

**ADEREMI OGUNBANJO**PARTNER, TALP'S ENERGY &
NATURAL RESOURCES DEPARTMENT

ORDER ON THE MANDATORY IMPLEMENTATION OF FREE GOVERNOR CONTROL (“FGC”) IN THE NIGERIAN ELECTRICITY SUPPLY INDUSTRY

INTRODUCTION

On August 26, 2025, the Nigerian Electricity Regulatory Commission (“NERC”), pursuant to Section 34 of the Electricity Act (the “Act”),¹ issued the Order on the Mandatory Implementation of Free Governor Control (the “Order”), which took effect from September 1, 2025. In this Newsletter, we examine key highlights of the Order.

PURPOSE

According to NERC, the national grid had suffered eight (8) disturbances in 2024, comprising five (5) full system collapses and three (3) partial failures. The Transmission Company of Nigeria Plc identified non-compliance with the Grid Code by certain Generating Companies (“GenCos”) as a key contributing factor.²

In response, the Order seeks to establish a structured framework to enhance reliability of power generation and, in turn, the stability of the national grid by mandating strict compliance with the Grid Code on the deployment and activation of Free Governor Control (“FGC”) in all generating units.³



FREE GOVERNOR CONTROL

The stability of the national grid is critical to electricity supply in Nigeria. As discussed in our [Mid-Year Report on the Nigerian Power Sector](#), under the Grid Code, the acceptable operational frequency range for the grid is $\pm 0.5\%$ from 50Hz (49.75Hz to 50.25Hz).⁴ Due to the fragility of the grid, any significant variation in frequency can lead to partial or total system collapse.

¹ Section 34(1)(e) and 34(2)(b) of the Electricity Act, 2023

² Paragraph 8 of the Order on the Mandatory Implementation of Free Governor Control

³ Sections 12.6.2 and 15.8.3 of the Grid Code

⁴ Section 10.1 of the Grid Code

One of the key causes of frequency variation is the mismatch between generation and demand (i.e., higher generation with lower demand, or vice versa). The deployment of FGC seeks to address this risk. In simple terms, a governor is a control mechanism in a generator that automatically adjusts energy or fuel input to increase or reduce output, in response to changes in load. This helps balance supply with demand in real time, thereby supporting grid stability.

Although the deployment of the FGC is both global best practice and an explicit requirement under our Grid Code,⁵ prior to now, it was not strictly enforced. If only a few GenCos deploy FGC while others rely on manual adjustments to manage frequency deviations, the result would be inefficiency, excessive strain on compliant GenCos, higher mechanical wear, and significant financial burdens.⁶ By mandating strict compliance across all GenCos, the Order ensures that this responsibility is evenly shared, ultimately improving efficiency and stability in the grid.

APPLICATION OF THE ORDER

The Order applies to all GenCos within NESI, regardless of installed capacity.⁷ It requires GenCos to deploy, activate, and maintain fast-acting FGC in every generating unit to regulate turbine speed and adjust power output based on frequency deviation exigencies.⁸

The Grid Code further provides that the FGC be properly damped to function effectively in both isolated and interconnected operating modes, and coordinate seamlessly with other superimposed control loops, such as load control or gas turbine temperature limiting controls, while staying

within the unit's operational limits.⁹ The governor control systems (i) must respond without artificial delays, (ii) must not apply frequency dead bands, and (iii) must provide the level of primary reserve specified by the NISO.¹⁰

KEY REQUIREMENTS¹¹

For GenCos:

- Implement fast acting FGC on all grid-connected generating units on or before November 30, 2025.
- Activate and operate the FGC in real-time without any time delays.
- Procure and integrate a Grade Level 5 metering system with IoT-based monitoring capabilities for each generating unit and communicate readiness for installation to the Nigerian Independent System Operator ("NISO") by October 31, 2025.
- The meters must have a minimum capability of measuring active power, reactive power, power factor, generator terminal voltage and frequency.

For NISO:

- Install and integrate all IoT systems provided by GenCos within 20 days of notification of readiness by GenCos.
- Monitor GenCos and ensure strict compliance with the operationalisation of FGC mode on generating units, through the real-time data obtained on the metering system.
- Record hourly compliance report on operation of FGC and submit monthly reports to NERC for regulatory oversight.



⁵ Sections 12.6.2 and 15.8.3 of the Grid Code

⁶ <https://www.linkedin.com/pulse/behold-governor-free-control-osalen-uwidia-y79pf/?trackingId=1DeE8hRxQhmEulwmqnYLSQ%3D%3D> (Last accessed September 9, 2025)

⁷ Paragraph 7 of the Order on the Mandatory Implementation of Free Governor Control

⁸ Ibid

⁹ Ibid Section 12.6.2(b) of the Grid Code

¹⁰ Ibid Section 15.8.3 of the Grid Code

¹¹ Page 3 of the Order on the Mandatory Implementation of Free Governor Control

CONSEQUENCES OF NON-COMPLIANCE

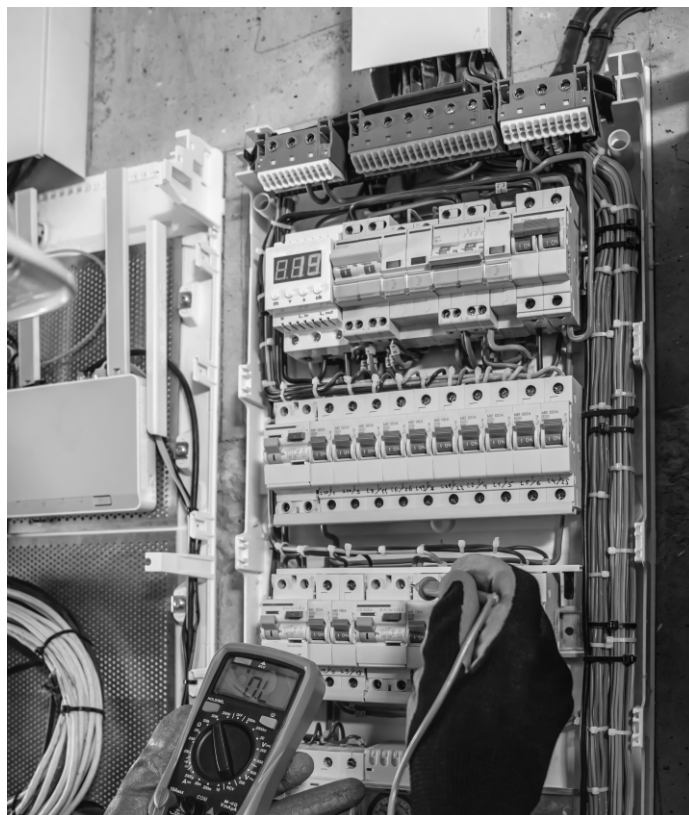
1. Non-compliant GenCos shall incur a penalty equal to 10% of the invoice value attributable to the defaulting generating unit, prorated for the entire period during which the defaulting generation unit operated without its FGC activated.
2. Any generating unit which records 90 consecutive days of FGC non-compliance shall be disconnected from the grid and shall only be reconnected after the NISO has certified full compliance with the requirements of the Grid Code and the Order's metering obligations.

The Order further provides that NISO shall be responsible for determining non-compliance by defaulting GenCos, implementing penalties on the invoice and settlement of affected GenCos and handling arising disputes according to the Market Rules.¹² The proceeds obtained from the implementation of the penalty shall be remitted to the Ancillary Service Account.

COMMERCIAL IMPLICATIONS FOR GENCOS

The Association of Power Generation Companies ("APGC") has expressed strong displeasure regarding the Order, citing significant financial implications for GenCos.¹³ These include increased capital, maintenance, and fuel costs, at a time when GenCos are already operating at a loss due to market inefficiencies, such as unpaid invoices.¹⁴

To comply with the Order, GenCos would be required to withhold capacity by part-loading units and maintaining spinning reserves to respond to frequency variations.¹⁵ As noted by the APGC, in other jurisdictions where FGC is implemented, such services are treated as ancillary and compensated accordingly.¹⁶ Whereas in Nigeria, however, no such compensation framework exists, effectively compelling GenCos to solely bear the costs, thereby increasing financial losses.¹⁷



CONCLUSION

Although the implementation of FGC is standard practice in many jurisdictions, stakeholders fear that mandatory implementation in Nigeria without simultaneously addressing market inefficiencies and systemic issues, such as poor load planning, load rejection, and infrastructure deficits, may not deliver the intended improvement in grid stability. Additionally, compulsory implementation without adequate market mechanisms to support compliance, imposes significant financial stress on GenCos.

While NERC has taken steps to address structural challenges across the value chain, substantial gaps remain, particularly in the transmission segment, which must be addressed if meaningful and sustainable gains in grid stability are to be realised.

¹² Page 4 of the Order on the Mandatory Implementation of Free Governor Control

¹³ <https://kadunaelectric.com/power-sector-unbundled-as-nerc-enforces-free-governor-control/> (Last accessed September 9, 2025)

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Ibid



PRACTICE KEY CONTACTS



ADEREMI OGUNBANJO
PARTNER



SANDRA OSINACHI-NWANDEM
SENIOR ASSOCIATE



OLAWUNMI ABIOLA
ASSOCIATE



EYITAYO AJISAFE
ASSOCIATE



OLUWANIFEMI ALADE
TRAINEE ASSOCIATE

TALP's Energy & Natural Resources Team
For further enquiries, log onto www.topeadebayolp.com

Do you need to get in touch with us, to know more on how we can help you and your business? Kindly contact us by using any of the details provided below:

TOPE ADEBAYO LP

3rd Floor, The Phoenix, 31 Mobolaji Bank Anthony Way, Ikeja Lagos, Nigeria.

p: +234 708 869 9174, +234 813 532 1156

e: info@topeadebayolp.com

w: www.topeadebayolp.com

