

**CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED**

छत्तीसगढ़ राज्य विद्युत पारेषण कम्पनी मर्यादित

(C.G. Govt. Undertaking) (छत्तीसगढ़ शासन का एक उपक्रम)

CHHATTISGARH STATE LOAD DESPATCH CENTRE: RAIPUR

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No.03-02/SLDC/ DSM/ CERC/ 863

Raipur, Dtd. 31 JUL 2018

To,

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Central Electricity Regulatory Commission,
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Sub: Comments/Suggestions/Objections on Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) (Fourth Amendment) Regulations, 2018.

Ref.: Public Notice No. L-1/132/2013/CERC, Dated: 29th June, 2018

SLDC, Chhattisgarh submits following Comments/Suggestions/Objections in the subject matter -

1. Draft Regulation clause - 3. Amendment of Regulation 5 (Charges for Deviations) of the Principal Regulations:

Revised reference frequency band of 49.85 Hz to 50.05 Hz (0.20 Hz Bandwidth) is proposed for the purpose of DSM Price Vector, whereas the existing frequency band is in the range of 49.70 Hz to 50.10 Hz (0.40 Hz Bandwidth). Thus the frequency bandwidth has been proposed to be reduced by 50% of earlier band width. Commercial mechanism can only serve its purpose of narrowing of the frequency band when revision in schedule is allowed to all the categories of open access (viz LTA, MTOA, STOA) without any restrictions; however charges may be imposed for each revision to avoid unnecessary revisions specially in case of STOA.

For example, if any generator (particularly CPP) who has scheduled power under day ahead under STOA and is not able to inject power as per schedule due to any reason then he cannot revise schedule as only two revisions are allowed during whole period of STOA. But if same generator schedules power under MTOA/LTA then any number of revisions is allowed subject to its implementation from 4th time block. This provision results in increased deviations. On the other hand if all the entities are allowed revisions as and when needed but subject to its implementation from 4th time block then the dispatch schedule will be closer to the real time dispatched energy.

Therefore it is requested to kindly consider same provisions for revision of schedule for all categories of open access (viz LTA, MTOA, STOA) and all the entities are allowed revisions as and when needed but subject to its implementation from 4th time block or from 3rd time block.

2. Additional issues needs consideration-

2.1 Date of Commercial Operation (CoD) of RE generators and definition of Absolute error requires consideration -

As per CERC (DSM and related matters) (2nd amendment) Regulation 2015, the RE generators (Wind & Solar) were brought under Deviation Settlement Mechanism, but their calculation of deviation charges differ from the conventional generators.

Absolute Error shall mean absolute value of the error in actual generation of wind and solar generators which are regional entities with reference to the scheduled generation and the 'Available Capacity' (AvC), as calculated using the following formula for each 15 minute time block:

$$\text{Error (\%)} = 100 \times [\text{Actual Generation} - \text{Scheduled Generation}] / \text{AvC}.$$

Available capacity (AvC) for wind or solar generator which are regional entities is the cumulative capacity rating of the wind turbines or solar inverters that are capable of generating power a given time block.

At present solar generators which are regional entities are being billed DSM Charges after allowing a tolerance band of +/-15% and beyond 15%, a gradient band is applicable as below:-

Abs Error (% of AvC)	Deviation Charge
Up to 15%	Nil
15%-25%	10% of PPA rate
25%-35%	20% of PPA rate
>35%	30% of PPA rate

The Hon'ble commission may appreciate that it is very difficult to get the authentic data of "**available capacity**" at regular interval of 15 minute without appointing a representative of beneficiary at the premises of the generator on 24x7x365 basis, or otherwise, accept the declared available capacity of the generating units (solar cell and inverter) as provided by the generators. Online solutions are time consuming and also not cost effective.

In above provision the available capacity is being used instead of schedule to calculate the deviation, which may result "**in gaming**", because generally the solar energy generated from the solar inverters installed at a particular location are dependent on the solar intensity radiation of that location, but while reckoning the available capacity the cumulative capacity rating of the solar inverters are considered.

In Chhattisgarh we have observed that one solar generator having registered Installed Capacity (IC) of 34Mw, generated maximum 26 Mw only, from date of installation. As the name plate rating of solar generating units are based on particular solar radiation intensity for which it is designed and therefore the same should be considered as de-rated in Chhattisgarh as compared to the rated capacity. But unfortunately there is no such provision in regulation to consider de-rated capacity. Consequently the calculation of the available capacity, absolute error, and DSM charges as per cumulative capacity rating of solar units resulted “undue financial gain” to the solar generators.

Therefore to avoid possibility of gaming, unnecessary cost of evaluation of available capacity, capacity de-rating etc it is requested to suitably amend the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2018

1. Include the definition/provision for the procedure of declaration of Date of Commercial Operation (CoD) of RE generators (especially for wind and solar generators) for capacity demonstration after successful trial run.
2. Absolute error should be calculated on the basis of “**schedule**” but not on the basis of “**available capacity**” of solar cells/wind mill. And to compensate this change, if needed, the deviation range may be increased from +- 15% to +-20%.

2.2 Additional issues needs consideration:- DSM charges to RE generators.

As per CERC (Deviation Settlement Mechanism and Related Matters) (Second Amendment) Regulations, 2018, Wind & Solar generators have been brought under the purview of deviation settlement mechanism and the Fixed Rate (PPA rate) is applicable for billing the DSM Charges for Wind & Solar generators. As per CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017 the CUF/PLF is 19% for Solar PV Project and 23% for Solar Thermal Project.

It is pertinent to mention here that the above Fixed Rate (PPA rate) includes “**fixed charges and variable charges**” both therefore in case of over injection RE generator gets “**double fixed charge**” i.e. one through DSM charges and another from buyer as applicable on the scheduled energy (i.e. generally whole fixed charges are payable for scheduled energy corresponding to 70 to 80% of contractual generation capacity).

Therefore our suggestion is that in case of over injection DSM charges payable to RE generator should be having only component of variable charges.


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- for information please.