

30



TRANSMISSION COMPANY OF NIGERIA (TCN)

REPORT OF THE COMMITTEE ON THE REVIEW OF SPINNING RESERVE CHARGES

1.0 Preamble

Electricity Grid stability depends on a number of factors and events. If the construction of a grid system followed strictly the ideal specifications and it is operated in an environment devoid of perturbations, the grid would remain stable. However, the power system network is susceptible to several forms of encumbrances. These events occur, usually, in a random fashion and with grave impact on power system integrity.

For smooth and effective operation of the grid therefore, the burden engendered by these unwholesome events are shared amongst the market participants for the benefit of all. Prescriptions for mitigating some of these risks are provided for in the Grid Code and in other regulatory enactments, such that it is incumbent on all relevant grid users to muster effort in resolving grid related issues that mar performance. Other remedial actions are rather incentivized to induce participants responsible for such service delivery.

One of the main causes of grid instability is "frequency roaming", which results from unsavoury demand side management, nonconforming characteristics of some power plants or the spurious tripping of the transmission lines. While the Free Governor Control Action is compulsory for all Gencos to offer, the provision of Spinning Reserve is based entirely on contractual agreement.

It is pertinent to note that the Spinning Reserve providing Gencos are not exempted from participating in free governor action mode of system frequency control, which is a primary responsibility.

2.0 Reasons for Non-performance

The Committee observed that most of the Gencos that have the capacity to offer Spinning Reserve resent to it due to the following reasons.

- (a) The prevailing tariff for almost all the ancillary services are not cost-effective; as such it is not attractive to the service providers.
- (b) It is reported that the capability of stations contracted to provide the Spinning Reserve is vitiated by the paucity of gas supply.
- (c) The Gencos who offer the Spinning Reserve currently are not paid for services delivered as at when due.

3.0 TCN Intervention

In order to rejuvenate the entire process for enhanced service availability, the MD/CEO of TCN directed that a Committee, comprising members from TCN and GENCOS, be set up to review the Spinning Reserve tariff. The Committee decided that the GENCO Committee members should come up with their review proposal, while the TCN members were also required to do same. The two review proposals were to be harmonized into an agreeable tariff, which will be forwarded to NERC for ratification.

4.0 Existing Spinning Reserve Aggregate Cost, Paid only on the Reserved Capacity

- Hydro: ₦750/MWh
- Steamer: ₦1,200/MWh
- OCGT: ₦2,250/MWh



6.0 Spinning Reserve Performance Audit

The SO/MO would periodically embark on Performance Audit of all generating units procured to provide Spinning Reserve; vetting its response to Dispatch Instructions and analyzing Meter Data (Performance Monitor) - associated with participating Generating Units.

A Spinning Reserve Unit is evaluated based on its ability to respond to a Dispatch Instruction; the MW/minute Ramp-Rate; the amount of Spinning Reserve capacity attained within specific time frame after the issuance of Dispatch instruction by the System Operator and the response to system frequency deviations outside the permissible frequency band. The Audit modalities shall be worked out by the SO and shared with concerned Gencos and NERC.

Meanwhile, all parties to the Spinning Reserve Contract should strive to uphold the principle of Good Industry Practice for reliable operational and maintenance planning of participating Units to ensure Spinning Reserve availability. Subsequently, cases of infractions by any party should be flagged and dealt with in line with the provisions of the Ancillary Services Agreement.

7.0 Members of the Review Committee are:

- 1. Engr. M.J. Lawal SO (TCN) - Chairman
- 2. Engr. E. A. Eje MO (TCN) - Secretary
- 3. Engr. A. I. Dahiru TSP (TCN)
- 4. Engr. Clifford Agu Transcorp Power, Ughelli
- 5. Engr. Emmanuel Edino Egbin Power Station, Lagos

E. A. Eje
Engr. E. A. Eje
(Secretary)

M. J. Lawal
Engr. M. J. Lawal
(Chairman)