For Grid Stabilization Hydro Electric Plants offer most flexible and reliable generation of electricity, which is of increased importance in present scenario of addition of more and more RE (Solar and Wind) Generation. 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.

SJVN has following comments on draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021:

Clause 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 %).

SJVN's Comments: As per Central Electricity Regulatory Commission (Indian Electricity Grid Code), regulations 2010 & its subsequent amendments, (clause 5.2.f System Security Aspects), Hydro units of 25 MW and above shall have the capability of instantaneous picking up to 110 % of their MCR, when frequency falls suddenly. Moreover during lean season/less inflow period, RLDCs shall not the schedule the generating stations beyond ex-bus generation corresponding to 100% of the Installed capacity of the generating station. That means during lean season/less inflow period, there would be margin available to the RLDC, especially in peak period, from Ex-bus installed capacity up to 110 % of the MCR of the generating stations or unit thereof, for getting primary response, when frequency falls suddenly in the Grid. Thus, deviation of 2 % as mentioned in the draft Regulations is contrary to the provisions of prevailing IEGC Regulations. Also, beyond 2 % of over injection leading to the penalty to the generating stations, for supporting to the Grid, is not in line with the Electricity Act as well as rules and regulations framed for various CERC Regulations by not safeguarding the interest of generating companies. There is no incentive proposed in the draft regulations for Primary response given by the generator in terms of supporting the Grid.

Response of the generating stations, during frequency variations beyond the permissible limit, depends upon droop setting of the Generating unit(s). When Grid frequency is higher especially beyond 50.5 Hz, generating stations are supporting to the Grid by reduction of the generation based on the droop setting. Thus, supporting to the Grid by under injection of generating stations,

during high frequency, leading to the penalty (@ normal rate of charges for deviation up to 2 % and beyond 2 % @ 110 % of the normal rate of charges) is contrary and not in line with the principles laid down in the Electricity Act, 2003.

Proposed Regulation is silent about the frequency range for aforesaid 2 % deviation either during over injection/under injection. Generating unit(s) can not behave in similar way at each Grid frequency. The implementation of same may affect the primary response given by Generating station during frequency variation.

As of now in India, generation from renewable Energy sources are on increasing trend due to commissioning of more renewable project on year on year basis in comparison with hydro power projects. Renewable power is intermittent in nature; therefore there is a requirement to support the Grid by commissioning more and more Hydro Power projects in India. Hydro power projects provides faster response for starting and stopping of units as well as used for giving peaking support to the Grid. The provisions of Draft IEGC Regulation is not supporting for the Hydro generating stations. There is no incentive mentioned in the proposed IEGC Regulation, for supporting to the Grid, in case of frequency excursions. The proposed IEGC regulation may further reduce the investment /growth in the Hydro power sector by the project developer.

Further, to avoid DSM loss due to uncontrollable reasons it is proposed that, the calculation of deviation till 7th or 8th time block (till the revision becomes effective) the DSM payable by the generator (other than ROR) should be retained as per existing provisions.

Clause 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).

SJVN's Comments: The prime objective of DSM regulation is to "maintain grid discipline and grid security as envisaged under grid code through commercial mechanism of deviation settlement which will not be fulfilled in case of penalising for under injection and not incentivizing for over injection.

ROR stations have been considered as Must Run by Hon'ble CERC and the generation is dependent on the inflow available.

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

Therefore, it is requested that the ROR Stations may be provided some incentive, if over injection takes place due to sudden increase in inflow.

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

SJVN's Comments: The infirm power leads to reduction in the capital cost in lieu of revenue generated from Infirm Power.

Therefore, it is proposed that the current regulation in respect of Infirm Power may be continued which would be beneficial to the Generators as well as DISCOMS.