 4, No. 57 of the Gazette of India (Extraordinary) dated 17.02.2014
- (b) First Amendment Regulations, 2014 published in Part III, Section 4, No. 381 of the Gazette of India (Extraordinary) dated 31.12.2014
- (c) Second Amendment Regulations, 2015 published in Part III, Section 4, No. 272 of the Gazette of India (Extraordinary) dated 10.08.2015
- (d) Third Amendment Regulations, 2016 published in Part III, Section 4, No. 201 of the Gazette of India (Extraordinary) dated 16.05.2016

Annexure-I

Illustration to the DSM Price Vector specified in Table under Clause 3.1

Average Frequency of the time block (Hz)		Charges for Deviation (Paise/kWh)
Below	Not Below	
	50.05	0.00
50.05	50.04	1xP/5
50.04	50.03	2xP/5
50.03	50.02	3xP/5
50.02	50.01	4xP/5
50.01	50.00	P
50.00	49.99	50.00+15xP/16
49.99	49.98	100.00+14xP/16
49.98	49.97	150.00+13xP/16
49.97	49.96	200.00+12xP/16
49.96	49.95	250.00+11xP/16
49.95	49.94	300.00+10xP/16
49.94	49.93	350.00+9xP/16
49.93	49.92	400.00+8xP/16
49.92	49.91	450.00+7xP/16
49.91	49.90	500.00+6xP/16
49.90	49.89	550.00+5xP/16
49.89	49.88	600.00+4xP/16
49.88	49.87	650.00+3xP/16
49.87	49.86	700.00+2xP/16
49.86	49.85	750.00+1xP/16
49.85		800.00

Where P is the Daily average Area Clearing Price in paisa per kwh discovered in the Day Ahead Market segment of power exchange.