

पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)



पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016
Registered & Corporate Office : 1st Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016
CIN : U40105DL2009GOI188682, Website : www.posoco.in, E-mail : posococc@posoco.in, Tel.: 011- 41035696, Fax : 011- 26536901

संदर्भ संख्या: पोसोको/एनएलडीसी/2018/

दिनांक: 31st December, 2018

सेवा मे,

1. Member Secretary, NRPC New Delhi
2. Member Secretary, WRPC Mumbai
3. Member Secretary, SRPC Bengaluru
4. Member Secretary, ERPC Kolkata
5. Member Secretary, NERPC Shillong

विषय: Implementation of Deviation Settlement Mechanism (DSM) and related matters (Fourth Amendment) Regulations, 2018

संदर्भ: 1. CERC Amendment: No. L-1/132/2013-CERC dated 20th November, 2018

2. POSOCO letter no: पोसोको/एनएलडीसी/2018/370 dated 21st December, 2018

3. CERC letter no: L-1/132/2013-CERC dated 31st December, 2018

महोदय,

This has the reference to CERC letter no L-1/132/2013-CERC dated 31st Decemeber, 2018 (Annexure-I) directing Nodal Agency (NLDC) for resolving the issues raised by stakeholders/Regional Power Committee (RPCs) on implementation of DSM 4th Amendment Regulations.

In this regard, reference is invited to NLDC's communication dated 21st December, 2018 wherein resolution to few issues have been indicated (copy enclosed for ready reference as Annexure-II).

Further to above, resolution to other residual issues raised are indicated in Annexure-III.

The above is submitted as per the direction of Hon'ble Commission.

सादर धन्यवाद,

भवदीय,


(Debasis De)

Chief General Manager (I/C)

Copy To:

1. Secretary, CERC, 3rd & 4th Floor, Chandralok Building, Janpath, New Delhi
2. Member (GO & D), Central Electricity Authority (CEA), Sewa Bhawan, Delhi
3. Chief Engineer, NPC, New Delhi
4. Executive Director, NRLDC/ERLDC/WRLDC/SRLDC/NERLDC

Enclosure: As above



सत्यमेव जयते

Annexure-I

केन्द्रीय विद्युत विनियामक आयोग
CENTRAL ELECTRICITY REGULATORY COMMISSION



No. L-1/132/2013-CERC

Dated 31.12.2018

To

The Chairman & Managing Director
Power System Operation Corporation Limited
1st Floor, B-9, Qutab Institutional Area
Katwaria Sarai
New Delhi-110016

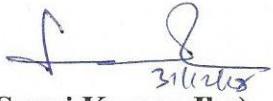
**Sub: Implementation of CERC (Deviation Settlement Mechanism and related matters)
(Fourth Amendment) Regulations, 2018**

Sir,

The Central Electricity Regulatory Commission has notified the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 on 20.11.2018. As per Clause 1.2 of this amendment, the Regulations shall come into force with effect from 1.1.2019.

2. In the context of implementation of these Regulations, references from some of the stakeholders were received in the Commission. POSOCO, vide their letter dated 21.12.2018 have also submitted their observations. The issues raised in the references received from stakeholders are operational / procedural in nature. National Load Despatch Centre (NLDC) being the Nodal Agency [reference Note ix to Clause 3.1 of the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018], is advised to resolve the same.

3. This issues with the approval of the Commission.


(Sanoj Kumar Jha)
Secretary

Copy to:

1. Eastern Regional Power Committee, Kolkata
2. Northern Regional Power Committee, New Delhi
3. North Eastern Regional Power Committee, Shillong
4. Southern Regional Power Committee, Bangalore
5. Western Regional Power Committee, Mumbai

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संदर्भ संख्या: पोसोको/एनएलडीसी/2018/ 370

दिनांक: 21st December, 2018

सेवा मे,

Secretary
Central Electricity Regulatory Commission
3rd & 4th Floor, Chandralok Building
Janpath, New Delhi

विषय: Implementation of Deviation Settlement Mechanism (DSM) and related matters (Fourth Amendment) Regulations, 2018

महोदय,

CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 is a welcome step. The amendment regulation factors the time, volume and geography in the DSM price. The amendment bolsters frequency control through dynamic, market-linked price vector capturing daily price variations and would discourage 'leaning' on the grid. There is provision of incentives to the market participants to plan and procure adequately in the electricity market in advance.

Detailed deliberations regarding the provisions of the DSM 4th Amendment Regulations and the implementation aspects were held through video conference on 19th December 2018 with all RLDCs & NLDC. The RLDCs/NLDC are fully geared up to implement the CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018 w.e.f 01st January, 2019. In the Amendment Regulations, National Load Despatch Centre (NLDC) has been designated as Nodal Agency for declaring the daily DSM rates applicable and to disseminate the relevant information through its website. Accordingly, the DSM Rates applicable shall be made available on a day-ahead basis in a suitable data exchange format (csv/pdf). A sample format is enclosed at Annexure – I for kind information.

There have been concerns raised on certain issues related to DSM accounting based on these amendments. These issues are illustrated in Annexure-II. It is felt that these issues could be handled as indicated and no major difficulty is expected in implementation of these amendments.

The above is submitted for kind information of the Hon'ble Commission and further directions, if any.

सादर धन्यवाद,

भवदीय,
(Signature)
(Debasis De) 21/12/18

Chief General Manager (I/C)

Copy To:

1. Member (GO & D), Central Electricity Authority (CEA), Sewa Bhawan, Delhi
2. Chief Engineer, NPC, New Delhi
3. Member Secretary NRPC New Delhi / WRPC Mumbai / SRPC Bengaluru / ERPC Kolkata / NERPC Shillong

Enclosure: As above

राष्ट्रीय भार प्रेषण केंद्र,
बी-9 (प्रथम तल), कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016

Date of Issue: 18-12-2018

Average Frequency of the time block (Hz)		Charges for Deviation (Paise/kWh) applicable for: 19 December 2018													
Below	Not Below	A1	A2	E1	E2	N1	N2	N3	S1	S2	S3	W1	W2	W3	Inter-Regional/ Cross-Border
	50.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.05	50.04	63.93	63.93	63.93	63.93	63.93	63.93	63.93	71.26	71.26	71.26	63.93	63.93	63.93	65.49
50.04	50.03	127.86	127.86	127.86	127.86	127.86	127.86	127.86	142.52	142.52	142.52	127.86	127.86	127.86	130.98
50.03	50.02	191.78	191.78	191.78	191.78	191.78	191.78	191.78	213.78	213.78	213.78	191.78	191.78	191.78	196.47
50.02	50.01	255.71	255.71	255.71	255.71	255.71	255.71	255.71	285.04	285.04	285.04	255.71	255.71	255.71	261.96
50.01	50.00	319.64	319.64	319.64	319.64	319.64	319.64	319.64	356.30	356.30	356.30	319.64	319.64	319.64	327.45
50.00	49.99	349.66	349.66	349.66	349.66	349.66	349.66	349.66	384.03	384.03	384.03	349.66	349.66	349.66	356.98
49.99	49.98	379.68	379.68	379.68	379.68	379.68	379.68	379.68	411.76	411.76	411.76	379.68	379.68	379.68	386.52
49.98	49.97	409.71	409.71	409.71	409.71	409.71	409.71	409.71	439.49	439.49	439.49	409.71	409.71	409.71	416.05
49.97	49.96	439.73	439.73	439.73	439.73	439.73	439.73	439.73	467.22	467.22	467.22	439.73	439.73	439.73	445.59
49.96	49.95	469.75	469.75	469.75	469.75	469.75	469.75	469.75	494.96	494.96	494.96	469.75	469.75	469.75	475.12
49.95	49.94	499.78	499.78	499.78	499.78	499.78	499.78	499.78	522.69	522.69	522.69	499.78	499.78	499.78	504.66
49.94	49.93	529.80	529.80	529.80	529.80	529.80	529.80	529.80	550.42	550.42	550.42	529.80	529.80	529.80	534.19
49.93	49.92	559.82	559.82	559.82	559.82	559.82	559.82	559.82	578.15	578.15	578.15	559.82	559.82	559.82	563.73
49.92	49.91	589.84	589.84	589.84	589.84	589.84	589.84	589.84	605.88	605.88	605.88	589.84	589.84	589.84	593.26
49.91	49.90	619.86	619.86	619.86	619.86	619.86	619.86	619.86	633.61	633.61	633.61	619.86	619.86	619.86	622.79
49.90	49.89	649.89	649.89	649.89	649.89	649.89	649.89	649.89	661.34	661.34	661.34	649.89	649.89	649.89	652.33
49.89	49.88	679.91	679.91	679.91	679.91	679.91	679.91	679.91	689.08	689.08	689.08	679.91	679.91	679.91	681.86
49.88	49.87	709.93	709.93	709.93	709.93	709.93	709.93	709.93	716.81	716.81	716.81	709.93	709.93	709.93	711.40
49.87	49.86	739.96	739.96	739.96	739.96	739.96	739.96	739.96	744.54	744.54	744.54	739.96	739.96	739.96	740.93
49.86	49.85	769.98	769.98	769.98	769.98	769.98	769.98	769.98	772.27	772.27	772.27	769.98	769.98	769.98	770.47
49.85		800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00

Average ACP/UMCP (Paise/kWh)	A1	A2	E1	E2	N1	N2	N3	S1	S2	S3	W1	W2	W3	UMCP
	319.64	319.64	319.64	319.64	319.64	319.64	319.64	356.30	356.30	356.30	319.64	319.64	319.64	327.45

	Cleared Volume (in MU)	Market Share
IEX	100.2	100%
PXIL	0.00	0%
Total	100.2	100%

Note 1. The Charges for Deviation are declared in compliance of CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018
2. Average Area Clearing Price (ACP) / Unconstrained Market Clearing Price (UMCP) shown above is based on, as the case may be, IEX/PXIL/Weighted Average Day-Ahead Prices

Bid Areas and States covered under Bid-Areas

Sr. No.	Bid Area	Region	States covered under Bid Area
1	N1	North Region	Jammu and Kashmir, Himachal Pradesh, Chandigarh, Haryana
2	N2	North Region	Uttar Pradesh , Uttarakhand, Rajasthan, Delhi
3	N3	North Region	Punjab
4	E1	East Region	West Bengal, Sikkim, Bihar, Jharkhand
5	E2	East Region	Orissa
6	W1	West Region	Madhya Pradesh
7	W2	West Region	Maharashtra, Gujarat, Daman and Diu, Dadar and Nagar Haveli, North Goa
8	W3	West Region	Chhattisgarh
9	S1	South Region	Andhra Pradesh, Telangana, Karnataka, South Goa
10	S2	South Region	Tamil Nadu, Puducherry
11	S3	South Region	Kerala
12	A1	North East Region	Tripura, Manipur, Mizoram, Nagaland
13	A2	North East Region	Assam, Arunachal Pradesh, Meghalaya
14	UMCP	All India	For Inter-Regional / Cross Border

Note: For Regional Entity, Charges for Deviation shall be applicable as per their respective Bid Area.

Extracts from CERC (Deviation Settlement Mechanism and Related Matters) (Fourth Amendment) Regulations, 2018

DSM Price Vector

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.

Issues related to Deviation Settlement Mechanism (DSM accounting) raised by some stakeholders

1. Settlement of Inter-regional and Cross-Border Deviations

The regions are interconnected through different bid areas on either side of the interconnection. In case of congestion between different bid-areas there may be multiple DSM rates. There may also be multiple prices in intra-regional bid areas (for example, S3, N3, etc.). Any congestion even for one time block would lead to average ACP being different for different bid areas being higher in the downstream congested area.

Further, there are cases of neighboring countries connected to different bid areas in India e.g., Nepal is connected to UP in NR and Bihar in ER, Bhutan is connected to ER and NER, etc. Thus, there is a possibility of multiple prices for one neighboring country while settling the deviations.

Therefore, in order to simplify the settlement of inter-regional and cross-border deviations, the unconstrained market clearing price (UMCP) may be used as a uniform price for settlement of all inter-regional and cross-border deviations.

2. Sustained Deviation from Schedule in One Direction

As per mandate provided in the regulations, sustained deviations in one direction (positive or negative) should be avoided and as a consequence, the sign of the deviation needs to change within 6-time blocks. As per the amended Regulation 7(10),

“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.”

From an implementation perspective, the sign change may occur up to the 7th time block. The number of violations would be counted on a rolling basis in line with the spirit of the Regulations and thus, there would be maximum of 16 violations possible on account of sustained deviation from schedule. The counting of the number of violations could be counted afresh from 00:00 Hrs of each day.

Failure to comply to this provision is considered a violation and an additional charge of 20% on the total *daily base DSM payable / receivable* is applicable. Hence, if there five (5) violations, the additional charges will be 100% of the total daily base DSM payable/receivable as applicable.

Residual issues related to Deviation Settlement Mechanism (DSM) raised by stakeholders

(i) Cap rate for the charges for deviation for the generating stations whose tariff is determined by the Commission

In accordance with clause 7.1 of (Ancillary Services Operations) Regulations, 2015, RRAS Provider are providing fixed charges and variable charges on monthly basis to the respective Regional Power Committees (RPCs).

The rate published by RPCs can be utilized for consideration of Cap rate for DSM purposes. The rate shall be applicable from 16th of current month to 15th of next month. Any post-facto revision in rates/charges by RRAS providers shall not be permitted.

(ii) Daily Base DSM Rate

The daily base DSM Rate refers to the DSM payable/receivable without any additional charges for the day.

(iii) Cap rate for multi-fuel stations (gas/RLNG/Liquid)

Generally, gas-based stations are using multiple fuels i.e., gas or RLNG or Liquid. It is suggested that the variable charges (declared for RRAS) for generation on the costliest fuel scheduled time block wise may be considered for the cap rate for DSM.