

# TAMILNADU TRANSMISSION CORPORATION LIMITED

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Powering Tamil Nadu's Progress...

To  
The Secretary,  
Central Electricity Regulatory Commission,  
3 rd & 4<sup>th</sup> Floor, Chanerlok Building,  
36, Janpath,  
New Delhi - 110 001.

Lr. No: CE/GO/SE/LD&GO/EE/G/AEE/G/AE2/F. DSM/D. 243/2021, dt. 22.10.2021

Sir,

Sub: TANTRANSCO – Draft Central Electricity Regulatory Commission  
(Deviation Settlement Mechanism and related matters) Regulations, 2021  
dated 07.09.2021 – Comments/Suggestions – submission of -Reg.

Ref: CERC's Public Notice L-1/132/2013-CERC dt 18.04.19

The comments / suggestions /objections on the draft regulations of the DSM  
Regulations, 2021 with respect to Tamil Nadu are given below:

1. Clause (5) of the draft Regulation 2021: - Adherence to Schedule and  
Deviation

In this clause it has been insisted that beneficiaries shall adhere to its schedule  
and not deviate from the schedule. It has been proposed that any deviation shall be  
managed by the LD Centre as per the Ancillary service Regulations.

**Present scenario:**

At present the deviation made from the schedule (on over drawal side) by buyer  
has been balanced automatically in the real time grid operation in the following manner.

- Over injection by the other generators or sellers
- Under drawal by the other buyers

With the above condition, in order to maintain the system frequency closer to 50  
Hz, system operator deploys Ancillary services based on the requirement.

At present, the surplus generation available in view of non-requisition of power  
by the states from Central generating stations are only utilized for the ancillary services

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which is adequate to maintain the frequency closer to 50 Hz in the event of any abnormalities in the grid.

**Proposed Regulation:**

As per the proposed regulations, Ancillary services has to be deployed frequently to manage any deviations made by the generators/beneficiaries and to maintain the frequency closer to 50 Hz.

The draft Ancillary services Regulations 2021 introduces the Secondary Reserves Ancillary services and Tertiary Reserves Ancillary services. To deploy the secondary reserves ancillary services, implementation of AGC (Automatic Generation Control) is under progress to support the power system flexibility. As of now implementation of AGC at Central generating stations are nearing completion stage, whereas at state level AGC implementation is in progress at few States for very few stations only. Hence, completion of AGC throughout the country at State level will take long time.

In order to replenish the secondary reserves it has been proposed to activate Tertiary Reserve ancillary services (TRAS) for which Nodal agency (NLDC) will procure power from market through TRAS provider.

The Renewable Energy (RE) installed capacity in Tamilnadu state is around 43% in its total installed capacity, whereas the balancing reserves available in the Tamilnadu is around 500 to 600 MW only. In the absence of spinning reserves and other reserves, while accommodating intermittent must run status RE power in the grid, the deviation from the schedule is inevitable.

Hence the reserve quantum available from secondary reserves will not be sufficient to manage all the deviations made by the generator / beneficiaries until implementation of AGC in all the generating stations throughout the country. If tertiary reserves are deployed frequently, the cost will be more while purchasing the same from market, which will affect the DISCOMs financially.

Objections:

In view of the above, it is strongly objected for deploying Ancillary services for any deviation (over drawal / under injection) made by buyer or seller from the schedule. Hence, the deployment of ancillary services may be proposed only after implementation of AGC in all the state generating stations and Central generating stations and Private generators throughout the country.



1. Clause (6) of the draft Regulation 2021: - **Computation of Deviation**

This clause deals with the computation of Deviation of seller or buyer which includes for Wind and Solar (WS) sellers also.

Deviation in a time block for WS sellers shall be computed as follows:

Deviation-WS seller (in MWh) = [(Actual Injection in MWh) – (Scheduled generation in MWh)].

Deviation-WS seller (in %) =  $100 \times \frac{[(\text{Actual Injection in MWh}) - (\text{Scheduled generation in MWh})]}{[(\text{Available Capacity})]}$

In the Deviation % calculation for the WS sellers, available capacity is used in the denominator as used to find absolute error in the present Regulation. To fine tune the Deviation % practically instead of using available capacity, scheduled generation has to be used in the denominator.

The available capacity is the cumulative capacity rating of wind turbines or solar inverters (number of machines) that are capable of generating power in a given time block. In Tamilnadu total number of machines in wind and solar generations is around 12,000. With this huge number of machines checking the availability in every time block is a monotonous process. Using the available capacity will give the minimum % error but actual variation will be more in quantum.

Objections:

In view of the above, scheduled generation has to be used in calculating the Deviation for WS seller (in %) instead of available capacity, in order to give the real picture of forecasting error and to minimize actual deviation of the wind and solar generators.

2. Clause (7) of the draft Regulation 2021: - **Normal Rate of Charges for Deviations**

This clause deals with the normal rate to be adopted for every time block by delinking the DSM rate from the frequency. The normal rate of charges for deviation for a time block shall be equal to the Weighted Average Ancillary Service Charge (in paise /kWh) computed based on the total quantum of Ancillary Services deployed and the

total charges payable to the Ancillary Service Providers for all the Regions for that time block.

Since the Ancillary services frame work is still in development phase, for a period of one year or period notified by the commission, it has been proposed that the normal rate of charges for deviation for a time block shall be equal to the highest of the weighted average ACP of Day ahead market or Real time market from all exchanges or Weighted Average of Ancillary Services of all Regions.

Due to this adoption, the drawal rate of buyer from the DSM will be the highest among all the sources available in the power system network. This will lead to payment of highest amount by DISCOM for the power overdrawn from the grid. This will further increase the financial burden to the DISCOMs.

Suggestions:

In view of the above, it is suggested that the normal rate of charges for deviation for a time block should be Weighted Average of Ancillary Services of all Regions. (or)

It is suggested that the normal rate of charges for deviation for a time block should be the highest of Area Clearing Price of Day Ahead Market with cap rate at Rs.8/kwhr (as in the present case average ACP of DAM is used to fix at 50 Hz) or be Weighted Average of Ancillary Services of all Regions should be used.

3. Clause (8) of the draft Regulation 2021: - **Charges for Deviations**

This clause includes only the charges for deviation in a time block payable by buyer for their over drawl. The charges receivable by buyer for their under drawal has been removed which is available in the prevailing Regulations. The reason for removal of under drawal is that, in the existing mechanism buyers can help in restore frequency by keeping under drawal during low frequency condition at the regional level and now also the same can be done at the instruction of the system operator by participating in Ancillary services mechanism, rather than acting on their own driven by the price signals linked to frequency

During the year 2020-21, Deviation for under drawal below (-250 MW) is about 173 MU due to accommodation of must run RE Generation and there is no receivables from the pool account for the above quantum. Instead, Tamilnadu has paid the fixed charges to the respective CGS stations for the above quantum.



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To maintain the schedule and to integrate the RE powerfully, CGS power has to be surrendered based on the merit order. If the surrender quantum from the respective CGS stations drops below 85% of the entitlement, then the compensation amount has to be paid to the respective CGS stations. In addition to maintain the schedule, the power tied up in the LTOA & MTOA category were not scheduled fully and the fixed charges has to be paid to the Generators also.

RE generation fall on a category of "must run status" and doesn't include in the merit order dispatch list. Therefore, in order to integrate RE generation, DISCOMs are already facing critical financial situation due to various commercial mechanism implemented by Regulators. In addition, to this removal of under drawal by buyer will worsen the DISCOMs position further operationally and financially.

Suggestion:

In view of the above, under drawal by buyer (Renewable rich state) should be allowed upto 250MW. Amount has to be paid for the buyer for under drawal from the pool account at the normal rate of charge for deviation.

1. Clause (9) of the draft Regulation 2021: - Accounting of Charges for Deviation and Ancillary Service Pool Account

In this clause, it has been discussed that in case of deficit in the Deviation and Ancillary Service Pool Account of a region, surplus amount available in the Deviation and Ancillary Service Pool Accounts of other regions shall be used for settlement of payment under clause (6) of this Regulation. Provided that in case the surplus amount in the Deviation and Ancillary Service Pool Accounts of all other regions is not sufficient to meet such deficit, the balance amount shall be recovered through the RLDC Fees and Charges.

Objections:

The Deviation and ancillary services pool account is to be maintained at regional level only, interlinking with the other regional account and in turn with RLDC fees and charges should not be done. Because, the amount recovered from RLDC fees and charges will be levied again on to the entities only. Thereby all entities

throughout the country have to be part in equalizing the deficit amount after paying in the DSM account (thereby incurring additional cost).

Further this will vanish the concept of transfer of surplus amount from regional pool account to "Power system development fund" and will eliminate the utilization of Power System Development fund for the development of transmission elements of the beneficiaries as being done now.

Hence, the methodology for utilization of surplus amount in the regional pool account by the beneficiaries once all the transactions are completed have to be proposed or to continue with the existing PSDF.

**2. Clause (10) of the draft Regulation 2021: - Schedule of Payment of charges for deviation**

In this clause the period for payment of charges for deviation has been reduced from 10 days to 7 days from the date of the issue of statement of charges for deviation by the regional power committee, failing which late payment surcharge @0.04% shall be payable for each day of delay.

It is suggested that existing payment mechanism shall be continued i.e. 10 days' time period for making the payment of charges for deviation from the date of issue of statement of charges shall be continued.

Your kind consideration is very much appreciated.

Yours sincerely,

*S. K. A. 22/01/21*  
Managing Director / TANTRANSKO