



ORDER NO: NERC/2025/094

**BEFORE THE NIGERIAN ELECTRICITY REGULATORY COMMISSION
ORDER ON THE MANDATORY IMPLEMENTATION OF FREE GOVERNOR
CONTROL IN THE NIGERIAN ELECTRICITY SUPPLY INDUSTRY**

Title

1. This regulatory instrument may be cited as the Order on the Mandatory Implementation of Free Governor Control ("FGC").

Commencement

2. This Order shall take effect from 1 September 2025.

Purpose

3. The Order seeks to establish a structured framework for enhancing power generation reliability and stability of Nigeria's power grid by ensuring strict compliance to operational frequency limits, implementing transparent monitoring mechanisms and penalties for violations of the Grid Code.

Background

4. The Nigerian Electricity Regulatory Commission ("NERC" or the "Commission") is mandated by section 34 (1)(e) of the Electricity Act 2023 ("EA" or the "Act") to ensure the safety, security, reliability, and quality of service in the production and delivery of electricity to consumers.
5. Section 34(2)(b) of the Act empowers the Commission to establish or approve operating codes and standards to ensure safety, security, reliability, and quality in the production and delivery of electricity services in the NESI.
6. Section 34(2)(f) of the Act further empowers the Commission to monitor electricity markets and sanction licensees as necessary.
7. Section 12.6.2 of the Grid Code for the Nigerian Electricity Transmission

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System requires all generating units to be fitted with fast-acting FGC that is capable of regulating turbine speed and adjusting power output based on frequency deviation exigencies i.e. primary control. The FGC shall be sufficiently damped for both isolated and interconnected operation modes. The FGC and any other superimposed control loop (load control, gas turbine temperature limiting control, etc.) shall contribute to the primary control to maintain the unit within the generating unit's capability limits. Furthermore, the primary control characteristics shall be maintained under all operational conditions. Where a generating unit becomes isolated from the system but is still available to supply demand, the generating unit must be able to provide primary control to maintain frequency and voltage.

8. The National Grid experienced 8 incidents of grid disturbances in 2024, which resulted in 5 full system failures and 3 partial system failures. The incident reports filed by Transmission Company of Nigeria Plc. ("TCN") identified non-compliance with the provisions of the Grid Code by some of generation companies ("GenCos") as contributory factors. The performance review of the operations of grid connected GenCos' in 2024 revealed that there was significant failure on the activation of FGC.

Objectives

9. This Order seeks to:
 - a. Ensure the mandatory deployment and activation of FGC in all generating units to enhance the reliability of power generation and stability of grid operations.
 - b. Ensure GenCos' compliance with sections 12.6.2 and 15.8.3 of the Grid Code for the Nigerian Electricity Transmission System on FGC.
 - c. Establish clear guidelines and timelines for the integration, activation, and maintenance of FGC mechanisms to ensure seamless operationalisation across all the generating units operating.
 - d. Promote strict compliance with FGC requirements to minimise the risk of system disturbances and engender stable grid operations.
 - e. Establish transparent mechanisms and penalties for non-compliance with the provision of the Grid Code mandating all GenCos to integrate and activate FGC in all their units.
 - f. Engender adequate provision of primary reserves that foster smooth

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implementation of service level commitments.

THE COMMISSION HEREBY ORDERS AS FOLLOWS –

- A. Implementation of active FGC on all the grid-connected generating units by the GenCos.**
- i. All grid connected GenCos shall install a fast-acting FGC in all generating units and the FGC shall be operable at all times by 30 November 2025.
 - ii. GenCos shall at all times activate and operate the FGC in real-time without any time delays.
 - iii. GenCos are mandated to procure and supply a Grade Level 5 metering system with IoT-based monitoring capabilities for each generating unit and communicate readiness for installation to the NISO by 31 October 2025.
 - iv. The Meters are required to have a minimum capability of measuring active power, reactive power, power factor, generator terminal voltage and frequency.
- B. Promotion of strict compliance with FGC mechanisms and mandatory requirements.**
- i. NISO shall install and integrate all IoT metering system provided by the GenCos within 20 days of receiving notification of readiness for meter installation from each GenCo.
 - ii. NISO shall actively monitor and enforce strict compliance with the operationalisation of FGC mode in generating units. This shall be achieved through real-time data obtained from the Grade Level 5 IoT meters, ensuring accurate tracking, validation and assessment of the performance of generating units.
 - iii. NISO shall maintain real-time monitoring and record hourly compliance reports on the operation of FGC across all generating units.
 - iv. NISO shall compile and file monthly reports with the Commission on the status of compliance with the provisions of the Grid Code on FGC to facilitate regulatory oversight.

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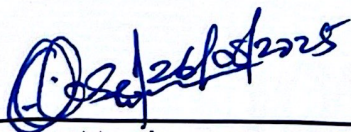
C. On Consequences for Non-Compliance.

- i. Any GenCo that fails to comply with the provisions of sections 12.6.2 and 15.8.3 of the Grid Code on the integration and activation of FGC on all generating units by 30 November 2025 shall be liable to a penalty of a prorated 10% of the invoice associated with the defaulting generating unit for the duration during which it was not operated with its FGC activated, that is, FGC non-compliant.
- ii. Where a generating unit records 90 consecutive days of FGC non-compliance, the affected generating unit shall be disconnected from the grid. Reconnection shall only occur after NISO has certified the unit as fully compliant with the requirements of the Grid Code.

D. On Invoicing & Payment of Penalty for Non-Compliance.

- i. NISO shall be responsible for determining non-compliance by defaulting GenCos and implement penalties on the invoice and settlement of the affected GenCo.
- ii. NISO shall handle the billing, payment processing, and dispute resolution for this penalty in accordance with Rules 28 and 29 of the Market Rules.
- iii. NISO shall invoice defaulting GenCos the specified penalty amount as part of the monthly market settlement.
- iv. The proceeds of the penalty shall be remitted to the Ancillary Service Account.

Dated this 26th day of August 2025



Musiliu O. Oseni
Vice Chairman



Dafe C. Akpeneye
Commissioner
Legal, Licensing & Compliance