

Ref No: CC/RC/Deviation Regulations

Date: 21/10/2021

The Secretary,
Central Electricity Regulatory Commission,
3rd & 4th Floor, Chandralok Building,
36 Janpath, New Delhi-110001

Sub: Draft CERC (Deviation Settlement Mechanism and related matters) Regulations, 2021.

- Submission of comments/suggestions thereof.

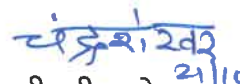
Sir,

This has reference to public notice ref. L-1/260/2021/CERC dated 07th September, 2021 vide which comments/ suggestions were sought on the subject draft Regulations.

In this regard, please find enclosed POWERGRID comments on draft CERC (Deviation Settlement Mechanism and related matters) Regulations, 2021.

Thanking you,

Yours faithfully,


(वी.सी. शेखर)
महाप्रबंधक (रेगुलेटरी सेल)

Encl: As above

- A. The proposed Regulations are a welcome step towards maintaining grid discipline in the light of various developments and the emerging market realities such as Ancillary Services Regulations.
- B. POWERGRID has taken allocation from Central Sector Generating Stations as per GOI orders for auxiliary power consumption in its HVDC station. These allocations are in the range of 1-4 MW per HVDC stations. Accordingly, POWERGRID is covered under the definition of Buyer of these regulations.

C. On this backdrop, issues being faced by POWERGRID are as follows;

1. **POWERGRID HVDC stations auxiliary power consumption is dependent upon on the quantum of power transferred by the HVDC system;**

Auxiliary power consumption of HVDC station is dependent mainly on following loads-

i. **Essential Loads:**

- (i) Valve cooling System
- (ii) Converter Transformer Cooling System
- (iii) Air conditioning System for C&P Equipment
- (iv) Valve Hall Ventilation System
- (v) UPS System
- (vi) Battery and Battery charger System

ii. **Normal Loads:**

- (i) Lighting system in the switchyard and control building
- (ii) Air conditioning system of areas other than control room
- (iii) Air compressors, fire-fighting water pumps, oil treatment system etc

Essential Loads are the loads whose failure affects the transmission capability of the HVDC system. Almost 60 % of this auxiliary power requirement is due to the valve cooling and converter transformer cooling when converter is normally operating at full power. The auxiliary power consumed by these systems is dependent on large no of fans and pumps which are turned on/off depending upon the power transferred by the HVDC system.

Accordingly, the quantum of power transferred by the HVDC system determines the auxiliary power requirement of HVDC System to a large extent.

The power transferred by HVDC System is varying as per instruction from POSOCO and therefore, POWERGRID does not have control over the auxiliary power consumption of HVDC station.

2. Deviation charges in case respective generating station is under shutdown;

- i. As already mentioned that POWERGRID has taken allocation from Central Sector Generating Stations for auxiliary power consumption in its HVDC station. In the event of shutdown of these Generating Stations such as RSD, due to AMP, tripping due to faults, emergency shutdown etc. or during lower declared capacity (DC) of its unit(s), the total scheduling entitlement of POWERGRID HVDC stations are proportionately reduced.

e.g. POWERGRID Biswanath Chariyali HVDC has a share allocation of 1.5 MW from 250 X 3 MW NTPC Bogaigaon and usually entitlement shown in the WBS Portal (in line with DC) is 0.455 MW per unit, i.e. total On bar entitlement is 1.365 MW.

In case generating station is under shut down then POWERGRID HVDC allocation becomes zero. Similarly, in case of outage of one unit at NTPC Bogaigaon, POWERGRID Biswanath Chariyali HVDC allocation gets proportionally reduced to 0.91 MW as On bar Entitlement of only 0.91 MW per block is available. However, actual requirement of HVDC is usually around 1.1 MW and DSM charges are levied for the balance 0.19 MW in that block, for no fault of them.

So, even though HVDC stations requires constant auxiliary power, there is a reduction in entitlement on pro-rata basis from balance available units, necessitating drawl of balance power from grid and attracting deviation charges.

As POWERGRID HVDC stations requirement is dependent on the quantum of power transferred by the HVDC system and beyond POWERGRID control, any reduction in scheduling of related generating stations leads to payment of deviation charges by HVDC stations.

D. In view of the above, following is requested

- I. No deviation charges may be levied on POWERGRID HVDC stations in case respective generating station is under shutdown.
- II. POWERGRID HVDC stations allocations may be treated from generating station as a whole and not in proportionate to available units. Hence, POWERGRID may be allowed to draw the allocated power even if only one unit of respective generation is injecting power. POSOCO may be directed to provide the necessary modification in WBS Portal in this regard.

**POWERGRID comments on draft
CERC (Deviation Settlement Mechanism and related matters)
Regulations, 2021**



- III. The fixed energy charges payable to respective generating stations may be based on actual consumption rather than allocation by system operator since real time power flow in each block for HVDC is controlled by POSOCO as per grid requirements.

Accordingly, it is requested that Power allocation for HVDC stations of POWERGRID may be exempted from proposed Deviation Regulations and billing for HVDC Sub-stations may be considered based on actual consumption of energy.

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