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# Gaslighting Ghana

## Predatory investments and the role of the World Bank Group in driving fossil fuel debt

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John Nkaw, Country Director, ActionAid Ghana

## Foreword

Energy policy is a cornerstone of inclusive and sustainable development. Yet around the world, energy policies shaped by international financial institutions have too often prioritised profit over people, leaving behind a legacy of debt, inequality, and environmental harm. Women, who bear a disproportionate burden of energy poverty, are especially impacted by these decisions.

This report interrogates the role of the Bretton Woods institutions, particularly the World Bank Group, in shaping Ghana's energy trajectory. It reveals how foreign-led private investments and public-private partnerships (PPPs), heavily backed by World Bank guarantees, have entrenched fossil fuel dependency and saddled the country with unsustainable debt. Rather than delivering energy security or economic stability, these interventions have deepened Ghana's financial vulnerabilities—forcing the country to pay for gas it could not use for many years, electricity it could not afford, and contracts it had little room to renegotiate.

Crucially, the report highlights the true cost of these arrangements, both in human and fiscal terms. Ghana's energy sector, structured around rigid 'take-or-pay' contracts and skewed power purchase agreements, has become a drain on public resources, benefiting foreign corporations while undermining the country's development goals.

The report makes a series of urgent recommendations: an independent review of Ghana's fossil-related debt; a reassessment of all contracts that shift financial risk onto the state; and the launch of a national dialogue to reach consensus on a climate-just and fiscally responsible energy future.

At ActionAid, we are unequivocal in our position—Ghana's energy future must be climate-resilient, democratically governed, and free from exploitative fossil fuel arrangements. We call for an end to new coal, oil, and gas projects, the cancellation of fossil fuel debt, and a bold shift towards public investment in renewable energy systems that meet the needs of people—particularly women and marginalised communities.

We hope that this report will serve as an important tool for policymakers, civil society organisations, and international partners who are serious about rethinking energy for the public good. The time to act is now—before the cost becomes even more unbearable.

*John Nkaw, Country Director, ActionAid Ghana*

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# List of acronyms

ACEP – Africa Centre for Energy Policy

AfDB – African Development Bank

AFG – Amandi Founder Group

AIIF2/3 – African Infrastructure Investment Fund 2 and 3

AIIM – African Infrastructure Investment Managers

CDB – China Development Bank

CWM – Cash Waterfall Mechanism

DEG – German Investment Corporation

EAIF – Emerging Africa Infrastructure Fund

ECG – Electricity Company of Ghana

EIA – Environmental Impact Assessment

ESRP – Energy Sector Recovery Programme

FMO – Dutch entrepreneurial development bank

FPSO – floating production storage and offloading

FRSU – floating re-gasification and storage unit

GDA – Government Disbursement Account

GEDAP – Ghana Energy Development and Access Project

GNGC – Ghana National Gas Company

GNPC – Ghana National Petroleum Company

GPGC – Ghana Power Generation Company Limited

GSA – Gas Sale Agreement

HFO – heavy fuel oil

IBRD – International Bank for Reconstruction and Development

ICCF – Interact Climate Change Facility

IDA – International Development Association

IFC – International Finance Corporation

IMF – International Monetary Fund

IPP – independent power producer

LCO – light crude oil

LNG – liquified natural gas

MCC – Millennium Challenge Corporation

MIGA – Multilateral Investment Guarantee Agency

MMBtu – million British thermal units

MMSCFD – million standard cubic feet of gas each day

N-Gas – Nigeria Gas Limited

NNPC – Nigerian National Petroleum Corporation

PAIDF2 – Pan African Infrastructure Development Fund 2

PID – Project Information Document

PIDG – Private Infrastructure Development Group

PPA – power purchase agreement

PPP – public-private partnership

RBL – resource-backed loan

SPV – special purpose vehicle

TICO – Takoradi International Company

TLTC – Tema LNG Terminal Company

VRA – Volta River Authority

WAGP – West African Gas Pipeline

WAPCo – West African Gas Pipeline Company Limited

WBG – World Bank Group, also 'the Bank'

WCGIDP - Western Corridor Gas Infrastructure Development Project

# Executive summary

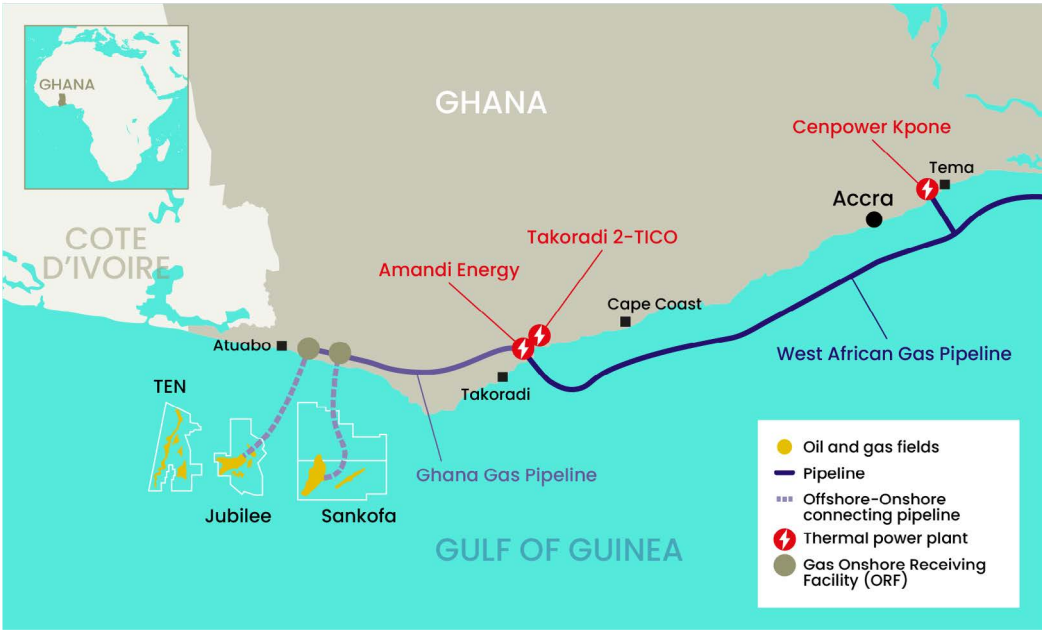
Credit: Photo by Wyteshot on Unsplash

The discovery of oil deposits off the coast of Ghana in 2007 was initially hailed by the International Monetary Fund (IMF) as a game-changer for national income and economic growth. The reality has been, however, markedly different. By 2022, Ghana found itself unable to meet debt repayment obligations for the third time since it became a fossil fuel producing country, forcing it to seek yet another bailout from the same institution that had earlier praised the arrival of the fossil industry.

Additional infrastructural developments have made Ghana's electricity sector largely dependent on the supply of fossil fuels. Between the discovery of oil in 2007 and the 2022 bailout, dual-fuel thermal power plants overtook renewable hydropower dams as the country's main sources of electricity. The result is that Ghana currently has an expensive, unreliable power sector that requires hundreds of millions of public subsidies each year to stay afloat, including payments to meet controversial obligations with foreign companies.

This paper critically examines the role that foreign-led private investments have played in the roll-out of public-private partnerships (PPPs) across Ghana's energy value chain in the last decade and half. Key in this story is the World Bank Group (WBG or 'the Bank'). The Bank, as a multilateral financial institution, has been involved in Ghana's energy sector for decades and has invested in and given guarantees for upstream fossil fuel projects that were ostensibly marketed as a means to provide affordable electricity to Ghanaian people. The Bank also supported some of the power plants that were rapidly expanding in the midstream power sector, while facilitating government assurances to investors in other thermal facilities.

**Gas supplying projects and thermal power plants examined in this report**



These poorly-conceived fossil fuel projects, however, have resulted in Ghana paying a high price each time. The concurrent soaring of costly thermal facilities has further entrenched the country's debt-laden energy value chain. The cumulative impacts of flawed upstream gas-supplying assets and unfair risk-sharing deals across fossil and thermal projects show that the WBG has played a key role in locking Ghana into a fossil-based energy dependency that is a key driver of indebtedness.

Guarantees issued to de-risk foreign capital in fossil fuel projects have taken diverse forms, and key findings about the costs that Ghana had to pay can be synthesised as follows:

## West African Gas Pipeline (WAGP)

- The project is a pioneering regional energy PPP that transports gas from Nigeria to Ghana and neighbouring countries. WBG's risk mitigation strategy involved providing USD 50m in guarantees to West African Gas Pipeline Company Limited (WAPCo), the project's leading company that is majority owned by Shell and Chevron, to protect against Ghana's potential repayment risks. The WBG supplied an additional USD 75m in political risk guarantees to WAPCo for the pipeline's construction. Ghana took a USD 75m loan from the European Investment Bank to finance its share of the project.
- After years of delays, the transnational pipeline has supplied gas at irregular intervals, and, on average, it has supplied only half of the contracted quantities since it became operational in 2010. Undersupply has compelled Ghana to continue importing high quantities of costly liquid fuels to power thermal plants – volumes that the WAGP was intended to partially offset.

## Jubilee project

- The Bank's private lending arm provided hundreds of millions in project financing for the Jubilee project, the first domestic asset praised also for its potential to address fuel shortages for the power sector. In addition to the project financing, the Bank also invested USD 110m in the offshore production and storage facility, a facility that also received USD 225m in risk guarantees from the Bank's insurance unit.
- Contrary to the environmental impact assessment (EIA), in which the companies committed to zero routine flaring, massive quantities of associated gas have been regularly flared at the offshore production facility since the project's commencement in late 2010.
- Despite the claimed promises, investors never properly considered the project's gas component, as Western financing focused exclusively on starting oil lifting operations in the record time. To only start using the gas by the end of 2014, Ghana had to take an expensive multi-billion loan from China. The four-year delay in commercialising Jubilee gas is estimated to have cost Ghana at least USD 1bn in fuel imports for electricity generation, a period in which the WAGP was also undersupplying.

## The Sankofa gas deal

- By committing over USD 1.2bn in total, the WBG once again promoted the Sankofa's gas deal as able to address energy problems, while also claiming it would not raise any funding obligations for the country. The Bank's role in the deal was one of co-investor with private finance, guarantor of private investments, and advisor to the government of Ghana – even though foreign investors were seeking to strike the best deal for themselves.
- The WBG signed off on the Sankofa gas sale deal with a dedicated USD 500m in guarantees for ENI and Vitol, an agreement that made Ghana ultimately liable for the purchase of about USD 600m worth of gas each year. On the one hand, the take-or-pay deal compelled Ghana to pay a relatively high price for a pre-agreed volume of gas regardless of actual use. While on the other hand, ENI and Vitol were estimated to receive a 14 per cent post-tax financial return on their investment, on top of other tax deduction benefits.
- Project plans involved the need to transport gas to Ghana's eastern power enclave, requiring agreements and connection of pipelines to enable the 'WAGP reverse-flow'. All parties were aware that this was a critical aspect of the project's financial viability. However, arrangements to transport gas to the east remained outside the scope of the multimillion deal as the Bank and project sponsors committed only to monitor work progress. The result was that the financial parameters for the use of the pipeline's reverse-flow had not yet been agreed by the time the project started gas production in mid-2018. This delay had devastating financial consequences for Ghana.
    - The pipeline interconnector ended up costing Ghana USD 170m, 17 times more what the Bank had estimated to be a 'small intervention'. Furthermore, the final arrangement turns out to also be advantageous for Chevron and Shell that own most of WAPCo, as Ghana has to pay fees to bring the gas where it is needed, in addition to the already high price guaranteed to ENI and Vitol.
    - Additionally, the deal compelled Ghana to pay over USD 50m a month in take-or-pay guarantees, even though, for more than a year it could only utilise one-third of what it was paying for– with excess payments expected to be fully recovered only in 2025. By April 2021, difficulties in maintaining payments under the Sankofa gas deal brought ENI and Vitol to withdraw a total of USD 360m from the WBG-led de-risking mechanism, figures that turned into loans for Ghana.

In addition to the economic hardship that Ghana suffered for the inability of upstream projects to ensure timely gas supplies for power production, another troubling dimension of the energy sector's public-private partnerships are deals made with independent power producers (IPPs). While upstream projects were at different stages of development, and in an effort to mitigate the prolonged power outrage crisis the country suffered between 2012 and 2016, Ghana reverted to this investment scheme that the WBG has promoted worldwide since the 1990s.

In Ghana, IPPs are led by foreign investors, many of which were able to obtain long-

term power purchase agreements (PPAs) through private negotiations and non-competitive processes. This resulted in most PPAs containing take-or-pay clauses that requires the Ghanaian government to give guarantees for the payment of pre-agreed quantities of electricity at a set price, regardless of whether Ghana needs the electricity or not.

Many foreign investors rushed in to sign profitable deals in an environment where public tenders, parliamentary oversight, and other forms of public accountability were lacking, leading Ghana's state-owned utility company, Electricity Company of Ghana (ECG) to sign too many PPAs during the power crisis. Within this context, the WBG was leading a multi-year project promoting the institutional development of state power companies, including ECG. Furthermore, the WBG invested in one IPP in Ghana, provided guarantees to another one, and reportedly required Ghana to give guarantees to investors in a total of four IPPs in connection to the Sankofa gas offtake deal.

Although Ghana later managed to cancel several PPAs, their termination has had a huge impact on the country's financial stability. The total cost of contract termination claims is not known, but the country had already paid over USD 400m for some cancellations by the end of 2017, and a UK court recently forced Ghana to pay USD 245m in compensation to another foreign fossil fuel company.

Furthermore, the remaining IPPs continue to represent a massive financial burden for the country. They have driven the installation of more fossil fuel-based generation capacity than Ghana needs, with at least 850 MW of excessive capacity estimated in 2022. Moreover, IPPs were able to strike very lucrative deals as they charge Ghana more than regional averages, including nearly 70 per cent more than similar thermal facilities in Nigeria.

In addition to the economic impact that upstream undersupplies and delays had on public finances, direct subsidies across the energy PPP framework cost Ghana between USD 1 and USD 1.5bn to balance costs of electricity and revenues from end-consumers each year. These costs, however, are also high because of the lucrative deals that foreign investors were able to procure across the energy value chain, such as Sankofa's pricy gas, fees for using the WAGP back-flow, costs for excess power capacity, and high price charged by IPPs.

Given these cumulative impacts, the World Bank-promoted energy public-private partnerships are far from creating a fair risk-sharing business environment. The fossil-based energy sector is heavily indebted because of the system of guarantees that protect foreign capital and offload risks onto Ghana's public finances. This includes periods when the country had to pay for more gas and more power than it could use at the same time, such as in 2018-2019, when charges for excess electricity were estimated at USD 940m in total, on top of the USD 50m monthly paid to Sankofa's investors for gas that was largely unused in that period.

In light of the clear power imbalances between the private and public sector in deal-making negotiations, it is important to critically examine the proposed solutions under the WBG's latest interventions. The Bank identifies the recovery of costs as the key problem towards the financial sustainability of Ghana's energy sector. Towards this end, the Bank has recently issued a new debt to improve governance, coordina-

tion, and planning among key state power companies. The focus is especially on ECG and includes also the provision of advanced metering systems to collect due payments and mitigate transmission losses.

Whereas these interventions may indeed provide some financial benefits, they risk to be insufficient to meet the still to-be delivered promise of affordable power for Ghanaian people. The present report argues that this promise can only be fulfilled through a radical review of the contractual arrangements that have put the country at disadvantage of foreign-led private interests in the last decade and half. Most importantly, the review must look at the economic consequences that upstream and midstream fossil-based energy deals have had and continue to have on the country's financial stability.

### The report calls on the World Bank and other foreign investors involved in the development of fossil-based energy PPPs in Ghana to:

- initiate an independent process that assesses the historical and current levels of fossil-related debt affecting the country's finances. This includes historical costs for pricy fuel imports that resulted from undersupply and delays in upstream gas-supplying projects; the effects that the Sankofa's drawdowns had as new loans for Ghana; credit that Ghana took from the domestic and international debt market and used for fossil-related energy costs; historical payments made to IPPs for unused power; and arrears owned as a result of lucrative deals that do not reflect demand;
- take responsibilities for the historical and current fossil-based energy debt they encouraged and enabled Ghana to accumulate throughout the last decade and half. Following the results of the above-mentioned independent process, accept to cancel relevant portions of this fossil debt within the current IMF-led debt restructuring process and tie cancelled debt to the country's public spending for renewable energy and the decarbonisation of the economy;
- reassess all 'take-or-pay' contracts that guarantee foreign interest and offload financial risks onto Ghana with the aim of balancing supply and demand systems and prioritising stable and affordable electricity for the Ghanaian people and economy.

### The government of Ghana should:

- hold a national dialogue and reach consensus on the climate and financial viability of continuing oil and gas exploration programmes as the world is moving away from fossil-based sources of energy, and embrace ambitious energy transition plans that require a rapid reduction of the carbon footprint of the country's economy;
- take steps to support the Fossil Fuel Non-Proliferation Treaty, which calls for an end to new coal, oil, and gas projects and coordinate the call on cancelling the country's fossil debt with increasing public expenditures in renewable energy investments.

# Prologue

Credit: Photo by Nick Sorockin on Unsplash.

The present research report analyses the historical development of Ghana's fossil-based energy sector and indebtedness. It critically assesses the role of the WBG in enabling an environment where profits of foreign private entities are protected while risks deriving from poor implementation and planning are largely offloaded onto public resources.

The report focuses on the problem of how the fossil fuel industry has been integrated into the country's power sector. In this respect, the research finds that deals between the private and public sector have been, so far, economically disadvantageous for Ghana. The research, however, acknowledges that oil revenues from domestic assets have been an important source of income for the country since 2011. While a comprehensive analysis of the country's fossil fuel economy is beyond the scope of the present research, it should be noted that oil revenues decreased to just over USD 1bn in 2023, while the energy revenue shortfall was estimated at USD 1.3bn.[1]

Another important acknowledgement to make at the outset is that problems in the Ghanaian fossil-based power sector are not only the result of external actors' failures and malpractice. Interventions by the WBG and foreign companies did not happen in a vacuum. As Ghanaian and regional experts such as the Africa Centre for Energy Policy (ACEP) have correctly pointed out, Ghana's politicians and decision-makers, executives of state-owned power companies, and managers of regulatory bodies have

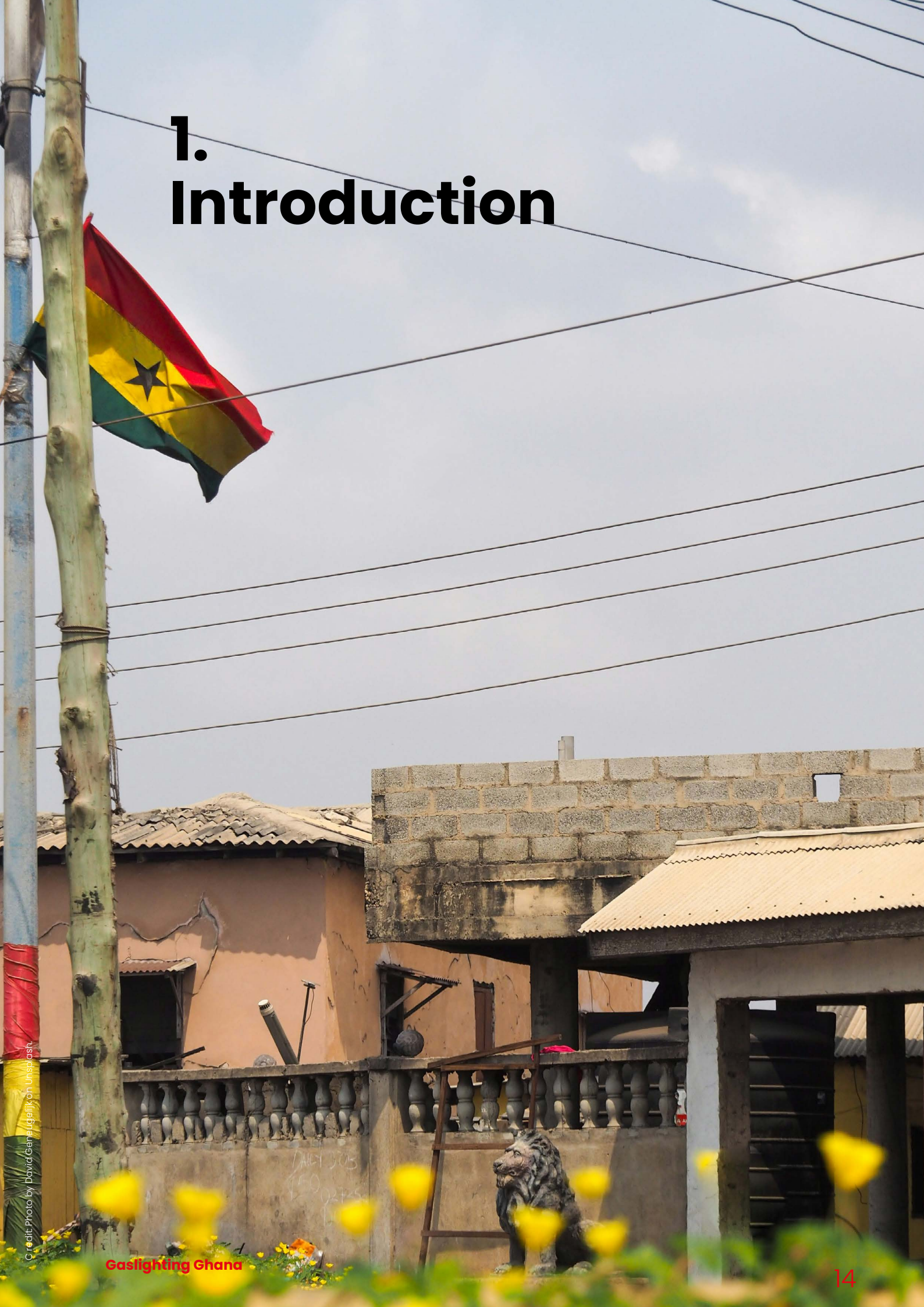
played an important role in the events reviewed in this study. They also hold their share of responsibility for poor planning, lack of coordination, indecision, dubious arrangements, and other irresponsible behaviours that have contributed to the debt-laden nexus between fossil fuels and power plants assets. For example, Ghanaian authorities made questionable assessments when they agreed to start oil extraction at Jubilee separately from the commercialisation of gas, to the terms of the Sankofa gas sale agreement, or to badly negotiated PPAs with thermal IPPs. Ghanaian expert organisations such as ACEP and IMANI Centre for Policy and Education are better positioned than the author of the present report to highlight and analyse public governance failures and issue recommendations to Ghanaian stakeholders to account for their misbehaviour.

While the present research aims to complement the work done by Ghanaian civil society on the challenges of the power sector, it also observes that Ghana, like many other countries in the Global South, has been reliant on the WBG for financing, technical advice, and planning for decades. Whatever the weaknesses in Ghana's energy systems are, the Bank knew or should have known that these existed when it got involved.

The present report, therefore, offers an alternative narrative to the WBG's analysis of Ghana's energy sector's issues. While the WBG often positions itself as an independent observer, the research reveals a more complex reality. The report does not aim to simply assign blame between Ghanaian, foreign, and international actors. Instead, by examining the Bank's support for questionable risk-sharing agreements, it calls on the WBG and other foreign investors to acknowledge their role in fossil fuel-related energy debt, and it encourages shared responsibilities through the cancellation of relevant portions of Ghana's fossil debt.

Prior to publication, we provided the WBG with a draft of the findings in the present report and asked for comment. We also wrote to companies leading the West Africa Gas Pipeline, the Jubilee and TEN, and the Sankofa fossil fuel projects, as well as investors in the Takoradi 2-TICO, the Amandi Energy, and Cenpower Kpone power plants. The WBG, Takoradi 2-TICO, the Amandi Energy did not respond. WAPCo, the transport company of the West Africa Gas Pipeline, Kosmos Energy, a key investor in the Jubilee and TEN projects, ENI and Vitol, and Cenpower Ganeration responded and their comments have been incorporated in main the main body or footnotes as appropriate.

# 1. Introduction



Credit: Photo by David Gengugelijkon Unsplash.

In 2008, when an IMF analysis showed Ghana's indebtedness situation as moderate,[2] they observed that the country's "recent oil discovery, once confirmed, can have a significant positive impact on national income, growth, poverty reduction, and debt sustainability".[3] It is a prediction that has spectacularly failed to materialise.

By 2024, Ghana was in debt distress and on its third IMF bailout since offshore oil deposits were discovered, while the percentage of the population living in poverty had increased.[4] The journey from moderate debt to debt distress included many challenges linked to the energy sector. In less than 20 years, Ghana has become a fossil fuel dependent economy, trapped in debt.[5]

What happened? While all stories have nuance, Ghana's fate as a new oil and gas producer is tragically similar to that of other Global South nations. Western investors and Western finance, on the endless quest for a return on capital, entered Ghana, supported by vast loans, safety nets, and guarantees provided by the WBG and Western financial institutions. The oil, gas, and power companies that have cruised into Ghana on a welcome mat rolled out by these institutions will also leave Ghana when there is no more to pick off the bones.

This report examines the role of multinational companies and financial institutions, particularly the WBG, in the pathway from oil discovery to debt distress and the cumulative impacts of foreign investment within PPPs. While PPP models vary significantly and range from municipal to regional level interventions, they promote the cooperation of the private and public sectors with the belief that private investment can make up for the delivery of infrastructure and services whenever public resources are limited.[6]

In Ghana, private investment in the public sector started in the early 1990s, and the WBG has supported PPP legislative and institutional processes since 2010-2011.[7] Many PPPs have targeted the energy sector, which, the Bank notes, "includes the petroleum and electricity sub-sectors and, given the high dependency of electricity sub-sector, they are strongly interlinked".[8]

Fossil fuel extraction and the power sector are closely connected because offshore fields produce both oil and natural gas; and while crude oil is largely sold to the international market, domestic gas is delivered onshore to the country's power plants for electricity generation. PPPs in Ghana's energy sectors therefore involve the participation of public and private companies cross the entire value chain that goes from fossil fuel extraction to electricity production.

This paper argues that Western companies and financial institutions, including the WBG, have ultimately been key in creating a fossil fuel dependency that contributes to public indebtedness. By limiting Ghana's fiscal space, this bears the risk of constraining the country's transition to low-carbon energy in the foreseeable future.

**Box 1 – Fossil fuel and colonialism**

Many oil, coal, and gas companies originated in European and colonised North American countries, establishing their access to fossil fuel deposits through further colonising land, labour, and cultures. These companies and the governments of their home states are primary drivers of the climate crisis.

The major oil corporations of the Western world – the infamous Seven Sisters – gained privileged access to the oil reserves of the colonies, from Nigeria (Shell) to British-occupied Persia (British Petroleum – BP).[9]

As liberation struggles achieved independence, countries in the Global South frequently faced regime change if their policies or political views were deemed unfavourable to the economic interests of former colonial powers or the West more generally, particularly fossil fuel interests. In many former colonised countries Western secret services overthrew leaders, invaded otherwise manipulated to retain access to oil.[10]

The 'Elf Affair' involving French oil company Elf, which became part of what is now TotalEnergies, was one of the most telling exposés about post-independence manipulation. Court actions revealed how France used its oil company to retain significant influence in former colonies in Africa, and how Elf executives had propped up dictators, including Gabon's Omar Bongo, and engaged in grand-scale corruption that effectively robbed African citizens of hundreds of millions in revenues.[11]

Ghana's Kwame Nkrumah, the first president of an independent African nation, was one of the first people to describe this as neo-colonialism. One year before he was overthrown in a plot allegedly supported by the CIA,[12] he wrote:

"The essence of neo-colonialism is that the State which is subject to it is, in theory, independent… In reality, its economic system and thus its political policy is directed from outside." – Kwame Nkrumah[13]

The neo-colonialism identified by Nkrumah has persisted. Recent studies show that the Global North continues to extract vast amounts of land, labour, raw materials, and energy from the Global South.[14]

## Ghana's energy sector

Prior to the discovery of oil and gas, the main source of power in Ghana was, by far, hydroelectricity, followed by oil and gas thermal power. In 2008, for example, two large hydroelectric dams generated nearly three times the amount of energy produced by thermal plants.[15] Experts have noted that reduced and less predictable rainfall due to climate change, combined with mismanagement in exerting too much pressure on capacity, have seen hydroelectricity struggle to meet Ghana's rising demand for power in the last two decades.[16] For the past 15 years, the country has focused on securing oil and gas to fuel thermal power plants. The Ministry of Energy of Ghana states that the total installed capacity for electricity generation consisting of hydro 38 per cent, thermal 61 per cent, and solar less than 1 per cent.[17]

The key domestic players in Ghana's energy sector are:

- Ghana National Petroleum Company (GNPC), a state-owned oil and gas company that represents the state participation in oil and gas deals with private companies.
- ECG, also a state-owned entity responsible for the distribution of electricity in much of Ghana.
- Energy Commission, a key technical regulatory body for Ghana's energy resources and power sector value chain. The Energy Commission grants licenses for the

transmission, wholesale, supply, distribution, and sale of electricity and natural gas and refining, storage, bulk distribution, marketing, and sale of petroleum products.

- Ghana Grid Company, the state-owned entity that is responsible for electricity transmission services in Ghana and power system planning.
- Ghana National Gas Company (GNGC), a state-owned and mid-stream gas business company that owns and operates infrastructure required for the gathering, processing, transporting, and marketing of natural gas resources in Ghana.
- Volta River Authority (VRA), a state-owned entity that generates electricity from hydro, thermal, and renewables, for industrial, commercial, and residential uses across Ghana.
- Northern Electricity Company is a subsidiary of VRA and it supplies electricity to the five northern regions of Ghana.
- Public Utilities Regulatory Commission is the commercial regulator for power and gas sectors.

In addition to the various state-owned companies, Ghana's new oil and gas sector includes multinational oil and gas companies that operate Ghana's oil and gas fields and independent power producers which, along with VRA, now generate much of Ghana's electricity.

**Box 2 – The World Bank Group and its history in Ghana's energy sector**

The World Bank Group comprises of five member organisations:

International Bank for Reconstruction and Development (IBRD) provides loans to middle-income countries with market-based interest rates;

International Development Association (IDA) gives concessional loans and, sometimes, grants to low-income countries;

International Finance Corporation (IFC) focuses on supporting the private sector through financing activities (loans, equity investments, etc.) technical assistance, and mobilising capital from other financial institutions;

Multilateral Investment Guarantee Agency (MIGA) provides political risk insurance to foreign investments in developing countries;

International Centre for Settlement of Investment Disputes is focused on the resolution of disputes between foreign investors and host countries arising under international investment treaties.

According to the Bank: "Ghana's energy sector has been a leading recipient of World Bank Group assistance over the past five decades, with IBRD, IDA and IFC contributing, between them, close to two billion dollars in loans, technical assistance and analytical work for both the power and petroleum subsectors."[18]

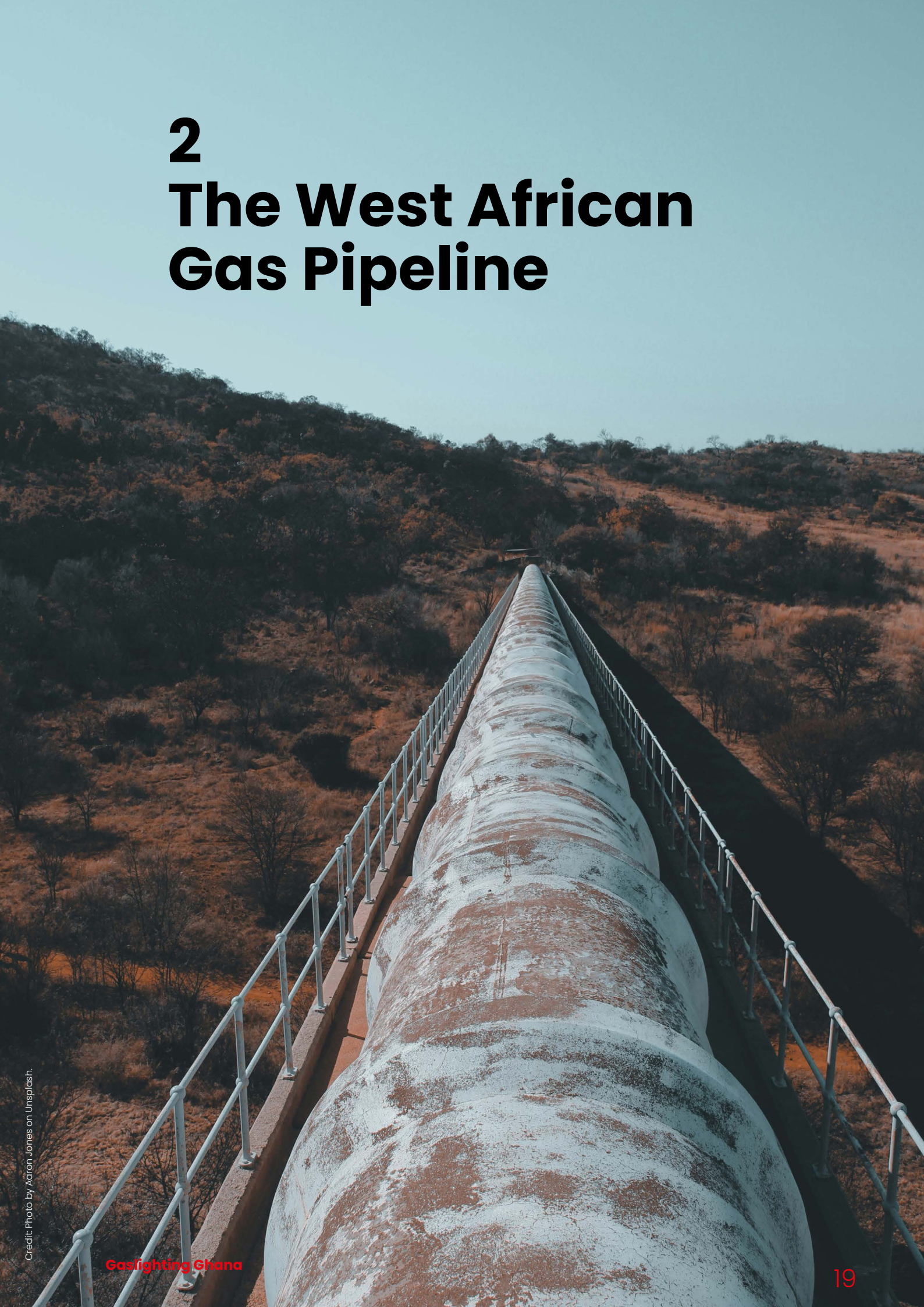
The WBG has been active in Ghana's energy sector since the 1960s, when it financed the building of the Akosombo Dam in 1962, followed by the financing of Kpong hydroelectric in the early 1980s. The WBG and IMF-backed structural adjustment programmes of the 1980s and 1990s – which scholars found having failed the institutions' primary objectives of alleviating poverty in Ghana[19]– also financed onshore and offshore petroleum exploration.[20]

From the 1990s onward, the WBG has heavily intervened in energy institutions and key state-owned enterprises, especially VRA and ECG, through projects aimed at management reorganisation, financial restructuring, plans for distribution infrastructure, and electrification systems, development of new regulatory arrangements etc.[21]

By 2007, the Bank's Ghana Energy Development and Access Project (GEDAP) began with the goal of improving operational efficiency of the electricity distribution system and access to electricity. Within this multiphase project that ended in 2022, GEDAP's goal was the development a "commercial management system that is needed to improve revenue collection, reduce losses and improve the overall operational efficiency of ECG". [22]

Overall, the WBG intervened in the energy sector directly after Ghana's independency. The last three decades have seen the Bank's dominant role in institutional and capacity development, infrastructural planning, and regulatory reforms, along with strategic advisory services to ECG as the "agency responsible for cash collection from end-users" and with "a major impact on the entire energy value chain".[23] As such, the Bank has been a close partner and influencer of key institutions and decision-makers throughout Ghana's recent history of fossil fuel and thermal power.

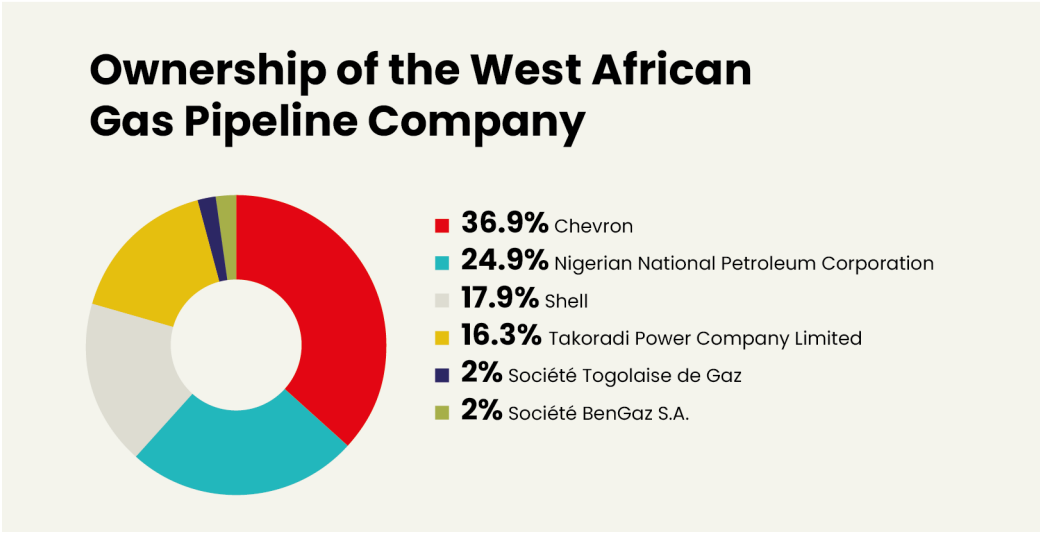
# 2
# The West African Gas Pipeline

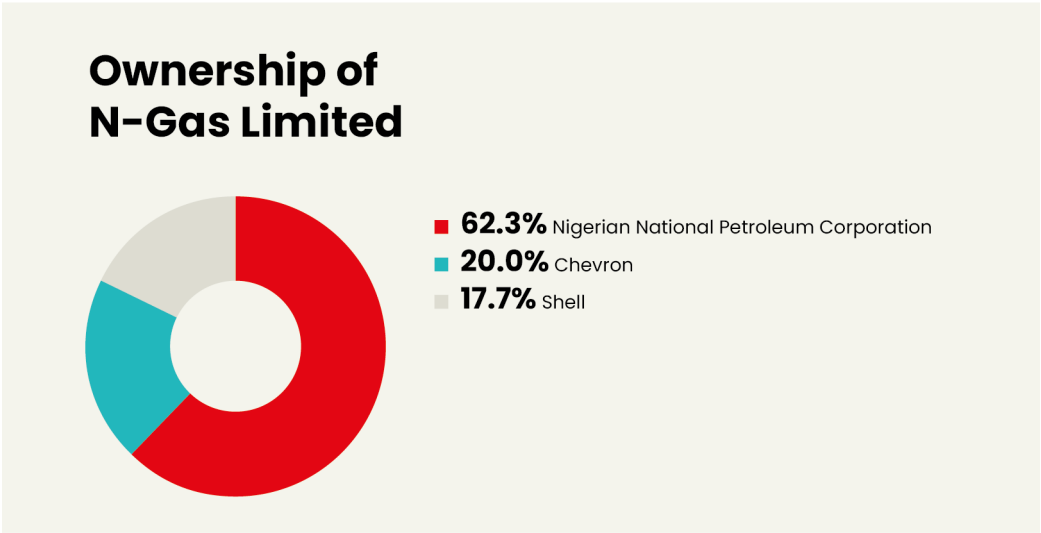


Credit: Photo by Adron Jones on Unsplash.

*The provision of a market and financial return for natural gas will provide an infusion of funds into Ghana, resulting in positive economic benefits in that country*
*– World Bank, 2004*[24]

*The [West African Gas Pipeline Project] will provide cheap, efficient, and environmentally friendly fuel to the consuming countries, which will lower the cost of power in consuming countries thereby improving the competitiveness of goods and services. [...] Benefits should accrue widely in the offtake countries through lower fuel costs and thereby lower electricity costs*
*– World Bank, 2004*[25]



Ghana's fossil fuel debt and dependency arguably began with the WAGP, which was built in 2005/2006. According to the World Bank, which had been involved in the project as far back as a commercial viability study in the 1990s, the pipeline will:

> improve the competitiveness of the energy sectors in Ghana, BENIn, and Togo by promoting the use of cheaper and environmentally cleaner gas from Nigeria in lieu of solid and liquid fuels for power generation.[26]

The Bank has described the WAGP as "one of the first regional Public-Private Partnership (PPP) initiatives for large infrastructure in West Africa."[27] A key element of the Bank's role was providing risk guarantees for the private investors involved.

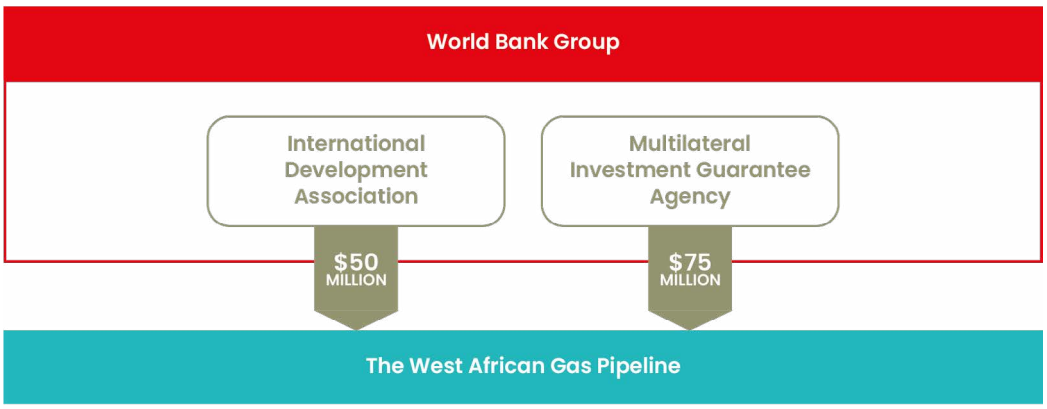
The pipeline itself was built by WAPCo, whose main owners are US oil major Chevron (36.9 per cent), the Nigerian National Petroleum Corporation (NNPC, 24.9 per cent), and Shell (17.9 per cent).[28] Although the pipeline was built by private investors, the governments of Ghana, Togo, Benin, and Nigeria all have stakes in WAPCo, and had to pay for part of the costs of the pipeline investment.[29] Ghana financed its share through a EUR 75m loan provided by the European Investment Bank.[30]

The gas supplied from Nigeria via the WAGP comes from N-Gas Limited (N-Gas), a company set up to deliver gas and owned by the same three entities (Chevron, Shell, and NNPC) that hold a majority stake in WAPCo, the operator of the transnational pipeline. N-Gas, however, does not have gas itself, and, in turn, arranged to buy its gas from Chevron and Shell's joint ventures in Nigeria.[31] This arrangement, therefore, saw gas sold, bought, and transported across at least three entities and the assumption is that each makes a profit. SOMO asked about payment arrangements between the companies across each stage of this gas supply chain, but WAPCo and its key investors did not respond to this question.

The main buyer of the transnational gas pipeline is Ghana's VRA, a state-owned company, which has a direct sale agreement with WAPCo and N-Gas.[32]

To make sure the oil majors would be assured of a return on their investment, the WBG provided the WAGP project with certain guarantees. The Bank's IDA gave the government of Ghana what it calls a Partial Risk Guarantee in the amount of USD 50m.

**World Bank Group's financial support to the West African Gas Pipeline**




*International Development Association and Multilateral Investment Guarantee Agency are member organisations of the World Bank Group.*

The WBG stated: "WAPCo is the primary beneficiary of the [Partial Risk Guarantee], related to payment risk by VRA for gas purchases committed under the Gas Sales Agreement", adding that failures to pay for gas supplies would result in VRA making termination payments to N-Gas and WAPCo. In addition, the Bank's MIGA provided WAPCo with a USD 75m political risk guarantee "in relation to the construction of the pipeline and associated facilities".[33]

While IDA and MIGA "arranged investment guarantees to cover the payment risk of VRA under the Breach of Contract cover", the support of Western finance in mitigating risks for the multinational companies was further consolidated in a USD 125m insurance by a subsidiary of the Zurich group, which was then substantially re-insured by the US development bank.[34] The private companies were, therefore, well protected. Ghana was not so fortunate.

The WBG also claimed the pipeline project would help utilise gas that international oil majors would otherwise flare in Nigeria. Ghana would get cheaper, better fuel. Gas flared in Nigeria would be used.[35] Neither fully happened.

Firstly, the supply of gas has consistently been far less than what Ghana was contractually expecting to receive when it signed off to the project. The transnational gas pipeline was indeed planned to provide Ghana with 123 million standard cubic feet of gas each day (MMSCFD), but supplies have been irregular and barely reached half of that volume after the project started operations in 2010.[36]

The problem is largely with supply from Nigeria, with the companies involved in the pipeline deal unable to meet the expected exports. This led Ghana to keep purchasing relatively high amounts of other, more expensive, liquid fuels – fuels that the WAGP was expected to partially offset through stable and predictable gas supplies. The World Bank subsequently observed:

> Natural gas imported from Nigeria through the West Africa Gas Pipeline (WAGP) had been intended to provide a reliable and low-cost source of energy for Ghana's growing power requirements. However, since 2010 when gas flows through the WAGP began, the volume of gas imports was much lower than contracted and daily supply had been erratic, which had forced Ghana to purchase higher cost, liquid fuels in the spot market to keep its thermal plants running.[37]

The problem was largely with supply from Nigeria, with the companies involved in the pipeline deal, unable to meet their export commitments. As World Bank data of 2015 revelled, "due to low and intermittent gas supply from Nigeria", along with delays in domestic asset, "Ghana has been forced to increase oil imports to generate electricity". This, to the extent that "[d]uring the past year the liquid fuel import bill rose dramatically, by approximately USD 27m per month, when gas was unavailable".[38] As the WAPG, when working, has been supplying 60 MMSCFD on average, Ghana could have saved at least part of that monthly import bill if the WAGP had delivered on the double volume it had committed to supply.

SOMO asked WAPCo, Shell, Chevron, and NNPC for an explanation about the project's failure to deliver the promised amount of gas to Ghana. Only WAPCo responded, denying any allegations and responsibility for the sale and/or purchase of gas.[39] Shell,

Chevron, and NNPC did not respond to SOMO and they did not provide any comments on WAPCo's response, even though, by fully owning N-Gas, they are ultimately responsible for delivering gas to Ghana.

The need to purchase more expensive fuel to compensate for the lack of gas contributed to VRA struggling to pay for the limited gas it was getting from Nigeria. VRA accumulated significant arrears to the investors of WAPCo and N-Gas. In 2014/2015, as the fuel import bill rose dramatically, and in the midst of a power crisis in Ghana with regular blackouts, they threatened to cut gas supplies if they didn't recover USD 170m that VRA owned them.[40] VRA reportedly had to resort to borrowing money to settle the debt, even though oil majors' leading role in the WAGP had failed to ensure agreed gas deliveries and this had contributed to Ghana's need to make costly alternatively fuel imports.[41] These threats have continued even though the issue of contractual under-supplies has never been solved – with, for example, WAPCo and N-Gas threatening to cut gas supplies over a USD 40m debt in April 2018.[42]

Furthermore, the idea that the WAGP would provide cheap fuel has seldom been achieved even compared to other sources of gas fuel that became available years later. Ghana's Energy Commission reports that, for example, the costs of gas from Nigeria stood at USD 8.6 per each million British thermal units (MMBtu) in 2017, two times more expensive than supplies of gas from one of Ghana's offshore gas fields, which had been developed in the interim. In 2020, the price of gas from Nigeria was USD 7.24 per MMBtu, while domestic gas supplies ranged in cost between USD 1.8 and USD 7 per MMBtu.[43] Foreign oil majors that failed to provide contracted volumes of gas and compelled Ghana to import more expensive alternative fuels than expected, was still able to secure a relatively high price for what it did deliver compared to other sources of gas.

Finally, the idea that the WAGP project would meaningfully help Nigeria to eliminate flaring of associated gas turned out to be hollow.[44] First of all, the Bank failed to uphold demands made by Nigerian NGOs that would ensure project sponsors would supply gas exclusively from fields that also lift oil – the associated gas that, if not evacuated, is either burned or reinjected – to guarantee the maximisation of the pipeline's intake of otherwise flared gas.[45] By the time the WBG approved the multimillion-dollar guarantees, Chevron, Shell, and NNPC were requested to source only about half of the gas from associated gas fields,[46] with independent reports questioning whether they even had the necessary facilities in Nigeria to uphold such a limited commitment.[47]

Furthermore, the pipeline seems to have had minimal impacts on the reduction of gas flaring also in the longer term. An industry report released in 2019 found that a relative reduction of gas flaring in Nigeria was largely because of an increase in gas reinjection and more gas industrial use rather than exports to neighbouring countries. The study concluded that despite relative improvements, Nigeria is still among the world's largest flaring countries.[48]

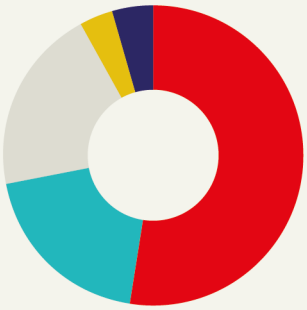
# 3. The Jubilee and TEN oil and gas projects

Credit: Photo by Jared Poledna on Unsplash.

## Ownership of the Jubilee project

- **39.0%** Tullow Oil
- **38.6%** Kosmos Energy
- **2.7%** Petro SA
- **19.7%** Ghana National Petroleum Corporation

## Ownership of the TEN project



- **54.9%** Tullow Oil
- **20.4%** Kosmos Energy
- **20.9%** Ghana National Petroleum Corporation
- **3.8%** Petro SA

The WAGP was the first major milestone on Ghana's financially risky path towards fossil fuel-based energy dependency. Ghana's offshore oil and gas discoveries also attracted Western investment.

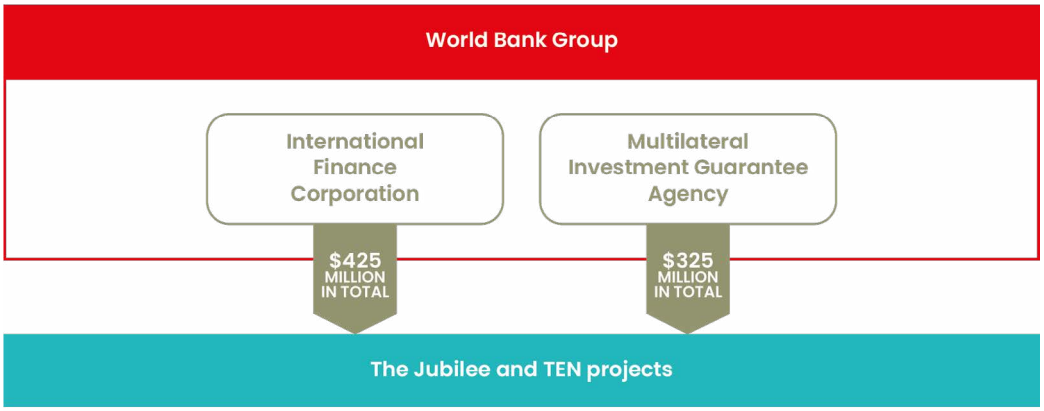
The Jubilee and TEN offshore oil fields were developed by Tullow Oil and Kosmos Energy[49], and reached production in late 2010 and 2016 respectively.[50] The WBG led the way in supporting these assets through both project financing and the provision of risk guarantees. In 2008-2009, the IFC, the WBG's private lending harm, lent USD 100m to Kosmos Energy and USD 115m to Tullow Oil for the initial phase of the Jubilee project. These loans opened up over USD 2.7bn in syndicated funding largely provided by European commercial banks in 2009.[51] The Jubilee field began producing in December 2010.

New rounds of project financing started in 2011, with the IFC providing an additional USD 100m loan to Kosmos, and MIGA giving a USD 100m political risk guarantee to cover a Citibank loan. A further USD 1.2bn syndicate loan from commercial lenders followed. Furthermore, the government banks of the Netherlands and the UK invested USD 60m in a debt fund in 2012 that, in turn, provided an undisclosed amount of financing to Kosmos operations in Ghana in late 2014.[52]

Alongside the financing of Tullow and Kosmos offshore operations, foreign investors also funded the construction of a floating production storage and offloading (FPSO) facility. This facility is a critical element of the Jubilee and TEN projects, as it is involved in processing and storing oil and gas. It is owned by Tullow and Kosmos along with other investors and was built by a Japanese company. The IFC provided a USD 50m loan and a USD 60m equity investment for the FSPO. MIGA also participated by issuing a USD 225m political risk guarantee for the facility.[53]

However, as discussed below, the FSPO is another piece of infrastructure that, like the WAGP, has generated problems for Ghana from the get-go.

**World Bank Group's financial support to the Jubilee and TEN projects**

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## The FSPO: years of gas flaring begin

*The FPSO would maintain the ability to inject 100 percent of the gas in the event that the receiving terminal is unavailable to receive all the gas due to unplanned events*
*– Jubilee EIA*[54]

*The FPSO is one of the essential, central elements of the Phase One development of the Jubilee Field [...] the project will support the development of Ghana's nascent oil and gas sector and help to secure the significant economic and developmental benefits*
*– MIGA, 2010* [55]

Following the failures of the Nigerian gas pipeline in providing stable fuel supplies for power generation, the WBG promoted its multimillion-dollar investment in the Jubilee oil and gas project as also resolving the supply gap. Although the Jubilee plans did not include a specific commitment to immediately ensure gas for domestic use, the project's EIA refers to plans to deliver up to 70 per cent of the gas onshore for power generation purposes, with the offshore production facility maintaining the "ability to inject 100 percent of the gas" in case of unplanned events and delays.[56] In confirma-

tion of this, the Bank's private lending arm stated that a key positive impact of this project is to:

> develop local sources of energy which opens up options for the Government to address critical issues", including "the possibility of gas production, which can provide substantial opportunities at addressing the shortage of power in the country.[57]

Both the WBG and the project's EIA, therefore, assert plans to deliver gas onshore and address supply shortages as a key positive impact of the fossil fuel project. This did not happen, however, in a timely manner. While the next section looks at the reasons of the delay, the reassurance that there would be no burning of gas dramatically fell through.

The Jubilee field has indeed flared large volumes of gas since production began in 2011, especially in the first four years of operations. When oil is extracted, gas associated with the oil is also brought to the surface. This gas, known as 'associated gas', can be retained and used for fuel, if the right infrastructure is in place. If not, it has to be either reinjected or burned off in massive flares, a practice that is remarkably inefficient and poses substantial threats to our climate. Despite this, the Jubilee field burned over 80,000 tons of CO2 in February 2011 alone. By May, Tullow confirmed that "the majority of the gas was being flared".[58]

There was never supposed to be gas flaring at Jubilee. Tullow's EIA done in 2009, for example, stated that the FPSO vessel would be "designed to minimise routine flaring". The EIA expressly stated: "gas will not be routinely flared to permit oil production and will either be used for energy needs on the FPSO for electrical power generation or be re-injected into the wells." [59]

Instead, the FSPO has regularly flared gas. An evaluation conducted for Tullow in 2011 explained that "re-injection of the gas had not started due to difficulties with compression units and the majority of the gas was being flared. [...] Once the FPSO is fully commissioned, the targeted maximum flaring rate is 2.5% of the monthly average total gas production."[60]

Gas flaring from offshore operations, however, continued and has, at times, increased. Between June and October 2014, for example, Tullow burned hundreds of millions of cubic feet of gas each month. In mid-2015, a billion and a half of cubic feet of gas was flared in just about two weeks' time because of another breakdown at the FPSO. Routine flaring was also reported throughout 2020.[61]

Gas flaring is not only devastating for climate change, but also economically wasteful. The value of the flared gas has indeed run into the hundreds of millions annually, with Ghana's Public Interest Accountability Committee, for example, finding that the country lost USD 300m worth of natural gas to flaring in 2022 alone.[62]

The massively costly flaring of Ghana's gas, which was never part of the investment deal, will continue until at least 2025, according to Kosmos Energy, the other multinational company involved in the Jubilee and TEN projects. The company stated: "To lower those emissions, Kosmos and our partners in Ghana have agreed to *eliminate routine flaring* – the burning of natural gas associated with oil extraction – at the Jubilee and TEN fields by 2025."[63]

The plans that Kosmos set out "by 2025" completely fail to recognise that gas flaring was never supposed to happen and has been ongoing for nearly a decade and a half. The problem is due to a facility in which it, together with Tullow, the WBG and others, is an investor.[64]

SOMO asked the project sponsors to explain why so much gas has been flared over-time. In its response letter, Kosmos Energy claims that "Flaring in the early days of Jubilee field was primarily due to delays" in completing onshore infrastructures "that eventually made flaring necessary to maintain reservoir health and ensure safe operations".[65] This, however, doesn't explain why there were problems with the FSPO from the very start, with key project studies clearly committing to re-inject 100 percent of gas in case of delays at the onshore terminal. Kosmos' response adds that the company has "been working to eliminate routine gas flaring" but misses out on providing a clear timeline for ending this harmful practice.[66]

Facing what it considers a shortage of gas, since 2013 Ghana has planned to increase imports of liquified natural gas (LNG). This plan has been heavily criticised by Ghanaian civil society as, for example, Ghana flares more from Jubilee and TEN that the volume it initially planned to import (see box 4).

## Atuabo: debt and delays in processing gas onshore

*Development of the Jubilee Field also provides development opportunities along the energy sector value chain, such as the construction of an onshore gas-processing facility that will process the associated gas produced by the FPSO – MIGA 2010* [67]

Another issue for gas coming from Tullow's offshore operations is how it can be processed and made available in Ghana. WBG statements (such as that of MIGA, quoted above) clearly assert the project's potential to contribute to Ghana's energy sector. The EIA refers to ongoing plans to build a terminal onshore which could take up to 70 per cent of the gas, while also reassuring that it would reinject all gas for future use in case of delays.[68]

In other words, while investors were well aware that the Jubilee associated gas could play a significant role in providing gas for power in Ghana, a country that faced shortfalls in energy supply, this was entirely outside the scope of the foreign investors' project financing. This means that gas for domestic use was not adequately considered at the project inception, despite being used as part of public relations for the project.

The receiving terminal was eventually built, but only years after Jubilee came online. The Atuabo Gas Processing Plant, which receives raw natural gas from the offshore block, processes, and converts it into various products, was built by Sinopec, a Chinese state-owned enterprise. This was part of a USD 3bn debt – later capped at USD 1.5bn[69] – that Ghana took from China Development Bank (CDB), a deal that was finalised in

late 2011 (see box 3 below). Construction of the plant commenced in 2012, and it experienced continuous delays until start-up operations began in November 2014.[70] This meant that for about four years, the Jubilee field associated gas could not be used by Ghana.

Foreign investment in offshore extraction that promised, according to the World Bank, "substantial opportunities at addressing the shortage of power in the country" without considering the infrastructure needed to deliver gas onshore is, at best, questionable. While Western investors provided billions to start oil extraction within just "40 months post the initial discovery well" as Tullow, one of the main beneficiaries of the investment, highlights,[71] they actually disregarded the possibility to mitigate the power crisis in a timely way. Instead, Ghana saw the flaring of much needed gas for years and had to take on a large debt with China to enable its use for power generation.

Moreover, as this debt repayment is collateralised with shipments of crude oil to China, Ghana is likely to have put on hold at least part of its revenues from oil exports to build onshore infrastructure and plug the otherwise wasted gas to the power facilities.[72] In this regard, the analysis by the China Africa Research Initiative shows that the CBD loan was a non-concessional and rather expensive borrowing, with 3.38 per cent interest rate and other significant fees over a 15 years period, and that Ghana signed it only after the IMF approved higher non-concessional borrowing as the country was following the IMF bail out programme that started in July 2009.[73] This means that, with the IMF's blessing, Ghana entered an expensive deal where a significant amount of revenues from the sale of crude oil goes to China to simply repay these interests and fees, on top of what's needed to repay the loan principal.

The idea of China supporting gas infrastructure was first discussed together with other funding opportunities during Ghana's official state visit to the country of September 2010.[74] The loan deal with CBD, however, was official only in December 2011, meaning nearly three years after Western investors started pouring billions in offshore oil extraction in early 2009. Ultimately, if the WBG and other Western investors had serious intentions in mitigating Ghana's electricity problems, they should have matched their investments in the Jubilee asset with grants or more favourable, low-interest concessional loans to the country to build gas infrastructure in a timely way. [75]

The economic disadvantages, however, did not stop here. In 2013, the WBG observed:

> For instance, avoidable delays in the production of Jubilee gas have left Ghana's gas-based power plants needlessly idle or burning very expensive oil. The three-year delay in commercializing Jubilee gas has cost Ghana a billion dollars in extra crude oil used for power generation.[76]

While all Jubilee's associated gas was either flared or rejected between 2011 and 2014, Ghana had to keep importing high quantities of expensive alternative liquid fuels to supply thermal plants. The WBG, Tullow, and Kosmas engaged in a project that has breached World Bank guidelines on flaring and where the key elements of infrastructure were not timely set up to enable Ghana to use the available gas. By ignoring earlier failures of the WAGP in delivering half of the committed gas and by prioritising oil

extraction, foreign investors disregarded the project's actual ability to supply gas for energy use. To make up for the delay, the country had to keep importing expensive alternative fuels and take additional debt to build the onshore processing facility and related infrastructure.

Given its significant support for the Jubilee project and Ghana's need for gas, SOMO asked the WBG to clarify why it endorsed a project that did not include adequate plans for the use of gas, but the Bank did not reply.

### Box 3 – China's resources-backed loans with Ghana

Following the announcement of a possible development package during Ghana's state visit to China of September 2010,[77] the country officially entered a USD 3bn debt facility with CDB to implement the Western Corridor Gas Infrastructure Development Project (WCGIDP), in December 2011, which involved the construction of the Atuabo onshore gas plant, associated gas infrastructure, and other projects,.[78] The loan has a maturity of 15.5 years, and the loan repayment was guaranteed by 13,000 barrels of oil per day from the Jubilee field to UNIPEC, an oil and gas trading unit of Sinopec, one of China's largest state-owned enterprises.[79]

When the oil price plummeted in 2014-2015, CDB attempted to renegotiate the fixed price that was originally benchmarked at USD 100 per barrel down to USD 85, which involved an increase in the number of barrels of oil from 13,000 to 15,000 barrels per day. The Ghanaian Ministry of Finance found that the USD 15 difference would imply a total of USD 6.4bn to repay the USD 3bn loan, a calculation that according to the China Africa Research Initiative led Ghana to cancel half of the CBD loan.[80]

The CBD debt is not the only resource-backed loan that China and Ghana have agreed to in recent years. In 2006-2007, Ghana borrowed nearly USD 570m from China Exim Bank to build the Bui hydropower dam that is repaid with the proceeds of 30,000 tons of cocoa exports to China each year.[81] More recently, the so-called Sicomines deal involved a USD 2bn loan sealed in 2018 to build roads and other infrastructures in exchange of bauxite that Ghana plans to extract from the Atewa Forest.[82]

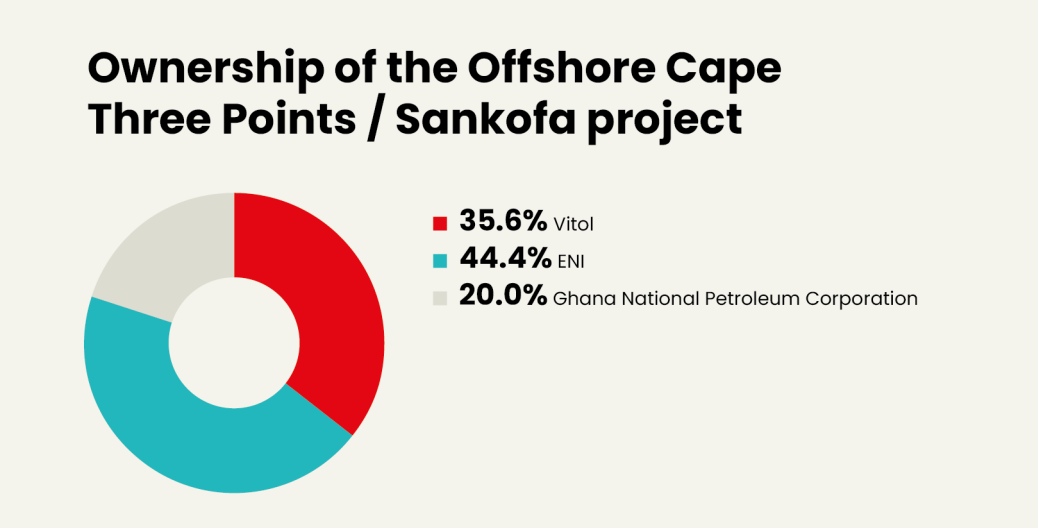
Civil society organisations in Ghana have raised multiple concerns about the impacts of resource-backed loans, including lack of transparency about the loan terms, minimal parliamentary oversight, disbursement bottlenecks, and overall risks of setbacks on the economy because repayments via commodities are affected by price volatility, therefore undermining higher revenues from exports when prices are high and impacting other economic sectors whenever the commodity is devaluated and insufficient to meet repayment commitments. RBLs have also been ultimately criticised because they have contributed to "crippling debt levels in developing countries and are shrouded in secrecy."[83]

# 4. The Sankofa Gas Project


Credit: Offshore Cape Three Points. Photo by ENI on Flickr.

*Developing new offshore oil and gas resources are key to reestablishing macroeconomic stability and putting Ghana back on a strong growth path*
*– World Bank on Sankofa deal, 2015*[84]

*Directors noted the significant impact of Sankofa gas on public revenues, and noted that the increased fiscal space should be used to improve social spending and enhance the livelihoods of Ghanaians*
*– World Bank's Executive Directors at the approval of the Sankofa deal, 30 July 2015*[85]




Gas and oil reserves were discovered at the Offshore Cape Three Points at the Tano basin by a consortium led by Italian oil company ENI and Vitol, the world's largest independent oil trader. The discoveries of the producing wells, made between 2009 and 2012, included the Sankofa non-associated gas field.[86] The World Bank got involved again.

Announcing its support for the project in 2015, the Bank said it had:

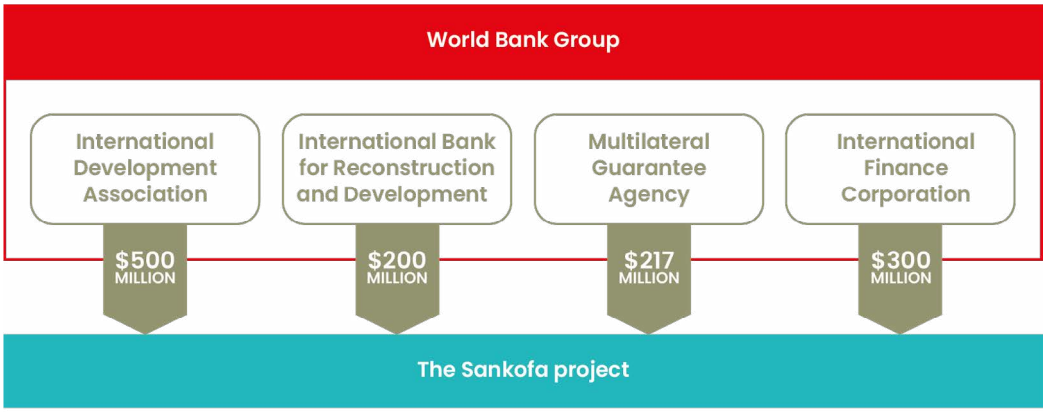
> approved a record investment of $700 million in guarantees for Ghana's Sankofa Gas Project – a transformational project that will help address the country's serious energy shortages by developing new sources of clean and affordable natural gas for domestic power generation.[87]

The WBG provided two guarantees: an IDA payment guarantee of USD 500m to support "timely payments for gas purchases" by Ghana's national oil company, and an IBRD loan guarantee of USD 200m to support financing from the project's private sponsors. According to the Bank:

> Together, the guarantees are expected to mobilize $7.9 billion in new private investment for offshore natural gas, representing the biggest foreign direct investment in Ghana's history.[88]

The WBG's initial guarantees, along with a subsequent USD 217m risk guarantee provided by MIGA, were key to securing the overall financing of the Sankofa project. By the end of 2016, the ENI-led consortium of investors had received a USD 1.35bn loan, with the WBG participating in the syndicate with an additional USD 300m from the IFC.[89]

**World Bank Group's financial support to the Sankofa project**




*International Development Association, International Bank for Reconstruction and Development, Multilateral Investment Guarantee Agency and International Finance Corporation are member organisations of the World Bank Group.*

The WBG describes its role in the Sankofa deal as liaising "between the private investors and government stakeholders to facilitate" what it calls an "innovative financial structuring".[90] In fact, WBG's role at Sankofa is to be a co-investor with private finance, a guarantor of private finance, as well as an advisor to the government of Ghana with whom foreign investors backed by foreign finance were seeking to strike the best deal for themselves and their shareholders.

In approving its involvement in Sankofa, the WBG repeatedly promoted the investment as key to solving Ghana's energy problems and providing cheaper fuel, as well as providing other economic benefits. The vice president for the World Bank's Africa Region for example said:

> The Sankofa Gas Project is a good example of how Africa can address its infrastructure challenges and lay the foundation for sustained economic growth by providing affordable and reliable power to its population.[91]

Along this line are also comments from the Bank, such as:

> Developing new offshore oil and gas resources are key to reestablishing macroeconomic stability and *putting Ghana back on a strong growth path*. The commencement of local gas production in 2015 is expected to *lower the cost of electricity generation* and reduce oil imports.[92]

Apart from these promises of economic benefits, a key commitment of the World Bank was that:

> the proposed Sankofa intervention *does not raise any funding obligations for the GoG* and thus has no negative impact on the IMF's debt sustainability assessment. In fact, the proposed intervention will have macro-positive impacts that will bring much needed hard currency revenues to the country. [93]

None of these rosy predictions have worked out. The reasons were largely foreseeable.

In particular, key lessons had not been learned. In 2015, as the WBG, again, entered the fray to support foreign investors in Ghana's energy sector, it knew – it could hardly not – that serious failures in the last two foreign investor-led, WBG-backed gas initiatives had fallen substantially short on delivering on similar promises. Critical dependencies had not been properly considered. Nor could the WBG be unaware that those failures contributed to economic instability, power outages, and the need to import fuel at expensive spot market rates, not to mention massive flaring of gas.

## Another questionable oversight of a key infrastructure

A critical aspect of the Sankofa project, at the time of feasibility assessments in 2015, was the acknowledgement that the gas extracted could not be fully utilised in Takoradi in the western part of Ghana, where it would be delivered onshore. All parties were aware that the gas had to be transported to Tema in the East, where there was a need for more gas. This was the only way most of the gas could actually be used in Ghana. All parties were also clear that this would mean making a link between a pipeline of GNGC and the WAGP to enable what is known as 'back-flow' so gas could get to Tema.

In its 2015 Project Approval Document, the WBG explicitly noted that:

> it is *critical* to establish an interconnection between the GNGC pipeline and WAGP to deliver excess gas in Takoradi via 'back-flow' of WAGP to the existing cluster of power plants in Tema in Eastern Ghana, where a gas deficit is expected to persist. [94]

This was seen as viable. According to same WBG document:

> Preliminary technical analysis by WAPCo, ENI, and GNGC suggests that a simple pipeline connection [...] between the GNGC pipeline and WAGP would allow [...] Western Region gas supply to back-flow eastwards [...] to Tema.

The WBG went on to note:

> The investment amounts for the physical interconnection are *under US$10 million* and could be financed by GNPC and/or WAPCo. *The time required* to complete the physical interconnection between the two pipelines *is very short* (less than a year).

Whereas the government of Ghana had to lead on transport arrangements, the WBG committed to actively monitor that the WAPG "will be operational, ready and available to receive and transport gas [...] to Tema" and to oversee "any remedial measures to be taken in the event of delay" when it signed the contractual guarantees in mid-2015.[95]

By the WBG's project closing date in 2018, however, construction of the 'critical' and 'simple' pipeline interconnection had not even begun.[96] The contractual agreement to carry the gas had yet to be agreed. The key obstacle was that there had been no agreement between WAPCo, that is majority owned by Shell and Chevron, and Ghana on the financial parameters of the deal to use the WAGP the reverse flow. The Ghanaian government even reportedly attempted to purchase the Tema-Takoradi stretch of the pipeline system, but without success.[97]

The foreign investors in Sankofa – ENI and Vitol – did not have to be concerned by this.[98] Both the responsibility to ensure a domestic market for the gas and the costs of the needed adjustments of the pipeline were outside the scope of the WGB-backed Sankofa project. In 2015, the European multinationals had signed a 'take-or-pay' deal with Ghana. Under the deal, the European companies would get paid for most of the gas they extracted, for 19 years, whether any gas reached the Ghanaian market or not.[99]

Gas production from Sanfoka started in July 2018. The gas pipeline interconnection was only completed in August 2019.[100] A critical dependency was not properly addressed. As the WBG noted:

> The impact of these delays was to (i) restrict the market for Sankofa gas to the western region in Takoradi during 2018-19 and (ii) prevent increased volumes of Sankofa gas being supplied to an expanding power market in the eastern region. The overall impact was that neither GNPC nor the government could meet its 'take-or-pay' related obligations during this initial production period and a waiting market in the eastern region had to seek alternative fuel supplies at higher cost.[101]

So, Ghana had to keep buying alternative liquid fuel at higher cost throughout the delay. Again.

In addition, the gas pipeline connection ended up costing 17 times the amount estimated by the WBG. The Sankofa project of the foreign investors did not have to pay for this. Ghana did. The project that did "not raise any funding obligations" for the government of Ghana, costed up to USD 170m, according to the Ministry of Energy, even before the delays were factored in.[102]

Moreover, the final arrangement with oil majors controlling the WAGP also required Ghana to agree to pay a fee for the pipeline reverse flow. The backflow charge is calculated per unit based on a minimum volume of transported gas, with the price lowering in case of higher volumes and increasing when transported volumes are lower. Reports, however, suggest that prices per units have increased overtime, with Ghanian media citing a rate of USD 1.3 to USD 1.6 per mmtbu in 2017, and others stating a transport fee of USD 2.1 per mmtbu as of December 2018.[103] A submission to the Public Utilities Regulatory Commission by GNPC of April 2022, appears to confirm the upward capacity charge to transport gas to Tema, with costs estimated at USD 2.4 in 2022 and up to nearly USD 2.8 per mmtbu in 2026.[104]

So, the infrastructural element that everyone knew was essential to guarantee the full use of gas was ready only a year after Sankofa began supplying gas. Ghana ended up paying the intervention 17 times more than expected and had to agree to pay trans-

portation fees to private investors controlling the WAGP – the same investors that had failed to provide the contracted volumes of gas from Nigeria for years. And while the WBG, ENI, and Vitol were aware of the fact that the deal's financial viability depended on timely pipeline interconnections and agreements to transport gas to the eastern power enclave, the delays didn't affect the economic interests of the project sponsors due to the de-risking mechanism embedded in the gas sale agreement (GSA).

## Derisking Sankofa through sovereign liabilities

Under the multi-layered de-risking measures set up by the WBG for Sankofa, the investors were fully protected. The government of Ghana was indeed ultimately "liable for gas payments estimated around US$600 million per year" over the 19 years of the sale agreement.[105] This liability applied whether GNPC, the state-owned company, failed to pay "the agreed quantity of gas whether it is able to take it or not".[106] In fact, the entire 'multi-layered' risk mitigation scheme for Sankofa was underwritten by Ghana's public purse.

The first layer of de-risking measures involved the government having to channel "all revenues from the sale of gas from Sankofa, Jubilee and TEN as well as GNPC's share of Net CAPI into a Government Disbursement Account (GDA) from which the GSA payments, GNPC's debt service and the replenishment of the Jubilee and TEN escrow accounts will be made" [...] "Following these disbursements, the remaining funds are expected to be used to replenish the Sankofa reserve escrow cash account, if needed, and residual funds released to GNPC."[107]

In other words, the first layer requires all gas revenues from domestic assets to be put into an account to pay for Sankofa gas regardless of need, and also to ensure that the interests of foreign investors in other gas projects were taken care of. This layer of measures went beyond paying for gas, and ensured escrow accounts were topped up.

The second layer required GNPC to set up a reserve escrow account to pay for gas sales. This, apparently, had to be in place along with the government GDA. Ghana did not actually set up these accounts fully. It did not matter.

The third layer of guarantee was one where the two commercial banks HSBC and Standard Chartered would cover about one year of gas sales through a Letter of Credit if GNPC did not pay. This account would be accessible to ENI and Vitol if they could not recover their money directly from the government or GNPC accounts.[108]

The commercial banks, of course, were fully covered for this eventuality with the half billion guarantee by the World Bank's IDA. If these banks had to pay out the oil major through the Letter of Credit, the drawdown became a loan to GNPC to be paid within a year, and lack of timely repayment entitled the commercial banks to claim the funds from the IDA guarantee. This IDA guarantee is ultimately subject to the sovereign guarantee for which Ghana has to repay the World Bank within 60 days. The thread of any missed repayments results in the World Bank being "entitled to exercise its remedies at its discretion, in whole or in part, against the country portfolio".[109]

This set up meant that the multibillion project was guaranteed through a sale agreement that, no matter the actual demand, made sure that Ghana would pay for gas on a 'take-or-pay' basis – and if things did not go well, pay with interest. This repayment

obligation would start at the very moment that Sankofa began producing and delivering gas onshore, regardless of the critical flaw and delay in the connecting pipeline. This was not theoretical, as discussed below.

## The actual price of gas from Sankofa

Contrary to the prediction made by the regional vice president of the World Bank that the gas deal would be "the foundation for sustained economic growth", the Sankofa gas project turned to be a significant financial burden for Ghana.

In addition to the USD 170m spent by the government for the gas interconnector mentioned above, the Sankofa gas deal implied at least three other sets of costs for the country: a high price for purchasing gas, the inability to utilise cheaper alternative gas, and the activation of take-or-pay obligations before full utilisation of the paid gas.

Regarding the gas price, writing in 2020 about its role in the Sankofa gas project, the World Bank stated that: "taking into account the net revenues generated by the project for both the Government of Ghana and GNPC, the cost of gas to Ghana is expected to be $6.6/MMBtu, equivalent to an oil price of $38 per barrel, significantly below cost of imported liquid fuels."[110]

This is not, however, the actual price of the Sankofa gas.

Firstly, the price was set at USD 9.8 MMBtu in the 'take-or-pay' deal with ENI and Vitol.[111] Added to this was the fee charged by Shell and Chevron for use of the WAGP backflow transport – a transport fee that ACEP estimated at USD 4m a month in 2020.[112] The World Bank figure of USD 6.6 represents, therefore, an estimated net cost only "after considering direct and indirect revenues to the GoG".[113]

This means that USD 6.6 per unit was never a real figure charged, and the actual price of the Sankofa gas at USD 9.8 MMBtu is relatively high. Foreign investors, on the other hand, were estimated to receive a 14 per cent post-tax financial return on their investment, following a reduction of their taxable income through, for example, tax deductibility for interests on shareholder loans, according to the WBG's Project Appraisal Document report of 2015.[114]

One way or the other, ENI and Vitol's capital returns are protected. Ghana's interests for an affordable gas price are not. And in its liaising role between foreign and Ghanaian interests, the WBG blessed the deal.[115]

But this is not the only cost Ghana was paying.

With a take-or-pay agreement in place, the second type of cost regards Ghana having to take the Sankofa gas despite the fact that other domestic gas from Tullow's fields was available for free. In December 2019, Tullow stated that it faced a "significantly reduced offtake of gas by the Ghana National Gas Company which Tullow makes available at no cost".[116]

After ENI started producing gas in mid-2018, however, Ghana could not implement plans to take the free gas from Tullow's offshore operations because it had to pay for the Sankofa gas regardless of actual need and use. Ghana, therefore, could not choose

to utilise the cheaper option. In this regard, in late 2019, Ghanaian media reported that the WBG was forcing the government to buy the expensive gas from Sankofa by threatening to withhold an unrelated USD 500m grant funding, pushing Ghana to drop plans to fully utilise much cheaper gas from Jubilee and other sources.[117]

As the Ministry of Energy publicly commented at the end of 2019: "every Ghanaian [...] is paying for this unsavoury situation in the form of higher electricity tariffs that would be required if all of the much cheaper gas from Jubilee and TEN was being used rather than the much more expensive gas from Nigeria and Sankofa".[118]

The situation has persisted, and ACEP estimated that Tullow flared 67bn cubic feet of gas from Jubilee and TEN fields in 2019-2022, an economic waste that involved a loss of USD 395m in gross revenues for Ghana's economy, without accounting for other lost benefits such as taxes and costs that could have been avoided, such as costs of importing liquefied petroleum gas as a substitute fuel for power generation.[119]

The third significant cost regards the delay in the WAGP backflow vis-à-vis take-or-pay costs before Ghana was able to fully utilise the Sankofa gas. When gas production started in June 2018, also the take-or-pay repayment obligations became active.[120] Despite the Bank's commitment to monitor work progress of this critical infrastructure needed to ensure timely transport of the Sankofa gas to the East, this gas started to arrive at Tema only in August 2019.[121] This means that delays in the WAGP's reverse flow prevented full utilisation of the contracted for more than a year, and several thermal plants in Tema could only operate through more expensive liquid fuels during this period.

Despite the delay, Ghana had to pay the foreign investors from mid-2018 onward. As put by the Ghanaian Ministry of Finance a year later "for Sankofa Offshore Cape Three Points gas alone, we pay over $51 million a month under a take-or-pay contract for 154 mmscf per day even though we only actually take 60 mmscf per day on average".[122]

The money paid was not even for gas Ghana could use. It was largely for gas that remained unused for a long time, and that "is expected to be recovered by the end of 2025", according to project sponsors.[123] This means that the country possibly only fully gets what it was compelled to pay for in 2018 – 2019 only 6 years later at best.

By 2020, however, factors such as the increased cost of the pipeline interconnector, the inability to use cheaper domestic gas, the expensive liquid fuels used in the eastern power enclave due to delays in the WAGP backflow, along with the high price agreed for the Sankofa gas, among other issues, contributed to GNPC's inability to keep up its obligations under the Sankofa GSA.

While Ghanaian media reported that WBG's primary objective was to recover its loans and interests to ENI and Vitol,[124] by March 2020 GNPC was in arrears of over USD 190m. The multi-layered de-risking structure of the deal seen above entitled the oil majors to draw down on a Letter of Credit backed by the half billion IDA guarantee for an amount of just over USD 191.5m in April 2020. While the WBG states that each drawdown becomes a loan to GNPC, the commercial banks could recover the amounts from the IDA guarantee, with the government of Ghana becoming ultimately liable for repayment.[125] New arrears amounting to USD170m accumulated within months, and in

April 2021, the companies drew on a Letter of Credit for a second time, with the same consequences.[126]

So, while claiming the Sankofa intervention does not raise any funding obligations for the government of Ghana, and thus has no negative impact on the IMF's debt sustainability assessment, the WBG was, in fact, signing off on a deal that guaranteed the foreign oil and gas companies a secure capital return from the sale of a predetermined volume of gas regardless of actual utilisation and at a relatively high price. On the other hand, the deal exposed Ghana to huge payments for gas it could use only if the pipeline's backward flow – that did not exist yet, was not part of the multibillion project financing, but which work progresses the WB and Project Sponsors had to monitor – was in place on time. But it was not.

As Dr. Mohammed Amin Adam, the former executive director of ACEP, warned when the Sankofa deal was initially announced in 2015:

> the $7 billion deal they signed with Ghana is badly negotiated; it's everything for ENI, nothing for Ghana. The only thing Ghana can guarantee is that we'll have gas to buy, other than that what?[127]

Years later, the Natural Resources Governance Institute reflected on the various elements of the Sankofa deal as follows:

> Ghana first negotiated with ENI to reduce the price it paid for gas and then allowed ENI to pay less in taxes. Yet, the penalties continued to mount. By 2020, the government estimated, the country would be paying up to $850 million annually in take-or-pay penalties, or 7 percent of the entire government budget. In the end, what promised to be an energy solution came with enormous hidden costs while also failing to significantly improve Ghana's power supply.[128]

Credit: Offshore Cape Three Points | Photo by ENI o

### Box 4 – Tema LNG terminal

The Tema LNG Terminal is an import facility intended to supply fuel gas to the Tema power enclave. The construction of the terminal began in 2018 but has seen repeated delays and multiple foreign investors involved over the years.

Initial plans for the import terminal started in October 2013,[129] when an entity of the Quantum Pacific group, an investment conglomerate headed by the Israeli multibillionaire Idan Ofer, was set to deliver a floating re-gasification and storage unit (FRSU) meant to begin production in 2016. By 2017, however, Quantum had just contracted an LNG carrier, while GNPC had signed a long-term gas supply contract with Gazprom.[130]

Parallel to this, news that another company took a stake in the project arose when **Helios** Investment Partners (Helios), an UK-based private firm specialised in investment opportunities in Africa, established Tema LNG Terminal Company (TLTC) to develop, construct, and operate the import in 2017.[131] TLTC is a complex corporate construct made of entities registered in the Netherlands, Luxemburg, the Cayman Islands, and Ghana. By September 2018, this Helios-led company awarded contracts to build the terminal to China Harbour Engineering Company and the FRSU to another Chinese company.[132]

In April 2019, African Development Bank (AfDB) reported about plans to invest in Dutch-based Access LNG, a special purpose vehicle established "to finance, own and lease a Floating Storage Unit (FSU) and Floating Regasification Unit (FRU)" to the Helios-owned TLTC.[133] The timeline of project termination contracts remains unclear, but the AfDB disclosure suggests that Quantum Pacific and its selected LNG carrier, and possibly the Chinese companies, had withdrawn from the Tema project by then.

While the history of the Tema Terminal involves several other actors investing in and being contracted by TLTC and/or Access LNG, research by ACEP, IMANI, Tax Justice Africa, and other local organisations reveals that also the **WBG**'s private lending arm, along with the **government banks** of the UK, Germany, and the Netherlands had indirectly invested in the Tema LNG Terminal. **Shell** received a profitable 17-year terminal use agreement to process and sell imported gas to GNPC.[134]

At the core of NGOs' criticism is the 'take-or-pay' gas supply contract that Helios originally signed with GNPC and likely transferred to Shell, involving huge volumes of gas at a price as high as USD 13/MMBtu. The Energy for Growth Hub reports about the threads of non-competitive prices, oversupply costs passing on Ghanaian taxpayers, and lack of distribution infrastructures.[135] In 2022, ACEP, IMANI, and others estimated that delays in the construction of the terminal were saving between USD 790m and nearly USD 1.4bn a year for gas that Ghana doesn't need, calling for an immediate suspension of the LNG import terminal and complete renegotiation of the financial and commercial terms of the project.[136]

The last available information about the project is of February 2024, when the CEO of Ghana's National Petroleum Authority stated that a new corporate consortium aimed at the completion of the LNG import terminal by the end of the year. In July, however, Ghana's Energy Commission published that "[t]he Tema LNG is yet to be commissioned which means, no LNG imports are expected for the rest of the year".[137]

# 5. Summing up upstream gas deals

Credit: Photo via Pixabay

The Sankofa project, the last of the domestic fossil fuel assets, was set up and financed overlooking a critical element of infrastructure.

The take-or-pay GSA of the Sankofa project assured capital returns for Western oil companies and their Western financial backers. Financial risks were offloaded onto Ghana. With Shell and Chevron on one side and ENI and Vitol on the other in deals supported by the WBG, Ghana ended up with a hugely expensive gas deal.

In a context where just transition is a commitment of the World Bank, after the failures of the WAGP and Tullow's projects in addressing fuel shortages at affordable costs, the Sankofa project turned to be yet another egregious deal for Ghana's public finances. The Bank has played a leading role in each of these upstream fossil fuel deals that put Western oil and gas companies in an advantageously low-risk positions. As flawed implementations ended up trapping the country into deals that massively benefitted oil and gas companies, these deals can reasonably be described as predatory.

Across the WBG documents and decisions, the leading principle has been to attract and protect foreign investors. This is what it has done. The assumption, seemingly subjected to no reflection, is that so long as foreign investors come into Ghana, the energy sector, and all of Ghana will benefit.

The repeated claims that Ghana would benefit from cheaper gas and more stable energy supplies, however, have not come to fruition. On the contrary, the cumulative impacts of the upstream fossil fuel projects have been negative as they constantly failed supplying gas for the power sector in a predictable way. Moreover, the tone of much WBG commentary suggests the Bank sees errors as entirely due to how Ghana has handled projects. As far as SOMO and ActionAid Ghana could see, there is no reflection of the significant role the WBG had in advising, promoting, and overseeing investments that never did what the WBG said they would do for Ghana.

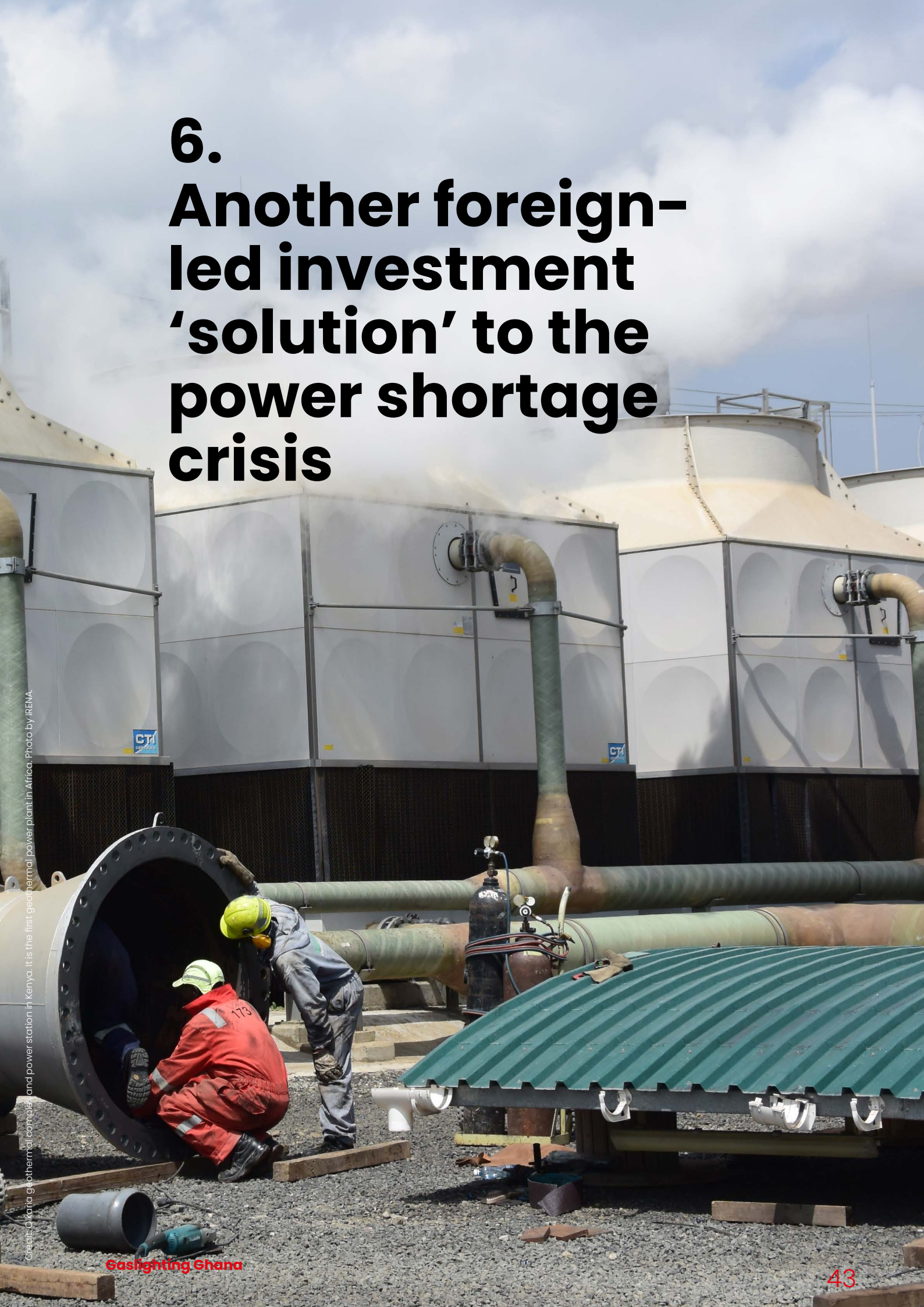
In its 2020 Implementation Completion report on the Sankofa project however, the Bank made observations that go to the heart of some of Ghana's energy sector economic woes.

> the GoG's ability to continue to make contractually agreed monthly payments for gas offtake during 2020 became further *constrained by parallel obligations to a number of [independent power producers]*, placing increased pressure on scarce foreign exchange resources.[138]

Another troubling dimension of the PPP framework embedded in Ghana's fossil-based energy value is the way investments in the electricity sector was handled. Most thermal power plants are also run by IPPs, yet another foreign-led investment scheme where state-owned companies, and by extension, Ghana, are left subsidising foreign investors on all sides. This, just for Ghana to use its own gas to produce the power it needs.

The next chapter unpacks how this investment scheme, operating, as the WBG says, in parallel to the upstream gas sector, drove Ghana even deeper into fossil fuel-based debt.

# 6. Another foreign-led investment ‘solution’ to the power shortage crisis



Credit: Olkaria geothermal complex and power station in Kenya. It is the first geothermal power plant in Africa. Photo by IRENA.

*Over the last two decades, Ghana implemented power sector reforms, which* ***successfully*** *attracted the private sector into the power generation segment. [...] The energy sector has become a* ***fiscal burden*** *costing the Government over* ***2 percent of GDP annually***
*– World Bank, 2024*[139]

The WAGP, Jubilee, and Sankofa projects were promoted to provide gas to Ghana to address electricity supply shortages. However, as seen in the sections above, each of these Western-backed upstream projects was poorly designed when it came to effectively connecting gas extraction to electricity producers. Between 2012 and 2016, the country suffered massive and regular power outages, referred to in Ghana as *dumsor*


Credits: Dumsor protest in Accra, June 2024. Photo by Agyemang Duah Kweku Jr. http://www.flickerstudios.com/Information

(which means 'off-on' in the Akan language). While upstream gas supplying assets were at different stages of development, Ghana turned to another WBG-backed 'solution'.

According to the World Bank, "Ghana was one of the first countries in Sub-Saharan Africa to unbundle its electricity sector and host independent power producers (IPPs)."[140] IPPs are an investment scheme that the World Bank has been promoting across the world since the 1990s and which encourages private actors to invest in power generation.[141] The Bank describes IPPs as "power projects that mainly are privately developed, constructed, operated, and owned; have a significant proportion of private finance; and have long-term power purchase agreements (PPAs) with a utility or another off-taker."[142]

In Ghana, IPPs have largely been issued licenses to construct and operate thermal power plants under long-term PPAs. In the midst of years of power outages, between 2012-2016, the government and the state-owned utility company ECG signed as many as 43 PPAs to produce electricity.[143] Most of these contracts were privately negotiated without any competitive process, and details remain largely undisclosed. According to the Institute for Economic Affairs and the US-based Energy for Growth Hub, "The only publicly disclosed aspects of these PPAs are the names of the project, contract type, technology/fuel, location, and total project cost. Most information needed to evaluate project viability or understand the substantial fiscal implications of new power procurement is not available to the public."[144]

Most PPAs also involve take-or-pay obligations for the sale of electricity.[145] Take-or-pay clauses mean that, similar to gas sale obligations for the Sankofa upstream project, the Ghanaian government is ultimately liable for covering the costs of pre-agreed amounts of electricity, regardless of whether Ghana needs it and regardless of the ability of public utility companies like ECG to pay for it.

Moreover, as multiple expert commentators have noted, the non-transparent negotiations resulted in Ghana agreeing to pay high prices for electricity and committing to electricity generation and purchase amounts that were above the needs of the country. As the WBG notes in a report from 2024, "in comparison with other IPPs in the region, such as those in Nigeria, where the average PPA price for gas-fired thermal power plants is US¢7.3/kWh, most IPPs in Ghana have PPAs priced higher than this average, with gas-fired thermal power averaging US¢12.35/kWh".[146]

In addition, several of the PPAs involved the government of Ghana giving sweeping guarantees to the IPPs, under so-called Government Support and Consent Agreement.[147] In 2017, Ghana's Energy Commission observed:

> most of the incoming independent power producers (IPPs) have been demanding the government to guarantee ECG's payments through Government Consent and Support Agreement (GCSA) before proceeding to the construction stages of their capital investments. These GCSAs normally indemnify the investors against all manner of commercial as well as political risks.[148]

In addition to being an investment scheme for power generation promoted by the World Bank, a former CEO of GNPC publicly revealed that the Bank actively supported Ghana's provision of GCSAs and their sweeping guarantees to investors in fossil power plants. In a statement made in February 2021, he revealed:

> What people don't know is that the World Bank supported the government of Ghana to support four IPPs to be built mainly because they needed guarantees for the off-takers of the ENI-Sankofa-Gye Nyame gas [as the bank] had given Ghana $750 million in terms of guarantees to guarantee the ENI-led Sankofa-Gye Nyame gas project, one of the conditions was that we would either build a pipeline or do the convertibility so that the gas can go from the west to the east and we would have off-takers – IPPs that are ready to take the gas [...] That is what we have to understand; that there was a reason for these plants to be built.[149]

Although the WBG reportedly pushed back against the accusations by stating that it didn't provide financing or guarantees to IPPs to cover electricity sale contracts with the government,[150] the former CEO countered publicly and stated, "I never said the WBG gave guarantees to IPPs [...] I said they supported Ghana government by giving guarantees, that is, backing the GCSA that Government of Ghana had to give to the IPPs".[151]

The next sections briefly outline some of the agreements signed during the *dumsor* period and which PPAs are still in force. These include agreements with the Takoradi International Company (TICO), an expansion project that received a GCSA mid-2012; Amandi Energy Limited, one of the IPPs that received a GCSA with the support of the WBG, according to the former CEO of GNPC;[152] and Cenpower, a facility backed by European development finance.

## Takoradi 2 - Thermal power plant extension

### Foreign investor

**Abu Dhabi National Energy Company PJSC** – an UAE state-owned enterprise that controls 90 per cent of Takoradi International Company (TICO)

### Financing

Among others: **IFC, MIGA, AfDB, FMO, Proparco**, German Investment Corporation **DEG**, Emerging Africa Infrastructure Fund (**EAIF**, a debt fund within the Private Infrastructure Development Group (PIDG), which is backed by the governments of the UK, Sweden, Switzerland, the Netherlands, etc.), Interact Climate Change Facility (ICCF, a company funded by European Investment Bank and other European government banks).[153]

TICO is a joint venture between Abu Dhabi National Energy Company (90 per cent) and the state-owned VRA (10 per cent). This power plant consists of a 330MW expansion of the power cluster in Aboadze, West Ghana, running on both gas and oil fuels.

The WBG led the way by approving nearly a third of the USD 330m expansion costs via its private lending arm in March 2012, saying that the deal would have "the ultimate benefit of a lower cost of energy for the consumers".[154] Subsequently, other national development banks from the Netherlands, France, and Germany, along with AfDB and a fund involving the European Investment Bank, joined the deal by providing most of the remaining project financing.

An official document of the Ghanaian Joint Committee on Finance & Mines and Energy provides some information about the contractual arrangement between TICO investors and the host country. It clarifies that TICO is in charge of the construction, financing, operation, and maintenance of the power plant – with essential equipment such as power generators supplied by the US multinational General Electric[155] - whereas the offtaker, VRA, holds various responsibilities related to the supply of fuel for electricity generation. Furthermore, the Committee noted that "the payment of all costs in connection with the purchase, insurance and delivery of fuel by the Offtaker [...] shall be the sole responsibility of the Offtaker".[156] While more details about the fuel supply arrangement is likely to be contained in the PPA – which remains undisclosed – these clauses indicate that VRA is responsible for making fuel supplies available to the plant operator TICO.

The price that TICO charges VRA per units of produced electricity is not disclosed. However, given that VRA is responsible for supplying (and paying for) the input fuel, which could vary in price over time, any agreement which does not take account of the volatility of input prices could create significant financial risks. Furthermore, key obligations under the plant's GCSA require that "GoG [...] guarantees to pay to TICO all sum of monies which the Offtaker (VRA) and Service Providers shall at any time be liable to pay TICO...".[157]

Given that the PPA was signed at the outset of a multiannual power outrage crisis and most of its financial risks were, ultimately, offloaded on the country's public finances, the project's ultimate benefits appear to lean towards the foreign backers of the TICO deal rather than focusing on lowering electricity costs for consumers, as claimed by the WBG's project rationale. The review by the parliamentary committee appears to confirm this, as it states that the TICO's GCSA deal "seeks to give investors and lenders an assurance of flexibility to repatriate profit from their investment".[158]

## Amandi Energy Limited

### Foreign investors

**Endeavor Energy** is the lead sponsor for the Amandi Power Project. Endeavor Energy is a privately-held international independent power company from the US focused on developing, financing, constructing, and operating power generation facilities in Africa. Endeavor is a portfolio company of Denham Capital and is funded by the government of the US and the UK.[159] **Denham Capital** is an energy and resources-focused global private equity firm with more than USD 7.9bn of invested and committed capital across seven fund vehicles. It is also a strategic advisor to the World Bank's Global Infrastructure Facility.[160]

**Aldwych** was established in 2004 for the purpose of developing, owning, and operating power generation, transmission, and distribution projects in emerging economies, primarily Africa. It received early investment by the **Shell Foundation** and significant funding from the Dutch development bank **FMO**.[161]

**Amandi Founder Group** (AFG) is an offshore company described as "a consortium of developers with extensive experience of doing business in Ghana and elsewhere in sub-Saharan Africa."[162]

**Pan African Infrastructure Development Fund 2** (PAIDF2) is an equity fund managed by Harith General Partners and ARM-Harith Infrastructure Fund which is also invested by the UK's DFI and AfDB, among other investors.[163]

**African Infrastructure Investment Fund 3** (AIIF3) is an equity fund that acquired minority stake in Amandi IPP in late 2017. AIIF3 is invested by the European development banks of Germany, the Netherlands, the UK, and Denmark, along with AfDB.[164]

### Financing

The Amandi IPP was financed through USD 134m in **equity investments** provided by Endeavor, AFG, Aldwych, and PAIDF2. A USD 418m debt financing was provided by a group of lenders, including the **government banks of the US and the UK** and South African commercial banks. **MIGA** provided a USD 360m political risk guarantee to the foreign investors.[165]

The Amandi PPA is a take-or-pay sale agreement spanning 25 years that was signed in mid-2013.[166] The Amandi investors received a GCSA which, according to GNPC's former CEO, was encouraged by the WBG.[167] The Bank also protected the investors by providing USD 360m in political risk guarantees in 2015.[168]

By the time that construction works were commissioned in 2016, the government had to "assume payment obligation of the ECG in the event that a default is not cured by the ECG", according to an official document.[169] The ultimate sovereign liabilities for Amandi's electricity sales anticipated the USD 360m political risk guarantee provided by the World Bank for a thermal facility that, therefore, ensured full profit returns back to the top of the project value chain.

Despite this fully secured investment, a Panama Papers investigation into offshore accounts of the Amandi IPP revealed that the plant obtained over USD 83m in tax exemption, and that one of the beneficiary individuals of the deal received USD 55m in dividends within only a few months after the country began to exit the electricity outrage crisis.[170]

## Cenpower Kpone Power Plant

### Foreign investors

**Africa Finance Corporation**, which bought a controlling equity stake in Cenpower in 2010, is a financial institution based in Nigeria that has reinvested debt instruments it received from the governments of Germany, the UK, France, and the US for example. in many businesses across Africa.[171]

**African Infrastructure Investment Fund 2** (AIIF2) is one of the private equity funds managed by African Infrastructure Investment Managers (AIIM), an infrastructure investment firm focused on African markets. The WBG's private lending arm, the government banks of the UK, France, and the Netherlands are investors in AIIF2.[172]

**FMO**, the government bank of the Netherlands, is a minority shareholder of Cenpower.

**Sumitomo Corporation** is a Japanese investor that acquired interests in the project in 2014 from InfraCo Africa, an entity that is part of **PIDG**.[173]

## Financing

The shareholders of the Cenpower provided approximately USD 250m in equity financing for the construction of the thermal plant out of an overall project cost of USD 900m.[174] While a full account of the financial institutions that provided USD 650m in project financing is unknows, in 2014 **FMO** provided a USD 20m loan and was key in arranging another USD 163m debt facility to Cenpower. The **development banks of Germany and Austria**, and banks from South Africa participated to this syndicate loan. EAIF, an entity of the PIDG, joined the group of lenders when the sister company InfraCo Africa sold its interests to Sumitomo. PIDG is funded by the WBG's private lending harm and the government banks of countries such as the UK, the Netherlands, Germany, and Switzerland.[175]

Cenpower Generation Company Limited (Cenpower) is a special purpose vehicle (SPV) created to develop the 350MW Cenpower Kpone Independent Power Plant in the eastern power enclave of Tema. Cenpower obtained a 20-year long PPA through direct negotiations with ECG at the start of the power crisis in June 2012.[176]

Little information is available about Ghana's obligations under the PPA, but one of the initial project developers reports that the "project will be responsible to purchase its own fuel with fuel price risk passed to the off taker, ECG through the PPA".[177] So, Cenpower leads fuel purchases, but in case of changes in fuel price that affect the financial viability of the project, ECG – and as a result Ghana – bear the costs.[178] Another official document confirms that investors in the plant sought guarantees through a GCSA, and that the project also received a USD 57.5m tax exemption to lower electricity tariff charged by the USD 900m project in 2014.[179]

While the details of the PPA are unknown to the general public, an announcement by Ghana's Ministry of Finance in 2020 is revealing. This statement was made in the context of Ghana's efforts to renegotiate PPAs after substantial criticism of the deals signed during the *dumsor*. According to the ministry:

> Cenpower has committed to switching its primary fuel from light crude oil (LCO) to natural gas and signed a gas supply agreement (GSA) with the Ghana National Petroleum Corporation (GNPC). [...] The GSA is a key part of the proposal put forward by Government during negotiations with Cenpower and will deliver substantial cost savings, estimated at $3.0 billion over the remaining term of the Cenpower PPA".[180]

The statement clearly implies that Ghana had entered a costly deal that made the country pay enormous fuel costs as the facility had been using oil to generate power. This despite the 2012 PPA was signed at a time when Tema was supposed to receive gas through the WAGP and Ghana was expanding its gas extraction. Concessions and arrangements the government and GNPC had to provide to secure investors' commitment to use Ghana's gas rather than other, more expensive, fuel remain unclear. However, such undertaking made four years after the Kpone plant became operational is, at best, late.

Furthermore, the ministry's attempt of saving costs of fuel supplies have not fully materialised. The Energy Commission of Ghana reports that the fuel mix to fuel the Cenpower thermal plant in 2021 and 2022 included over 286,000 barrels of light crude oil and more than 10,000 barrels of diesel,[181] due to shortages of gas supplies. Given

that a full switch to gas didn't happen in the aftermath of the ministry announcement of 2020, it's not clear how much of the estimated savings have been actually realised.

In its response letter to SOMO, Cenpower Generation Ltd. maintains that it is the government's responsibility to make input fuel available and reject any own wrongdoing in this regard. The company adds that stakeholders knew since the project outset that electricity costs would lower as soon as cheaper supplies of fossil gas were available, specifying that "gas supplies were largely dependent on investments in various gas fields in Ghana (such investments which also required Government and other multinational institutional guarantees)".[182]

While the company goes on saying the plant uses liquid fuels when electricity is required but gas is not available, the statements reported above are emblematic of the debt-laden nexus between upstream gas supplying assets and midstream IPPs. The development of upstream gas projects influenced the proliferation of thermal power PPAs during the *dumsor* as the former were expected to satisfy demand of fuel from the latter.

While each IPP like Cenpower might consider its reliance on the type of available fuels as a standard industrial practice, the cumulative impacts of flawed upstream gas projects - due to undersupplies or delays in implementation - matched with the numerous PPAs that offload risks on the host country – including risks related to the price of input fuels, which affect the price of electricity outputs - suggest the institutionalisation of a high-risk industrial practice that seems to have contributed significantly to the indebtedness of Ghana's fossil-based power sector.

### Box 5 – Tax breaks for IPPs

Through media investigations and public bodies in Ghana, information has emerged that show that, in addition to take-or-pay agreements and other government guarantees, some IPPs have also received substantial tax breaks. As noted above, **Cenpower** received almost USD 58m in tax deductions and **Amandi Energy** over USD 83m in tax benefits. The **Early Power Bridge**, a thermal IPP led by the US-headquartered multinationals General Electric and Endeavor Energy (the same US company leading the Amandi plant), received a USD 90m tax exemption in 2017.[183] Regarding the **TICO** plant, an official document published by the Joint Committee on Finance & Mines and Energy reports that "the project is required to be waive of any duties, taxes of any kind, present or future".[184]

A media investigation into the Turkish parent company of **Karpowership**, an IPP that entered the Ghanaian energy market during the electricity crisis of 2014, revealed that the PPA went through various negotiation stages in 2014-2016, with a USD 225m tax exemption granted without parliamentary approval in October 2016. Furthermore, the amended deal increased operation and maintenance costs and ultimately guaranteed an annual 4 per cent increase of these costs regardless of actual inflation.[185]

Developments around the power ship indicate that the World Bank is linked to this egregious deal. The **Karpowership** deal originally involved the delivery of two power barges, one of which arrived to Tema in 2015 and was later replaced in 2017 by a larger power vessel that could use different types of fossil fuels. The bigger power ship was intended to initially use heavy fuels and stay in Tema only temporary and then move to Takaradi to process the Sankofa gas.[186] The WBG confirms improvements in the upstream asset in its 2020 Project Implementation Report by stating that "after completion of the [pipeline interconnection] and the relocation of the Karpowership from Tema to Takoradi in 2019, Sankofa gas volumes offtake has seen an increase".[187]

The fact that investor benefits were negotiated and sealed in the PPA of October 2016, and that these were parallel to medium-term relocation plans to process the Sankofa gas, suggests that the WBG endorsed or at least should have known about the tax breaks and other controversial terms of the Karpowership PPA.

# 7. Too much electricity capacity

Credit: Photo via Pixabay.

As mentioned earlier, dozens of PPAs were signed during the years of repeated electricity outrages. ECG led these risky arrangements largely by its own fault – in a period where, however, it was among the key beneficiaries of a World Bank's multiyear project for institutional developments across Ghana's energy sector.[188]

Many foreign-led power producers, on the other hand, rushed into signing profitable deals, taking advantage of an environment where public tenders, parliamentary oversight, and other forms of public accountability were lacking. Although Ghana managed to cancel some of these PPAs (see below), thermal IPPs have driven the installation of excess power generation capacity for the foreseeable future, with more than 850MW of excessive thermal power capacity (i.e., more electricity produced than Ghana needs or can use) estimated in 2022.[189]

Under the PPAs and GSCA guarantees, Ghana is not only ultimately responsible for covering costs of electricity produced – which, as seen above, is among the highest that IPPs charge in the region – but it is also ultimately responsible for providing the fuel to the power plants set up by the private investors.[190] In other words, Ghana has to guarantee costs of inputs and outputs.

Ghana's own gas should be the input fuel. However, the challenges of the upstream sector meant this was not always the reality. Although foreign investors promoted each new upstream fossil project as key for the provision of affordable power to the country, undersupplies and delays meant that Ghana had to frequently pay for more expensive liquid oil fuels to fuel IPPs.

In 2019, Ghana put a moratorium on the signing new PPAs, while the government carried out bilateral negotiations with the existing IPPs to seek better terms of payment. This process reduced the number of PPAs with thermal power producers to ten in total.[191] The full costs that the government had to pay to end all the remaining PPAs remain unclear, but the termination of eleven PPAs already cost USD 402m by the end of 2017.[192]

Negotiations with IPPs that continue to operate in Ghana are ongoing and have led to some reported changes in deal-making in recent months (see box 6 below).[193] However, the country is still living with the legacy of the PPAs signed during the *dumsor*.

A court in the US, for example, recently found that Ghana had to pay damages over a PPA dispute in addition to an earlier costly ruling. The case involved Ghana Power Generation Company Limited (GPGC), which, despite its name, is controlled by Trafigura, one of the world's largest commodity traders. According to the former CEO of GNPC, GPGC was one of the four thermal IPPs for which the WBG asked the Ghanaian government for consent and support.[194] The dispute originated from a PPA that Ghana awarded to the company in the effort to address the energy crisis in 2015 but cancelled three years later due to project delays and overcapacity issues. Although the circumstances of the deal are not fully clear, a tribunal in the UK first ruled that Ghana had to pay USD 134m in damages in 2021 and, following the country's difficulties to make timely payments to GPGC, a US federal court added another USD 111m award in August 2024.[195]

### Box 6 – Take-and-pay as an alternative to take-or-pay power agreements

Take-or-pay contracts are used in industries like energy and natural resources to guarantee sellers with predictable revenue streams of their capital returns over the course of the supply contract. Buyers, on the other hand, are compelled to either purchase a specified quantity of products at a determined price or pay the seller for the agreed amount even if they are unable to materially offtake goods and services.

However, the energy and utility multimedia platform ESI Africa reports that take-or-pay clauses are not viable whenever "a buyer who had originally signed up for a contracted volume becomes burdened with excess generation capacity" and it "no longer requires originally contracted capacity".[196] ESI Africa examines take-and-pay as a viable alternative for power contracts, as the buyer commits to purchase electricity only if produced, while giving the seller the comfort of a minimum contracted quantity on a set price. The key advantage is that payment obligations are conditional on specific quantities, reducing the risk that the utility offtaker charges unutilised costs into electricity tariffs for end-users. Take-and-pay contracts also result in the need for IPPs to have loss mitigation strategies. Among these, IPPs could sell the untaken electricity to other potential buyers, although this would require adequate transmission networks for cross-border sale to neighbouring countries.[197]

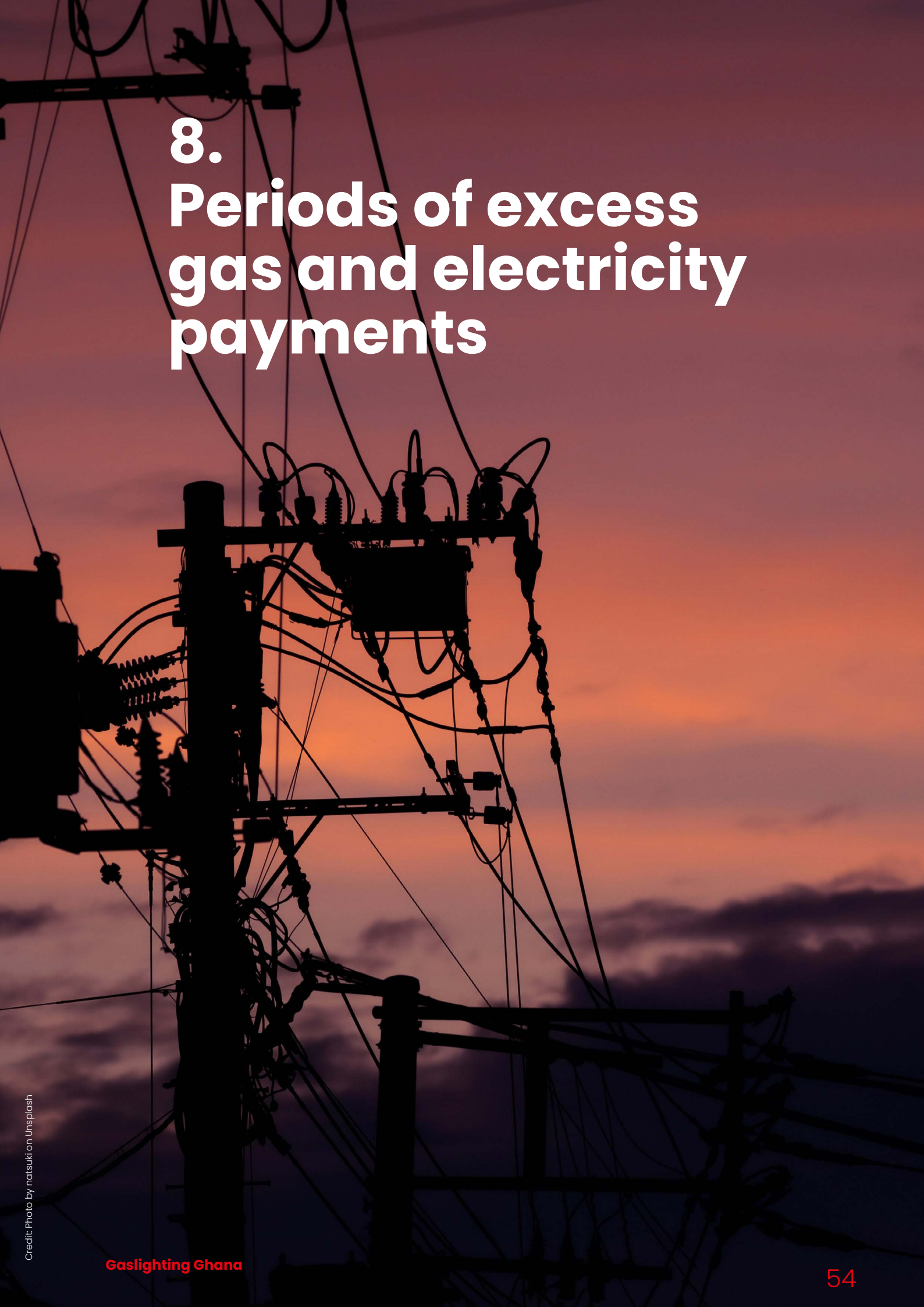
A few countries have taken steps to change PPAs from take-or-pay to take-and-pay contracts. In 2021, for example, Kenya established a taskforce to review offtake agreements between IPPs and Kenya Power and Lighting Company due to raising electricity costs, mismatch in demand, and increase of more affordable prices from renewable sources.[198] Following a staggering PKR 2.1tn (USD 7.5bn) in capacity charges in 2024, Pakistan has also started a sector-wide renegotiation process that includes the conversion of 18 agreements with IPPs into take-and-pay contracts,[199] an initiative that the WBG and other development lenders are fiercely opposing.[200]

Ghana began reviewing its take-or-pay power contracts within the broader Energy Sector Recovery Programme (ERSP) that began in 2019, a multiyear project aimed at tackling the financial sustainability across the whole energy value chain.[201] The international law firm Simmons & Simmons reports that some of the Programme's initiatives are motivated by Ghana's intention to renegotiate PPAs into take-and-pay contracts, with the ultimate goal to address excess take-or-pay generation capacity and repayment obligations. The law firm warns, however, that the willingness of IPPs to come to the negotiation table is key to avoid risks that they use international arbitration to recover their claimed damages.[202]

Reports indicate, however, that IPPs in Ghana have been extremely reluctant in renegotiating PPAs and outstanding payments, including in the in the aftermath of country's latest IMF default of 2022. In March 2023, for example, Ghana proposed to treat the growing arrears with IPPs as part of the external debt restructuring process given that capacity charges are in US dollars while revenues from end consumers of electricity are in cedis[203] – with payment obligations massively affected by the fourfold depreciation of the Ghanaian currency since most US-denominated take-or-pay power contracts were signed.[204]

A Ghanaian association of IPPs, however, rejected "any notion of restructuring their arrears or claims as part of the ongoing or any future debt restructuring program".[205] Two months later, arrears increased up to USD 1.6bn, and IPPs threatened to shut down power plants.[206] Although the Ministry of Finance is reported to have made progress in negotiations with five IPPs as per July 2024,[207] it is not clear whether the restructuring regards only the modality to repay outstanding claims or also much-needed structural amendments of take-or-pay contracts. Furthermore, just before the early December 2024 elections, Ghanaian media clarified that only one IPPs had actually signed the deal, while four other IPPs were either reportedly about to sign off or awaiting parliamentary approval.[208]

# 8. Periods of excess gas and electricity payments



Credit: Photo by natsuki on Unsplash

The implications of the IPP take-or-pay deals, coming on top of the upstream gas take-or-pay deal, and with serious infrastructural inter-dependencies not timely addressed, has led to a situation where Ghana has, in some years, even been paying for more gas *and* more electricity than it could use. Foreign investors, wrapped in different types of guarantees, have been able to take profits and tax breaks, even as the country buckles under the growing debt this situation created.

By 2017, Ghana had more electricity installed capacity than it needed. But it also still had gas supply problems, and the government had to provide at least USD 340m worth of alternative liquid fuels to the thermal power sector.[209] Meantime, Ghana started negotiations to terminate some of power contracts it had awarded during the power shortage crisis and, as seen above, it had to pay USD 402m in penalties to cancel eleven PPAs.[210]

By 2018, Ghana was paying for gas it could not fully use and for electricity it did not need, all under take-or-pay agreements, several of which the WBG was involved in (including the Sanfoka GSA, stakes in the TICO and Amandi power plants, and reported request to Ghana to give GCSA to other IPPs). Indeed, 2018 exemplifies the multifaceted problem facing Ghana, due to the deals done.

This year, the Sankofa gas project started delivering gas. However, with a pipeline connection not yet in place, much of the gas, which had to be paid for from June onward, could not be immediately used. Unsurprisingly, Ghana could not meet its take-or-pay obligations during this initial production period, not least because the country had to buy alternative fuel for the power plants in the east of the country.[211] In 2018, these costs amounted to about USD 300m worth of diesel, HFO, and light crude oil, according to official records.[212] Meanwhile, excess generation capacity contracted under take-or-pay PPAs cost the government USD 320m for electricity that it did not need.[213]

In 2019, the Ministry of Finance reported that "for Sankofa Offshore Cape Three Points gas alone, we pay over $51 million a month under a take-or-pay contract for 154 mmscf per day even though we only actually take 60 mmscf per day on average".[214] Meanwhile, delays in the WAGP backflow preventing timely utilisation of the Sankofa gas, contributed to the government's purchase of USD 230.6m worth of alternative fuel for power generation.[215] In this regard, ACEP reports that the government had to supply 2.4 million barrels of HFO at a cost of over USD 140m to fuel the Karpowership barge between August 2018 and December 2019.[216] This indicates that project delays also affected the timely conversion of the fuel used by the power vessel which was planned through the vessel's relocation from Tema to Takoradi to offtake gas from Sankofa (see box 5 above).

The WAGP backflow work was eventually completed in 2019, costing USD 170m according to the Ministry of Energy (far higher than the WBG's estimation of a USD 10m).[217] Parallel to public expenditures for non-utilised gas, alternative fuels, and work on the WAGP interconnector, take-or-pay obligations for electricity led to

mounting arrears. By the end of 2019, Ghana paid over USD 1.2bn to settle power bills with IPPs, [218] with USD 620m estimated to cover unused power.[219]

In 2020, the Ministry of Finance confirmed: "Presently, Ghana pays over US$500 million a year for unused electricity."[220] And to add to Ghana's woes in 2020, ENI and Vitol drew down on a Letter of Credit for an amount of just over USD 191m. By April 2021, the European oil major of the Sankofa project drew down another USD 170m, with each of these downdraws being turned into a new debt for Ghana.

The country made payments of over USD 1.1bn to cover IPPs charges in 2021, with additional USD 571m of debt settled by the government under PPA charges in 2022.[221] As seen above, contracts with IPPs compelled the government to give sovereign guarantees to foreign investors for their projected capital returns. The inability to create a fair risk sharing environment in Ghana's energy sector by the WBG-promoted PPPs, therefore, resulted in the government obligation to cover more than USD 1.6bn in shortfalls to IPPs in 2021-2022, a figure that includes charges for also unused electricity.

Meanwhile, ACEP estimated losses of nearly USD 400m linked to Tullow's flaring of gas in 2019-2022, a volume of gas that could have been utilised for power production but wasn't because Ghana had to take the far more expensive Sankofa gas due to the take-or-pay deal. Cheap or free gas is flared and expensive gas must be paid for, under two projects in which the WBG played key roles.

Arrears in the fossil-based energy sector have continued to mount, and in 2024 the WBG noted:

> The energy sector has become a fiscal burden costing the Government over 2 percent of GDP annually. Since 2019, the direct subsidy requirement of the energy sector has been on average over US$ 1 billion annually to balance electricity costs and revenues. The annual revenue shortfall for the power sector *in 2023 was estimated at US$1.3 billion* (about 1.7 percent of GDP) and about half of the annual GoG budget spending on social sectors in that year, and it is *projected to rise to US$1.5 billion in 2027* (about 1.8 percent of GDP).[222]

Like in many other project documents, the WBG comments on the egregious situation in Ghana as if it were speaking about a situation that it observes but is not involved in. Nothing could be farther from the truth.

The WBG has been involved in Ghana's energy sector for decades, including through a 15-year project that the WBG promoted for institutional developments across Ghana's power companies and energy regulators between 2007 and 2022,[223] a period in which the Bank was also promoting upstream fossil fuel developments.

The chain of events that led to a situation where Ghana, in the aftermath of the Sankofa deal, has been paying for gas and electricity regardless of need, and at prices higher than other options available in some cases, raise questions the WBG should address.

The Sankofa's Project Information Document (PID) of May 2015, a WBG document that provides the public with a summary of a proposed project's objectives and key considerations, provides some leads about the Bank's simplistic view of the gas demand situation just a few weeks before board approval of its multimillion security package.

The Bank reports that more gas is needed for the power sector simply because "The West African Gas Pipeline (WAGP) has experienced severe supply shortages in Nigeria and frequent interruptions in deliveries. Prospects for attaining the contractual level of supply remain uncertain [...] Domestic gas in Ghana has been slow to arrive".[224]

Apart from making such observations without clarifying its role in promoting both projects, the WBG document appears to also overlook the risk of overcapacity that the Sankofa deal would create in the power sector. The PID states that Ghana's capacity was over 2,800 MW in 2015, including 1,200 MW of thermal facilities, with "[a]pproximately 800 MW of additional thermal generation capacity [...] under construction by public utilities and independent power producers". While a total of 3,600MW were planned already, "[e]lectricity demand at peak is currently about 2,000 MW and is projected to grow by an average 5.8 percent per year in the coming decade." [225]

So, while the Bank reports that Ghana already had plans for a generation capacity of 3,600 MW in 2015, capable of meeting what it claims would be the peak in a decade (roughly 3,200 MW), the PID states:

> *The Project will also enable new thermal power generation capacity to be constructed. Gas production at other fields* currently in operation in Ghana *will decline rapidly after 2020*. The Sankofa gas field is expected to be in production for almost two decades thereafter. *The Project will therefore help address Ghana's current financial challenges in the downstream power sector.*[226]

The PID fails to acknowledge that the Bank had provided multimillion financing to Shell and Chevron's Nigerian pipeline and Tullow and Kosmos' domestic gas field with the promise to stabilise the energy sector, but either failed to meet expected volumes (of imported gas) or lacked ready offtake infrastructures (for domestic gas). Furthermore, it doesn't foresee any risks that its security package would have on the flaring, wasting and underutilisation of cheaper domestic gas once the Sankofa's take-or-pay contractual obligations activated. The claim made by the bank in 2015 that other domestic gas "will decline rapidly after 2020" appear to contrast with the data disclosed by Ghana's Petroleum Commission to this day, showing that the production of associated gas at Jubilee and TEN slightly increased between 2020 (combined 123,000 mmscf) and 2023 (nearly 128,000 mmscf).[227] Ultimately, the WBG's support for "new thermal power generation capacity to be constructed" disregards the risk of excess generation capacity that more IPPs pose on the power system, along with the financial consequences that take-or-pay contracts have on the financial viability of Ghana's fossil-based energy sector.

# 9.
# Chain of payment: a foreseeable problem made worse by WBG-backed deals

Photo by The Artboard on Unsplash

WBG reports repeatedly refer to the problems of payment by national entities in Ghana for gas and electricity. Yet the 'solutions' are to add more foreign investors who get sweeping guarantees of payment, no matter what.

On the electricity side, the key actor is the ECG. There is a significant gap between what it has to pay for electricity and what it can recover from customers. While issues with payment collection from end consumers of electricity and transmission losses are surely part of the problem, ECG has, for example, limited control over costs of input fuel for thermal IPPs. These costs should be included in the electricity tariffs paid by customers, but, in reality, they are costs for either Ghana's own gas or imports of fuels that the government often ends up paying from its own annual budget.[228]

One of the key reasons why electricity tariffs fail to reflect costs of production is that the price of input fuels is high. As seen above, each upstream gas project was set up with the promise to address Ghana's fuel shortages for power production, but their flawed implementation meant that the country paid a high price in each case. The WAGP has failed to supply agreed volumes, so more expensive oil fuels are needed to compensate for missing volumes. Tullow's gas could not be used because of infrastructural delays at first, and it was later underutilised because of Sankofa's take-or-pay obligations. And most of the gas paid to Sankofa investors could not be utilised for years because of the failure to have a pipeline in place to transport gas from west to east. Even when working, the Sankofa gas price is quite high per se, and made even higher because the oil majors that own the WAGP pipeline charge fees for the gas transported to the east.

Another critical reason for costs to be higher than what the distribution company collects from end consumers is that ECG signed many power agreements during the energy shortage crisis. Even though Ghana managed to cancel several PPAs, the remaining ones cause significant financial problems for two main reasons. Ghana has indeed long-term take-or-pay agreements that, first of all, compel the country to bear costs of more power than it needs (850MW in excess capacity in 2022). Secondly, these deals originally signed without adequate public scrutiny lock Ghana into prices per power units that are higher than regional averages, including nearly 70 per cent more than what IPPs charge in Nigeria.[229] So, Ghana pays investors for also unused capacity and at a higher price, and ECG has, partly by its own doing, a massive supply-side problem. One that guarantees foreign investors returns.

A WBG expert report from 2013, however, already warned that: "the current pricing/tariff and subsidy policies for energy are not financially sustainable. Energy providers do not collect adequate revenues from users and struggle with inadequate state subsidies. As a result, they find it difficult to maintain and expand their physical infrastructure, while at the same time the burden of these subsidies weighs heavily on the nation's budget."[230]

Despite knowing the challenges in revenue collection from end consumers, the TICO's PPA was signed just the year before, following investments in the facility by also the WBG's private lending arm. The Amandi PPA was agreed in the same year of the 2013 expert report, with MIGA's USD 360m in political guarantees and the reported WBG's

request for GSCA. The Sankofa deal was on the horizon. Several other PPAs were agreed between 2012 and 2016, a time when ECG was a key beneficiary of another WB's funding aimed at improving the company's commercial management system and overall operational efficiency.[231] All with foreign investors who got take-or-pay deals that made costs of input fuel and electricity generation higher.

One of WBG's 'solutions' to the ECG's inability to cover costs – which include costs that are completely unreasonable, such as electricity no one needs – is to charge more to customers. These are the customers for whom fuel and electricity should be cheaper. Despite the rhetoric, a review of WB's latest energy project in Ghana reveals, however, that the priority is still to ensure that investors get paid, as discussed further below.

Turning to VRA, it has been clear for more than a decade that VRA struggles to pay for fuel. In 2014/2015, VRA owed N-Gas, the company majority owned by Shell and Chevron that supply gas through the transnational pipeline, some USD 170m and it had to resort to borrowing money to pay the debt.[232] This means that, as the Sankofa gas deal with its expensive take-or-pay agreement was being signed off in 2015, the Bank knew VRA could not pay for the gas from Nigeria. Yet VRA, by managing few power plants, was a key part of the Sankofa supply and payment chain,[233] as was ECG, and in the end, the state was on the hook for the debts of the state-owned entities.

GNPC is the offtaker for Sankofa's gas. However, as the World Bank was aware, "the gas supplied from Sankofa was meant to be consumed and paid by thermal power plants (IPPs and VRA) to GNPC, which, in turn, were supposed to be paid by the distribution utilities (ECG and NEDCO)".[234] GNPC has to buy Sankofa's gas under the take-or-pay deal. VRA then buys the Sankofa gas and has to pay GNPC for this. Again, in 2014/2015, the WBG knows VRA cannot pay N-Gas for the gas from Nigeria but signs off on the Sankofa project that will see VRA to buy the gas from Sankofa via GNPC. The VRA has relied on short-term financing on the domestic market to cover operating costs including fuel for many years. [235]

Reporting on Sankofa in 2020, it is no surprise, therefore, that the WBG noted that "only 11 percent of the gas sales has actually been paid by the power sector directly, the rest having been paid by [the Government of Ghana]."[236] That there would be payment problems is entirely foreseeable.

ECG has clearly entered into very poor deals with IPPs, and has other challenges documented by Ghanaian experts. But the IPP deals and take-or-pay contracts have put ECG in a situation where it either has to operate consistently at a loss, covered by the state, or make all Ghanaian's pay for the profit gouging of foreign investors. The WBG has largely promoted the latter.

As VRA, ECG, and GNPC are all, ultimately, state bodies, any take-or-pay payment issue become a problem for Ghana's budget. The tariff charged to customers do not reflect costs of service also because of the relatively high price the country pays for its own gas (in addition to costs for historical imports of pricy fuels the country had to buy as a result of flawed upstream fossil projects), the high price that excess installed generation capacity involves, as well as the high price that IPPs charge per power units on average. One can argue the government should never have entered these deals, but the foreign investors also bear responsibility for engaging in predatory practices during a time when Ghana was in significant energy distress.

### Box 7 – Other factors in Ghana's energy and fossil fuel debt

The WBG interventions in Ghana's relatively recent fossil fuel industry did not occur in a vacuum, there are other factors that have contributed to the energy debt.

As the renowned political scientist and Professor Ransford Gyampo had already warned in 2010, one of these factors can be identified in the lack of adequate institutional framework when oil production started.[237] Oil majors obtained their petroleum agreements under a veil of secrecy between 2004 and 2006, with deals that have later raised allegations of corruption.[238] When those deals were made, Ghana did not have key legal and regulatory settings in place yet, with for example the Petroleum Commission and the Petroleum Revenue Management Act coming into existence only in 2011.

This also raise the risk that foreign investors were able to negotiate better contractual terms than they would have obtained under the current petroleum legal framework. In 2020, Professor Gyampo and others have also pointed out to the risks that fossil fuel development have on the politics of resource patronage, high borrowing and unreasonable spending in infrastructures, as well as security threats and corruption.[239]

Initiatives aimed at addressing liquidity shortages in the energy sector, like the WGB-supported Cash Waterfall Mechanism (CWM), have also shown limits in institutional capacities. Introduced in 2017 as a new system to streamline the distribution of revenues across the energy value chain with dedicated escrow accounts allocated to power producers, fuel suppliers, and other creditors, the CWM has done little to address the revenue shortfalls from electricity sales compared to high service costs, with ACEP also pointing to transparency issues on how ECG accounts revenues and puts them in CWM for distribution.[240]

Key to the growing energy debt is also how arrangements with IPPs are made and their effects in periods of financial crisis. Aside from the take-or-pay clauses for which Ghana has to pay for agreed electricity outputs regardless of need and use, power generation costs are in dollars while revenues from end consumers are in cedis.[241] Given the significant depreciation of the cedis in recent years, devaluing at least four times since most PPAs were signed, exchange losses for debt settlements are huge.[242]

Issues that are high in the WBG agenda, such as losses in the transmission and distribution systems and revenue collection, are also contributing to the fossil-based energy debt. However, Ghana, like many other countries in the Global South, has been reliant on the WBG for financing, technical advice, and planning for decades, especially in the public-private partnership transformations that the energy sector has experienced in the past two decades. The WBG has not only supported import and domestic fossil fuel deals, along with encouraging IPPs as the solution to energy security, but also promoted, in parallel, reforms in key institutions and energy companies for a very long time. Whatever the weaknesses in Ghana's energy system are, the Bank knows or should have known. Arguably, with such long-term involvement and advice functions, questions arise about the extent to which the WBG has partially driven problems in Ghana's energy sector.

# 10. Cheaper electricity for Ghanaians: not so much


Dumsor protest in Accra, June 2024. Photo by Agyemang Duoh Ewusi Jr. http://www.flickr.com/information

The WBG has repeatedly justified its support to various gas projects in Ghana as helping to solve the country's domestic energy problems and provide cleaner and cheaper fuel and electricity to the people of Ghana.

However, in the face of growing debt of Ghana's state-owned energy companies, the 'solution' proposed by the WBG has been to increase the tariffs charged to electricity consumers, based on the view that ECG does not cover the full cost of electricity supplied (as well as issues with revenue collection).[243] As discussed above, one of the main reasons ECG does not cover the cost of electricity supplied to households and businesses in Ghana is that, even if high, electricity tariffs don't cover all the costs of service.

It is important to stress, however, that the cost of service is high also because of the egregious foreign investor deals. As seen above, these service costs include: the high price of electricity outputs, including IPPs' production charges; costs of excessive generation capacity that Ghana has to cover because of the take-or-pay PPAs; gas transport fees for the WAGP backflow; cost of take-or-pay obligations for the Sankofa gas (averaged with the cost of gas from Nigeria and Tullow's operations); in addition to further costs, such as other gas transportation and electricity distribution costs.[244]

In late 2015, responding to the increasing debt pressures in the power sector, the government of Ghana introduced the Energy Sector Levy Act. This led to a large increase in petroleum prices and electricity tariffs. This move was widely criticised but the government defended it as needed to cover costs.[245] According to the WBG, tariffs had increased by 47 per cent in December 2015, but the increase did not improve the sector's financial position.[246]

One reason, some might say a predictable one, was that electricity demand in 2016 was lower. Several experts observed that consumers responded to the higher prices by reducing their consumption. According to the Ghanaian Energy Commission, the relatively high end-user tariff is likely to have contributed to the significant surge in the installation of alternative or captive or self-electricity back-up generation largely by the non-residential and industrial customers of the utilities.[247]

The WBG appears to have been taken by surprise by this supply and demand development and, reflecting on the surge of PPAs during the energy shortage crisis, noted that "demand growth has since reduced due to tariff increases and slower economic growth; hence, these plants, if built, are projected to result in 1,900 MW of excess capacity by 2019 (50 percent increase in current installed capacity)."[248]

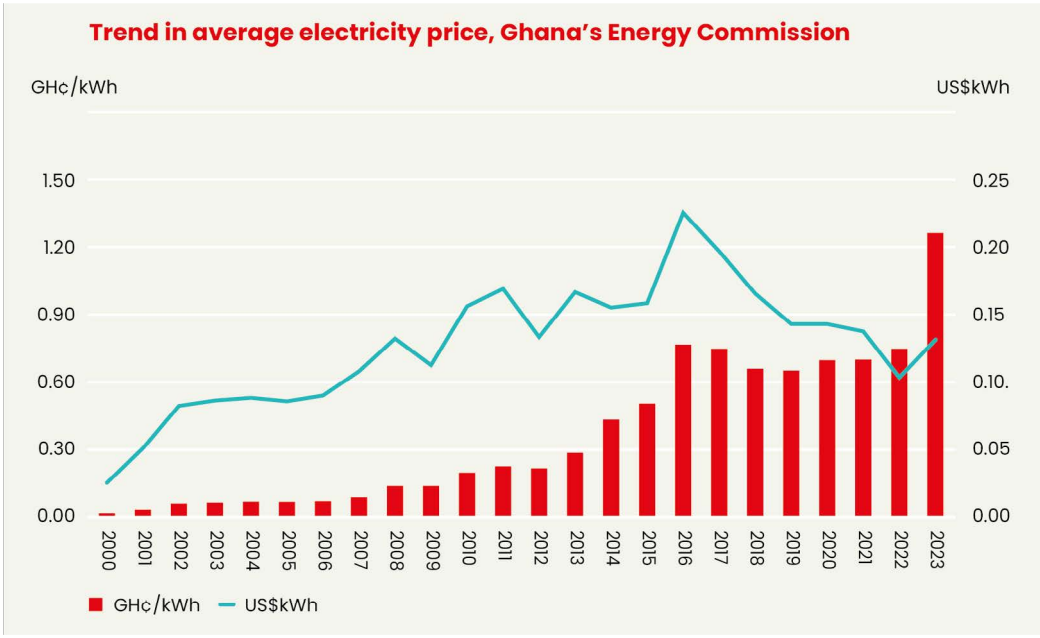
So, if the price of electricity is increased, consumers will use less electricity. When one considers that Ghana's electricity is far from being affordable, this is not an unpredictable consequence of the price hike. Ghanaian consumers, for whom cheap and reliable power is promised since oil and gas were discovered offshore, found themselves facing a nearly 50 per cent dramatic price increases just as the country was about to exit the *dumsor* period.

In March 2018, Ghana's Public Utilities Regulatory Commission announced electricity tariff reductions of 17 per cent for residential and 30 per cent for commercial consumers. Demand increased. But not by enough to absorb the excess generation. The Energy Commission reports that despite a 15 per cent increase in the peak of capacity utilised compared to 2017, this peak was 2,525MW out of an installed capacity of 4,780MW.[249]

Furthermore, despite tariff reductions, in 2019 the ECOWAS Regional Electricity Regulatory Authority found that the average tariff that end users in Ghana pay was higher than other countries in region like Burkina Faso, Guinea, and Nigeria.[250] In 2021, Ghana's Ministry of Energy confirmed that "Electricity prices in Ghana are relatively high compared to other countries in the ECOWAS region", causing "major impact on the viability and competitiveness of business and industry in the country and is also a matter of significant concern to residential users".[251]

By 2024, the situation for Ghana remained precarious. The IMF's ongoing bail-out programme is reported to contain conditionalities to raise electricity tariffs, maintaining the view that such increase would improve the financial sustainability of the sector. Reflecting on the 100 per cent raise that Ghanaian witnessed in their electricity bills between September 2022 and June 2023, ACEP found that the sector's liquidity has not improved at all.[252]

The promise of cheaper power for consumers has yet to materialise. Meanwhile, the effects of rocketed electricity prices due to also the depreciation of the cedis against the dollar-denominated investments by IPPs has fallen on the whole Ghanaian population, with households reported to cut back on expenses for basic needs.[253]




Trend in average electricity price, Ghana's Energy Commission[254]

# 11. Making the sector perform better, for whom?

Credit: Photo by Etornam Ahiator on Unsplash

The WBG remains heavily engaged in Ghana's energy sector, with the goals now more openly defined as making power utilities perform better – presumably, to ensure the chain of due payments back to private investors, rather than to make power cheaper for consumers.

In June 2024, the Bank approved a USD 250m credit from IDA and a USD10m grant to support Ghana's ESRP. The ESRP is a multiyear programme that the government of Ghana set up in 2019 and extended in 2023 to try solving the crushing energy debt, which latest estimates identified at over USD 14bn in the business as usual scenario.[255]

While the government ESRP also contains key actions aimed at tackling high costs of upstream gas and expensive PPA charges, the WBG notes, again, that "Electricity distribution losses are high in Ghana due to a low collection rate and below-cost recovery tariffs, undermining the operational and financial performance of energy utilities in the country."[256] A Bank official goes on claiming that:

> Through this important results-based financing, the World Bank is committed to supporting the recovery of Ghana's energy sector and its financial sustainability. The operation aims to strengthen revenue collection and improve the quality of energy supply through investments in prepaid metering and in the commercial and meter management systems of distribution utilities." [257]

So now the Bank aims to improve the fossil fuel-driven energy debt by using pre-paid meters which carry an obvious and high risk of leaving people unable to pay for electricity and, therefore, without access to power. Other actions aim to enhance ECG's financial management, planning, and coordination capacities: the focus is on the recovery of costs from end consumers.[258] And while these interventions might possibly bring benefits if achieved without a surge of electricity prices, it's worth stressing that, following two decades of dedicated assistance to power utilities (see box 2), the WBG intended to "scale-up the scope and impact of the ongoing activities aimed at improving ECG's operational efficiency by concentrating efforts on improvements to billing and metering system" since at least 2015.[259]

SOMO asked the WBG how it assessed the risks of this new policy on raising electricity prices and setbacks on access to power; and how this new metering system is deemed to provide different results than the old ones. The Bank, however, did not respond to our request for comments.

As mentioned above, the government's ESRP intends to standardise prices of gas supplies for power generation – including the decrease of the price of Sankofa gas, which Ghana achieved by giving up royalties and equity interests on the project – and to renegotiate excess take-or-pay power generation capacity. Compared to these key interventions, the WBG is clear that its USD 250m financial support for the ESRP, "focuses on the electricity sector, and on the main electricity distribution utility ECG". Most crucially, some aspects of the ESRP are not covered by the new debt from the Bank, and specifically:

> (i) gas sector shortfall, as over the last two years its share in the overall combined energy sector shortfall is less. Further, benefit from turnaround of the

electricity sector would have a *cascading benefit for the natural gas suppliers*; (ii) *negotiations with IPPs* to reduce their costs will also contribute to the reduction of the financial shortfall, however, this is led by the Government, and it is outside the scope of the PforR; (iii) direct financing support from MoF for covering electricity sector shortfall to *clear sector arrears.*[260]

As such, the Bank purposely avoids engaging in structural issues of Ghana's fossil-driven energy debt that the Bank contributed to create: fairer gas supply arrangements are out of the equation because, by fixing issues in electricity distribution and revenue collection, priority is given to bring benefits to upstream gas suppliers like Tullow, Kosmos, ENI, Vitol, Shell, and Chevron; renegotiation of expensive power charges and excessive installed capacity under the current PPAs, some of which the Bank directly encouraged within its broader IPP policy, is left to the government to deal with without much further explanation, and despite IPPs had repeatedly refused renegotiation efforts; direct contributions for settling the legacy of arrears is out of question, despite this debt is also the result of the Banks' interventions in the PPP framework that enabled an environment that is conducive to and protects the interests of foreign private investments.

# 12. Conclusions and recommendations

The relatively recent history of the fossil fuel-based power system in Ghana reveals an environment conducive of foreign investment that has failed to fulfil public welfare objectives on multiple levels. Energy-related PPPs have led to unfair risk sharing arrangements that compel the Ghanaian government to bear most projects' financial risks, non-transparent agreements that undermine the possibility of holding actors to account, and contracts that prioritise the recovery of foreign capital over Ghana's fiscal stability.

The present report shows that Western companies and financial institutions have been key in locking Ghana into oil and gas extraction and fossil fuel-based energy dependency. It also finds that this dependency has contributed to the country's overall indebtedness, which has led to the default on debt repayment three times since offshore oil deposits were discovered.

The nexus between fossil fuel extraction and power plants has indeed both direct and indirect consequences for public finances. As seen in this report, Ghana had to take USD 75m debt for the WAGP and at least USD 1.5bn to utilise Tullow's gas, paid USD 170m for Sankofa's interconnector, and faced new debt as a result of investors' drawdowns from the security package. Other historical costs are in the order of billions when considering the imports of pricier fuels for power production as a result of delays and undersupplies of gas from upstream assets. Ghana has also spent billions for costly unutilised power steaming from lucrative PPAs with thermal producers.

Furthermore, state power companies were compelled to take debt to settle mounting arrears and continue operations, as a WBG report from 2018 also confirms.[261] One of the government's initiatives to mitigate the cycle of energy debt, was the issuance of the so-called ESLA bonds to refinance arrears owed to banks and other creditors.[262] Between 2017 and 2022, outstanding ELSA bonds amounted to approximately USD 920m, with annual interest payments up to 20.5 per cent.[263] And while these incredibly expensive bonds were largely for domestic creditors and later restructured,[264] questions arise on whether Ghana may have used debt taken from the international market, such as Eurobonds, to cover other arrears across the fossil-based energy sector in past years.

High levels of indebtedness reduce Ghana's fiscal space for investments in critical societal, environmental, and climate adaptation needs. As highlighted in a study released by ACEP in July 2023, Ghana's public spending on agriculture, fisheries, roads, education, and health may be less than half of public expenditures needed to repay arrears in the fossil fuel-dominated electricity sector in 2023-2026.[265] In this business as usual scenario, therefore, the country would spend twice in settling fossil-based energy debt than it would invest in critical socio-economic sectors, including decarbonisation of the economy.

Furthermore, the ongoing IMF intervention claims that Ghana would reach sustainable levels of debt by making dangerous assumptions. Among these is the IMF projected growth in extractive activities through also the exploitation of new oil fields.[266] Whereas past contracts with foreign investors resulted in offloading most financial risks on the host country, the possibility for Ghanaian companies to play leading roles in new fossil fuel projects also bears enormous financial risks. As Natural Resource Government Institute's *Risky Bet* report shows, national oil companies would need to take huge debt to exploit new oil and gas assets that risk being stranded and not break even.[267]

Another critical assumption by the IMF regards Ghana's successful renegotiations of the debt owed to international creditors. This involves restructuring the debt by following the G20 Common Framework, a policy tool which key principle consists in countries' ability to reach comparable terms agreements with bilateral donors on the one hand, and private creditors on the other.[268] This framework, however, presents significant challenges, including for the imperative of energy transition.

First, the principled agreement with bilateral creditors controlling USD 5.2bn of Ghana's debt involves the simple postponement of due payments up to 2040.[269] More than half of this debt, namely USD 2.8bn, is held by the Paris Club,[270] a group of developed economies that also include the UK, Germany, the Netherlands, and other high-income countries in Europe and North America. Development banks from these countries have invested in thermal IPPs and are indirectly involved in at least one of Ghana's upstream extractive projects.[271]

Given the contributions that fossil-related debt has on the country's overall public debt, a debt restructuring process where bilateral creditors are repaid in full is extremely problematic. Repayment obligations will continue to weigh on Ghana's public spending even if postponed and therefore limiting the country's investments in other pressuring needs, such as low-carbon energy technologies as the world is moving away from fossil fuels.

Secondly, debt owed to multilateral banks, including USD 4.75bn owed to the WBG and nearly USD 1.2bn to AfDB,[272] is not affected by the restructuring process at all. The WBG and other multilateral creditors enjoy preferential treatment under the G20 Common Framework, meaning that they expect to be repaid in full and without delays. This is despite the key role that the WBG played in protecting foreign investors of domestic oil and gas projects, the Nigerian gas pipeline, and endorsing some of Ghana's contracts with IPPs; while AfDB also poured hundreds of millions in these highly problematic and polluting assets. As a result, full repayment of multilateral banks exposed to fossil-related debt also constraint Ghana's spending towards other socio-economic needs, including decarbonisation efforts.

By uncovering the nexus between fossil-based energy and debt on the one hand, and pointing to the risk that fossil debt continues to constraint Ghana's spending in pressuring societal need on the other, this paper calls on the WBG and other foreign investors and companies involved in the development of the fossil-based energy PPP to:

- initiate an independent process that assesses the historical and current levels of fossil-related debt affecting the country's finances. This includes historical costs for pricy fuel imports that resulted from undersupply and delays in upstream gas-supplying projects; the effects that the Sankofa's drawdowns had as new loans for Ghana; credit that Ghana took from the domestic and international debt market – such as the EIB loan, CDB loan, ESLA bonds, and possibly the Eurobond market – and used for fossil-related energy costs; historical payments made to IPPs for unused power; and arrears owned as a result of lucrative deals that do not reflect demand;
- take responsibility for the historical and current fossil-based energy debt they encouraged and enabled Ghana to accumulate throughout the last decade and half. Following the results of the above-mentioned independent process, accept to cancel relevant portions of this fossil debt within the current IMF-led debt restructuring process and tie cancelled debt to the country's public spending for renewable energy and the decarbonisation of the economy;
- reassess all take-or-pay contracts that guarantee foreign interest and offload financial risks onto Ghana with the aim of balancing supply and demand systems and prioritising stable and affordable electricity for the Ghanaian people and economy.

## The government of Ghana should:

- hold a national dialogue and reach consensus on the climate and financial viability of continuing oil and gas exploration programmes as the world is moving away from fossil-based sources of energy, and embrace ambitious energy transition plans that requires a rapid reduction of the carbon footprint of the country's economy;
- take steps to support the Fossil Fuel Non-Proliferation Treaty, which calls for an end to new coal, oil, and gas projects and coordinate the call on cancelling the country's fossil debt with increasing public expenditures in renewable energy investments.

# Endnotes

1. Ghana's Public Interest and Accountability Committee, "2023 Annual Report on the Management and Use of Petroleum Revenues", page 36 https://www.piacghana.org/wp-content/uploads/2024/05/PIAC-Annual-Report-2023.pdf; World Bank Group, "Project Appraisal Document for a Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf
2. See, IMF and IDA, "Ghana: Joint IMG and World Bank Debt Sustainability Analysis", 16 June 2008, https://www.imf.org/external/pubs/ft/dsa/pdf/dsacr08344.pdf
3. IMF, "Ghana: 2008 Article IV Consultation", 20 October 2008, Appendix I. Ghana's Petroleum Sector: preliminary Macroeconomic Impact, available for download at https://www.elibrary.imf.org/view/journals/002/2008/344/article-A002-en.xml
4. In 2009, the IMF provided a USD 602m facility, which was followed by a USD 1bn Rapid Credit Facility during the Covid-19 Pandemic of 2020. The IMF's USD 3bn financial assistance of mid-2023 represents the 17th time that Ghana recurred to the Fund since it obtained independence from British colonial rule in 1957. See IMF, "Executive Board Approves US$602.6 Million PRGF Arrangement for Ghana", 14 August 2009, https://www.elibrary.imf.org/view/journals/002/2009/256/article-A006-en.xml; IMF, "Press Release: IMF Executive Board approves a US$1 billion disbursement to Ghana to address the COVID-19 Pandemic", 13 April 2020, https://www.imf.org/en/News/Articles/2020/04/13/pr20153-ghana-imf-executive-board-approves-a-us-1-billion-disbursement-to-ghana-to-address-covid-19; GhanaWeb.com "From Nkrumah to Akufo-Addo: Here are all 17 times Ghana ran to the IMF", 18 May 2023, https://www.ghanaweb.com/GhanaHomePage/NewsArchive/From-Nkrumah-to-Akufo-Addo-Here-are-all-the-17-times-Ghana-ran-to-the-IMF-1769252. With regards to Ghana's poverty situation, see World Bank Group, "The World Bank in Ghana, Overview", https://www.worldbank.org/en/country/ghana/overview
5. Nafi Chinery, "How Ghana Can Map Its Energy Transition Journey", 4 April 2022, https://resourcegovernance.org/articles/how-ghana-can-map-its-energy-transition-journey
6. For more information, see https://ppp.worldbank.org/public-private-partnership/PPP_Online_Reference_Guide/Introduction
7. See WBG, "Report and Recommendation of the President of International Development Association [...]", Report No. P-5499-GH, 5 April 1991, https://documents1.worldbank.org/curated/en/536911468038076477/pdf/multi-page.pdf; WBG, "Ghana – Public Private Partnership Project (PPP)", 28 February 2012, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/131311468252282495/ghana-public-private-partnership-project-ppp; WBG, "Private Participation in Infrastructure, Ghana", https://ppi.worldbank.org/en/snapshots/country/ghana. See also Cambridge Economic Policy Associates Ltd., "Mobilizing Finance for Infrastructure, A study for the UK Department for International Development (DFID), Ghana country case study", August 2015, https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/DFID_-_Mobilising_Finance_for_Infrastructure_-_Ghana_Case_Study_%282015%29-2.pdf
8. WBG, "Project Information Document (PID) Appraisal Stage, Ghana Sankofa Gas Project", Report No. 97671, https://documents1.worldbank.org/curated/en/899171468000899859/pdf/97671-PID-P152670-Appraisal-Stage-Box391474B-PUBLIC.pdf
9. SOMO, "Shell's reckless divestment from Niger Delta", February 2024, https://www.somo.nl/shells-reckless-divestment-from-niger-delta/; BP.com, "Our history", https://www.bp.com/en/global/corporate/who-we-are/our-history.html
10. William Blum, "Killing Hope, US Military & CIA Interventions since World War II", 2003
11. John Henley, "Gigentic Sleaze scandal winds up as former Elf oil chiefs are jailed", 13 November 2003, https://www.theguardian.com/business/2003/nov/13/france.oilandpetrol
12. Seymour Hersh, "C.I.A. Said to Have Aided Plotters Who Overthrew Nkrumah in Ghana", 9 May 1978, https://www.nytimes.com/1978/05/09/archives/cia-said-to-have-aided-plotters-who-overthrew-nkrumah-in-ghana.html
13. Kwame Nkrumah, "Neo-Colonialism, the Last Stage of Imperialism 1965, Introduction", https://www.marxists.org/subject/africa/nkrumah/neo-colonialism/introduction.htm
14. See for example Jason Hickel et al., "Plunder in the Post-Colonial Era: Quantifying Drain from the Global South Through Unequal Exchange, 1960-2018", 30 March 2021, https://www.tandfonline.com/doi/full/10.1080/13563467.2021.1899153
15. Energy Commission of Ghana, "National Energy Statistics 2007-2016 (Revised)", April 2017, page 6 https://web.archive.org/web/20241125024940/https://www.energycom.gov.gh/files/ENEERGY_STATISTICS_2017_Revised.pdf
16. PDRI.edu, "Policy Brief 2: Climate change and hydroelectricity shortfalls in Ghana", 31 March 2022, https://pdri-devlab.upenn.edu/policy_brief/pdri-isser-policy-brief-2-climate-change-and-hydroelectricity-shortfalls-in-ghana/
17. Ghana's Ministry of Energy, "Sector Overview", https://www.energymin.gov.gh/sector-overview
18. WBG, "Energizing Economic Growth in Ghana", 2 July 2013, https://www.worldbank.org/en/news/press-release/2013/07/02/energizing-economic-growth-in-ghana
19. See for example Kwadwo Konadu-Agyemang, "IMF and World Bank Sponsored Structural Adjustment Programs in Africa: Ghana's Experience, 1983-1999", 2001, https://www.taylorfrancis.com/books/edit/10.4324/9781315210414/imf-world-bank-sponsored-structural-adjustment-programs-africa-kwadwo-konadu-agyemang?context=ubx&refId=8a3af-cfc-12a1-40a1-ba66-8c06f8b26852
20. WBG, "Ghana: Policies and Issues of Structural Adjustment", Report No.6635-GH, 30 March 1987, https://documents1.worldbank.org/curated/en/772281468032167664/pdf/multi0page.pdf
21. See for example WBG, "National Electrification Project", Report No. P-5899-GH, 4 February 1993, https://documents1.worldbank.org/curated/en/842501468029373781/pdf/multi-page.pdf ; WBG "Thermal Power Project", Report 1995, https://documents1.worldbank.org/curated/en/339811468029373305/pdf/multi0page.pdf and WBG "Implementation Completion report Ghana fifth power project", Report No. P-6218-GH, 18 January 1997, https://documents1.worldbank.org/curated/en/413931468256743139/pdf/multi-page.pdf
22. WBG, "Restructuring Paper, Ghana: Energy Development and Access Project (P074191)", RES35733, https://documents1.worldbank.org/curated/en/208651548977492264/pdf/Disclosable-Restructuring-Paper-Ghana-Energy-Development-and-Access-Project-P074191.pdf
23. WBG, "Restructuring Paper, Ghana: Energy Development and Access Project (P074191)", RES35733, https://documents1.worldbank.org/curated/en/208651548977492264/pdf/Disclosable-Restructuring-Paper-Ghana-Energy-Development-and-Access-Project-P074191.pdf
24. WBG, "Ghana Final Draft Rev 1, Resettlement Action Plan – Ghana, West African Gas Pipeline", RP254 v.2, June 2004, https://documents1.worldbank.org/curated/en/155441468768035379/pdf/RP2540vol-02.pdf
25. WBG, "Project Appraisal Document, West African Gas Pipeline Project", Report No 30335-AFR, 2 November 2004, https://documents1.worldbank.org/curated/en/353691468767744635/text/303350AFR.txt
26. WBG, "Project Appraisal Document, West African Gas Pipeline Project", Report No 30335-AFR, 2 November 2004, https://documents1.worldbank.org/curated/en/353691468767744635/text/303350AFR.txt; regarding the WBG's early support for the WAGP, see WBG, "Implementation Completion and Result Report, The West African Gas Pipeline Project", Report No: ICR88918, 30 June 2014, Annex 7, para 1 https://documents1.worldbank.org/curated/en/931911468008463198/pdf/889180ICR0P0820IC0disclosed07020140.pdf
27. WBG, "Implementation Completion and Result Report, The

West African Gas Pipeline Project", Report No: ICR88918, 30 June 2014, https://documents1.worldbank.org/curated/en/931911468008463198/pdf/889180ICR0P0820IC0dis-closed07020140.pdf

28. WAGPCo.com, "Company Profile", https://www.wagpco.com/company-profile/

29. The Ghanaian government holds about 16.3% of the shares of WAPCo through Takoradi Power Company Limited, a wholly owned subsidiary of VRA, which is a state-owed enterprise

30. European Investment Bank, "West African Gas Pipeline (WAGP)", https://www.eib.org/en/projects/loans/all/20040026

31. The WBG's Project Appraisal Document states that N-Gas was set to buy gas from the existing operations of Shell, Chevron, NNPC, Total, and ENI operations in Escravos area in Nigeria. Industry media add that the main sources of N-Gas deliveries to neighbouring countries came from NNPC-Chevron and NNPC-Shell joint ventures, with Shell withdrawing from the gas supply deal at the end of 2014, when Shell sold relevant oil and gas assets to ND Western, an SPV controlled by other oil companies. WBG, "Project Appraisal Document, West African Gas Pipeline Project", Report No 30335-AFR, 2 November 2004, https://documents1.worldbank.org/curated/en/353691468767744635/text/303350AFR.txt ; Africa Oil Gas Report, "N-Gas, Transporter of the West African Gas, in Profit Slump", 18 October 2022, https://africaoilgasreport.com/2022/10/gas-monetization/n-gas-transporter-of-the-west-african-gas-in-profit-slump/

32. WBG, "Implementation Completion and Results Report, The West Africa Gas Pipeline Project," Report No: ICR88918, 30 June 2014, https://documents1.worldbank.org/curated/en/931911468008463198/pdf/889180ICR0P0820IC0dis-closed07020140.pdf

33. WBG, "Implementation Completion and Results Report, The West African Gas Pipeline Project," Report No: ICR88918, 30 June 2014, https://documents1.worldbank.org/curated/en/931911468008463198/pdf/889180ICR0P0820IC0dis-closed07020140.pdf See also The Inspection Panel, "Re: Request for Inspection GHANA: West African Gas Pipeline Project (IDA Guarantee No.B-006-0-GH)", https://documents1.worldbank.org/curated/en/664021468003035202/pdf/367910GH0IN-SP1R200610004.pdf

34. WBG, https://documents1.worldbank.org/curated/en/746201468203977304/pdf/359030AFR0P0825020rev0WAG-PNote01PUBLIC1.pdf and https://documents.worldbank.org/en/publication/documents-reports/documentlist?qterm=P082502

35. The WBG stated that "WAGP Project will address some of the energy sector issues mentioned above, inparticular: (i)reducing energy supply costs and improving the reliability of energy systems in Ghana, Togo, and Benin, (ii)reducing gas flaring in Nigeria and substituting for cleaner fuels in Ghana, Togo, and Benin, and (iii)supporting economic and regional integration in West Africa.", WBG, "Project Appraisal Document for The West African Pipeline Project", Report No: 30335-AFR, 2 November 2004, page 5 https://documents1.worldbank.org/curated/zh/353691468767744635/pdf/303350AFR.pdf

36. "The 'contracted' daily gas supply through WAGP was 133 mmsfcd, of which 123 mmscfd was supplied to Ghana. However, supplies in 2010, 2011, 2012, and 2013 were much reduced and averaged 40, 84, 49, and 38 mmscfd respectively, including days of no gas supply at all". World Bank, "Project Appraisal Document in support of the Sankofa Gas Project" Report No: 96554-GH, 7 July 2015, footnote 2, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

37. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, page 2, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

38. WBG, "Project Appraisal Document in support of the Sankofa Gas Project" Report No: 96554-GH, 7 July 2015, Para 1, p. 1 https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

39. WAPCo, "Response letter to SOMO", 9 April 2025

40. Matthew Mpoke Bigg, "Ghana averts threat to power supply by agreeing to pay Nigeria gas bill", 20 October 2015, https://www.reuters.com/article/markets/oil/ghana-averts-threat-to-power-supply-by-agreeing-to-pay-nigeria-gas-bill-idUSL8N12K3NZ/Reuterd

41. Frank Adush-Poku, « Power demand in Ghana has dipped after every crisis : the drivers and consequences", 31 May 2022, https://theconversation.com/power-demand-in-ghana-has-dipped-after-every-crisis-the-drivers-and-consequences-182464

42. GhanaWeb.com, "Nigeria cuts gas supply to Ghana by 50 per cent over 40.3 million debt", 4 April 2018, https://www.ghanaweb.com/GhanaHomePage/business/Nigeria-cuts-gas-supply-to-Ghana-by-50-over-40-3-million-debt-640197

43. In 2017, WAGP's gas delivery price was USD 8.6 MMBtu, while the price of gas from the Jubilee field was USD 4.23 MMBtu. Ghana's Energy Commission, "Energy Outlook for Ghana 2018", page 54, available at http://energycom.gov.gh/newsite/index.php/planning/sub-codes; see also Ghana's Energy Commission, "Energy Outlook for Ghana 2021", table page 22, available for download at http://energycom.gov.gh/newsite/index.php/planning/sub-codes

44. The WBG identified the threat that other uses of Nigeria associated gas would fail to be implemented as one of the key risks bore by the WAGP project. In response to this risk, the Bank's project appraisal document states that "The Project is featured as a means to reduce flaring and is one of the instruments proposed to eliminate gas flaring in Nigeria by 2008. If gas flaring is not eliminated as planned, the Project may be criticized." WBG, "Project Appraisal Document for The West African Pipeline Project", Report No: 30335-AFR, 2 November 2004, table page 22, item 8, https://documents1.worldbank.org/curated/zh/353691468767744635/pdf/303350AFR.pdf

45. WBG, "Project Appraisal Document for The West African Pipeline Project", Report No: 30335-AFR, 2 November 2004, Annex 13, para 45, https://documents1.worldbank.org/curated/zh/353691468767744635/pdf/303350AFR.pdf; See also ERA and FoE Nigeria, "Gas Flaring in Nigeria: a Human Rights, Environmental and Economic Monstrosity", June 2005, page 18 https://www.amisdelaterre.org/wp-content/uploads/2019/10/gas-flaring-nigeria.pdf

46. WBG, "Project Appraisal Document for The West African Pipeline Project", Report No: 30335-AFR, 2 November 2004, page 6, https://documents1.worldbank.org/curated/zh/353691468767744635/pdf/303350AFR.pdf

47. The BrettonWoodsProject reported that natural gas for the pipeline would come from existing operations of Shell, ChevronTexaco, and NNPC joint venture operations in the Escravos area and that existing facilities in the area were designed and constructed to utilise non-associated gas. It concluded that there was no evidence of the construction of an associated gas gathering facility within the Escravos area or the connection to such a facility that would make it feasible for the WAGP to utilise presently flared associated gas. Michael Karipko, "The World Bank and the West Africa Gas Pipeline Project", 5 October 2007 https://www.brettonwoodsproject.org/2007/10/art-557175/

48. https://www.pwc.com/ng/en/publications/impact-of-gas-flaring-on-the-nigerian-economy.html

49. Tullowoil.com, "Tullow in Ghana", https://www.tullowoil.com/our-operations/africa/ghana/

50. NS Energy.com, "Jubilee Field Development", 13 July 2021, https://www.nsenergybusiness.com/projects/jubilee-field-development/; Kwasi Kpodo, "Ghana pumps first oil from second offshore TEN field", 18 August 2016, https://www.reuters.com/article/business/finance/ghana-pumps-first-oil-from-second-offshore-ten-field-idUSL8N1AZ3D4/

51. IFC, "Project Information & Data Portal, Kosmos Energy", Project No 27550, https://disclosures.ifc.org/project-detail/SPI/27550/kosmos-energy; IFC, "Project Information & Data Portal, Tullow Oil", Project No 27918, https://disclosures.ifc.org/project-detail/SPI/27918/tullow-oil; Kosmos Energy had also received USD 500m in equity injection by its key owners Blackstone and Warburg Pincus, see Blackstone.com, "Kosmos Energy Announces USD500 Million Equity Funding", 19 June 2008, https://www.blackstone.com/news/press/kosmos-energy-annouces-500-million-equity-funding/; Kosmos received a total of USD 750m and Tullow received other USD 2bn. See Kosmos Energy, "News Release: Kosmos Energy closes UN$750 million loan facility", 14 July 2009, https://www.kosmosenergy.com/press/kosmos_PR_071409.pdf ; Tullow Oil, "US$2 billion new debt funding secured", 9 March 2009, https://www.tullowoil.com/media/press-releases/us2-billion-

new-debt-funding-secured/

52. FC, "Project Information & Data Portal, Kosmos Energy International Finance", Project No 31179, https://disclosures.ifc.org/project-detail/SPI/31179/kosmos-energy-finance-international; MIGA, "Kosmos Energy International Finance", Project ID 10041, https://www.miga.org/project/kosmos-energy-finance-international; US SEC, "Exhibit 10.1, Kosmos Energy International Finance", March 2011, https://www.sec.gov/Archives/edgar/data/1509991/000150999121000077/kosmos-amendedrblfacilitya.htm#ib5a74842e23c4528a8f4292985f2faed_7; In 2012, FMO and CDC Group jointly provided USD 60m to Investec Africa Credit Opportunities Fund I, a fund managed by Ninety One Asset Management. In December 2014, the fund invested an undisclosed amount to support Kosmos activities in Ghana. See BII, "Ninety One Africa Credit Opportunities Fund (Investec)", Project No D231, https://www.bii.co.uk/en/our-impact/fund/ninety-one-africa-credit-opportunities-fund-investec-investment-01/; FMO, "New African credit fund launch", 11 February 2013, https://www.fmo.nl/news-detail/78449625-ec5a-44ae-b8cb-6713d2d86704/new-african-credit-fund-launch; PitchBook, "Investec Africa Credit Opportunities Fund I Investment Strategy", https://pitchbook.com/profiles/fund/13752-37F#investment-strategy

53. MIGA, "FPSO Kwame Nkrumah MV21", Project ID 8487, https://www.miga.org/project/fpso-kwame-nkrumah-mv-21

54. Tullow Oil, "Jubilee Field EIA Chapter 3", Para 3.3.5, https://www.tullowoil.com/application/files/5415/8491/9050/jubilee-field-eia-chapter-3.pdf

55. MIGA, "FPSO Kwame Nkrumah MV21", Project ID 8487, https://www.miga.org/project/fpso-kwame-nkrumah-mv-21

56. Tullow Oil, "Jubilee Field EIA Chapter 3", Para 3.3.5, https://www.tullowoil.com/application/files/5415/8491/9050/jubilee-field-eia-chapter-3.pdf

57. IFC, "Project Information & Data Portal, Tullow Oil", Project No 27918, Development Impact, AIMM Assessment https://disclosures.ifc.org/project-detail/SPI/27918/tullow-oil; IFC, "Project Information & Data Portal, Kosmos Energy", Project No 27550, Development Impact, AIMM Assessment, https://disclosures.ifc.org/project-detail/SPI/27550/kosmos-energy

58. JTM Associates, "Final Report of Second In-country Visit Independent Expert, Environmental and Social Monitoring Jubilee Field Development, Ghana", 9 May 2011, page 16 and 2 respectively, at https://www.tullowoil.com/application/files/6015/8491/7806/jubilee-field_2011-final-independent-expert-environmental-and-social-monitoring-report.pdf

59. Tullow Oil, "Jubilee Field EIA Chapter 3", https://www.tullowoil.com/application/files/5415/8491/9050/jubilee-field-eia-chapter-3.pdf

60. JTM Associates, "Final Report of Second In-country Visit Independent Expert, Environmental and Social Monitoring Jubilee Field Development, Ghana", 9 May 2011, https://www.tullowoil.com/application/files/6015/8491/7806/jubilee-field_2011-final-independent-expert-environmental-and-social-monitoring-report.pdf

61. Reuters.com, "Ghana allows Tullow to increase gas flaring at Jubilee", https://www.reuters.com/article/idUSL5N0OQ36J/ ; Eduard Gismatullin, "Tullow Starts Gas Flaring to Sustain Jubilee Output in Ghana, 30 July 2014, https://www.bloomberg.com/news/articles/2014-07-30/tullow-oil-starts-gas-flaring-to-sustain-jubilee-output-in-ghana ; GhanaWeb.com, "Tullow Ghana flares 75 million cubic feet of gas daily", 22 July 2015, https://www.ghanaweb.com/GhanaHomePage/business/Tullow-Ghana-flares-75-million-cubic-feet-of-gas-daily-370299; Ekow Dontoh, Paul Burkhardt, "Ghana Approves Tullow Gas-Flaring Request to Support Oil Fields", 14 February 2020, https://www.bloomberg.com/news/articles/2020-02-14/ghana-approves-tullow-gas-flaring-request-to-support-oil-fields

62. Joseph Appiah-Dolphyne, "PIAC report: Ghana loses US$300 million worth of gas flaring", 8 May 2023, https://www.asaase-radio.com/piac-report-ghana-loses-us300-million-worth-of-gas-to-flaring/

63. Kosmos Energy, "Reducing Emissions in Ghana", https://www.kosmosenergy.com/spotlight/reducing-emissions-in-ghana/

64. The FPSO was initially owned by an SPV incorporated in the Netherlands and called Jubilee Ghana MV21 B.V. Shareholders of the SPV are likely to have included MODEC, Marubeni, IFC, Société Générale, Tullow Oil, Kosmos Energy, and Anadarko Petroleum among other investors. The Dutch company registry reports that Jubilee Ghana MV21 B.V. discontinued in 2020, without providing further details about the entities owning shares in the SPV when the SPV dissolved and missing to clarify whether the SPV re-incorporated in another jurisdiction or not. See Modec, "Summary of Proposed Investment (SPI)", 2010, https://www.modec.com/news/assets/pdf/20100315_en.pdf; A corporate disclosure of 2010 informs that the FPSO is owned by Jubilee Ghana MV21 B.V., a special purpose vehicle registered in the Netherlands. It adds that the company's shareholding structure was being finalised and "expected to include MODEC, Marubeni, IFC, Société Générale, Jubilee Partners (Tullow Oil, Kosmos Energy and Anadarko Petroleum) and some other potential investors". Modec, "Summary of Proposed Investment (SPI)", 2010, https://www.modec.com/news/assets/pdf/20100315_en.pdf. The corporate registry of the Netherlands reports that Jubilee Ghana MV21 B.V. discontinued in 2020, and the company's filings to the registry do not clarify the ultimate shareholders structure of the SPV and whether the SPV dissolved or registered in another country.

65. Kosmos Energy, "Response letter to SOMO", 8 April 2025

66. Kosmos Energy refers to World Bank's guidelines on flaring management, which the company claims it does not prescribe timelines and methodologies to reduce flaring. Kosmos Energy, "Response letter to SOMO", 8 April 2025

67. MIGA, "FPSO Kwame Nkrumah MV21", Project ID 8487, https://www.miga.org/project/fpso-kwame-nkrumah-mv-21

68. Tullow Oil, "Jubilee Field EIA Chapter 3", https://www.tullowoil.com/application/files/5415/8491/9050/jubilee-field-eia-chapter-3.pdf

69. Thomas Chen, "Policy Brief: What happened to China Development Bank's $3 Billion Loan to Ghana?", 2016, http://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/56d64a9e01dbaef868231233/1456884389759/CARI_Policy-Brief_10_Feb2016.pdf

70. Citifmonline.com, "Mahama commissions Atuabo gas plant", 17 September 2015, https://citifmonline.com/2015/09/mahama-commissions-atuabo-gas-plant-photos/

71. Tullow Oil, "Tullow in Ghana", https://www.tullowoil.com/our-operations/africa/ghana/

72. GNPC's Crude Oil Sales Reports for 2015-2023 show that GNPC has sold most of its oil from the Jubilee field to UNIPEC for the Chinese market between 2015 and 2023. A limited number of GNPC's oil from Jubilee was sold to also other companies for different market destinations, while the government's oil from other domestic fields has been sold to other entities for a variety of market destinations. See GNPC, "Crude Oil Sales Reports 2015-2023", available at https://www.gnpcghana.com/publications/crude-oil-sales-reports

73. The analysis adds that China and Ghana had agreed to a fixed price of crude oil to repay the debt, but the drop in international oil prices of 2014 led China to try to renegotiate this fixed price. This involved the risk of increasing the number of collateralised barrels of oil needed to service the debt from 13,000 to 15,000 barrels per day, a risk that Ghana partially mitigated with the cancellation of half of the originally agreed USD 3bn loan. Thomas Chen, "Policy Brief: What happened to China Development Bank's $3 Billion Loan to Ghana?", 2016, http://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/56d64a9e01dbaef868231233/1456884389759/CARI_PolicyBrief_10_Feb2016.pdf

74. Qin Jize, "Ghana leader lauds China relations", 23 September 2010, https://www.chinadaily.com.cn/china/2010-09/23/content_11338934.htm

75. In its response letter, Kosmos Energy points to an early policy decision that appointed GNPC to lead the development of downstream gas infrastructures, adding that the initial development plan for the Jubilee project endorsed this national plan. The research does not contest this and acknowledges that gas commercialization was outside the western-led project. However, it also maintains that companies, WBG, and other financiers should have substantiated their public claims about the Jubilee's potential to tackle shortages of affordable electricity by providing advantageous funding opportunities at the project early feasibility stages. The WBG's private lending arm, for example, approved the first loans to Tullow (USD $115m) and Kosmos (USD $100m) in February 2009, while the Phase 1 Development Plan for the Jubilee project was formally approved in July 2009.

This suggests the Bank provided funding about 5 months before the formal decision to only extract oil at Jubilee was taken. All available information indicates that the WBG did not offer advantageous funding opportunities to develop gas infrastructure between oil discovery in 2007 and the start of oil lifting operations in 2010. Instead, Ghana policy-makers discussed the possibility of WBG financing for gas infrastructure between 2010 and 2011 as an alternative to the CBD loan, which was ultimately preferred following the IMF approval for non-concessional lending of December 2011.

76. WBG, "Energizing Economic Growth in Ghana", 2 July 2013, https://www.worldbank.org/en/news/press-release/2013/07/02/energizing-economic-growth-in-ghana

77. Qin Jize, "Ghana leader lauds China relations", 23 September 2010, https://www.chinadaily.com.cn/china/2010-09/23/content_11338934.htm

78. Ghana Ministry of Finance, "US$3 billion term loan facility agreement between China Development Bank (CBD) and Government of Ghana (GOG) – Summary", https://www.mofep.gov.gh/sites/default/files/reports/economic/CDB_Loan_Summary_050112.pdf

79. Denis Gyeyir, "Resource-Backed Loans in Ghana: Risks, Opportunities and Lessons", June 2022, https://resourcegovernance.org/sites/default/files/documents/resource_backed_loans_ghana_risks_opportunities_lessons_.pdf

80. Thomas Chen, "Policy Brief: What happened to China Development Bank's USD3 Billion Loan to Ghana?", 2016, http://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/56d64a9e01dbaef868231233/1456884389759/CARI_Policy-Brief_10_Feb2016.pdf

81. Ejolt, "Bui Hydroelectric Power dam Project in Ghana", 20 July 2015, http://www.ejolt.org/wordpress/wp-content/uploads/2015/07/FS-25.pdf

82. Scott Wingo, "Resource-Backed Loans, Revisited: Infrastructure for Aluminum in Ghana and Guinea", 27 February 2020, https://www.ccpwatch.org/single-post/2020/02/27/Resource-Backed-Loans-Revisited-Infrastructure-for-Aluminum-in-Ghana-and-Guinea

83. Denis Gyeyir, "Resource-Backed Loans in Ghana: Risks, Opportunities and Lessons", June 2022, https://resourcegovernance.org/sites/default/files/documents/resource_backed_loans_ghana_risks_opportunities_lessons_.pdf; Natural Resource Governance Institute, "Borrowers and Lenders Must Come Clean on Terms of Controversial, High Value Resource-Backed Loans", 27 February 2020, https://resourcegovernance.org/articles/borrowers-and-lenders-must-come-clean-terms-controversial-high-value-resource-backed-loans

84. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para. 45 to 47 https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

85. WBG, "Republic of Ghana, Sankofa Gas Project, Chair Summary", 30 July 2015, https://documents1.worldbank.org/curated/en/407271467992490110/pdf/98714-BS-P152670-SU2015-0021-IDA-SU2015-0023-Box393176B-OUO-9.pdf

86. ENI Vitol GNPC, "Sankofa: the first oil from Ghana's OTCP development", July 2017, https://www.ENI.com/assets/documents/ENI-ghana2017.pdf

87. WBG, "World Bank Approves Largest Ever Guarantees for Ghana's Energy Transformation", 30 July 2015, https://www.worldbank.org/en/news/press-release/2015/07/30/world-bank-approves-largest-ever-guarantees-for-ghanas-energy-transformation

88. WBG, "World Bank Approves Largest Ever Guarantees for Ghana's Energy Transformation", 30 July 2015, https://www.worldbank.org/en/news/press-release/2015/07/30/world-bank-approves-largest-ever-guarantees-for-ghanas-energy-transformation; The multi-billion deal needed to fully develop the OCTP project was structured in two phases, with the first USD 3.9bn phase financed by ENI and Vitol through a mix of project financing, equity injections, and shareholder loans. The second USD 4bn phase was planned to be financed through internal cash flow generated in throughout the OCTP project's lifetime. See WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para. 45 to 47 https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

89. The IFC's facility was split into a USD 235m direct loan and a USD 65m loan from IFC's managed co-lending portfolio. John Dewar and Oliver Irwin, "OTCP – Ghana's largest FDI", April 2017, https://www.milbank.com/a/web/26202/4G5b3J/octp-ghanas-largest-fdi-pfi-special-report-april-2017.pdf; IFC, Project Information & Data Portal, "Vitol Sankofa", Project No 36378, 22 May 2015, https://disclosures.ifc.org/project-detail/SII/36378/vitol-sankofa; MIGA, "OCTP Joint Venture", Project ID 12663, 15 December 2015, https://www.miga.org/project/octp-joint-venture-1

90. WBG, "Financial Solution Brief: Ghana Sankofa Gas Project", 2018 https://thedocs.worldbank.org/en/doc/969011518200591340-0100022018/original/BriefsGuaranteesGhanaSankofa.pdf

91. WBG, "Press Release: World Bank Approves Largest Ever Guarantees for Ghana's Energy Transformation", 30 July 2015, https://www.worldbank.org/en/news/press-release/2015/07/30/world-bank-approves-largest-ever-guarantees-for-ghanas-energy-transformation

92. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

93. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

94. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para 42, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

95. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, Para 42 and pages x and xi https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

96. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, para 48, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

97. Paa Kwasi Anamua Sakyi, "WAGP – Ghana Gaas pipeline 'tie-in' for ENI's OCTP Gas: A stitch in time", 21 May 2019, https://www.classfmonline.com/features/WAGP-Ghana-Gas-pipeline-tie-in-for-ENI-s-OCTP-Gas-A-stitch-in-time-4180. Also the WBG confirms that the key obstacle was represented by finding an agreement with WAGP investors, as the Sankofa completion report states that "[w]hile the offshore pipeline and short onshore link were completed on schedule, the contractual agreement with WAGP on the reverse flow was delayed. As a result, Sankofa gas was not supplied to the Tema region until April 2019." WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

98. In their response letter, ENI and Vitol confirm that they took action only after gas production commenced - and, therefore, after the activation of the 'take-or-pay' clause, which project sponsors claim is standard in gas sale contracts - by constructing the interconnection pipeline between the GNGC's WCGIDP pipeline and WAGP (ENI, Vitol, "Response letter to SOMO", 10 April 2025). Available information, however, indicates that the government paid for the realization of the WAGP reverse-flow, also known as Takoradi-Tema Interconnection project. See, Ministry of Energy, "Energy Sector Recovery Program (ERSP) – Addendum", 2023, https://mofep.gov.gh/sites/default/files/reports/economic/Energy-Sector-Recovery-Programme-Document.pdf In their response, ENI and Vitol also refer to arrangements they had made with GNPC and relevant authorities prior to the gas sale agreement (GSA) signed in July 2015. They claim that the government of Ghana had agreed to lead interventions needed to timely transport Sankofa gas to Tema in 2014, including adjustments needed at the WCGIDP gas infrastructure and agreements for the WAGP reverse flow. This claim, however, is revealing of their poor due diligence leading to the WBG-backed Sankofa GSA, as it indicates a disregard, or at least lack of awareness, of the broader context that put at risk the possibility

that the country could fulfil those commitments made in 2014. With regards to agreements for the WAPG reverse flow, among Ghana's key counterparts were entities controlled by oil majors Chevron and Shell, which, between 2014 and 2018, repeatedly threatened to terminate supplies of Nigerian gas over unpaid bills – a period when Ghana also faced a severe power crisis. The country, therefore, is likely to have been in a weak negotiating position with these WAGP companies, so ENI and Vitol's claim that Ghana should have guaranteed a timely use of the WAGP back-flow is, at best, questionable. Secondly, ENI and Vitol also appear to have completely failed to acknowledge the hardship Ghana was facing with regards to WCGIDP's infrastructural adjustments, a project that was financed through the CBD-backed loan seen above. The WCGIDP was officially completed in November 2014, at least one year beyond schedule, with the China Africa Research Initiative reporting that the delay was largely due to slow disbursement of the CBD loan. Furthermore, China had tried to renegotiate the terms of the CBD loan due to the drop of oil prices and other issues, which unfavourable conditions ultimately led Ghana to cancel half of the originally agreed USD 3bn loan by mid-2014. Ghana's available funds from the WCGIDP, therefore, reduced significantly, likely affecting the country's financial capacity to deliver on its infrastructural commitments under the Sankofa's GSA. See, Thomas Chen, "Policy Brief: What happened to China Development Bank's USD3 Billion Loan to Ghana?", 2016, http://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/56d64a9e01d-baef868231233/1456884389759/CARI_PolicyBrief_10_Feb2016.pdf

99. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Table 1, page 31 and 32 https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf; For an overview of the security package see, WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para 34 to 36 pages 47-48, Annex 3 https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

100. Offshore Energy, "ENI Starts Sankofa Gas Production in OCTP Off Ghana", 5 July 2018, https://www.offshore-energy.biz/ENI-starts-sankofa-gas-production-in-octp-off-ghana/; Pumps Africa, "WAPCo begins 'historic' natural gas transportation in Ghana", 14 August 2019, https://pumps-africa.com/wapco-begins-historic-natural-gas-transportation-in-ghana-2/

101. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

102. The Ministry of Energy reports that the Takoradi Tema Interconnection Project was finalised in the third quarter of 2019 and costed USD 170 at completion. Ghana's Ministry of Energy, "Energy Sector Recovery Programme (ESRP) – Addendum", June 2023, https://mofep.gov.gh/sites/default/files/reports/economic/Energy-Sector-Recovery-Programme-Document.pdf

103. Dotsey Koblah Aklorbortu, "Govt signs agreement for gas transfer", 15 November 2017, https://www.graphic.com.gh/news/general-news/govt-signs-agreement-for-gas-transfer.html; Dotsey Koblah Aklorbortu, "Take or Pay: Ghana bleeds from oil contract, pays $40 million monthly for no show", 31 December 2018, https://www.graphic.com.gh/business/business-news/ghana-news-take-or-pay-ghana-bleeds-from-oil-contract-pays-40-million-monthly-for-no-show.html

104. GNPC, "Re: submission of proposal for major tariff review (2021 – 2026) – Update Information", 20 April 2022, https://www.purc.com.gh/attachment/565247-20220427120443.pdf

105. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

106. This quantity corresponds to GNPC (and Ghana ultimate) responsibility to 'take or pay' 90 per cent of 62 billion standard cubic feet of gas each year. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, Annex 3, para 30, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

107. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Annex 4, Para 6, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

108. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Annex 4, para 6 https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

109. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, para 39, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

110. WBG, "Brief: What is the Sankofa Gas Project?", 20 July 2020, https://www.worldbank.org/en/country/ghana/brief/what-is-the-sankofa-gas-project

111. "The Private Sponsors of the project and GNPC have signed the GSA in June 2015. This agreement defines the terms under which the Private Sponsors will sell gas to GNPC over an estimated 19 year period (13.5 years of plateau and 5.5 years of expected decline period). The price that has been agreed by the parties is US$9.80/MMBtu (2014 U.S. Dollars) and the annual quantity is 62 Bscf. The contract includes a Take or Pay (ToP) clause that states that GNPC has to pay for 90 percent of the agreed quantity of gas whether it is able to take it or not." WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para 30, https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

112. ACEP, "Analysis of the proposal to make Ghana National Gas Company (GNGC) the national gas aggregator", 21 May 2020, page 3, https://acep.africa/wp-content/uploads/2023/03/7868102c-gngcproposalanalysis.pdf

113. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Annex 4, para 7 https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

114. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, Annex 4, Para 16 and Annex 4, and Para 31 https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

115. In their response letter, ENI and Vitol defend the pricing of Sankofa gas as being "based on internationally accepted investment risk and return principles", claiming that "[p]rice adjustments made over time reflect a balanced approach" and that price arrangements "were part of the World Bank financing agreement" (ENI, Vitol, "Response letter to SOMO", 10 April 2025). Civil society in Ghana, however, raised concerns over the high negotiated price of the Sankofa gas. IMANI and Ghana Oil and Gas for Inclusive Growth, for example, organized a workshop on the impacts of the Sankofa deal on electricity tariffs in July 2019. Their study presentation refers to the final price as "Relatively high gas price of $9.8/mmbtu obtained" and, among other things, concluded that "The upstream contracting process [...] has not sufficiently incorporated transparency as international best practice demands" and that "The result of this is gas price that may jeopardize national goals for power generation and lead to high electricity tariffs". See, Slideplayer.com, "Effects of Upstream Gas Contracting on Electricity Tariffs and Inclusive Growth-The Case of the Sankofa-Gye-Nyame Gas Project", available at https://slideplayer.com/slide/17323188/

116. Tullow Oil, "Press Release: Board Changes and 2020 Guidance", https://www.annualreportsghana.com/wp-content/uploads/2020/06/PR-441-TLW-Board-Changes-and-2020-Guidance.pdf

117. DailyMail.gh, "World Bank, Ghana gov't feud over $500m energy sector loan", 16 December 2019, https://www.dailymailgh.com/world-bank-ghana-govt-feud-over-500m-energy-sector-loan/

118. John Peter Amewu, Ministry of Energy, "Govt, IPPs rejecting free Jubilee, TEN gas", 18 December 2019, https://www.ghanaweb.com/GhanaHomePage/business/Govt-IPPs-rejecting-free-Ju-

bilee-TEN-gas-818773

119. ACEP & IMANI, "Breaking the cycle of IMF support", P. 26-27 https://acep.africa/wp-content/uploads/2023/07/ACEP-IMANI-BREAKING-THE- CYCLE-OF-IMF-SUPPORT.pdf

120. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Para 79, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf; Ministry of Energy, "Energy Sector Recovery Program", 7 May 2019, page 29, https://web.archive.org/web/20240105102937/https://energycom.gov.gh/files/2019%201111%20ESRP%20ESTF_Clean_v3.0redacted%20final.pdf

121. Pumps Africa.com, "WAPCo begins 'historic' natural gas transportation in Ghana", 14 August 2019, https://pumps-africa.com/wapco-begins-historic-natural-gas-transportation-in-ghana-2/

122. Ghana's Ministry for Finance, "2019 Mid-Year Fiscal Policy Review and Supplementary Estimates", 2019 https://www.mofep.gov.gh/sites/default/files/news/2019-Mid-Year-Budget-Statement.pdf

123. ENI and Vitol, "Response letter to SOMO", 10 April 2025

124. DailyMail.gh, "World Bank, Ghana gov't feud over $500m energy sector loan", 16 December 2019, https://www.dailymailgh.com/world-bank-ghana-govt-feud-over-500m-energy-sector-loan/

125. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, para 39, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

126. Taurai Chiraerae, "Experiences from Ghana: The Sankofa Gas Project", 2022, https://us.boell.org/sites/default/files/2022-10/2-report-ghana-n-pw.pdf

127. Kofi Adu Domfeh, "Why Ghanaians should be worried at ENI/Vitol $7b gas deal", 2 March 2015, https://www.linkedin.com/pulse/why-ghanaians-should-worried-ENIvitol-7b-gas-deal-kofi-adu-domfeh/

128. David Manley et al, "Gas-to-Power Challenges Point to Expansion of Renewables", 29 May 2020, https://resourcegovernance.org/articles/gas-power-challenges-point-expansion-renewables

129. ModernGhana.com, "Quantum Power to Provide LNG to Tema Power Market", 7 October 2013, https://www.modernghana.com/news/494806/quantum-power-to-provide-lng-to-tema-power-market.html

130. News.cision.com, "Hoegh LNG: Awarded long term FSRU contract in Ghana", 1 December 2016, https://news.cision.com/hoegh-evi/r/hoegh-lng---awarded-long-term-fsru-contract-in-ghana,c2525715 Offshore-energy.biz, "Gazprom pens LNG sales deal with GNPC", 19 September 2017, https://www.offshore-energy.biz/gazprom-pens-lng-sales-deal-with-gnpc/

131. Helios Investment Partners, "Tema LNG Terminal Company", https://www.heliosinvestment.com/2

132. Offshore-energy.biz, "CHEC Pens Construction Deal for Tema LNG Terminal", 6 September 2018, https://www.offshore-energy.biz/chec-pens-construction-deal-for-tema-lng-terminal/

133. African Development Bank Group, "Access LNG Floating Storage and Regasification Projects (FSU/FRU): Environmental and Social Impact Assessment (ESIA) Summary", https://www.afdb.org/sites/default/files/documents/environmental-and-social-assessments/ghana_-_access_lng_floating_storage_and_regasification_projects_fsu-fru_-_esia_summary.pdf

134. IMANI et al, "Brief: Tema LNG Import Terminal Case Study", 2022, https://storage.googleapis.com/stateless-acep-africa/2022/11/Tema-LNG-Import-Terminal-Case-Study.pdf; AIIM, "Case Study: Tema LNG Terminal Company", 2021, https://aiimafrica.com/media/case-study-detail/case-study-tema-lng-terminal-company/

135. Energy for Growth Hub, "First-of-its-kind for Sub-Saharan Africa: what remains for Ghana to successfully launch Tema LNG?" October 2021, https://energyforgrowth.org/wp-content/uploads/2021/10/First-of-its-kind-for-Sub-Saharan-Africa_-what-remains-for-Ghana-to-successfully-launch-Tema-LNG_-1.pdf

136. IMANI et al, "Brief: Tema LNG Import Terminal Case Study", 2022, https://storage.googleapis.com/stateless-acep-africa/2022/11/Tema-LNG-Import-Terminal-Case-Study.pdf

137. Ruth Liao and Salma El Wardany, "Ghana's LNG Project on Target for Year-End Completion, Regulator Says", 20 February 2024, https://www.bloomberg.com/news/articles/2024-02-20/ghana-s-lng-project-on-target-for-year-end-completion-regulator

138. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf; https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

139. WBG, "Project Appraisal Document, Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

140. WBG, "Project Appraisal Document, Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

141. WBG, "Energy Themes : Independent Power Projects (IPPs), An Overview", May 1995, https://documents1.worldbank.org/curated/en/786901468769190802/pdf/multi-page.pdf

142. WBG, "Independent Power Projects in Sub-Saharian Africa, Lessons from Five Key Countries", 2016, https://openknowledge.worldbank.org/server/api/core/bitstreams/fbdfba50-3332-5115-befd-dfb8a2145614/content

143. ModernGhana.com, "Government Saves Ghana $300m", 18 April 2017, https://www.modernghana.com/news/769480/government-saves-ghana-300m.html

144. Ishmael Ackah, Katie Auth, John Kwakye, Todd Moss, "A case Study of Ghana's Power Purchase Agreements", 15 March 2021, https://energyforgrowth.org/wp-content/uploads/2021/03/A-Case-Study-of-Ghanas-Power-Purchase-Agreements.pdf

145. Ghana PURC, "ECG Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/780216-20230310070328.pdf; Ghana PURC, "VRA Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/596163-20230310070308.pdf

146. WBG, "Project Appraisal Document for a Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, Para 50, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

147. GhanaWeb.com, "World Bank twisting the facts on IPPs, PPA guarantees – Alex Mould counters", 1 March 2021, https://www.ghanaweb.com/GhanaHomePage/business/World-Bank-twisting-the-facts-on-IPPs-PPA-guarantees-Alex-Mould-counters-1193176

148. Ghana Energy Commission, "Energy Outlook for Ghana, 2017", https://www.energycom.gov.gh/index.php/planning/sub-codes

149. Class FM Online, "Dumsor PPAs a WB conditionality; their silence 'surprising' – Mould: Disputes $500m/yr excess capacity fee claim", 20 February 2021, https://www.classfmonline.com/business/Dumsor-PPAs-a-WB-conditionality-their-silence-surprising-Mould-Disputes-500m-yr-excess-capacity-fee-claim-22430

150. Daily Statesman, "World Bank denies involvement in NDC's killer PPAs", 1 March 2021, https://dailystatesman.com.gh/work-bank-dENIes-involvement-in-ndcs-killer-ppas/

151. GhanaWeb.com, "World Bank twisting the facts on IPPs, PPA guarantees – Alex Mould counters", 1 March 2021, https://www.ghanaweb.com/GhanaHomePage/business/World-Bank-twisting-the-facts-on-IPPs-PPA-guarantees-Alex-Mould-counters-1193176

152. According to the former CEO of GNPC Alex Mould, the World Bank asked the government of Ghana to give GCSA to Amandi IPP, the Early Power IPP (which is led by the US companies General Electric and Endeavor Energy), Ghana Power Generation Company IPP (led by oil trader Trafigura), and a fourth unspecified thermal facility. See GhanaWeb.com, "World Bank twisting the facts on IPPs, PPA guarantees – Alex Mould counters", 1 March 2021, https://www.ghanaweb.com/GhanaHomePage/business/World-Bank-twisting-the-facts-on-IPPs-PPA-guarantees-Alex-Mould-counters-1193176; Class FM Online, "Dumsor PPAs a WB conditionality; their silence 'surprising' – Mould: Disputes $500m/yr excess capacity fee claim", 20 February 2021, https://www.

classfmonline.com/business/Dumsor-PPAs-a-WB-conditionality-their-silence-surprising-Mould-Disputes-500m-yr-excess-capacity-fee-claim-22430

153. The Dutch bank FMO was the lead manager with USD 40m, Proparco contributed with a similar amount, DEG gave nearly USD 25m, while AfBD reportedly USD 60m. Other financiers include the fund ICCF which is managed by EIB and nine others European DFIs, along with an Opec fund and the private equity fund EAIF. See FMO, "Takoradi International Company", 2012, https://www.fmo.nl/project-detail/31786; FMO, "USD 330 million in loans for Takoradi2 project", 16 June 2012, https://www.fmo.nl/news-detail/7718e0e4-1005-4711-894d-1ee5ef75d6a6/usd-330-million-in-loans-for-takoradi2-project; Proparco, "Takoradi 2: Extension of a gas-fired power plant in Ghana to scale up the generation of cheaper electricity", 12 July 2012, https://www.proparco.fr/en/carte-des-projets/takoradi-ii; African Development Bank, "Project Brief – Ghana Takoradi II Power Expansion Project", 10 February 2015, https://www.afdb.org/en/documents/document/project-brief-ghana-takoradi-ii-power-expansion-project-_takoradi-51361; EDFI, "Interact Climate Change Facility", https://edfimc.eu/what-we-do/iccf/

154. IFC, "Project Information & Data Portal, TICO", Project No 30228, Development Impact, AIMM Assessment https://disclosures.ifc.org/project-detail/SPI/30228/takoradi-international-company

155. Power Technology.com, "Power plant profile: Takoradi 2 – TICO Power Station, Ghana", https://www.power-technology.com/data-insights/power-plant-profile-takoradi-2-tico-power-station-ghana/?cf-view

156. Parliament of Ghana, "Report of the Joint Committee on Finance & Mines and Energy on the Takoradi 2 Aboadze Plant Expansion (from a simple cycle to a combined cycle) project", 2012, https://ir.parliament.gh/handle/123456789/3580?show=full

157. Parliament of Ghana, "Report of the Joint Committee on Finance & Mines and Energy on the Takoradi 2 Aboadze Plant Expansion (from a simple cycle to a combined cycle) project", 2012, https://ir.parliament.gh/handle/123456789/3580?show=full

158. Parliament of Ghana, "Report of the Joint Committee on Finance & Mines and Energy on the Takoradi 2 Aboadze Plant Expansion (from a simple cycle to a combined cycle) project", 2012, https://ir.parliament.gh/handle/123456789/3580?show=full

159. Endeavor Energy, "Our Investors", https://endeavor-energy.com/stakeholders/

160. Denham Capital, "Endeavor Energy Joins World Bank's Newly Established Global Infrastructure Facility as Strategic Advisor", 16 October 2014, https://www.denhamcapital.com/news-article/endeavor-energy-joins-world-banks-newly-established-global-infrastructure-facility-as-strategic-advisor/; aelgh.com, "Amandi Energy, Sponsors", http://aelgh.com/sponsors/

161. aelgh.com, "Amandi Energy, Sponsors", http://aelgh.com/sponsors/; Harith, "Amandi Energy Power Plant:192 MW project to electrify Ghana", 12 December 2016, https://harith.africa/amandi-energy-power-plant-192-mw-project-to-electrify-ghana/

162. Cenozo.org, "Pandora Papers: The Israelis making millions in Ghana from government contracts", 19 November 2021, https://cenozo.org/pandora-papers-the-israelis-making-millions-in-ghana-from-government-contracts/

163. Pitchbook.com, "Pan-African Infrastructure Development Fund II", https://pitchbook.com/profiles/fund/13878-01F#overview

164. Regarding the equity investment see Endeavor Energy, "Amandi Energy Achieves Financial Close of $552 million for Ghana's Amandi Energy Power Plant and Begins Construction", 14 December 2016, https://endeavor-energy.com/2016/12/14/amandi-energy-achieves-financial-close-of-552-million-for-ghanas-amandi-energy-power-plant-and-begins-construction/; AIIF3 is a USD 400m private equity fund that acquired 13.6 per cent in 2018 in the Amandi IPP, See AIIM, "Case Study: Amandi IPP", https://aiimafrica.com/media/case-study-detail/case-study-amandi-ipp/; Regarding the investors of AIIF3, DEG invested about USD 63m in total, FMO USD 46m, UK's BII USD 65m, AfBD UA 56m, while the Danish DFI's amount is undisclosed. See DEG, "Afrika länderübergreifend, Subsahara-Afrika, 2017", 2020, https://datenbank.deutscheklimafinanzierung.de/project/As-Pdf/id/3943; DEG, "AIIF3", 2020, https://deginvest-investments.de/portfolio/african-infrastructure-investment-fund-3-aiif3; FMO, "African Infrastructure Investment F", 29 May 2017, https://www.fmo.nl/project-detail/58609; FMO, "African Infrastructure Investment F", 15 September 2020, https://www.fmo.nl/project-detail/54141; BII, "FMO, "African Infrastructure Investment Fund III", Project No D1839, https://www.bii.co.uk/en/our-impact/fund/african-infrastructure-investment-fund-iii-investment-01/; https://www.bii.co.uk/en/our-impact/fund/african-infrastructure-investment-fund-iii-investment-02/; https://www.bii.co.uk/en/our-impact/fund/african-infrastructure-investment-fund-iii-investment-03/; African Development Bank, "Multinational – Emerging African Infrastructure Investment Fund 3", 2017, https://projectsportal.afdb.org/dataportal/VProject/show/P-Z1-KE0-023; PitchBook.com, "African Infrastructure Investment Fund 3, Overview", 2017, https://pitchbook.com/profiles/fund/15064-30F#limited-partners

165. Endeavor Energy, "Amandi Energy Achieves Financial Close of $552 million for Ghana's Amandi Energy Power Plant and Begins Construction", 14 December 2016, https://endeavor-energy.com/2016/12/14/amandi-energy-achieves-financial-close-of-552-million-for-ghanas-amandi-energy-power-plant-and-begins-construction/; Early Warning System, "Amandi Energy Limited (MIGA-12582)", https://ewsdata.rightsindevelopment.org/projects/12582-amandi-energy-limited/; MIGA, "Environmental and Social Review Summary, Amandi Energy Independent Power Plant, Ghana", 22 May 2015, https://www.miga.org/sites/default/files/archive/Documents/ESRS-Amandi-Energy-Independent-Power-Plant-May-2015.pdf

166. Ghana PURC, "ECG Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/780216-20230310070328.pdf

167. GhanaWeb.com, "World Bank twisting the facts on IPPs, PPA guarantees – Alex Mould counters", 1 March 2021 https://www.ghanaweb.com/GhanaHomePage/business/World-Bank-twisting-the-facts-on-IPPs-PPA-guarantees-Alex-Mould-counters-1193176

168. Amandi Energy Limited – Ghana, "Stakeholder Engagement Plan Supporting the Environmental and Social Impact Assessment", 2015, https://www.miga.org/sites/default/files/archive/Documents/Stakeholder-Engagement-Plan-Amandi-Energy-Independent-Power-Plant-May-2015.pdf; Early Warning System, "Amandi Energy Limited (MIGA-12582), https://ewsdata.rightsindevelopment.org/projects/12582-amandi-energy-limited/

169. Committee on Mines & Energy, "Report of the Committee on Mines & Energy on the Power Purchase Agreement between Electricity Company of Ghana and Amandi Energy Limited relating to a 190-240MW Combines Cycle Gas Power Plant Facility at Aboadze and Addendum", December 2014, https://repository.parliament.gh/handle/123456789/346

170. Cenezo.org, "Pandora Papers: The Israelis making millions in Ghana from government contracts", 19 November 2021, https://cenozo.org/pandora-papers-the-israelis-making-millions-in-ghana-from-government-contracts/

171. Africa Finance Corporation, "Debt", https://www.africafc.org/our-investors/debt

172. IFC, "Project Information & Data Portal, Macquarie Africa Infrastructure Investment Fund", Project No 27662, 17 December 2009, https://disclosures.ifc.org/project-detail/SPI/27662/macquarie-africa-infrastructure-investment-fund; BII, "African Infrastructure Investment Fund 2", 2010, https://www.bii.co.uk/en/our-impact/fund/african-infrastructure-investment-fund-2-investment-01/; Macquarie.com "New fund raises over $300m for African Infrastructure Investments", 8 April 2010, https://www.macquarie.com/au/en/about/news/2010/new-fund-raises-over-usd300m-for-african-infrastructure-investments.html

173. Sumitomo Corporation, "Participating in One of Ghana's Largest Combined Cycle Power Plant", 2014, https://www.sumitomocorp.com/en/jp/news/release/2014/group/20140924

174. Cenpowergen.com, "Projects", https://www.cenpowergen.com/about/our-history/21-about/21-projects

175. Regarding the lenders, see Cenpowergen.com "Our Sponsors / Equity & Debt Investors", https://cenpowergen.com/about/our-sponsors-equity-debt-investors; Regarding FMO and other European public finance joining the deal, see FMO, "Cenpower Generation Company Limited", 2014, https://www.fmo.nl/project-detail/32714 https://www.fmo.nl/project-detail/32715 https://www.fmo.nl/project-detail/32373; About Emerging Africa Investment Fund being part of PIDG, see EAAIF, "Private Infrastructure Development Group (PIDG)", https://www.eaif.com/who-we-are/pidg/; PIDG, "Our Owners", https://www.pidg.org/about-us#our-owners

176. Ghana PURC, "ECG Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/780216-20230310070328.pdf

177. EleQtra.com, "Cenpower IPP, Ghana", https://eleqtra.com/projects/cenpower-ipp/

178. In its response letter to SOMO, Cenpower Generation Ltd. claims that GCSA is typical for projects in emerging markets and rejects any wrongdoing with regards to ECG taking on variations in the price of input fuel, claiming that "It is standard for an IPP to assume the risk of having to procure fuel for the power plant but with the pricing of such fuel - subject to certain strict requirements - then being passed through to the offtaker". Cenpower did not elaborate on the price of input fuel it had agreed to procure and did not clarify the 'strict requirements' that enable the company to pass fuel costs to ECG.

179. Report of the Finance Committee, "Request for waiver of custom duties, value added taxes, national health insurance levy, destination inspection fees export development and investment fund and ECOWAS levies, withholding Taxes and other project related taxes amounting to US$ 57,501.825 on goods and services required for the implementation of the government consent and support agreement between the Government of the Republic of Ghana and Cenpower Generation Company in respect of the construction of a 340 MW independent power plant (IPP) at kpone in the Greater Accra Region", November 2014, https://ir.parliament.gh/handle/123456789/88

180. Ministry of Finance, "Government of Ghana and Cenpower Sign Gas Supply Agreement to Secure Cost Savings of up to $3.0 Billion", 7 October 2020, https://www.mofep.gov.gh/press-release/2020-10-07/gog-and-cenpower-sign-3bn-gas-supply-agreement

181. Ghana's Energy Commission, "Energy Outlook for Ghana 2022" and "Energy Outlook for Ghana 2023", available at http://energycom.gov.gh/newsite/index.php/planning/sub-codes

182. Cenpower Generation Ltd., "Letter to SOMO", 8 April 2025

183. GhanaWeb.com, "Early Power project gets $90m tax waiver from Parliament", 7 October 2017, https://www.ghanaweb.com/GhanaHomePage/business/Early-power-project-gets-90m-tax-waiver-from-Parliament-588627

184. Parliament of Ghana, "Report of the Joint Committee on Finance & Mines and Energy on the Takoradi 2 Aboadze Plant Expansion (from a simple cycle to a combined cycle) project", 2012, https://ir.parliament.gh/handle/123456789/3580?show=full

185. AmaBhungane.org, "Powerships: inside the Karadeniz Money-Spinning Global Empire", 12 July 2021, https://amabhungane.org/210712_powerships-inside-the-karadENIz-money-spinning-global-empire/

186. Francis Tawiah, "Ghana Signs For 2 (Temporal) Floating Power Station At The Cost Of $1.2 Billion From Turkey", 13 February 2015, https://www.modernghana.com/news/598419/ghana-signs-for-2-temporal-floating-power-station-at-the-c.html; Karpowership.com, "Project Ghana", https://karpowership.com/project-ghana; Energy Voice, "Akufo-Addo celebrates gas conversion for Karpowership", 9 December 2019, https://www.energyvoice.com/oilandgas/africa/213649/akufo-addo-celebrates-gas-conversion-for-karpowership/

187. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, page 36, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

188. WBG, "Ghana: Energy Development and Access Project", from 2007 to 2022, Project IDs P074191, https://projects.worldbank.org/en/projects-operations/project-detail/P074191

189. WBG, "Project Appraisal Document for a Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, para. 7, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

190. PPAs with thermal facilities may contain different arrangements between foreign investors and the utility company ECG and/or the government of Ghana. PPAs remain undisclosed, limiting the possibility to assess the terms of the agreements, including whether the government is also ultimately responsible for the supply of input fuel for power generation. Various sources, however, indicate that the combination of poorly designed upstream infrastructures for sufficient and timely supplies of gas on the one hand, and GSCA guarantees to IPP on the other, resulted in the government of Ghana to also cover costs for input fuels. For example, the report of the Joint Committee on the TICO plant seen above shows that the offtaker VRA is responsible for the provision of gas until an unspecified "fuel receiving point", along with making payments for electricity outputs. In the TICO deal VRA responsibilities for covering input fuels and electricity outputs are both guaranteed by the government of Ghana (see above). Furthermore, the Energy Outlooks of Ghana's Energy Commission provide details of the volume and costs of fuel supplies needed for power generations, suggesting that these are government expenses. Another indication is contained in the ESRP, showing that one of the action items was to save the costs of fuel procurement for power production, a policy for Ghanaian energy companies issued in 2019. Finally, media have reported that fuel supplies costed the government GHS 4.3bn in 2019-2021. Parliament of Ghana, "Report of the Joint Committee on Finance & Mines and Energy on the Takoradi 2 Aboadze Plant Expansion (from a simple cycle to a combined cycle) project", 2012, https://ir.parliament.gh/handle/123456789/3580?show=full; Ghana's Energy Commission, "Ghana's Energy Outlooks", https://www.energycom.gov.gh/index.php/planning/sub-codes; Ministry of Energy, "Energy Sector Recovery Program (ERSP) – Addendum", 2023, para. 3.1.2., https://mofep.gov.gh/sites/default/files/reports/economic/Energy-Sector-Recovery-Programme-Document.pdf; Ghana News Agency, "Government pays GH16.45 billion to IPPs and fuel suppliers, Minister", 25 February 2022, https://gna.org.gh/2022/02/government-pays-gh1645-billion-to-ipps-and-fuel-suppliersminister/

191. The remaining PPAs are with two photovoltaic plant, a waste-to-energy facility, and a hydroelectric dam. See Ghana PURC, "ECG Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/780216-20230310070328.pdf; Ghana PURC, "VRA Power Purchase Agreement (PPA) Register", https://www.purc.com.gh/attachment/596163-20230310070308.pdf

192. B&FTOnline.com, "Gov't cancels 11 power agreements...state to pay US402m in settlement", 20 November 2017, https://thebftonline.com/2017/11/20/govt-cancels-11-power-agreements-state-to-pay-us402m-in-settlement/; GhanaWeb.com, "Ghana hit with $134m judgement debt for cancelling GCGP's power agreement", 14 February 2021, https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-hit-with-134m-judgment-debt-for-cancelling-GCGP-s-power-agreement-1179613

193. ECG.com, "ECG signs Power Purchase Agreement with AKSA Energy", 12 April 2023, https://www.ecg.com.gh/index.php/fr/media-centre/news-events/ecg-signs-power-purchase-agreement-with-aksa-energy

194. GhanaWeb.com, "World Bank twisting the facts on IPPs, PPA guarantees – Alex Mould counters", 1 March 2021, https://www.ghanaweb.com/GhanaHomePage/business/World-Bank-twisting-the-facts-on-IPPs-PPA-guarantees-Alex-Mould-counters-1193176; Class FM Online, "Dumsor PPAs a WB conditionality; their silence 'surprising' – Mould: Disputes $500m/yr excess capacity fee claim", 20 February 2021, https://www.classfmonline.com/business/Dumsor-PPAs-a-WB-conditionality-their-silence-surprising-Mould-Disputes-500m-yr-excess-capacity-fee-claim-22430

195. GhanaWeb.com, "$134m GPGC judgement debt result of poor PPA negotiations – ACEP", 11 March 2021, https://www.ghanaweb.com/GhanaHomePage/business/134m-GPGC-judgment-debt-result-of-poor-PPA-negotiations-ACEP-1202017; Martins Eze, "Ghana Faces Further Woes with $US111 Million Arbitration Loss", 22 August 2024, https://theelectricityhub.com/ghana-faces-further-woes-with-us111-million-arbitration-loss/

196. Ivie Ehanmo, "Exploring alternatives to Take or Pay PPAs", 27 September 2022, https://www.esi-africa.com/industry-sectors/generation/exploring-alternatives-to-take-or-pay-ppas/

197. Ivie Ehanmo, "Exploring alternatives to Take or Pay PPAs", 27 September 2022, https://www.esi-africa.com/industry-sectors/generation/exploring-alternatives-to-take-or-pay-ppas/

198. Aleem Tharani, Edwin Baru, "Kenya: Taskforce on the review of power purchase agreements", 31 March 2021, https://bowmanslaw.com/insights/taskforce-on-the-review-of-power-purchase-agreements/; William Farmer, "Kenya revives power purchase agreements, aiding foreign investment investors", 15 March 2023, https://www.spglobal.com/market-intelligence/en/news-insights/research/kenya-revives-power-purchase-agreements-aiding-foreign-direct

199. Mushtaq Ghumman, "Pay-mode conversion: Govt' summoning 18 IPPs next week", 19 October 2024, https://www.brecorder.com/news/40327934/pay-mode-conversion-govt-summoning-18-ipps-next-week; Haneea Isaad, "Renegotiation of IPP contracts: bad medicine or just what the doctor ordered?", 4 December 2024, https://ieefa.org/articles/pakistans-pkr21-trillion-capacity-payments-crisis-triggers-power-purchase-agreement

200. FP News Desk, "World Bank body chastises Pakistan as it allows army to lead power purchase talks", 25 February 2025, https://www.firstpost.com/world/world-bank-body-chastises-pakistan-as-it-allows-army-to-lead-power-purchase-talks-13866576.html

201. Ministry of Energy, "Energy Sector Recovery Programme (ESRP) – Addendum", June 2023, respectively action items at 3.1.12, 3.1.13, 3.1.11 page 18/67, https://energycom.gov.gh/files/2019%201111%20ESRP%20ESTF_Clean_v3.0redacted%20final.pdf

202. Simmons & Simmons, "Take-or-pay provision in power purchase agreements: the Government's position", 21 October 2019, https://www.simmons-simmons.com/en/publications/ck2080zqpfkce0b23xtipsi67/take-or-pay-provisions-in-power-purchase-agreements-the-government-s-position

203. Isaan Kofi Agyei, "IPPs have agreed to take a haircut after 6 years of negotiations", 25 June 2024, https://www.myjoyonline.com/ipps-have-agreed-to-take-a-haircut-after-6-years-of-negotiation-amin-adam/

204. The Public Utility Regulatory Commission shows that eight out of nine PPAs that ECG has with thermal power producers were signed between 2012 and 2016, when the exchange rate between GHS and USD raised from an annual average of 1.85 to 3.94 GHS per 1 USD. In 2023, when the government intended to threat debt with IPPs as part of the external restructuring process, the average exchange rate stood at GHS 11.6 to 1 USD, meaning that the Ghanaian currency lost nearly five times its medium value. See Exchange-Rates.org, "US Dollar (USD) to Ghanaian Cedi (GHS) Historical Exchange Rates", https://www.exchange-rates.org/exchange-rate-history/usd-ghs

205. Moses Mozart Dzawu, "Ghana Power Firms Reject Move to Restructure $1.4 Billion Debt", 23 March 2023, https://www.bloomberg.com/news/articles/2023-03-23/ghana-power-firms-reject-move-to-restructure-1-4-billion-debt

206. Maxwell Akalaare Adombila, "Ghana power producers reject government bid to restructure $1.58 billion debt", 26 May 2023, https://www.reuters.com/business/energy/ghana-power-producers-reject-government-bid-restructure-158-bln-debt-2023-05-26/; Moses Mozart Dzawu, "Ghana Power Producers Threaten to Walk Away From Debt Talks", 29 May 2024, https://www.bloomberg.com/news/articles/2024-05-29/ghana-power-producers-threaten-to-walk-away-from-debt-talks

207. Isaac Kofi Agyei, "IPPs have agree to take a haircut after 6 years of negotiation", 25 June 2024, https://www.myjoyonline.com/ipps-have-agreed-to-take-a-haircut-after-6-years-of-negotiation-amin-adam/

208. 208 Nii Larte Lartey, "IPPs debt restructuring: Gov't fulfils obligations but parliamentary impasse slows progress", 4 December 2024, https://citinewsroom.com/2024/12/ipps-debt-restructuring-govt-fulfills-obligations-but-parliamentary-impasse-slows-progress/

209. Ghana's Energy Commission, "Energy Outlook for Ghana for 2018", http://energycom.gov.gh/newsite/index.php/planning/sub-codes

210. B&FTOnline.com, "Gov't cancels 11 power agreements…state to pay US402m in settlement", 20 November 2017, https://thebftonline.com/2017/11/20/govt-cancels-11-power-agreements-state-to-pay-us402m-in-settlement/; GhanaWeb.com, "Ghana hit with $134m judgement debt for cancelling GCGP's power agreement", 14 February 2021, https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-hit-with-134m-judgment-debt-for-cancelling-GCGP-s-power-agreement-1179613

211. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, Para 48, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

212. Ghana's Energy Commission, "Energy Outlook for Ghana for 2019", page 9, http://energycom.gov.gh/newsite/index.php/planning/sub-codes

213. Ministry of Energy, "Energy Sector Recovery Program", 7 May 2019, para 6.3.1, page 19, https://web.archive.org/web/20240105102937/https://energycom.gov.gh/files/2019%201111%20ESRP%20ESTF_Clean_v3.0redacted%20final.pdf

214. Ghana's Ministry for Finance, "2019 Mid-Year Fiscal Policy Review and Supplementary Estimates", 2019, page 31, https://www.mofep.gov.gh/sites/default/files/news/2019-Mid-Year-Budget-Statement.pdf

215. Ghana's Energy Commission, "Energy Outlook for Ghana for 2020", http://energycom.gov.gh/newsite/index.php/planning/sub-codes

216. ACEP & IMANI, "Breaking the cycle of IMF support", pages 26-27 https://acep.africa/wp-content/uploads/2023/07/ACEP-IMANI-BREAKING-THE- CYCLE-OF-IMF-SUPPORT.pdf

217. Ghana's Ministry of Energy, "Energy Sector Recovery Programme (ESRP) – Addendum", June 2023, https://mofep.gov.gh/sites/default/files/reports/economic/Energy-Sector-Recovery-Programme-Document.pdf

218. Ghana's Ministry of Finance, "The Annual Public Debt Report for the 2019 Financial Year", 30 March 2020, Para 127, https://www.mofep.gov.gh/sites/default/files/reports/economic/2019-Annual-Public-Debt-Report.pdf

219. Ghana's Ministry of Energy, "Energy Sector Recovery Program", 7 May 2019, para 6.3.1, page 19, https://web.archive.org/web/20240105102937/https://energycom.gov.gh/files/2019%201111%20ESRP%20ESTF_Clean_v3.0redacted%20final.pdf

220. Ghana's Ministry of Finance, "Government of Ghan and Cenpower Sign Gas Supply Agreement to Secure Cost Savings of up to $3.0 Billion", 7 October 2020, https://www.mofep.gov.gh/press-release/2020-10-07/gog-and-cenpower-sign-3bn-gas-supply-agreement

221. Ghana's Ministry of Finance, "The Annual Public Debt Report for the 2021 Financial Year", 31 March 2021, para 35 https://www.mofep.gov.gh/sites/default/files/reports/economic/2021-Annual-Public-Debt-Report.pdf; Ghana's Ministry of Finance, "The Annual Public Debt Report for the 2022 Financial Year", 30 March 2023, para 34, https://www.mofep.gov.gh/sites/default/files/reports/economic/2022-Annual-Public-Debt-Report.pdf

222. WBG, "Project Appraisal Document for a Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

223. WBG, "Ghana: Energy Development and Access Project", from 2007 to 2022, Project IDs P074191, https://projects.worldbank.org/en/projects-operations/project-detail/P074191

224. WBG, "Project Information Document (PID) Appraisal Stage, Ghana Sankofa Gas Project", Report No. 97671, https://documents1.worldbank.org/curated/en/899171468000899859/pdf/97671-PID-P152670-Appraisal-Stage-Box391474B-PUBLIC.pdf

225. WBG, "Project Information Document (PID) Appraisal Stage, Ghana Sankofa Gas Project", Report No. 97671, https://documents1.worldbank.org/curated/en/899171468000899859/pdf/97671-PID-P152670-Appraisal-Stage-Box391474B-PUBLIC.pdf

226. WBG, "Project Information Document (PID) Appraisal Stage, Ghana Sankofa Gas Project", Report No. 97671, https://documents1.worldbank.org/curated/en/899171468000899859/pdf/97671-PID-P152670-Appraisal-Stage-Box391474B-PUBLIC.pdf

227. 227 Ghana's Petroleum Commission, "Field Production Data", https://petrocom.gov.gh/field-production-data/. Data for 2020, 2021 and 2022 were retrieved using the Waybackmachine.com

228. See note 190 above

229. WBG, "Project Appraisal Document for a Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, respectively para 7 and 50, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

230. WBG, "Energizing Economic Growth in Ghana", 2 July 2013, https://www.worldbank.org/en/news/press-release/2013/07/02/energizing-economic-growth-in-ghana

231. WBG, "Proposed Project Restructuring of Ghana: Energy Development and Access Project Approved on July, 26 2007", Report No.: RES39243, https://documents1.worldbank.org/curated/en/781911580338209282/pdf/Disclosable-Restructuring-Pa-

per-Ghana-Energy-Development-and-Access-Project-P074191.pdf

232. Reuters.com, "Ghana averts threat to power supply by agreeing to pay Nigeria gas bill", 20 October 2015, https://www.reuters.com/article/markets/oil/ghana-averts-threat-to-power-supply-by-agreeing-to-pay-nigeria-gas-bill-idUSL8N12K3NZ/; Frank Adush-Poku, "Power demand in Ghana has dipped after every crisis: the drivers and consequences", 31 May 2022, https://theconversation.com/power-demand-in-ghana-has-dipped-after-every-crisis-the-drivers-and-consequences-182464

233. The WB's Sankofa PAD clearly states that "The market for Sankofa gas will be power plants owned by VRA and various IPPs". See WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para 77. https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

234. WBG, "Project Appraisal Document in support of the Sankofa Gas Project", Report No: 96554-GH, 7 July 2015, para 77. https://documents1.worldbank.org/curated/en/173561467986250592/pdf/96554-PAD-P152670-R2015-0143-1-IDA-R2015-0200-1-Box391499B-OUO-9.pdf

235. Reuters.com, "Ghana averts threat to power supply by agreeing to pay Nigeria gas bill", 20 October 2015, https://www.reuters.com/article/markets/oil/ghana-averts-threat-to-power-supply-by-agreeing-to-pay-nigeria-gas-bill-idUSL8N12K3NZ/

236. WBG, "Implementation Completion and Results Report in Support of the Sankofa Gas Project", Report No: ICR 147538-GH, 26 June 2020, https://documents1.worldbank.org/curated/en/601881593704591424/pdf/Ghana-Sankofa-Gas-Project.pdf

237. R. Gyampo, "Saving Ghana from Its Oil: A Critical Assessment of Preparations so Far Made", 2010, https://www.ajol.info/index.php/afrrev/article/view/60138

238. Alemayehu G. Mariam, "Tear Down the Stonewall of Secrecy", 18 February 2010, https://www.ghanaweb.com/GhanaHomePage/features/Tear-Down-the-Stonewall-of-Secrecy-176866

239. R. Gyampo et al, "A Decade of Oil Discovery in Ghana: Implication for Politics and Democracy", June 2020, https://journals.ug.edu.gh/index.php/gssj/article/view/1031/677

240. ACEP, Oxfam, "Switching Gears, Protecting Ghana's Economic Sustainability in the Face of Power Sector Risks", July 2023, https://acep.africa/wp-content/uploads/2023/10/ACEP_ENERGY_ALERT.pdf

241. Isaac Kofi Agyei, "IPPS have agreed to take a haircut after 6 years of negotiations", 25 June 2024, https://www.myjoyonline.com/ipps-have-agreed-to-take-a-haircut-after-6-years-of-negotiation-amin-adam/

242. See Note 205

243. Already in 2013, the Country Director for Ghana Yusupha Crookes wrote that "the current pricing/tariff policies for energy are not financially sustainable, and must be reformed" in his forward to the World Bank report "Energizing Economic Growth in Ghana". The document reflects on many of the challenges faced by Ghana's energy sector when gas supplies from domestic offshore projects were either about to start (from Jubilee) or at exploration phase (Sankofa) and, as the WBG wrote, "Barriers to attracting IPPs need to be removed". At the time, the WBG already pointed to failures of the Public Utilities Regulatory Commission to increase electricity tariffs through quarterly automatic mechanisms as a means to improve the financial performances of ECG. This confirms that the WBG has known about problems of costs recoveries in the energy sector since decades, yet it had a key role in supporting the continued development of a public-private partnership regime that, by offloading risks on public budget, has ultimately exacerbated the financial burden deriving from that cost recovery issues. WBG, "Energizing Economic Growth in Ghana: Making the Power and Petroleum Sectors Rise to the Challenge", June 2013, https://documents1.worldbank.org/curated/en/485911468029951116/pdf/796560WP-0P13140Box0377384B00PUBLIC0.pdf

244. Ghana's PURC, "Rate Setting Guidelines […]", June 2023, https://www.purc.com.gh/attachment/78170-20230615050634.pdf

245. See for example ACEP, "Press Statement on the current Energy Sector Levies Act 2015 (Act 899) presented by Dr. Mohammed Amin Adam, Executive Director of ACEP on the 7th January 2016", https://acep.africa/wp-content/uploads/2023/03/ab03b1b5-7th-january-2016-acep-press-statement-on-energy-sector-levies..pdf

246. WBG, "Project Appraisal Document for the Ghana Energy Sector Transformation Initiative Project", Report No: PAD2576, 21 June 2018, para 10 https://documents1.worldbank.org/curated/en/293271531711852754/pdf/GHANA-ENERGY-PAD-06252018.pdf

247. Ghana's Energy Commission, "Energy Outlook for Ghana for 2017", http://energycom.gov.gh/newsite/index.php/planning/sub-codes

248. WBG, "Project Appraisal Document for the Ghana Energy Sector Transformation Initiative Project", Report No: PAD2576, 21 June 2018, para 8, https://documents1.worldbank.org/curated/en/293271531711852754/pdf/GHANA-ENERGY-PAD-06252018.pdf

249. Ghana's Energy Commission, "Energy Outlook for Ghana for 2019", http://energycom.gov.gh/newsite/index.php/planning/sub-codes

250. The study shows that Ghana's average tariff for end consumers was USD 0.13/kWh, Burkina Faso (USD 0.103/kWh), Guinea (USD 0.084/kWh), and Nigeria (USD 0.057/kWh). ERERA and AfDB, "Comparative Analysis of Electricity Tariffs in ECOWAS Member Countries", 2019, Annex 1, table 41 https://africa-energy-portal.org/sites/default/files/2019-12/Electricity%20Tariffs%20Study%202019.pdf

251. Ghana's Ministry of Energy, "National Energy Policy", 2021, https://www.energymin.gov.gh/sites/default/files/2023-09/2021%20ENERGY%20POLICY.pdf

252. ACEP, Oxfam, "Switching Gears: Protecting Ghana's Economic Sustainability in the Face of Power Sector Risks", July 2023, page 3, https://acep.africa/wp-content/uploads/2023/10/ACEP_ENERGY_ALERT.pdf

253. Chloe Farand, "Gas lock-in: Debt-laden Ghana gambles on LNG imports", 4 August 2023, https://www.climatechangenews.com/2023/08/04/gas-fossil-fuel-africa-ghana-debt-pollution-emissions/

254. Ghana's Energy Commission, "2024 National Energy Statistical Bulletin", April 2024, https://www.energycom.gov.gh/newsite/index.php/planning/energy-statistics?download=641:2024-energy-statistics

255. Ghana's Ministry of Finance, "Minister of Finance inaugurates Energy Sector Programme Steering Committee", 29 October 2019, https://mofep.gov.gh/news-and-events/2019-10-29/minister-for-finance-inaugurates-energy-sector-recovery-programme-steering-committee; For the updated framework, see Ghana's Ministry of Energy, "Energy Sector Recovery Programme (ESRP) – Addendum", June 2023, https://mofep.gov.gh/sites/default/files/reports/economic/Energy-Sector-Recovery-Programme-Document.pdf

256. WBG, "Press Release: World Bank Supports Policy Reform of Ghana's Energy Sector and Access to clean Cooking", 12 June 2024, https://www.worldbank.org/en/news/press-release/2024/06/13/afw-world-bank-supports-policy-reform-ghana-energy-sector-and-access-to-clean-cooking

257. WBG, "Press Release: World Bank Supports Policy Reform of Ghana's Energy Sector and Access to clean Cooking", 12 June 2024, https://www.worldbank.org/en/news/press-release/2024/06/13/afw-world-bank-supports-policy-reform-ghana-energy-sector-and-access-to-clean-cooking

258. WBG, "Project Appraisal Document, Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, para 25, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

259. WBG, "Restructuring Paper, Ghana: Energy Development and Access Project (P074191)", RES35733, https://documents1.worldbank.org/curated/en/208651548977492264/pdf/Disclosable-Restructuring-Paper-Ghana-Energy-Development-and-Access-Project-P074191.pdf; Regarding its interventions in ECG within GEDAP, the WBG reports the overlapping with the "ECG Private Sector Participation Process" led by the Millennium Challenge Corporation (MCC). MCC is an USAID-backed company that has been active in Ghana since 2006, working on private agribusiness, transportation and procurement systems. By 2014, one of MCC's focus became, in parallel to the WBG's GEDAP interventions, to

change the governance and management of ECG, including plans for privatisation. The privatisation process terminated unsuccessfully in 2019. See Cambridge Economic Policy Associates Ltd., "Mobilizing Finance for Infrastructure, A study for the UK Department for International Development (DFID), Ghana country case study", August 2015, https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/DFID_-_Mobilising_Finance_for_Infrastructure_-_Ghana_Case_Study_%282015%29-2.pdf; MCC.gov, "MCC Statement Regarding Termination of the Private Sector Concession by the Government of Ghana", 23 October 2019, https://www.mcc.gov/news-and-events/release/release-102319-ghana-concession-termination/

260. WBG, "Project Appraisal Document, Ghana Energy Sector Recovery Program", Report No: PAD4401, 24 May 2024, para 28, https://documents1.worldbank.org/curated/en/099052924124034430/pdf/BOSIB1f865195001b1904710ac9e0be6c95.pdf

261. WBG, "Project Appraisal Document for the Ghana Energy Sector Transformation Initiative Project", Report No: PAD2576, 21 June 2018, para 9, https://documents1.worldbank.org/curated/en/293271531711852754/pdf/GHANA-ENERGY-PAD-06252018.pdf Ghana's Energy Commission, "Energy Outlook for Ghana 2017", page 20, http://energycom.gov.gh/newsite/index.php/planning/sub-codes

262. ESLA Plc, "About us", https://www.eslaplc.com/pages/about-us#company-profile

263. The total outstanding bond issues was GHS 8,374.5m that, at an average GHS-USD exchange rate at 9.0356 for 2022. See Ghana's Ministry of Finance, "The Annual Public Debt Report for the 2022 Financial Year", 30 March 2023, page 42, https://www.mofep.gov.gh/sites/default/files/reports/economic/2022-Annual-Public-Debt-Report.pdf; Exchange-rates.org, "US Dollar (USD) To Ghanaian Cedi (GHS) Exchange Rate History for 2022", https://www.exchange-rates.org/exchange-rate-history/usd-ghs-2022

264. Ministry of Finance, "Press Release: Commencement of Domestic Debt Swap", 5 December 2022, https://www.bog.gov.gh/wp-content/uploads/2022/12/MOF-Press-Release-05-12-22.pdf

265. ACEP, Oxfam, "Switching Gears, Protecting Ghana's Economic Sustainability in the Face of Power Sector Risks", July 2023, https://acep.africa/wp-content/uploads/2023/10/ACEP_ENERGY_ALERT.pdf

266. IMF, "Ghana: 2023 Article IV Consultation [...]", 18 December 2023, para 11, https://www.elibrary.imf.org/view/journals/002/2024/030/article-A002-en.xml

267. David Manley, Patrick Heller, "Risky Bet: National Oil Companies in the Energy Transition", 9 February 2021, https://resourcegovernance.org/publications/risky-bet-national-oil-companies-energy-transition; Nafi Chiney, "How Ghana Can Map Its Energy Transition Journey", 4 April 2022, https://resourcegovernance.org/articles/how-ghana-can-map-its-energy-transition-journey

268. Blanca Ximena Talero, WBG, "Potential Statutory Options to Encouraging Private Sector Creditor Participation in the Common Framework", 2022, https://documents1.worldbank.org/curated/en/099802006132239956/pdf/IDU0766c0f2d0f5d0040fe09c9a0bf7fb0e2d858.pdf

269. Debt Justice, "Ghana Restructuring negotiations situation", June 2024, https://debtjustice.org.uk/wp-content/uploads/2024/07/Ghana-restructing-situation_07.24.pdf

270. IMF, "Ghana: Request for an Arrangement Under the Extended Credit Facility – Debt Sustainability Analysis", Table 2 https://www.elibrary.imf.org/view/journals/002/2023/168/article-A002-en.xml

271. The DFIs of the UK, the Netherlands and Switzerland have invested in a fund that in turn financed Kosmos' undertakings in Jubilee and TEN in 2014. FMO and CDC Group jointly provided USD 60m to Investec Africa Credit Opportunities Fund I, a fund management by Ninety One Asset Management in 2012-2012. See BII, "Ninety One Africa Credit Opportunities Fund (Investec)", Project No D231, https://www.bii.co.uk/en/our-impact/fund/ninety-one-africa-credit-opportunities-fund-investec-investment-01/; FMO, "New African credit fund launch", 11 February 2013, https://www.fmo.nl/news-detail/78449625-ec5a-44ae-b8cb-6713d2d86704/new-african-credit-fund-launch; PitchBook, "Investec Africa Credit Opportunities Fund I Investment Strategy", https://pitchbook.com/profiles/fund/13752-37F#investment-strategy

272. IMF, "Ghana: Request for an Arrangement Under the Extended Credit Facility – Debt Sustainability Analysis", Table 2 https://www.elibrary.imf.org/view/journals/002/2023/168/article-A002-en.xml

# Colophon

## Gaslighting Ghana

### Predatory investments and the role of the World Bank Group in driving fossil fuel debt

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**Author:** Luis Scungio

**Editor:** Irene de Craen

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KNSM-laan 17
1019 LA Amsterdam
The Netherlands
Tel: + 31 (20) 6391291
Email: info@somo.nl
Website: www.somo.nl

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GA-449-6084
3rd Asoyi Lane
East Legon
Accra

Tel: +233 (0) 24 431 6392
Email: aaghana@actionaid.org
Website: https://ghana.actionaid.org/