

# पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)



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पोसोको क.वि.वि.आ/

दिनांक : 31<sup>st</sup> July, 2018

सेवा में,

सचिव,

केन्द्रीय विद्युत् विनियामक आयोग,  
तृतीय और चतुर्थ तल, चंद्रलोक बिल्डिंग  
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**विषय:** केन्द्रीय विद्युत् विनियामक आयोग ( विचलन व्यवस्थापन तंत्र एवं सम्बंध मामले) चतुर्थ संसोधन, 2018 सम्बंधित पो.सो.को के सुझाव

संदर्भ. केन्द्रीय विद्युत् विनियामक आयोग पब्लिक नोटीस नम्बर.L-1/132/2013/CERC

दिनांक 20<sup>th</sup> June, 2018

महोदया .

उपरोक्त केन्द्रीय विद्युत् विनियामक आयोग नोटीस के अंतर्गत, केन्द्रीय विद्युत् विनियामक आयोग ( विचलन व्यवस्थापन तंत्र एवं सम्बंध मामले) चतुर्थ संसोधन, 2018 सम्बंधित पो.सो.को के सुझाव संलग्नित है.

सादर धन्यवाद.

भवदीय,

*राजेश कुमार*

*(एस.आर. नरसिम्हन)*

(एस.आर. नरसिम्हन)

महाप्रबन्धक, रा.भा.प्रे.के.

**Power System Operation Corporation Limited**  
**National Load Despatch Center, New Delhi**

**4<sup>th</sup> Amendment to the CERC DSM Regulations, 2014**  
**Views/Suggestions on behalf of RLDCs/NLDC**

**Dated: 31<sup>st</sup> July 2018**

CERC has notified the draft 4<sup>th</sup> Amendment to the CERC DSM Regulations, 2014 for stakeholder consultations. The proposed amendment is a welcome step in terms of making the DSM vector dynamic to take care of the changing market scenario and would go a long way in facilitating secure and reliable operation of the grid.

The following views/suggestions are being submitted on behalf of the RLDCs/NLDC.

**Introduction**

The following strengths of the existing DSM mechanism which are also captured in the draft amendment are as follows:

- Frequency linked Real Time Imbalance Pricing
- Promotes Efficiency and Merit Order Despatch
- Perfect Information
- Known ex-ante to everyone
- Provides a negative feedback loop for automatic correction
- Facilitates achieving marginal cost despatch
- Diffusion of market power and choice to buyers & sellers
- Simple to calculate
- No post facto adjustment
- Discourages advertent deviations
- Highest priority in payment
- Hysteresis to disincentive possible misuse
- Special provisions for RE rich states

The following additional/new features which were hitherto absent in the existing DSM mechanism have also been incorporated in the draft amendment:

- Dynamic, market linked Price Vector capturing the daily price variations
- Captures the "value" of electricity as against, earlier, where a cost-based approach was adopted
- Interplay of Prices in various market segments is captured & misuse is avoided
- Time value of Electricity
- Geographical Location and Transmission Congestion has been captured by the linkage to the 'Area Clearing Price (ACP)'
- Strong disincentive to generators to deviate as their DSM price is linked to the respective variable charges
- The frequency band for the purposes of DSM has been aligned with the mandated operational frequency band as per IEGC with a limited tolerance (49.70-50.10 Hz changed to 49.85-50.05 Hz)

- Lesser opportunity for gaming
- Daily volume limits in terms of energy have been introduced to encourage more accurate demand forecast and endeavor for better portfolio management
- Commercial implications have been introduced for violation in meeting the requirement for sign change of the deviation

The above measures would enhance the secure and reliable operation of the grid.

#### Issue-wise/Para-wise Suggestions

- (a) The clause “*shall be equal to its energy charges as billed for the previous month*” has been mentioned in the Clauses 3.6, 4.11, 4.14 and 5.3 of the draft amendments. These “energy charges” are the variable charges to be declared by the generator.

In this context, it is suggested that it may clearly be specified that the “energy charges” for the purpose of DSM computations shall mean the variable charges declared by the generators for the purpose of despatch under Reserve Regulation Ancillary Services (RRAS) as per Format AS-1. Because of the monthly billing cycle and the fact that these are for the previous month, the previous month charges as billed are declared for use under RRAS from the 16<sup>th</sup> of the current month to the 15<sup>th</sup> of the following month. The same periodicity shall be followed for the purpose of preparation of the DSM Accounts by the RPC.

It may also be clearly specified in the amendments that there shall be no retrospective revision of the DSM accounts because of the changes in these “energy charges” declared by the generators.

- (b) Clause 3.7 of the draft amendment mentions the following:

*“(4) The charges for deviation linked to Day Ahead Market prices shall be reviewed by the Commission after **six months** from the date of notification of these amendments.”*

In this context, it is suggested that the period of review may be changed from six months to one year as this would facilitate capturing the seasonal variations also.

- (c) Clause 4.4 of the draft amendment mentions the following:

*“Provided also that 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.”*

The above provision covers drawee entities and generators but does not cover injecting entities which may be portfolio sellers. Hence, the Clause 4.4 may be modified as suggested below:

*“Provided also that 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 violation.”*

(d) Clause 4.19 of the draft amendment mentions the following:

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

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

The objective of this provision is to ensure that the deviation is truly inadvertent. Earlier this provision was for 12 time blocks which has been reduced to 6 time blocks in this amendment. Presently, AGC and reserves are being implemented pan-India and in view of this, the number of blocks may be reviewed in due course.

#### **Additional Suggestions**

(a) The proposed amendment envisages the use of ACP for the purpose of DSM. Within the region if congestion occurs (say N3 splits), then, the different entities shall pay as per their applicable DSM rate based on the ACP. It may also happen that the market splitting occurs at the inter-regional boundary. In such cases, there would be a difference in the rates of payee region and the recipient region. In order to resolve this issue, there is an urgent need to implement inter-regional scheduling on net-basis and the "National DSM Pool".

(b) Clause 5.5 of the existing DSM Regulations mentions the following:

*"The infirm power injected into the grid by a generating unit of a generating station during the testing, prior to COD of the unit shall be paid at Charges for Deviation for infirm power injected into the grid, consequent to testing, for a period not exceeding 6 months or the extended time allowed by the Commission in the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access and related matters) Regulations, 2009, as amended from time to time, subject to ceiling of Cap rates corresponding to the main fuel used for such injection as specified below....."*

Here the charges have been specified in the Regulations for domestic coal/lignite/hydro, APM gas, imported coal and RLNG. It is pertinent to mention here that large wind/solar parks which are falling in the jurisdiction of the RLDCs are being progressively commissioned over the next few months. During the commissioning phase, some infirm power is also being injected by these plants into the grid. It is hereby suggested that the rate at which payment of such infirm RE power shall be made from the DSM Pool may be clearly specified in the amendment.

- (c) The market linked DSM rates would act as a strong incentive for the market to balance the portfolio well in advance. In order to facilitate this, more market opportunities need to be provided to the participants. CERC has already floated a discussion paper on "Re-designing Real Time Markets in India" where further efforts are required to develop such market opportunities.
- (d) Hitherto, the DSM rate vector was being declared by the Hon'ble Commission and was known upfront to the participants. With the implementation of the proposed amendment, the DSM rate vector will change on a daily basis. Hence, as there are multiple Power Exchanges in the country, NLDC would be required to publish the applicable DSM on the website of the RLDCs/NLDC on a daily basis for the advance information of the participants and facilitating DSM Accounts by the RPCs.
- (e) Provisions for third party audit of the RPC accounts may also be considered appropriately in the Regulations.