



एनएचपीसी लिमिटेड
(भारत सरकार का उद्यम)

NHPC Limited
(A Government of India Enterprise)

फोन/Phone : _____

दिनांक/Date : _____ 13.10.2021

संदर्भ सं./Ref. No. NH/Comml./Tariff/29/2021/1209

Secretary
Central Electricity Regulatory Commission,
3rd & 4th Floor, Chanderlok Building,
36 - Janpath, New Delhi- 110 001
Fax: 011-23753923

Sub:- Comments on draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Regulated Matters) Regulations, 2021 - Reg.


Ref:- CERC Public notice No. L-1/260/2021/CERC dated 07.09.2021

Sir,

In reference to above public notice dated 07.09.2021, the comments / suggestions / objections of NHPC on the draft CERC (Deviation Settlement Mechanism and Regulated Matters) Regulations, 2021 are enclosed for further necessary action. The comments / suggestions / objections have been uploaded through SAUDAMINI portal under 'e-Regulation'. The soft copy of the same has also been emailed to secy@cercind.gov.in.

Thanking You,
Encl: As above

Yours Sincerely,


(S P Rathour)
General Manager (Comml.)

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बिजली से संबंधित शिकायतों के लिए 1912 डायल करें। Dial 1912 for Complaints on Electricity

**COMMENTS OF NHPC ON DRAFT CENTRAL ELECTRICITY
REGULATORY COMMISSION (DEVIATION SETTLEMENT
MECHANISM AND RELATED MATTERS) REGULATIONS'2021**

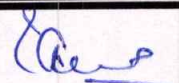
Govt. of India (GoI) has set the target for achieving 175 GW Renewable Energy (RE) integration in the country by 2022. Presently more than 100GW Renewable Energy (RE) has been commissioned and integrated with the grid and further commissioning of balance RE is under progress.

The need for reliable and flexible generation resources shall be required for balancing and flexibility due large integration of RE. In a large grid like India, the flexibility rendered by hydro generators viz. overload capability, fast ramping & peaking support etc. has already been well established and proven during the appealed by the Hon'ble Prime Minister of India to switch off their lights and light lamps/ candles on 5th April 2020 at 21:00 Hrs for 9 minutes to dispel the "deep darkness" that the pandemic, COVID-19.

Therefore, the requirement of ramp-up and ramp-down can't be ignored to balance the grid in view of large integration of RE in grid. The requirement of ramp-up and Ramp-down can be fulfilled from hydro and other gas power plants.

As on 10/09/2021, the all India hydro generation installed capacity is 46.41 GW against the total installed generation capacity of 388 GW. Northern region (NR) tops the list among the regions with an installed hydro generation capacity of 19278 MW which is 41.53% of the total hydro generation capacity of the country.

At present all India installed RE generation capacity is 100 GW while the available hydro resource for managing the associated variability and intermittency is 44.6 GW. The penetration level of hydroelectricity at national level stands at 12% of the aggregate installed capacity. This indicates the requirement of better flexibility from



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hydro resources at regional as well as national level for managing the uncertainty in renewable generation is utmost required.

The proposed draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021 does not provide any incentive to the hydro generators, which may affect the growth of hydro generators.

In light of above, the comments on draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021 is as under:


1. Regulation 8(3)(a): The charges for deviation for injection of infirm power shall be zero

The charges for injection of infirm power would be beneficial for the generating company as it would recover some of its investment upfront and at the same time, the beneficiaries would have to pay lower tariff after commissioning on account of reduction in the capital cost in lieu of revenue generated from Infirm Power.

Proposal of NHPC:

In view of above explanation, Hon'ble Commission is requested that the current regulation in respect of Infirm Power should be continued which would be beneficial to the Generators as well as DISCOMS.

2. Regulation 8(1): Charges for deviation payable to deviation and Ancillary Service Pool Account for a general seller other than an RoR generating station or a generating station based on municipal solid waste by way of over injection (i) Zero up to 2% Deviation-general seller (in %);

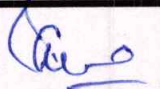


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As per Central Electricity Regulatory Commission (Indian Electricity Grid Code), regulations 2010 & its subsequent amendments, (clause 5.2.f System Security Aspects), all thermal generating units of 200 MW and above and all hydro units of 10 MW and above, which are synchronized with the grid, irrespective of their ownership, shall have their governors in operation at all times in accordance with the provisions in said regulation.

As per above provisions in IEGC, the hydro generator shall be required to increase their generation up to 110% of their MCR when frequency falls suddenly based on the droop setting provided in the unit. Whereas, the proposed draft DSM regulation says that the generator (A general seller other than an RoR generating station or a generating station based on municipal solid waste) would be penalized for over injection beyond 2% deviation, as per the rates defined in said draft regulation. The proposed regulation seems contrary to the prevailing IEGC regulations, to the extent it penalizes the generator for supporting the grid through governor action, 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.

Further, it is also to be submitted that unit capacity of hydro generating units varies from few MW to 250MW and there is wide range of variation in hydro unit capacity. In NHPC, the unit capacity of power station varies from 20 MW to 180MW and the allowable limit of 2% is marginal in terms of MW and will work out to around 0.4MW to 3.6MW, which is very negligible. The load of the hydro generating unit is frequency dependent and marginal variation in load is beyond the control of the generator.



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Proposal of NHPC:

In view of above explanation, Hon'ble Commission is requested to kindly retain the existing provisions of DSM Regulations'2014 for over injection into grid.

3. Regulation 8(1): Charges for deviation payable to Deviation and Ancillary Service Pool Account For a general seller being an RoR generating station (Zero charges by way of over injection):

It is intimated that objective of DSM regulation is to "maintain grid discipline and grid security as envisaged under grid code through commercial mechanism of deviation settlement will not be fulfilled in case of penalizing for under injection and not incentivizing for over injection.

The generation from RoR Stations are dependent on inflow. CERC has already considered these stations as 'Must Run' and provided provisions for revision in schedule to be effective w.e.f. 7th/8th time block for the request received in odd time block and even time block respectively, as the case may be. Further, the generation also gets affected due to high trash/high silt during monsoon period.

The proposed draft regulation provides zero charge in case of over injection i.e. no incentive to generators. Since RoR stations are not incentivize, any excess inflow may not be fully utilized by the generators. This is in contradiction of Hon'ble CERC order of 'Must Run' status of ROR Hydro stations.

Proposal of NHPC:

In view of above explanation, Hon'ble Commission is requested that the ROR Power plants should be incentivized, if over injection takes place due to sudden increase in inflow.



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4. Regulation 8(1): Charges for deviation payable to deviation and Ancillary Service Pool Account for a general seller other than an RoR generating station or a generating station based on municipal solid waste by way of under injection (ii) @ 110% of the normal rate of charges for deviation beyond 2% Deviation-general seller (in %)

Preventive and predictive maintenance of units are being carried out and in spite of that the units trip and tripping of unit is not in the control of Power Stations. Once unit is tripped, then as per Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019, the request for revision in schedule or declared capability shall be effective w.e.f. 7th time block or 8th time block for the request received in odd time block and even time block respectively, as the case may be.

In above circumstances, the generator has to pay additional penalties, considering the provisions in the proposed regulations levying penalty at the rates of 110% of normal DSM rate.

Proposal of NHPC:

In view of above explanation, Hon'ble Commission is requested that to avoid unintended heavy penalties of Generating Companies, it is proposed that the calculation of deviation till 7th or 8th time block payable by the generator (other than ROR) should be retained as per existing provisions of DSM Regulations, 2014.

