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Ghana's Energy Sector

From Fiscal Vulnerability to a Platform for Sustained Growth

Valerio Crispolti

SIP/2026/086

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on July 10, 2026. This paper is also published separately as IMF Country Report No 26/213.

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Ghana's Energy Sector: From Fiscal Vulnerability to a Platform for Sustained Growth

Prepared by Valerio Crispolti

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ABSTRACT: Ghana's energy sector is central to industrialization and inclusive growth, but persistent tariff, distribution, and collection gaps have made it a source of fiscal risk. Sector shortfalls and arrears to power producers and fuel suppliers require government transfers, weaken fiscal buffers, and undermine reliability. Recent reforms, supported by an IMF program, have helped stabilize conditions by resuming periodic tariff adjustments, strongthening Cash Waterfall Mechanism implementation, and reducing arrears. Nevertheless, vulnerabilities remain. Durable progress requires disciplined tariff-setting, payment enforcement, arrears clearance, lower losses, private distribution participation, transparent procurement, and stronger governance to support investment and reliable electricity supply.

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GHANA

ENERGY SECTOR: FROM FISCAL VULNERABILITY TO A PLATFORM FOR SUSTAINED GROWTH

July 10, 2026

Approved By
African Department

Prepared By Valerio Crispolti

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GHANA'S ENERGY SECTOR: FROM FISCAL VULNERABILITY TO A PLATFORM FOR SUSTAINED GROWTH[1]

A. Introduction

1. Ghana's Medium-term National Development Policy Framework places reliable and affordable electricity at the center of industrialization, digitalization, job creation, and inclusive growth. Initiatives such as the authorities' 24-Hour Economy Strategy[2] and Ghana's National Energy Compact (GNEC)[3] underscore the centrality of the power sector in supporting manufacturing, agro-processing, and services activity. Empirical evidence shows that firms in these sectors are highly vulnerable to power outages which impose direct costs through lost output, equipment damage, and reliance on expensive backup generation.[4,5] Achieving these objectives will require a step change in the reliability, affordability, and financial sustainability of electricity supply.

2. However, the energy sector has not consistently played this enabling role. Instead, it has been a persistent source of fiscal pressure and macroeconomic vulnerability. The sector continues to generate sizable financial shortfalls, estimated at about 1–1½ percent of GDP in recent years, and has accumulated significant arrears to independent power producers (IPPs) and fuel suppliers (FS). These imbalances have required recurrent government intervention through budget transfers and arrears clearance, crowding out priority spending and weakening fiscal buffers. At the same time, unreliable electricity supply, closely linked to the sector's financial condition, continues to impose direct costs on firms, undermine competitiveness, and deter private investment.

These outcomes mainly reflect the structural features of the sector and gaps in the consistent implementation of the regulatory framework. Ghana's electricity system is

[1] Prepared by Valerio Crispolti (AFR).

[2] The strategy targets expanded manufacturing, agro-processing, and services activity around the clock, identifies reliable and affordable electricity as a core infrastructure requirement for sustained and inclusive growth.

[3] The GNEC was adopted in 2025 under the joint World Bank (WB) and African Development Bank (AfDB) Mission 300 Framework. Its main objectives to transform the energy sector in a platform for growth are: (i) a total energy sector investment of US$4.4 billion over 2025–2030, of which US$2.6 billion is expected from private sources; (ii) a 99 percent electricity access rate by 2030 (89 percent in 2024); and (iii) an increase in the share of renewables in installed generation capacity from approximately 4 percent to 10 percent. These targets are aligned with the UN Sustainable Development Goal 7, the Paris Agreement, and the African Union's Agenda 2063.

[4] According to the World Bank Enterprise Survey, which measures the incidence of outages affecting firms, approximately 95 percent of Ghanaian manufacturing firms report power outages that affect their productivity.

[5] The economic cost of backup generation is modelled in the World Bank, Ghana Energy Sector Recovery Program, Program Appraisal Document (PAD), Report No. PAD4401 (PforR), June 2024, which estimates willingness-to-pay for reliable grid electricity at US$0.15/kWh compared to an average cost of production of US$0.10/kWh (paragraph 16). The US$0.05/kWh differential represents the implicit cost of reliability that consumers absorb through backup coping mechanisms.

3. characterized by significant state ownership across the value chain, limited financial ringfencing between entities, and contractual arrangements, particularly in power generation, that create fixed payment obligations largely independent of realized demand or collections. In this setting, operational and financial shortfalls originating at the distribution level propagate rapidly upstream and ultimately to the government balance sheet. These structural vulnerabilities are compounded by recurrent deviations from the regulatory framework, particularly in tariff adjustments and payment discipline, which have repeatedly converted temporary cost pressures into persistent fiscal liabilities.

4. The authorities' reform efforts under the Extended Credit Facility (ECF)-supported program have begun to address these challenges. Progress in 2025—including the resumption of tariff adjustments, strengthened implementation of the Cash Waterfall Mechanism (CWM),[6] and steps toward arrears reduction—has helped stabilize the sector's financial position. Nonetheless, key vulnerabilities remain, and sustained reform efforts are essential to durably restore financial viability and reposition the energy sector as a platform for growth.

5. This paper examines how Ghana's energy sector can transition from a source of fiscal risks to a durable enabler of sustained and inclusive growth. Section B provides a brief overview of how the electricity sector operates in practice, including the structure of the value chain, the role of key public entities, and the main financial flows. Section C identifies the structural features and cost dynamics that generate fiscal risks and explains the transmission channels through which financial stress propagates to the government balance sheet. Section D examines the sector's financial position and associated macroeconomic costs. Section E assesses progress under the ECF-supported reform program. Finally, Section F outlines the policy priorities to restore financial sustainability and support private investment and improved service delivery.

B. How Ghana's Electricity Sector Works

Sector Structure and Value Chain

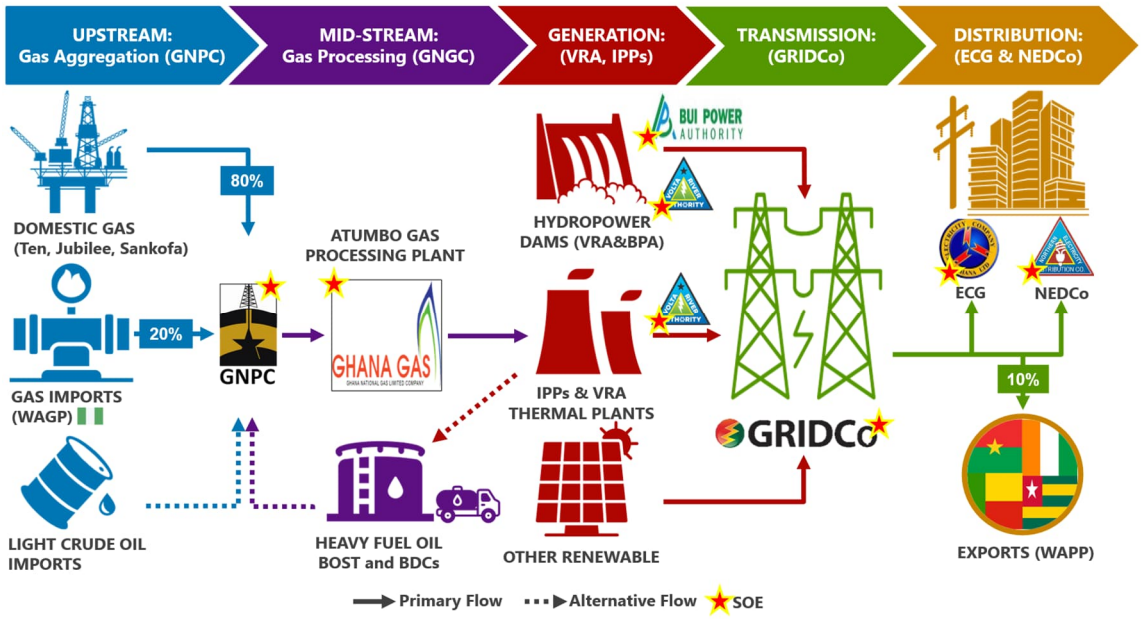
6. Electricity is generated from two distinct sources with different availability. Thermal generators, fueled primarily by natural gas (liquid fuels are used as backup, when gas supply is constrained), convert fuel combustion into electricity. Hydropower plants generate electricity from flowing water and their output primarily depends on rainfall and reservoir levels. These two sources are not interchangeable: while thermal generation can be increased by securing more fuel, hydropower output is bounded by hydrology and cannot be expanded on demand. As a result, Ghana's electricity supply in any given period is determined by how much of its generation comes from each source.

7. Ghana's power sector value chain runs from upstream gas production to retail electricity supply (Figure 1). At the upstream stage, natural gas is produced from three offshore

[6] The CWM was introduced in 2020 to manage pre-existing payment discipline failures and substantially revised in 2023; it governs revenue distribution upstream but does not eliminate financing gaps.

fields (TEN, Jubilee, and Sankofa) and supplemented by imports from Nigeria through the West African Gas Pipeline (WAGP). At the midstream stage, raw gas is processed at the Atuabo plant and delivered to thermal generators concentrated in the Tema and Takoradi enclaves. When gas supply is constrained, thermal plants substitute to liquid fuels. Electricity is also generated from hydropower dams and other renewable sources. Generators supply power to the National Interconnected Transmission System operated by the Ghana Grid Company Limited (GRIDCo), from which the distribution utilities (Electricity Company of Ghana (ECG) in the southern and central zones; Northern Electricity Distribution Company (NEDCo) in the northern zone) deliver electricity to residential, commercial, industrial, and government customers under tariff schedules set by the Public Utilities Regulatory Commission (PURC). A portion of electricity is also exported to the regional partners.

Figure 1. Sector Value Chain



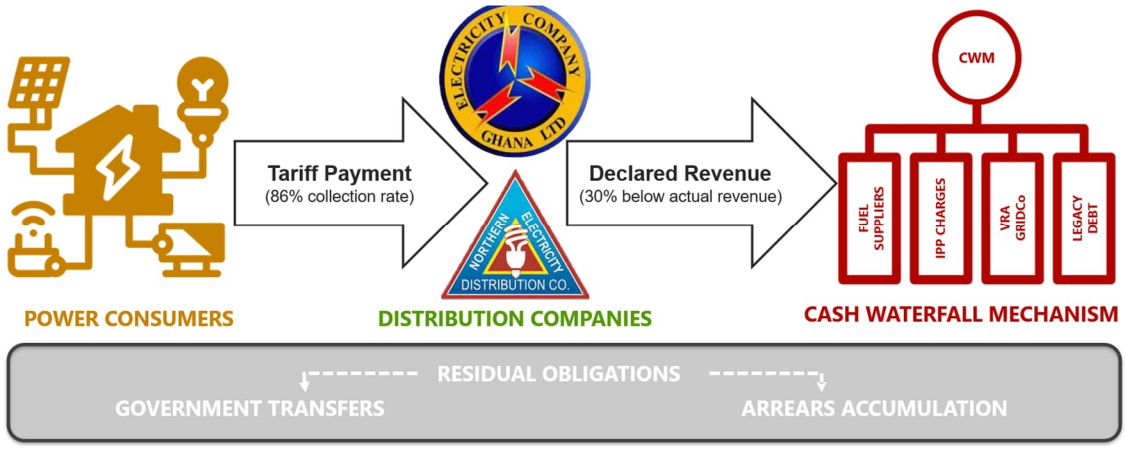
Source: Ghanaian authorities and IMF Staff.

8. Public entities are present at each stage of the value chain (Figure 1). The Ghana National Petroleum Corporation (GNPC) plays a central role in upstream gas aggregation, while the Ghana National Gas Corporation (GNGC) is responsible for gas processing and operates the domestic gas transport network. At the generation stage, the Volta River Authority (VRA) and the Bui Power Authority (BPA) operate state-owned plants, while Independent Power Producers (IPPs) account for a substantial share of installed capacity (about 44 percent) under long-term power purchase agreements (PPAs). GRIDCo operates the transmission network, while ECG and NEDCo are responsible for distribution and retail.

9. Financial flows in the electricity sector originate at the retail level and move upstream (Figure 2). Consumers pay electricity bills to ECG and NEDCo based on regulated tariffs, and

these collections constitute the primary source of liquidity for the sector. Revenues are pooled and allocated through the CWM, a rules-based framework that distributes available resources across sector participants according to a predefined priority sequence[7], although in practice adherence to these rules has been inconsistent, with deviations including non-standard tier allocations. In practice, ECG's collection performance (approximately 88 percent of all electricity sold in the regulated market)[8] is the central determinant of the sector's financial position.[9] Because most upstream payments—including fuel procurement, IPP capacity charges, and transmission fees—ultimately depend on downstream collections, any shortfall at the distribution level immediately affects the entire system. While the CWM imposes a structured allocation of available revenues, it does not eliminate financing gaps when total collections are insufficient to cover costs. As a result, residual obligations either accumulate as arrears or require government intervention.

Figure 2. Sector Financial Flows



Source: Ghanaian authorities and IMF Staff.

[7] The CWM operates through a single designated collection account with a fixed priority disbursement sequence whereby resources are first used to pay fuel costs first and then Level-A IPP capacity charges, VRA, GRIDCo transmission charges, and legacy debt service contributions. The CWM compliance is monitored through two independent verification processes. The ECG Revenue Validation Reports, conducted by independent auditors, verify ECG's actual collections against its declared collections to the CWM. The CWM Validation Reports, published by PURC, track whether disbursements from the CWM account followed the prescribed priority sequence and whether recipients received their full allocations. The gap between validated and declared collections and that between CWM allocations and actual payments to recipients are the two principal indicators of CWM compliance.

[8] At the retail level, residential, commercial, and industrial consumers pay electricity bills to ECG or NEDCo according to tariff schedules set by regulator. Bulk customers connected directly to the grid pay GRIDCo for transmission services. Exports to neighboring countries are billed under separate bilateral arrangements.

[9] In 2024, ECG's declared revenues to the CWM were approximately GH¢5.1 billion below independently validated collections (GH¢10.4 billion declared against GH¢15.5 billion validated), a gap of roughly one-third of actual collections (PwC, 2024).

C. Why Ghana's Electricity Sector is a Source of Fiscal Risks

Government's Financial Exposures to the Sector and Transmission Channels

10. The government's financial exposure to the sector reflects structural factors. First, the government is exposed directly through its equity stake across the entire value chain as it owns or controls critical infrastructure[10] and operates public entities at each stage of the value chain. Second, the limited financial ringfencing between entities implies that financial losses experienced by an entity at any stage of the value chain is not absorbed through insolvency, restructuring or service withdrawal, but instead it propagates through the value chain. [11] Third, long-term Power Purchase Agreements (PPAs) with IPPs embed fixed payment obligations at the generation stage (i.e., capacity charges, take-or-pay provisions), implying that the sector's cost base does not adjust downward when demand weakens or collections fall short.[12] Taken together, these factors imply that financial stress cannot be contained within individual entities and shape how financial stress is transmitted through the value chain and ultimately to the public sector.

11. The sector's cost structure further amplifies fiscal vulnerabilities (Figure 3). Ghana's generation costs are largely insulated from global gas price volatility as most gas is domestically produced under administered or commercial contracts but highly sensitive to movements in international oil prices and the exchange rate. Under current pricing arrangements, none of Ghana's natural gas sources used for thermal generation are priced with reference to international gas hub benchmarks.[13] As a result, the weighted average cost of gas (WACOG), a key component of generation costs, is largely unresponsive to fluctuations in global gas prices. By contrast, Brent crude oil price movements affect generation costs through two distinct channels. First, certain gas supply

[10] Upstream, GNPC holds equity in all three producing offshore fields alongside international oil company (IOCs) partners and serves as the national gas aggregator, purchasing and on-selling domestic gas to thermal generators. The Ghana GNGC operates the Atuabo gas processing plant and domestic gas transport network. At the generation stage, VRA and BPA hold a significant share of installed generation capacity. In transmission, GRIDCo owns and operates the national transmission system. Distribution and retail are served by ECG and NEDCo covering central-southern and northern Ghana, respectively.

[11] For example, ECG does not operate under a commercially binding insolvency framework, and upstream entities, such as GRIDCo, VRA, and GNGC, cannot credibly suspend supply without causing widespread service disruption. Consequently, the ability of these entities to enforce payment discipline through service withdrawal is limited and financial losses originating at the distribution level are not absorbed at the firm level and propagate through the value chain.

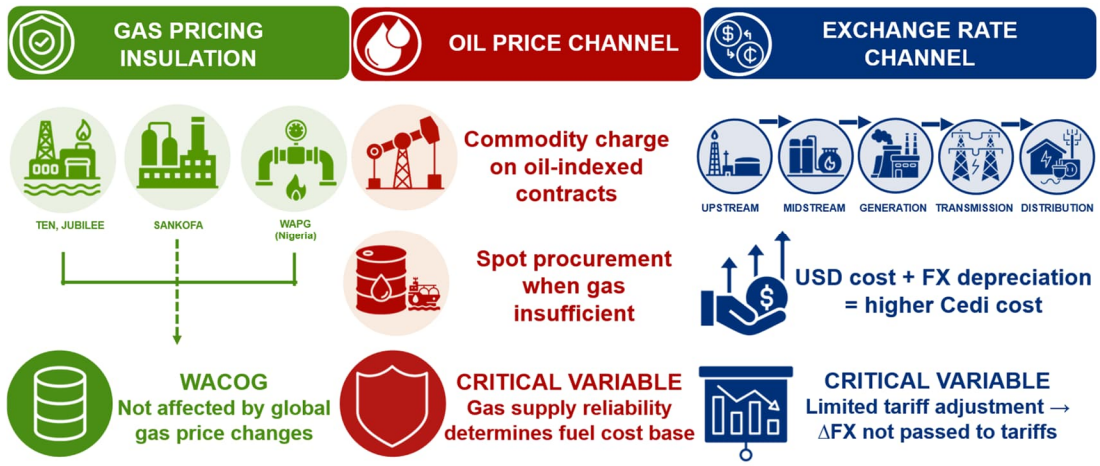
[12] When ECG's revenues are insufficient, these obligations continue to accrue in full, generating arrears that must ultimately be resolved either through government transfers or renegotiation.

[13] Jubilee and TEN associated gas is sold at an administered price of approximately US$2.90/MMBtu under the terms of the respective Plans of Development; supply volume is tied to oil production rates rather than to gas demand, making it an unreliable sole source. Sankofa non-associated gas, produced under the OCTP joint venture, is nominally contracted at approximately US$8.72/MMBtu (the estimated net cost of Sankofa gas to Ghana is less than US$4.5/MMBtu after accounting for GNPC's participating interest, royalties, and taxes) indexed to Brent crude, and provides a more stable dedicated gas supply. The price reflects the OCTP commercial contract. Brent-indexation means the cedi cost of Sankofa gas moves with both international oil prices and the GHS/USD exchange rate. Nigerian gas, imported through the West African Gas Pipeline (WAGP), is contracted at approximately US$8.75/MMBtu and represents an intermittent source of gas as it has operated under force majeure since 2011.

contracts are indexed to oil or commodity prices, particularly Sankofa and imports through the West African Gas Pipeline (WAGP)[14], affecting the WACOG with a lag. Second, when domestic gas supply is insufficient or unavailable due to a policy choice, thermal generators switch to liquid fuels, the most expensive generation option in the system, typically procured on an emergency basis at spot prices. This channel bypasses the WACOG mechanism entirely and transmits oil price changes immediately into generation costs. Movements in the GHS/USD exchange rate represent the most pervasive and fastest-acting source of cost pressure across the entire value chain because sector costs—including fuel procurement, IPP capacity charges, and debt service—are generally denominated in U.S. dollars while ECG revenues are denominated in cedis.

12. Sector's financial imbalances propagate to the government's balance sheet through a well-defined transmission mechanism (Figure 4). This process consists of a sequence of interconnected steps. First, weaknesses in distribution performance—reflected in technical and commercial losses, incomplete bill collection, and underreporting of collections to the CWM—

Figure 3. Ghana's Generation Costs: Key Drivers and Transmission Channels



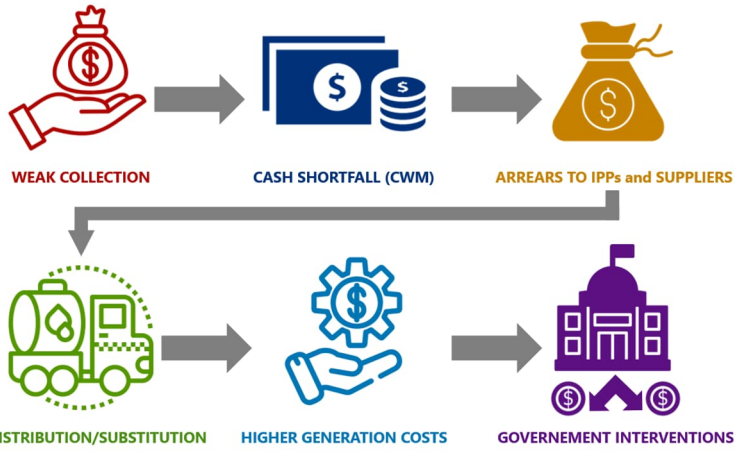
Source: IMF Staff.

reduce the cash available to ECG. As the primary point of revenue collection in the system, shortfalls at this stage immediately constrain the sector's liquidity. Second, reduced collections lead to shortfalls in allocations to suppliers through the CWM, which is not designed to eliminate financing gaps when total revenues are insufficient to cover generation costs. Third, unpaid obligations accumulate as arrears to upstream entities, including IPPs, gas suppliers, and FS. These arrears reflect the gap between contractual payment obligations and available resources. Fourth, the accumulation of arrears affects operational conditions, particularly fuel supply. Delayed payments to gas suppliers can constrain gas deliveries, increasing—or prompting a policy shift toward—liquid

[14] The original 2015 Sankofa Gas Sales Agreement was indexed to Henry Hub plus the US consumer price index at a headline price of US$9.8/MMBtu; following renegotiation in 2019, the price was reduced.

fuel generation at high international prices. [15] This substitution raises generation costs and further widens the financial gap. Fifth, the resulting financing shortfall is ultimately absorbed by the government, either through direct budget transfers or through the accumulation of public liabilities. In the absence of effective containment mechanisms, financial stress originating within the sector is therefore transmitted to the public balance sheet even in the absence of explicit guarantees.[16]

Figure 4. Propagation Mechanism



Source: Ghanaian authorities and IMF Staff.

13. Two additional factors amplify the propagation of financial stress to the government balance sheet. First, GNPC's simultaneous roles as equity holder in producing fields and as national gas aggregator create structural tensions that affect both upstream cost recovery and downstream supply reliability. As an equity partner alongside IOC operators, GNPC receives a share of production revenues from the Jubilee, TEN, and Sankofa fields. As gas aggregator, it purchases gas from these same fields—including from its IOC partners—at administered or commercial contract prices, and on-sells it to thermal generators. When ECG's payment shortfalls propagate upstream, gas suppliers including GNPC's IOC partners accumulate unpaid receivables against GNPC that ultimately require government settlement, compounding the exposure already described at the upstream stage. Second, late payments of electricity bills from Ministries, Departments, and Agencies (MDAs) have

[15] At its peak, the Eni/OCTP letter of credit, backed by a World Bank guarantee (US$500 million), accounted for a substantial share of total sector payables.

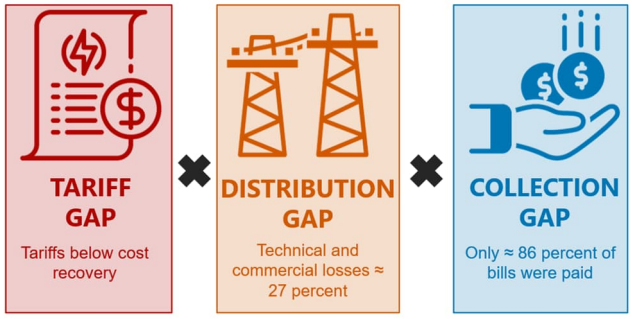
[16] Upstream, GNPC's arrears against gas suppliers ultimately constitute sovereign obligations when GNPC's own cashflow is insufficient to settle them—an exposure arising not from a formal guarantee but from the absence of any credible alternative resolution mechanism. Midstream, GNGC is not subject to an insolvency framework, implying that any financing gap falls on the government by default. At the generation stage, the MoF intervenes directly whenever ECG and GRIDCo cannot meet PPAs obligations. At the transmission stage, GRIDCo cannot withhold transmission services from a non-paying distributor utility without causing a supply disruption, removing the commercial lever that would ordinarily discipline a non-paying counterparty. At the distribution stage, ECG has no credible insolvency framework and the political consequences of allowing distribution failure are prohibitive, constituting a *de facto* unconditional government guarantee.

led to the accumulation of unpaid balances that reached approximately 16 percent of total sector outstanding payables at end-2025.

Structural Drivers of the Sector's Financial Imbalances

14. The sector's financial imbalances originate from three interrelated structural gaps (Figure 5). First, the tariff gap that reflects the difference between the cost of supplying electricity and the revenue implied by the approved tariff schedule.[17] Although Ghana's regulatory framework provides for periodic tariff adjustments, implementation has been uneven, particularly around election cycles, resulting in prolonged deviations between tariffs and underlying costs.[18,19] Quarterly structural benchmarks under the IMF-supported program have supported more regular adjustments since 2025. Second, the distribution gap which arises from technical and commercial losses affecting the amount of electricity that is billed to consumers.[20] These losses shrink the effective revenue base to which tariffs are applied, weakening the sector's ability to recover costs even when tariffs are adjusted. Third, the collection gap that reflects incomplete payment of billed electricity.[21]

Figure 5. Driver of Sector's Financial Imbalances (2024)



Source: Ghanaian authorities and IMF Staff.

15. These gaps reinforce each other with a multiplicative rather than additive effect. The tariff gap reduces revenue per unit of electricity sold, the distribution gap reduces the volume of billable energy, and the collection gap reduces the share of billed revenues that are actually

[17] The tariff gap has a self-reinforcing dynamic: under-recovery accumulates as arrears to generators and gas suppliers, whose associated financing costs and penalty charges add to the cost base that future tariff adjustments must cover, making the path to cost recovery progressively more demanding with each period of under adjustment.

[18] A further source of tariff under-recovery arises when tariff adjustments are formally made by PURC based on a lagged reference exchange rate, typically the average of the preceding quarter, and utilities procure fuel and service debt at the exchange rate prevailing at the time of payment. This source of tariff under-recovery becomes particularly significant during periods of rapid cedi depreciation.

[19] A recent study from the public utility regulator (PURC, March 2025) found that Ghana's electricity tariffs sit near the African median. Within West Africa, Ghana's tariffs are moderate — higher than subsidized systems such as Nigeria, but lower than smaller systems with high operational inefficiencies such as Liberia and Sierra Leone. Compared to East Africa, Ghana's tariffs are relatively higher, primarily because of its thermal generation component and FX exposure. North African tariffs are the lowest on the continent due to large-scale subsidies.

[20] Technical losses arise from aging infrastructure, overloaded transformers, and inadequately maintained low-voltage networks. Commercial losses arise from illegal connections, meter bypassing, billing errors, and insufficient metering coverage.

[21] With a collection rate of approximately 86 percent in 2024, a significant fraction of electricity billed by ECG is not recovered, with non-payment by public sector entities accounting for a significant share of it.

received. Hence, if tariffs don't keep up with costs (i.e., positive tariff gap) and distributors lose a part of their power due to inefficiencies (i.e., positive distribution gap), the sector will experience an imbalance even when all customers pay their bills in full (i.e., no collection gap). Similarly, cost-reflective tariffs can still be associated with sector's financial imbalances if customers are not paying their bills (i.e., positive collection gap).

Box 1. Ghana's Regulatory and Tariff Frameworks

Ghana's energy sector operates within a comprehensive regulatory framework. The Ministry of Energy and Green Transition (MoE) is responsible for energy policy formulation, implementation, and supervision. The Energy Commission (EC) is the technical regulator responsible for licensing generation, transmission, and distribution activities and for administering competitive procurement of new generation capacity. The PURC is the economic regulator responsible for tariff determination, the monitoring of service standards, and promotion of fair competition. The Petroleum Commission (PC) governs upstream oil and gas contracts, including the production sharing agreements under which GNPC holds equity alongside IOC partners. Together these bodies constitute a comprehensive regulatory architecture that establishes mandates, instruments, and legal basis for cost-reflective tariff setting, competitive procurement, and payment discipline.

The PURC determines the tariff level with two distinct mechanisms. The Multi-Year Tariff Order (MYTO), conducted every three to five years under the PURC Act 1997, is a comprehensive review covering utilities' capital and operational expenditure, the regulated asset base, investment plans, and long-run generation mix projections. It sets the baseline tariff for the control period following investment hearings, stakeholder consultations, and regional public forums. The most recent MYTO established tariffs for 2026–2030 with a 9.86 percent increase effective January 2026. The Automatic Adjustment Formula (AAF), formalized under PURC Gazette No. 15 of February 2011, adjusts tariffs quarterly within the MYTO period for four cost variables beyond utilities' control: the GHS/USD exchange rate, domestic inflation, the hydro/thermal generation mix, and the WACOG. When applied as designed, the AAF maintains the real value of the MYTO baseline between major reviews. The latest quarterly AAF change reduced tariffs by 4.81 percent, reflecting cedi appreciation and lower inflation.

16. The inconsistent implementation of the sector's regulatory framework amplifies the interactions between the structural gaps (Box 1). Delays in adjusting tariffs in response to cost pressures[22] and weak enforcement of payment obligations, especially from public sector consumers, have repeatedly converted temporary shocks into persistent financial imbalances.

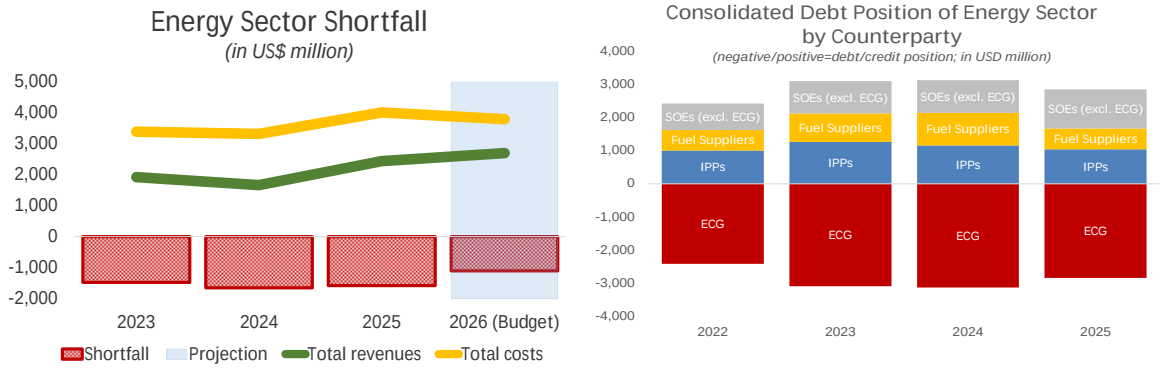
D. The Sector's Financial Position

17. The energy sector has recorded sizable annual shortfalls in recent years, estimated at approximately 1–1½ percent of GDP (Figure 6). The annual gap between sector's revenues and costs (i.e., the energy sector shortfall) stood approximately at US$1.4 billion in 2025 or 1.2 percent of GDP (US$1.6 billion or 1.4 percent of GDP in 2024), reflecting the combined effect of the tariff, distribution, and collection gaps. While the resumption of tariff adjustments has supported cost

[22] Between 2016 and mid-2022, tariffs increased only modestly despite significant exchange rate depreciation and rising fuel costs, and adjustments were again suspended ahead of the 2024 elections. In a context where a large share of costs is denominated in U.S. dollars and contractual obligations are fixed, delayed tariff adjustments convert temporary cost shocks into persistent financial deficits that accumulate as arrears.

recovery, the narrowing of the shortfall between 2024 and 2025 was driven primarily by improved macroeconomic conditions and a stronger cedi (lowering the GHS cost of USD-denominated obligations) and reduced reliance on liquid fuels, rather than by structural improvements in the sector's operational or collection performance. Also, the positive revenue growth (below 10 percent in real terms) experienced over the same time largely reflected demand growth rather than efficiency gains. These gains therefore remain fragile, absent sustained reform implementation.

Figure 6. Recent Developments in Ghana's Energy Sector



Source: IMF Staff estimates.

18. These shortfalls have led to an accumulation of payables to IPPs and FS. Following a period of rapid buildup, the stock of outstanding payables reached a peak of about US$2.2 billion (1.9 percent of GDP) in early 2025 before declining to about US$1.7 billion at end-2025 (1.5 percent of GDP) mainly reflecting clearance of arrears with FS.[23] Nonetheless, the sector's stock of outstanding payables remains substantial, and continues to generate additional costs through penalties, financing charges, and strained supplier relationships.

19. The sector's financial imbalances have direct fiscal implications. The government makes payments to avoid a continuous accumulation of financial imbalances in the sector and prevent disruptions to electricity supply. Government interventions typically occur outside the CWM and take the form budget transfers to individual entities (i.e., IPPs, gas suppliers, FS) to settle ECG's outstanding obligations and/or off-budget operations through credit notes.[24] When such interventions are insufficient or delayed, arrears accumulate, reinforcing the cycle of financial stress. In 2025, government transfers to the energy sector amounted to about US$2 billion in 2025 (US$1.5 billion in 2024), of which approximately half covered current invoices and the remainder reduced the

[23] At the same time, the ECG's stock of arrears to the energy sector reached a peak of US$3.5 billion in 2025Q2, due to the suspension of the quarterly tariff adjustments and CWM compliance failures ahead of the 2024 elections as well as insufficient MoF transfers. Subsequently, ECG's outstanding debt declined markedly to US$2.8 billion at end-2025 on improved ECG revenue collection and CWM compliance.

[24] Credit notes are provided from the National Gas Clearinghouse (NGC) and offset government obligations to supply gas to IPPs against contractual fuel cost charges, reducing the cash outflow required.

legacy debt stock. The NGC credit notes to gas suppliers totaled approximately US$1 billion in 2025 form US$0.4 billion in 2024.

20. The sector's financial weaknesses impose also macroeconomic costs that fall disproportionately on households and firms least able to absorb them. Recent World Bank's (WB) analysis shows that the vast majority of Ghanaian manufacturing firms report power outages that disrupt production, with those firms unable to afford backup diesel generators absorbing output losses directly. In addition, distribution losses of 31.3 percent in Ghana's northern areas serviced by NEDCo imply that supply reliability is weakest where household incomes are lowest and backup generation least accessible. The sector's financial condition and its service delivery performance are therefore intertwined problems with the structural gaps generating fiscal pressure coinciding with those producing unreliable power supply and deterring private investment. Closing such gaps is hence both a fiscal imperative and a precondition for sustained growth.

E. ECF-Supported Reforms: Progress and Remaining Gaps

21. The ECF-supported program has directly addressed the structural drivers of the sector's financial imbalances. Building on the authorities' Energy Sector Recovery Program (ESRP),[25] the ECF has focused on restoring cost recovery, strengthening ECG revenue collection, improving ECG operational efficiency, advancing private sector (PSP) participation in distribution, renegotiating onerous PPAs, and addressing legacy debt. These reform areas directly target the tariff, distribution, and collection gaps as well as the mechanisms through which financial shortfalls propagate to the government balance sheet discussed in Section III. The WB's assistance has complemented the ECF by providing results-based financing directly to the energy sector entities responsible for operational improvement.[26]

Reforms to restore cost recovery have resulted in strengthening implementation of tariff-setting mechanisms (Figure 7). The resumption of quarterly tariff adjustments in 2025 marked an important step toward aligning tariffs with underlying costs, following their suspension in the run-up to the 2024 elections (Box 2).[27] The implementation of a new MYTO for 2026–30 has further supported cost recovery. These measures, alongside reduced ECG revenue underreporting and exchange rate movements, have contributed to an apparent narrowing of the tariff gap. In addition, increased use of domestic gas has helped contain generation costs by

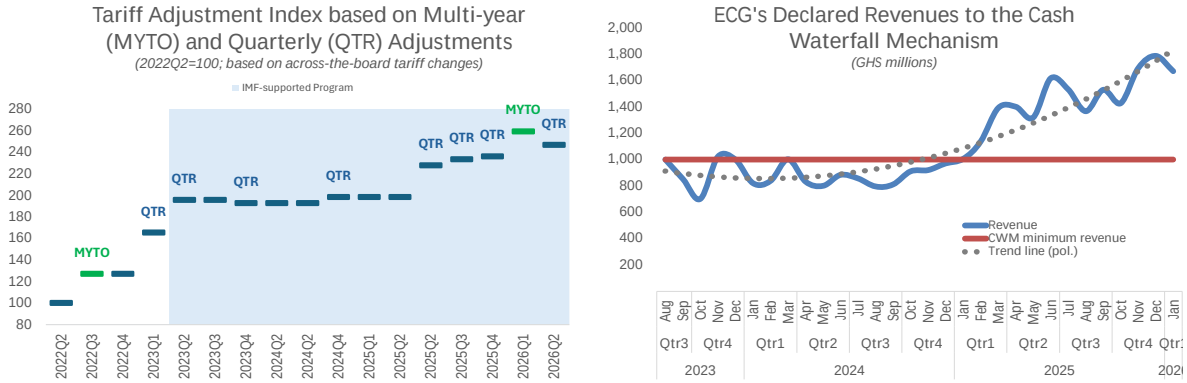
[25] The ESRP was established in 2019, in collaboration with the World Bank, to restore the power sector's financial stability. With the June 2023 Addendum, it identifies measures to reduce sector costs and increase revenues, while improving the corporate governance of energy sector state-owned enterprises. The ESRP also provides the institutional governance structure for reform implementation, bringing together the Ministry of Energy and the Ministry of Finance through an inter-ministerial Energy Sector Task Force.

[26] The WB PforR was approved in June 2024 and envisages measures to improve economic dispatch, ECG collection efficiency, energy accounting systems, customer services, financial management transparency, IPP invoicing, and clean cooking access.

[27] Electricity tariffs have increased by about 40 percent since March 2025 on a cumulative basis.

reducing reliance on more expensive liquid fuels. [28] However, the effectiveness of tariff adjustments depends critically on their consistent implementation. Past episodes of delayed or suspended adjustments highlight the risk that political economy pressures could lead to under-adjustment, allowing cost pressures to accumulate.

Figure 7. Tariffs and ECG Revenue Collection



Source: IMF Staff estimates.

22. Efforts to reduce distribution losses have yielded limited results, with losses remaining at 27 percent at end-2024.[29] Supported by the World Bank PforR, the authorities have focused on improving ECG's operational performance, most notably through smart meter deployment and billing system upgrades. However, implementation of these initiatives has been slow, preventing a meaningful reduction in losses and limiting the effectiveness of tariff adjustments. Durable progress requires coordinated action across technical and commercial dimensions, including network infrastructure upgrades, enforcement against illegal connections, and improved billing systems.

23. Measures to improve revenue collection and strengthen payment discipline have contributed to a partial recovery in sector liquidity. In 2025, with support from the WB Development Policy Financing, the authorities strengthened the implementation of the CWM to ensure a more transparent and predictable allocation of ECG revenues, including through improved monitoring, enhanced compliance with CWM guidelines, and periodic independent validation of ECG collections (a program structural benchmark). At the same time, efforts to improve collection performance by enhancing billing systems and moving to PSP (paragraph 34.) in power distribution have begun to address some key longstanding weaknesses in the sector. Nonetheless, the durability of these improvements remains dependent on continued reform implementation and institutional safeguards.

[28] This effort was supported by ENI's July 2025 expansion of OCTP gas processing capacity to 270 MMcfd, which increased the availability of domestic gas for thermal generation and reduced forced liquid fuel substitution.

[29] The WB PforR targets to bring them to 23.8 percent by December 2025 and 19.2 percent by December 2027; the GNEC targets 23 percent by 2030.

Box 2. Energy Sector Reform Slippages in 2024

The implementation of the Ghana's ERSP reforms weakened markedly in the run-up to the 2024 general elections. Reform slippages most notably included the suspension of quarterly tariff adjustments; a sharp deterioration of CWM compliance with ECG's declared collections falling well below independently validated actual collections; and a worsening of ECG distribution losses to 27.1 percent in 2024 (26.9 percent in 2023). The combined fiscal impact of these simultaneous slippages was significant with government transfers increasing from about US$0.7 billion in 2023 to approximately US$1.2 billion in 2024.

24. Progress has been made in reducing the stock of arrears through increased government transfers and renegotiation of PPAs and legacy debt. These efforts have contributed to a decline in arrears from their peak levels (paragraph 18.). However, the sector continues to carry a substantial stock of debt, which will require to adopt a fully financed and credible medium-term resolution strategy to ensure its clearance over the medium term. Absent such a strategy, arrears-related costs will continue to weigh on the sector's financial position and risk undermining recent gains in stabilization.

25. Institutional reforms have focused on strengthening governance and reducing the risk of future imbalances. Recent steps—including the adoption of a framework for PSP in ECG[30] distribution and of a legislative instrument (LI) mandating competitive procurement for new generation capacity—represent important progress. However, delays in operationalizing these reforms, including the issuance of implementing guidelines and the appointment of a transaction advisor (MEFP paragraph 50), have so far limited their immediate impact. More broadly, the absence of strong institutional safeguards to ensure consistent application of tariff adjustments and payment discipline remains a key vulnerability.

26. Overall, the ECF-supported reforms have helped stabilize the sector's financial position and address key structural weaknesses. However, progress remains incomplete. The persistence of tariff gaps, elevated distribution losses, collection challenges, and a significant stock of arrears indicates that the sector remains vulnerable to renewed financial stress. Sustained and coordinated implementation across all reform areas is therefore critical to achieving durable improvements.

F. Policy Priorities: From Stabilization to Transformation

27. Addressing sector's remaining vulnerabilities requires developing a credible and well-sequenced reform roadmap. This should prioritize actions to (i) prevent the re-emergence of large financial imbalances in the near term, (ii) strengthen operational and financial performance in the medium term, and (iii) establish institutional safeguards to ensure durability of reforms.

[30] The PSP framework is not a sale or divestiture rather the strategic deployment of private sector expertise through multiple concession arrangements to support and improve specific operational areas of ECG.

Near-Term Priorities: Lock in Financial Stabilization

28. Ensuring consistent tariff adjustment is the most immediate priority. Regular application of the AAF is critical to maintaining cost recovery and preventing the re-emergence of tariff gaps. Strengthening institutional safeguards, including PURC's operational independence, to ensure compliance with existing tariff-setting framework and insulate tariff-setting decisions from *ad-hoc* intervention, particularly during periods of political pressure, will be essential.

29. Strict enforcement of the CWM remains central to restore payment discipline. Full and transparent implementation of the CWM—including strict adherence to CWM guidelines, regular independent validation of collections, and timely publication of compliance reports—will enhance accountability and help prevent the re-accumulation of upstream arrears.

30. Delivering on a credible and fully financed arrears resolution strategy is also critical. Diligently implementing the arrears clearing agreement reached in 2025with IPPs and FS, while avoiding the accumulation of new obligations, will reduce penalty costs, restore supplier confidence, and improve fuel supply reliability. Without such a strategy, arrears will continue to weigh on the sector's financial position and undermine stabilization efforts.

Medium-term Priorities: Strengthen Operational and Financial Performance

31. Reducing distribution losses is essential to expanding the sector's effective revenue base. Achieving sustained reductions in technical and commercial losses will require coordinated progress in metering, billing systems, and enforcement. Priorities include accelerating the rollout of smart meters, strengthening energy accounting systems, and improving oversight of technical and commercial losses.

32. Improving revenue collection, particularly from public sector entities, is equally important. Measures should include strengthened enforcement of payment obligations, expanded use of prepayment arrangements, and structured repayment plans for large consumers. Enhancing transparency through regular independent audits of billing and collection systems would further support accountability.

33. Advancing PSP in distribution will help strengthen incentives for efficiency and service delivery. The ultimate objective of the PSP reform is the transfer of defined operational areas within ECG to private concessionaires, introducing commercial discipline, performance accountability, and private capital into the distribution segment. Operationalizing this reform requires the Cabinet's approval of a strategy identifying a clear definition of the commercial model pursued and envisaging structured engagement with prospective private operators. Successfully concluding a concession arrangement would provide the operational discipline needed to drive sustained reductions in distribution losses, improve billing and collection performance, and strengthen accountability in service delivery.

Structural Priorities: Strengthen Governance and Prevent Recurrence of Fiscal Risks

34. Institutionalizing tariff-setting and regulatory processes is critical to ensuring the durability of reforms. Strengthening the independence and operational credibility of the regulator (the PURC), particularly in the consistent application of tariff adjustments, will reduce the risk of policy slippages.

35. Enhancing transparency and financial governance across sector entities will improve accountability and risk management. This includes timely publication of audited financial statements of all energy sector public enterprises, improved monitoring of sector-wide financial flows, and strengthened disclosure of contingent liabilities and quasi-fiscal operations.

36. Ensuring competitive and transparent procurement of new generation capacity is essential to containing future fiscal risks. Effective implementation of the LI requiring competitive procurement of PPAs will help avoid the accumulation of costly contractual obligations and improve value for money in future investments.

37. Steadfast implementation of this roadmap will help strengthen the sector's financial viability and create the conditions for sustained private sector-led growth. A financially sustainable sector—characterized by a creditworthy off-taker (ECG), predictable tariff adjustments, and disciplined procurement, will support investment in generation and distribution, while reducing reliance on costly emergency interventions. Improvements in domestic gas supply[31] will further enhance these gains by reducing dependence on liquid fuels and improving cost stability. Together, these developments will enable the energy sector to fulfill its role as a critical enabler of Ghana's broader development strategy.

[31] The OCTP project, operated by ENI with Vitol and GNPC, already supplies approximately 70 percent of Ghana's domestic gas for power generation. The July 2025 expansion of gas processing capacity to 270 MMcfd and the US$1.5 billion investment commitment by ENI and its OCTP partners for further field development are expected to markedly increase gas supply over the medium term. Jubilee and TEN partners have separately committed approximately US$2 billion to sustain and increase oil and gas output.

Table 1. Key Sector Entities and Financial Performance (2024)

Entity	Stage	Primary function	Ownership	Total assets FY2024 (GHS'm)	Revenue FY2024 (GHS'm)	Net profit/(loss) FY2024 (GHS'm)	Accounts status
GNPC	Upstream/midstream	Field equity; gas aggregation and on-selling	100% GoG	26,535	20,234	+662	Management accounts
GNGC	Midstream	Gas processing (Atuabo) and domestic transport	100% GoG	21,668	7,261	+228	Draft
BPA	Generation	Bui hydropower (404 MW installed)	100% GoG	26,125	2,073	+1,040	Draft
VRA	Generation	Akosombo and Kpong hydro; thermal plants	100% GoG	92,835	11,259	-570	Audited
GRIDCo	Transmission	National transmission system (6,472 km)	100% GoG	15,785	2,662	-91	Audited
ECG	Distribution/retail	Power distribution, southern/central Ghana	100% GoG	76,250	36,177	-8,256	Audited
NEDCo	Distribution/retail	Power distribution, northern Ghana	VRA subsidiary	Consolidated within VRA	—	—	—