

GHANA GRID COMPANY LIMITED (GRIDCo)

PROPOSAL FOR TRANSMISSION SERVICE CHARGE (TSC) TARIFF REVIEW

In accordance with the Public Utilities Regulatory Commission (PURC) Act, 1997, Act 538, (Sections 16, 17 and 20), the Ghana Grid Company Limited (GRIDCo) hereby requests a review of the Transmission Service Charge (TSC) from GHp2.5107/kWh to GHp4.897/kWh.

Objectives Of The TSC Tariff Review Proposal

A cost-reflective transmission tariff that improves the finances and operation of the power transmissions sector is key to the sustenance and confidence in Ghana's power system. The current tariff is inadequate and has negatively affected GRIDCo's operations, resulting in deferment of some planned maintenance as well as delays and suspension of critical transmission projects.

The objective of this Tariff Proposal by GRIDCo is to obtain a cost-reflective tariff that will ensure business viability and sustainability of GRIDCo to effectively manage and ensure security & reliability of a rapidly growing power transmission network.

Transmission Service Charge (TSC) was reduced in March 2018, and this created liquidity challenges for GRIDCo, resulting in delays in completion of some critical projects earmarked to improve power transmission capacity and reduce transmission losses. Significant amongst them is the 330kV Aboadze-Kumasi-Tamale-Bolgatanga transmission line. The tariff reduction also resulted in deferment of some planned maintenance activities within the transmission network, affecting network performance and increase in transmission losses from 4.10% as at December, 2017 to 4.42 % as at November, 2018.

Nevertheless, the Transmission Network experienced some improvements with the completion of the following projects:

- 161kV Tumu-Han-Wa transmission line
- Installation and upgrade of switchgear at various substations under Substation Reliability Enhancement, Substation Upgrade and In-house Projects. 225kV Ghana–Burkina Interconnection and
- 161kV AKSA – Smelter Line for power evacuation

Transformer capacity increased from 5,610MVA in 2017 to 7,191.2MVA in 2018. Transmission line length also increased from 5,510Km in 2017 to 5,965.83Km in 2018.

Ongoing Projects

The following projects are currently under construction in GRIDCo.

- 330kV Aboadze Substation Expansion
- 330kV Kumasi–Kintampo–Tamale–Bolgatanga Transmission Line
- 161kV Volta – Achimota – Mallam Transmission Line Upgrade
- 330kV Aboadze – Prestea Transmission Line
- 330kV Prestea – Kumasi Transmission Line
- 161 kV Asawinso– Juabeso - Mim Transmission Line

Key Challenges Impacting Service Delivery

GRIDCo's efforts at executing its corporate mandate is impaired by some challenges, including the following:

- **Transmission Line Right of Way (RoW) Acquisition and Compensation Payment**

Liquidity challenges has caused delays in the payment of Transmission Line Right Of Way compensation to land and property owners whose lands are acquired for the construction of power transmissions facilities. The delays in compensation payments has often led to growing agitation, reject of compensation packages, court injunctions and stoppage of project works by land and property owners.

- Transmission Line Right of Way (RoW) Maintenance and Vegetation Control

Liquidity challenges also affected GRIDCo's ability to undertake maintenance of RoW and control of vegetation along transmission line corridors. GRIDCo's transmission lines traverse the length and breadth of the country passing through forest areas. Vegetation and dangerous trees along these corridors need to be managed to avoid damaging and tripping of transmission lines leading to losses and power system instability. GRIDCo was unable to award contracts for the intended scope of the planned Long-term Vegetation Control Projects in 2018 due to financial challenges faced by the Company.

- **Transmission Losses**

Transmission losses are above the 3.8% PURC-approved threshold. Some network upgrade projects have been earmarked to reduce overall system losses, increase transmission capacity, improve overall network reliability and as well meet the ever-increasing load growth.

- **Supply Reliability**

- **Radial Lines**

There is low supply reliability to customers who are served via single circuit radial lines. This is because outage on such single circuit radial lines interrupts supply to all customers served by those lines.

Supply reliability to customers served on these lines is expected to improve in future, with the construction of additional parallel line(s) or by looping them into other adjoining substations.

- **Single Transformer Substations**

Similar to single circuit radial lines, consumers supplied by single transformer substations also suffer low level of supply reliability. With the ongoing programme of increasing transformer capacity, this challenge is gradually being eliminated.

Strategies to Address Key Challenges

GRIDCo has embarked on programmes to effectively address the operational challenges facing the Company. These include

- Pursue Capital Investment programmes to create sufficient redundancies within the transmission network, aimed at improving reliability and reducing losses.
- Continue work place improvement programmes to reduce operational cost, improve performance and also obtain cost reflective transmission tariff
- Continue to provide open and non-discriminatory access to the transmission network, create redundancies at various substations and also enhance business processes by the application of modern technologies to reduce turnaround time for maintenance and other services.

GRIDCo is making a tariff proposal of 4.897Gp/kWh (exclusive of transmission losses), which is considered cost-reflective to cover Operating and Maintenance Costs, Depreciation, Finance Costs and a reasonable Return on Net Fixed Assets for 2019, to ensure reliable and sustainable transmission of power for national economic development.