

एन एच डी सी लिमिटेड

(एनएचपीसी लिमिटेड एवं मध्यप्रदेश शासन का संयुक्त उद्यम)

**NHDC Limited**

(A Joint Venture of NHPC Limited & Govt. of MP)

NHDC/1/ Commercial/21 / A45

Date 22.10.2021

To,

**Secretary,**

Central Electricity Regulatory Commission,

3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building,

36, Janpath, New Delhi- 110001.

**Sub: Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021 – Comments thereof.**

*Ref: Public Notice No. L-1/260/2021/CERC Dated 08th October 2021*

Sir,

With reference to cited subject, NHDC hereby submit its comments / suggestions as per 'Public Notice No. L-1/260/2021/CERC dated 08th October 2021' for kind consideration and suitably incorporation of the same while deciding the commercial mechanism for the CERC (Deviation settlement mechanism and related matters) Regulations, 2021.

Thanking you,

**Encl.: As above.**

**Yours faithfully,**

**General Manager  
(Commercial)**

**NHDC Ltd., Bhopal**

*General Manager(Commercial)  
NHDC Limited, Bhopal*

पंजीकृत कार्यालय: एनएचडीसी परिसर, होटल लेकव्यू अशोक के पास, श्यामला हिल्स, भोपाल 462013 (म.प्र.)  
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**PREFACE**

There is need for reliable and flexible generation resources for balancing and flexibility due large integration of RE. The flexibility rendered by hydro generators viz. overload capability, fast ramping & peaking support etc. has already been well established.

The requirement of Ramp-up and Ramp-down can be fulfilled from hydro and other gas power plants only. Further, as per provisions in IEGC, the hydro generator are required to increase their generation upto 110% of their MCR when frequency falls suddenly based on the droop setting provided in the unit.

The proposed regulation seems contrary to the prevailing IEGC regulations as the governor of the unit will respond upto 110% of rated load on reduction in grid frequency and the regulation sets the limit as 2% for over injection and generator would be penalized for over injection beyond 2% deviation. Further, the draft regulation is silent over compensation to Seller for the additional energy (i.e. beyond schedule) fed from generator due to RGMO action.

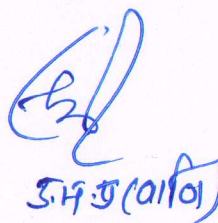
In addition to this, the charges for injection of infirm power recover some of investment upfront and thus beneficiaries would have to pay lower tariff on account of reduction in the capital cost.

**Accordingly, Hon'ble CERC may be requested to kindly retain the existing provisions.**

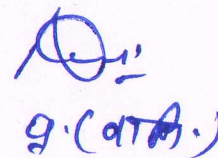
*Our pointwise comments on DSM Draft Regulations 2021 is enclosed as Annexure-1 & 2.*



General Manager (Commercial)  
NHDC Limited, Bhopal



S.H.D. (A/101)



G. (ATA)



## 8. Charges for Deviation

(1) Charges for deviation in a time block by a seller shall be payable by such seller as under: [A]

| Entity   | Charges for deviation payable to Deviation and Ancillary Service Pool Account [B]  |   |
|--|--|---|
| Seller   | Deviation by way of over injection [C]   | Deviation by way of under injection   |
| For a general seller other than an RoR generating station or a generating station based on municipal solid waste | (i) Zero up to 2% Deviation-general seller (in %); [D]<br><br>(ii) @ 10% of the normal rate of charges for deviation beyond 2% Deviation-general seller (in %) [F] | (i) @ normal rate of charges for deviation up to 2% Deviation-general seller (in %); [E]<br><br>(ii) @ 110% of the normal rate of charges for deviation beyond 2% Deviation-general seller (in %). [G]  |
| For a general seller being an RoR generating station   | Zero   | (i) @ normal rate of charges for deviation up to 12% Deviation-general seller (in %);<br><br>(ii) @ 110% of the normal rate of charges for deviation beyond 12% Deviation-general seller (in %).  |
| For a general seller being a generating station based on municipal solid waste                                   | Zero   | (i) Zero up to 20% Deviation-general seller (in %);<br><br>(ii) @ normal rate of charges for deviation beyond 20% Deviation-general seller (in %). limit.   |
| For WS seller  | Zero   | (i) Zero up to 10% Deviation-WS seller (in %);<br><br>(ii) @ 10% of the normal rate of charges for deviation beyond 10% Deviation-WS seller (in %):<br><br>Provided that such seller shall pay back to the Deviation and Ancillary Service Pool Account for the total shortfall in energy against its schedule in any time block due to under injection, (a) at the contract rate at which it has been paid based on schedule, or (b) in the absence of a contract rate at the rate of the Area Clearing Price of the Day Ahead Market for the respective time block. |

Note :- Comments/Suggestions/Objections w.r.t. points [A], [B], [C], [D], [E], [F] & [G] as marked above are enclosed in Annexure-2

**Indira Sagar Power Station (8 x 125 = 1000 MW) Hydro Electric Plant, NHDC Ltd, Madhya Pradesh**

Considering the obligation on part of Storage type Hydro Generating Stations to comply with the Provisions of Part 5 of the CERC - (Indian Electricity Grid Code i.e. IEGC) regulation with all its amendments, the Generation of the Storage type Hydro Power Stations are bound to deviate from the schedule with the deviation in the network frequency from 50 Hz due to RGM/FGMO action of the governor.

In view of above compliance to be made by the Storage type Hydro Power Stations, the following comments/suggestions are deliberated for inclusion in the regulation:-

[A]

**Given in Draft Regulation :** "Charges for deviation in a time block by a seller shall be payable by such seller as under".

**Suggestion/Comments/Objections proposed by NHDC :** "Charges for deviation in a time block by a seller shall be payable by such seller or receivable to seller as under"

**Reason :** Generating Stations should be incentivised for supporting the grid stabilization by way of primary response i.e. over injection of additional Power.

[B]

**Given in Draft Regulation :** "Charges for deviation payable to Deviation and Ancillary Service Pool Account"

**Suggestion/Comments/Objections proposed by NHDC :** "Charges for deviation payable/receivable to/from Deviation and Ancillary Service Pool Account"

**Reason :** Generating Stations should be incentivised for supporting the grid stabilization by way of primary response i.e. over injection of additional Power.



[C]

**Given in Draft Regulation :** "Deviation by way of over injection"

**Suggestion/Comments/Objections proposed by NHDC :** "Deviation by way of over injection" **receivable to seller"**

**Reason :** Generating Stations should be incentivised for supporting the grid stabilization by way of primary response i.e. over injection of additional Power.

[D]

**Given in Draft Regulation :** "Zero up to 2% Deviation-general seller (in %)"

**Suggestion/Comments/Objections proposed by NHDC :** "@ normal rate of charges for deviation up to 2% Deviation-receivable to general seller (in %)"

**Reason :**

Generating Units (Seller) who are maintaining there Units efficiently to provide primary response in the form of RGMO action should be incentivise for supporting the grid and should be encouraged for maintaining the generating units ready and at service for primary response.

As such, "DSM charges @ normal rate of charges for deviation up to 2% deviation – receivable to general seller" should be included in the regulation.

  
General Manager (Commercial)  
NHDC Limited, Bhopal

[E]

**Given in Draft Regulation :** "@normal rate of charges for deviation up to 2% Deviation – general seller (in %)".

**Suggestion/Comments/Objections proposed by NHDC :** "Zero when frequency is 50 Hz or above".

**Reason :**

- (1) AS per IEGC, governor should always be in operation. As per droop characteristics of governor, generator will automatically under inject at 50 Hz and above, in order to stabilize the grid. Under such situation, where governor is under injecting at frequency of 50 Hz and above, due to governor action in auto mode as envisaged in IEGC, there should not be any penalty in form of DSM charges. As such, DSM charges for under injection due to governor action in auto mode at frequency of 50 Hz and above should be Zero.
- (2) Penalising for governor action in auto mode (which is requirement of IEGC) at frequency of 50 Hz and above is not justified.

[F]

**Given in Draft Regulation :** @10% of the normal rate of charges for Deviation beyond 2% Deviation – general seller (in %)".

**Suggestion/Comments/Objections proposed by NHDC :** "@ 110% of the normal rate of charges for deviation beyond 2% Deviation – receivable to general seller (in %)".

**Reason :**

Generating Units (Seller) who are maintaining there Units efficiently to provide primary response in the form of RGMO action should be incentivise for supporting the grid and should be encouraged for maintaining the generating units ready and at service for primary response.

As such, "DSM charges @ 110% of normal rate of charges for deviation beyond 2% deviation – receivable to general seller" should be included in the regulation.

  
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[G]

**Given in Draft Regulation : @110% of the normal rate of charges for deviation beyond 2% Deviation – general seller (in %)**”.

**Suggestion/Comments/Objections proposed by NHDC : “Zero when frequency is 50 Hz or above”.**

**Reason :**

- (1) AS per IEGC, governor should always be in operation. As per droop characteristics of governor, generator will automatically under inject at 50 Hz and above, in order to stabilize the grid. Under such situation, where governor is under injecting at frequency of 50 Hz and above, due to governor action in auto mode as envisaged in IEGC, there should not be any penalty in form of DSM charges. As such, DSM charges for under injection due to governor action in auto mode at frequency of 50 Hz and above should be Zero.
- (2) Penalising for governor action in auto mode (which is requirement of IEGC) at frequency of 50 Hz and above is not justified.



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