



Role and Contribution of the Ghana National Petroleum Corporation (GNPC) as a National Oil Company: A Reflection

Tsatsu Tsikata

1 INTRODUCTION

The Ghana National Petroleum Corporation (GNPC) was established by the Provisional National Defence Council (PNDC Law 64¹) as part of a determination to pursue more actively the potential for oil production in Ghana. Though in the 1890s oil seeps onshore in the western coastal area of the then Gold Coast (near Half Assini) attracted some international investor interest to this area, leading to a few exploration wells being drilled near the seeps,² it was the yellow metal exported from these shores,

¹ All the Laws of Ghana bear the suffix “Act” due to the Laws of Ghana (Revised Edition) Act, 1998 (Act 562). PNDC laws will hereafter be referred to as Acts.

² Ghana Geological Survey Bulletin No. 40.

T. Tsikata (✉)
Accra, Ghana

not the “black gold,” that was the focus of international interest. The pre-independence name, “Gold Coast,” reflected that.

The sporadic oil exploration efforts after the 1890s, including the period between 1909 and 1913 when the French oil company, Societe Francaise de Petrole, drilled shallow wells in the onshore Tano area and flowed seven barrels of oil a day from one of the wells, and the period 1956–1957 when Gulf Oil (later Chevron) drilled four deep wells in that same area, led only to the very limited commercial production from the offshore Saltpond field. Discovered by the Signal Oil/Amoco consortium in 1970 and soon relinquished by them as sub-commercial, production from the field was only undertaken from 1978 by a small US company, Agripetco.³ Production peaked at about four thousand five hundred barrels a day. Other discoveries in the late 1970s by Phillips Petroleum to the west (North and South Tano, as well as the oil discoveries Phillips Petroleum made in neighbouring Cote d’Ivoire) generated more interest in Ghana’s oil potential.

Part of the impetus for intensifying oil exploration in Ghana in the 1980s came from the disruption to Ghana’s crude oil imports from Nigeria as a result of the hostile reaction of the existing military Government of Nigeria to the 31st December 1981 revolution and the new Provisional National Defence Council (PNDC) regime in Ghana led by Flight-Lieutenant Jerry John Rawlings. As a result, the PNDC began to prioritise Ghana becoming less dependent on Nigeria for oil and, altogether, on imports of oil which were using up the major part of Ghana’s scarce foreign exchange resources.

GNPC was set up in the context of the Economic Recovery Programme (ERP) of the PNDC that was to begin to reverse the steep decline that had occurred in the fortunes of the nation and transform the Ghanaian economy.⁴ The 1991–1993 Public Investment Programme, published by the Ministry of Finance and Economic Planning in April 1991, captures how “*with the initiation of the ERP in 1983, and as a first*

³ Agripetco assigned its interest in 1984 to another small US company, Primary Fuels, whose entry led to the first petroleum agreement and GNPC participation negotiated under Section 35(1) and (2) of the new Petroleum (Exploration and Production) Law, 1984, PNDC Law 84. Primary Fuels also relinquished the block in 1985. <https://www.petrocom.gov.gh/exploration-history> (Accessed: 21 June 2021).

⁴ Republic of Ghana, Economic Recovery Programme, 1983.

step towards improving the prospects for hydrocarbon exploration and development in Ghana, the Government modernised the legislative framework for hydrocarbon exploration and created a statutory organisation, the Ghana National Petroleum Corporation, to assume responsibility for hydrocarbon exploration, development and production.”⁵

2 CORPORATISATION AND GNPC MANDATE

The opening provision of the GNPC statute established the new corporate body:

1 (1) There is hereby established a body corporate to be known as the Ghana National Petroleum Corporation. (2) The Corporation shall have perpetual succession and a common seal and may sue and be sued in its corporate name.

The commercial character of the Corporation is explicitly stated in Section 4(1) of the Act, with the heading, “*Corporation set up as a commercial venture,*” where the Corporation is required to operate “*on sound commercial lines and, in particular, shall take the necessary steps to ensure that, taking one year with another, its revenues are sufficient to produce on the fair value of its assets, a reasonable return.*” As a consequence, the Corporation is liable to tax like other companies registered under the Companies Act, 2019 (Act 992).⁶

By the nature of its establishment as a commercial venture, therefore, the Corporation is not part of “[t]he Public Services of Ghana” under the 1992 Constitution, Article 190(1) of which defines these to “include (b) public corporations other than those set up as commercial ventures.”

The Corporation is granted borrowing powers under Section 15 of the GNPC Act, subject to the approval of the Minister for Finance on the recommendation of the Minister of Energy. It is also allowed to open and operate “Special Foreign Exchange Accounts” under Section 19, subject to the regulatory oversight of the Bank of Ghana.

The mandate of GNPC, as expressed in Section 2(1) of the GNPC Act, was “*to undertake the exploration, development, production and disposal of*

⁵ Page 42, 1991–1993 Public Investment Programme, Ministry of Finance and Economic Planning.

⁶ Section 20 GNPC Law, PNDC Law 64, 1983.

petroleum.” This was in line with the mandate of National Oil Companies (NOCs) which were, by then, gaining increasing significance, particularly in oil-producing developing countries seeking to strengthen their position in an industry dominated by International Oil Companies (IOCs).

The inclusion of “disposal of petroleum” in this section reflects the fact that marketing and downstream activities were part of the mandate. There is also, in that regard, Section 2(3)(d), under the heading, “[o]bjects and functions of the Corporation”: “*Subject to this Act and any other enactment the Corporation may(d) alone or in association with others, buy, sell, trade, store, exchange, import or export petroleum and for this purpose, acquire or operate any installations, facilities or means of transportation.*”

The broad mandate cut across the whole industry value chain—upstream, midstream and downstream. In the final subsection of that section, the Corporation was, furthermore, authorised to:

- (f) engage in any other activities, alone or in association with others, as may be necessary or desirable for the carrying out of petroleum operations.

Included in the powers of the Corporation under Section 3 of the Act were powers to:

- (c) purchase, lease, establish, complete, expand, repair and manage factories, plants, installations and facilities that are necessary in connection with the exploration, development, production and disposal of petroleum and subject to the approval required by an enactment, provide and manage road, marine and aviation communications as well as means of transport and any other facilities.

The initial organisational structure of the Corporation, adopted by its first Board of Directors (chaired by a member of the Provisional National Defence Council, Alhaji Mahama Iddrisu), had five divisions—Exploration and Production, Drilling and Engineering, Marketing, Finance and Administration and Research and Development—headed by directors, reflecting the broad mandate. This was based on advice from a technical assistance team from the international subsidiary of the Brazilian national petroleum company, Petrobras (Braspetro), under the auspices of the United Nations Development Programme (UNDP).

2.1 *Oil Exploration, Development and Production Focus*

Since establishing oil production in Ghana was the driving ambition behind the creation of GNPC, Section 2(2) sets out these key objects of the Corporation (Box 1).

Box 1: Key Objects of the Corporation

2. (2) the Corporation shall:

- a. promote the exploration and orderly and planned development of the petroleum resources of Ghana.
- b. ensure that Ghana obtains the greatest possible benefits from the development of its petroleum resources.
- c. obtain the effective transfer to Ghana of appropriate technology relating to petroleum operations.
- d. ensure the training of citizens of Ghana and the development of national capabilities in all aspects of petroleum operations; and
- e. ensure that petroleum operations are conducted in such manner as to prevent adverse effects on the environment, resources and people of Ghana.

The need to “**promote**” exploration and development was obviously a recognition of the reality that Ghana was seeking to attract risk capital from the international oil industry rather than, on its own, taking up, unduly, the risks of exploration. At the same time, the language of Section 2(2)(a) of the GNPC Law underlined, from the very subsection, the national perspective of “**orderly and planned development** of the petroleum resources of Ghana” (emphasis supplied) which was also to be promoted as the expected outcome of exploration.

Section 2(b), in the same vein, requires the Corporation to “*ensure .. the greatest possible benefits for Ghana*” from the development of its resources.⁷ Obviously, this did not confer sole responsibility on the

⁷ It is claimed in a 2019 Ghana Petroleum Industry Report of the Chamber of Bulk Oil Distributors (CBOD) that the provision in Section 2(2)(e) of the GNPC Law that

Corporation to ensure maximum national benefits. Regulatory institutions would also, naturally, play their roles.

GNPC was to activate the interest of the international oil industry in partnering to invest in exploration, having regard to national objectives highlighted in all the subparagraphs of Section 2(2) of the statute. The Corporation is designed to be an active participant in petroleum operations, associating itself with industry players, ensuring the transfer of appropriate technology and developing local expertise and capabilities. By its establishment, for the first time, a national institution would be operationally involved in petroleum exploration, development and production.

Section 2(3)(b) of the GNPC statute proceeds as follows: “*Subject to this Act and any other enactment, the Corporation may ...engage in petroleum operations, alone or in association with others.*” The requirement for any person interested in oil exploration and production to associate with the Corporation was also made clear in Section 2(1) of the Petroleum (Exploration and Production) Act, 1984 (PNDCL 84), the original statutory framework that set apart petroleum exploration and production activities from the rest of the mineral sector: “*2(1) No person other than the Ghana National Petroleum Corporation established under the Ghana National Petroleum Corporation Law, 1983 (PNDCL 64), in this Law referred to as ‘the Corporation’, shall engage in the exploration, development or production of petroleum except in accordance with the terms of a petroleum agreement entered into between that person, the Republic and the Corporation pursuant to subsection (4) of Section 5 of this Law*

the Corporation is to ensure that petroleum operations are conducted in such manner as to prevent adverse effects on the environment, resources and people of Ghana can no longer be within the mandate of GNPC because “this mandate has now shifted to the Petroleum Commission, following the decision to separate regulation from the GNPC’s commercial operations” (Paragraph 1.5 at p. 49). This is surely an erroneous position. As is evident in the international oil industry and in international corporate practice, generally, commitment to environmental goals, notably addressing climate change, and having beneficial social impacts are not considered as regulatory matters outside the commercial perspectives of companies. The regulatory functions of the Petroleum Commission do not require an exclusion from the mandate of GNPC of responsibilities similar to those that companies the world over are expressing a commitment to. GNPC is to conduct its operations in line with its statutory mandate even as the Petroleum Commission also performs its regulatory role as provided for in the Petroleum Commission Act, 2011, Act 821.

or any other authority granted or recognised under this Law” (Emphasis supplied).

That “the Corporation” and “the Republic” are distinct is not without significance. The Corporation, a commercial venture, associates with other commercial corporate bodies in the anticipated petroleum activities. The Republic has title to the resources under Article 257(6) of the 1992 Constitution which states: *“Every mineral in its natural state in, under or upon any land in Ghana, rivers, streams, water courses throughout Ghana, the exclusive economic zone and any area covered by the territorial sea or continental shelf is the property of the Republic of Ghana and shall be vested in the President on behalf of, and in trust for the people of Ghana.”*

2.2 *Framework for Association with Industry Partners*

Section 5(4) of the Petroleum (Exploration and Production) Act, 1984 (PNDC Law 84) provided that:

Where the exploration, development and production of petroleum is carried out by the Corporation in association with a contractor, such Contractor shall first enter into a petroleum agreement, in accordance with subsection (1) of section 2 of this Law, with the Republic and the Corporation to specify the terms and conditions under which such petroleum operations shall be carried out. Any such petroleum agreement shall include such provisions as maybe required by Part II of this Law.

The Corporation was to be a necessary partner to any person interested in undertaking petroleum exploration and production in Ghana while also being able to proceed on its own, by virtue of Section 5(1) of PNDC Law 84. Though PNDC Law 84 was repealed and replaced by the Petroleum (Exploration and Production) Act, 2016 (Act 919), Section 10 of the new statute maintained this need for “a contractor” to partner with GNPC.⁸ Section 10(14) goes on to establish a minimum GNPC participation in a petroleum agreement:

⁸ “10(1) A body corporate shall not, unless otherwise provided in this Act, engage in the exploration, development and production of petroleum except in accordance with the terms of a petroleum agreement entered into between that body corporate, the Republic of Ghana and the Corporation.” In Section 95: “the Corporation” means the Ghana National Petroleum Corporation”. The distinctness of “the Corporation” from “the Republic” is maintained in this Act.

10 (14) A petroleum agreement shall contain a term that the Corporation shall:(a) hold an initial participating carried interest of at least fifteen percent for exploration and development.

The newly legislated 15% GNPC initial participating interest soon came up for consideration in relation to the petroleum agreement involving ExxonMobil which was ratified by Parliament on 3rd April 2019. In the Report of the Parliamentary Select Committee on Mines and Energy, which recommended the agreement for ratification by Parliament, it is noted that the enactment of the Petroleum (Exploration and Production) Act, 2016 (Act 919), as well as the Income Tax Act, 2015 (Act 896), had affected some key terms agreed earlier in a Memorandum of Understanding signed on 30th April 2015 among the Government of Ghana, GNPC, ExxonMobil and GNPC subsidiary, Explorco. An account is then given of negotiations between the Government negotiating team and ExxonMobil to address concerns raised by ExxonMobil about this. The Report then states: “The participating interest of Explorco was ceded to ExxonMobil to partly restore the fiscal terms agreed under the MOU due to the introduction of the 15% Initial Participating (carried) Interest under the Petroleum (Exploration and Production) Act, 2016 (Act 919).”⁹

The giving up of the Explorco paying interest in favour of the higher GNPC carried interest reflected the preference for laying off exploration risk to the international oil company partnering GNPC. The new level of GNPC Initial Carried Interest that was statutorily in force had to be accepted by ExxonMobil as against what was in the signed MOU, which pre-dated the legislation.

The validity of earlier agreements with a lower than 15% GNPC initial participating interest is not put in question by any provision in the 2016 Petroleum (Exploration and Production) Act in view of the provision in Section 96(1) of the Act that “Petroleum agreements entered into before the commencement of this Act remain valid.” Section 97(2) also states that: “*Despite the repeal of PNDC Law 84, the Regulations, rules, by-laws, notices, orders, directions, appointments or any act lawfully made or done under the repealed enactment and in force immediately before the commencement of this Act shall continue to have effect until revoked, cancelled or terminated.*” Moreover, as the GNPC initial participating

⁹ Paragraph 4.2.9 of Select Committee Report signed on 30th March 2019.

carried interest is only applicable at the start of the petroleum agreement, Section 10(14) of the Petroleum (Exploration and Production) Act, 2016 (Act 919), does not justify a higher GNPC initial participating carried interest being introduced retroactively into earlier agreements with a lower GNPC initial participating carried interest which have moved beyond the initial phase.

Act 919 now provides in Section 10(3) that a petroleum agreement can be entered into “...only ...after an open, transparent and competitive tender process.”¹⁰ However, Section 10(9) allows the Minister “in consultation with the [Petroleum] Commission [to] determine that a petroleum agreement may be entered into by direct negotiations without public tender, where direct negotiations represent the most efficient manner to achieve optimal exploration, development and production of petroleum resources in a defined area.” The discretion of the Minister to avoid a public tender process is to be exercised in accordance with clearly set requirements and in consultation with the Petroleum Commission.

Several other provisions in the Petroleum (Exploration and Production) Act, 2016 (Act 919) have significance for the role of GNPC.

- Section 18(1) gives GNPC a pre-emption right “[w]here a contractor enters into an agreement to dispose of all or part of the interest of that contractor directly or indirectly under a petroleum agreement ... to acquire the interest on the same terms as agreed with the potential buyer.” The Contractor is to notify the Minister, the Petroleum Commission and GNPC “immediately of the consideration and other terms agreed” (Section 18(3)) and the Corporation has ninety days within which to exercise its right (Section 18(4)). A departing partner is, thus, not allowed to impose a new partner on GNPC. A chance is given to the Corporation to acquire the interest being disposed of.
- Section 19 gives the Corporation an option to have ownership of physical assets purchased, installed or constructed by a contractor for petroleum activities to be transferred to it when the full cost has been recovered in accordance with the terms of the petroleum

¹⁰ This provision was not adverted to in the Report of the Parliamentary Select Committee on Mines and Energy on the ExxonMobil agreement referred to earlier even though this provision in the legislation had come into effect and a competitive tender process was in fact launched by the Minister in October 2018.

agreement or when the agreement terminates. GNPC is also able to have the assets transferred after 50% of the costs have been recovered if the Corporation pays the unrecovered costs of the Contractor. The Contractor is still entitled, by Section 19(2), to further use of the asset for the purposes of operations and is liable for maintenance, insurance and other costs associated with the use of the asset. Decommissioning remains the Contractor's responsibility under Section 19(3).

These provisions are clearly designed to ensure that where an asset has value from a national point of view beyond the value for the operations of a particular contractor, GNPC has ownership options in respect of that asset. It is critical that the value of existing producing fields and infrastructure established for them is optimised for national benefit, as further considered in the conclusion below. Assets may, for instance, be used for additional field development or for continued production by GNPC beyond what the Contractor may consider the economic limit of a field.¹¹

Other provisions of the Petroleum (Exploration and Production) Act, 2016 (Act 919) that are significant for the role of GNPC include:

- Under Section 23(2), a contractor that has failed to meet its minimum work obligations is required to “*pay the Corporation the amount required to complete the unfulfilled portion of the work program for that working period.*” GNPC has the responsibility, therefore, to complete work programme commitments of its partners, who are to pay the Corporation to do so if they fail to live up to their obligations in the relevant period.
- In Section 34(4), “[w]here an accumulation of petroleum extends beyond the boundaries of a contract area into an area not covered by a petroleum agreement or an authorisation under Section 11(1), the Minister may authorise the Corporation to enter into a contract for the development and production of the accumulation of petroleum

¹¹ The provisions in Section 36 of the Petroleum (Exploration and Production) Act 2016, Act 919, which enable the Petroleum Commission to direct the use of facilities owned by “a contractor or the Corporation ... a) by others if warranted by considerations for efficient operation and resource management, or b) for the benefit of society...,” show how significant the issue of ownership of facilities may be in the quest to optimise resources and/or benefit society.

and require the accumulation of petroleum to be developed as a single unit.” Thus, GNPC can facilitate the development and production of a discovery that goes beyond the contract area of a Contractor and ensure unitised development if the Minister so authorises.

- Section 72(2) also provides that in a situation “*where there is hindrance to the acquisition of property, the property may be acquired for the Corporation under the State Lands Act, 1962, (Act 125) and the Corporation shall bear the cost.*” The Corporation is thus the entity on whose behalf the State’s power of compulsory acquisition is exercised, where necessary, to facilitate petroleum activities being carried out.
- By Section 85(5), GNPC is “*subject to the payment of royaltyat the rates that may be prescribed*” for any petroleum production when it operates on its own, just as in Section 20(2) of the earlier Petroleum (Exploration and Production) Act (PNDCL 84). This underscores the Corporation being a commercial corporate body separate from the Republic or Government.

2.3 Promoting Prospectivity and Ensuring Continuity of Exploration Activity

In seeking to promote the country’s oil production potential, an important initial focus of the Corporation was to assemble data from all previous petroleum exploration activities in Ghana and begin to make an independent assessment of prospectivity. The Corporation was able to obtain a more complete suite of data, including seismic and well data from the past operations, going beyond what had been deposited with the Geological Survey Department in Ghana, by engaging directly with the companies that had been involved.

An extensive speculative survey authorised by the then Ministry of Fuel and Power across Ghana’s offshore basins provided more modern data and prospects were developed from the new data that were marketed to the industry, initially through an international roadshow in 1984.

The Corporation also soon began to acquire new data, particularly with a view to embarking on oil production from relinquished discoveries, such as the South and North Tano discoveries and the Saltpond field. A highlight of this early phase of the Corporation gathering of new data was a collaboration with the Japan National Oil Corporation (JNOC),

which subsequently became the Japan Oil, Gas and Metals Corporation (JOGMEC), to conduct an extensive seismic data acquisition and interpretation project in the offshore central basin, which includes the area around the Saltpond field. Capacity-building for GNPC technical personnel, who worked with Japanese counterparts on all aspects of the project, and the promotion of Ghana's exploration potential to Japanese private oil companies, were important elements of the project.

Acquisition of state-of-the-art workstations and related facilities enabled GNPC geoscientists to begin the process of interpreting available data and putting forward new perspectives and prospects to the international industry. GNPC's exposure to data from Brazil through the institution-building technical relationship with Petrobras also proved invaluable in deepening the understanding of Ghana's offshore basins by reference to data from the analogous basins in Brazil. GNPC was able to make comprehensive assessments of the prospectivity of Ghana's sedimentary basins, backed by data and interpretations that it was able to make readily available to interested parties.

Data storage facilities were established by GNPC, initially through a collaboration with PetroCanada International Assistance Corporation (PCIAC), the international subsidiary of the Canadian national oil company, which also provided funding for drilling, with the objective of bringing the North and South Tano discoveries into production, particularly with a view to utilising the natural gas resources in those fields for power generation.

The promotion efforts in the earliest period led to two petroleum agreements being entered into, one with a consortium comprising Shell, Arco and Unocal in the Tano Basin to the West and the other with Amoco in the Accra-Keta Basin to the East. Subsequently, a number of other petroleum agreements were entered into with companies such as Hunt Oil, Dana Petroleum, Seafield Resources, Santa Fe, Devon Energy, Nuevo Energy, Fusion and Diamond Shamrock, which all partnered GNPC in its first decade of existence. Large amounts of new seismic and well data were acquired, mainly across the offshore areas.

The terms of the petroleum agreements required regular technical interactions between GNPC and its partners as well as Joint Management Committee meetings. Work being undertaken by the Contractor was shared in detail with GNPC. As technical staff of GNPC were seconded to the Head Offices of partner companies, close collaboration with partner technical staff took place. This intensive interaction also enabled GNPC to

make available to the Contractor companies, in legally appropriate ways, the benefits of work done in, and data from, other areas in the country that could be useful to the Contractor.

GNPC's constant involvement in all the exploration activities has provided continuity and consistency to the exploration efforts. This is illustrated by considering the build-up to the Mahogany and Hyedua discoveries—that became the Jubilee field—and other discoveries that followed in the Deepwater Tano and West Cape Three Points contract areas. Working with Hunt Oil in the West Cape Three Points Block and with Dana Petroleum and Seafeld Resources in the Deepwater Tano Block during the 1990s and building on work done previously in its partnering with Shell, Arco and Unocal as well as PCIAC, GNPC developed new insights into the prospectivity of the deepwater areas of the basin which had only previously been tested by one deepwater well (South Dixcove-1) drilled in 1978 by Phillips Petroleum.

Hunt Oil, working with GNPC, drilled a deepwater discovery well, WCTP-2X, that was considered sub-commercial, but which spurred further evaluation that incorporated the results of the well along with interpretation of new seismic data that had been acquired. Additional prospects were mapped, including what was to become the Mahogany discovery. After Hunt Oil relinquished the West Cape Three Points block in 2001, it was the mapped prospects that were the basis of promotional work by GNPC. With prospects already mapped and prospective volumes of oil already calculated from previous exploration activity, GNPC presentations enabled Kosmos Energy, then newly established by oil executives with funding to the tune of US\$300 million from the private equity groups, Blackstone Capital and Warburg Pincus, to appreciate promptly that this was a compelling proposition for their new venture. GNPC ensured the continuity of exploration effort from the relinquishment by Hunt Oil to the entry of Kosmos Energy.

Similarly, in the Deepwater Tano block, Dana Petroleum, together with GNPC, not only drilled a discovery well—West Tano-1—but also mapped prospects, including what was to become the Hyedua discovery. These prospects engaged the interest of a company like Occidental which, with active support and encouragement from GNPC, sought to farm-in to the Dana Petroleum interest in 1997 and drill a well. In the end, however, farm-in terms demanded by Dana Petroleum proved unacceptable to Occidental. Dana itself was unable to drill the deepwater well

and relinquished the block. Tullow Oil would, then, be attracted by the prospects already mapped by Dana and GNPC which GNPC presented.

As the previous work pointed to the likelihood that the prospects targeted by the Mahogany and Hyedua wells were one field straddling the two contract areas, it was proposed to the Contractor parties, and accepted by them, that they have cross-holdings in the two areas. This participation of the same partners in both areas facilitated the Mahogany and Hyedua wells being drilled back-to-back with the Belford Dolphin rig that was on a long-term lease to one of the Contractor parties, Anadarko, and on its way from India to the Gulf of Mexico. After the discoveries from the two wells and appraisal drilling, the cross-holdings of the Contractor parties also made the unitisation of the Jubilee field across the two contract areas readily acceptable to all parties, enabling accelerated conclusion of the unitisation agreement and rapid field development.

Significantly, by virtue of Section 23(2) of the Petroleum (Exploration and Production) Act, 1984, which was in operation at the time, the data obtained from all the petroleum operations in the two blocks belonged to GNPC which could now make the full suite of data available readily to others such as Kosmos Energy and Tullow Oil after relinquishments by Hunt Oil and Dana Petroleum.

It was also on the basis of this provision that GNPC, in 2009/2010, held Kosmos Energy accountable for making data from petroleum operations in the two contract areas available to over twenty companies worldwide, including ExxonMobil, as part of Kosmos Energy's strategic plan to be acquired. The approval of the Corporation had not even been sought by Kosmos Energy, rendering the provision of the data to the companies illegal. Ultimately, a settlement was reached shortly before commencement of oil production from the Jubilee field whereby, without an admission of liability, Kosmos Energy (on behalf of the partners and itself) paid GNPC an amount of US\$23 million to resolve this and other outstanding issues amicably.¹²

That provision in the Petroleum (Exploration and Production) Act, 1983, in respect of GNPC data ownership, is, however, no more in operation as that statute was repealed and replaced by the Petroleum

¹² 20 December 2010 Press Release by Kosmos Energy http://www.kosmosenergy.com/press/kosmos_PR_122010.pdf (Accessed: 28 July 2021); and US SEC Filing Amendment No. 6 to FORM S-1 <https://www.sec.gov/Archives/edgar/data/1509991/000104746911004044/a2203496zs-1a.htm> (Accessed: 28 July 2021).

(Exploration and Production) Act, 2016 (Act 919), which now makes all such data “*the property of the Republic*” (Section 52(1)). Section 52(3) of the 2016 Act further requires “[*t*]he licensee, contractor, sub-contractor or Corporation” to “*provide to the [Petroleum] Commission data and information as well as the reports, studies, interpretations and analyses under subsection (1).*” By Section 3(g) of the Petroleum Commission Act, 2011, (Act 821), it is the responsibility of the Commission to “*receive and store petroleum data, manage a national petroleum repository....*” Section 52(5) of the Petroleum (Exploration and Production) Act, 2016 (Act 919) also provides: “*The [Petroleum] Commission may provide any data or information to the Corporation for its use.*”

2.4 GNPC Exploration Promotion: Some Non-geoscience Elements

Promoting the hydrocarbon potential of Ghana is not only about developing and presenting prospects backed by geoscience data. Investor requirements for considering a country as a worthwhile destination for exploration risk capital to be invested include clarifying the legal, political, economic and socio-cultural framework within which investors will be operating. Promoting exploration thus includes promotion of the receptiveness of the country and its people and institutions to investments in exploration. Above ground risk evaluations that international oil companies typically undertake before venturing into a country necessitate GNPC, in its promotion efforts, making the industry familiar with Ghana and not only offering technical information about petroleum exploration prospects.

The legal framework in place to regulate activities and the national institutions that deal with basic issues such as immigration, imports of goods, banking arrangements and taxation, to name only a few, need to be made known and confidence generated in how things work in the country at large. The legal system needs to be seen as working transparently and fairly.

The readiness of GNPC to assist companies navigate local bureaucracy was expressed from the earliest days of the Corporation in provisions in the Model Petroleum Agreement requiring GNPC to use its best efforts to assist Contractor and its sub-contractors with local arrangements such as establishing supply bases and communications facilities, opening bank accounts, obtaining entry visas and work permits for expatriate staff

and their families, complying with customs procedures for imports and identifying qualified Ghanaians for employment by the Contractor.¹³

In respect of offshore activities, such as seismic data acquisition, GNPC also sought to assure industry partners of the ability to obtain cooperation from local fishing communities, for instance, to facilitate safe and unimpeded operations. More broadly, assurances of support from local stakeholders in respect of all aspects of the conduct of petroleum activities were also important elements of promoting investment in petroleum exploration.

Exposure of the country to the industry as a way of promoting investment was also the underlying reason for GNPC hosting the annual Oil and Gas Africa Conference in the 1990s after an initial West Africa conference supported by the erstwhile United Nations Centre for Transnational Corporations (UNCTC). The Oil and Gas Africa Conference brought to Ghana representatives of other national oil companies on the African continent and Ministers and Government officials from many African countries to interact with high-level international oil industry executives as well as other industry players, including bankers and representatives of international financial institutions. It became a much-anticipated industry event and afforded GNPC the opportunity to make presentations to generate more interest in the oil potential of Ghana. Such events demonstrated the country's increasing openness to, and involvement with, an industry which had previously not been actively engaged with the country.

2.5 Ministerial Authorisation Requirement for GNPC Activity and the Voltaian Basin Project

While the Petroleum (Exploration and Production) Act, 1984 (PNDCL 84), gave GNPC the broad power to undertake petroleum operations over all areas declared open by the Minister and not the subject of a petroleum agreement, there is now required, under the Petroleum (Exploration and Production) Act, 2016 (Act 919), authorisation by the Minister for GNPC to “undertake petroleum activities in an area opened under Section 7 but which is not covered by a petroleum

¹³ Clause 7.3 of Model Petroleum Agreement http://www.gnpcghana.com/files/ghana_model_petroleum_agreement1.pdf (Accessed: 15 June 2021).

agreement” (Section 11(1)). Ratification of the Ministerial authorisation by Parliament under article 268 of the Constitution is required by Section 11(2).

Section 9(1) of the Act provides for a petroleum reconnaissance licence to be granted over a defined area. The “licensed person” is granted under Section 9(2) “a non-exclusive right to undertake:

- a. *data collection including seismic surveying and shallow drilling, and*
- b. *processing and interpretation or evaluation of petroleum data in the area specified in the licence”* (Section 9(2)).

Section 9(6) is very significant as regards undertaking activities under a reconnaissance licence: “*A person shall not commence a reconnaissance activity in relation to petroleum unless that person has complied with:*

- a. *the relevant statutory requirements on environmental protection prescribed in the Environmental Protection Agency Act, 1994, Act 490; and*
- b. *any other applicable enactments.”*

GNPC, thus, not only requires ministerial authorisation but also has to comply with the relevant statutory requirements, particularly those that have to do with environmental protection, before commencing a reconnaissance activity.

The Voltaian Basin Project is described on the GNPC website as “GNPC’s flagship project.”¹⁴ However, authorisations required were clearly not obtained prior to the project being undertaken. According to Paragraph 3.6.5 of the 2020 Report of the Public Interest and Accountability Committee (PIAC), the authorisation given by the Energy Minister for the Project—by way of a reconnaissance licence—was only issued in March 2020.¹⁵ The 2017 PIAC Report had recorded the following significant facts: “*After the enactment of the Petroleum (Exploration and*

¹⁴ See <http://www.gnpcghana.com/operations.html> (Accessed: 25 June 2021).

¹⁵ Page 24 of PIAC 2020 Annual Report. Available at: https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf (Accessed: 18 July 2021).

*Production) Act, 2016 (Act 919), the concept paper guiding the exploration activities was revised. The draft was completed in June 2017.*¹⁶ At the time when contracts were being entered into in October 2017 for project implementation based on the revised concept paper, the requisite authorisation had not been given for the project.

Phase 1 of the seismic acquisition programme is reported in the 2019 PIAC Report to have been completed in February 2019 while Phase 2 is reported in the 2020 Report to have been completed in March 2020, the month in which a licence was obtained. It is evident, therefore, that the project was being undertaken without the ministerial authorisation required by Section 9 of the Petroleum (Exploration and Production) Act, 2016 (Act 919).¹⁷

As the Voltaian Basin has also not been declared open for exploration by the Minister under Section 7 of Act 919, authorisation had also not been provided under Section 11. Yet, as the Annual Petroleum Reports of the Minister of Finance for 2018, 2019 and 2020 show, amounts of US\$21.62 million, 11.59 million and 8.86 million, respectively, were expended in those years on the Project from the allocations made to the Corporation out of the Petroleum Holding Fund established under the Petroleum Revenue Management Act, 2011 (Act 815), as amended by Act 893 of 2015.¹⁸

In the 2020 PIAC Report, frequent delays in the payment of invoices to the Contractor during the seismic acquisition programme are recorded as a major challenge. There were delays also, according to the Report, in the compensation payments that had to be made to over 1000 farmers in the project area because of delays in release of funds, leading to agitations in some areas. Nonetheless, after a description of what had been done

¹⁶ Paragraph 3.7 of 2017 PIAC Report. Available at: https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2017_annual_report.pdf (Accessed: 18 July 2021).

¹⁷ Environmental and social impact assessments also had to be undertaken and approvals obtained before the commencement of the reconnaissance activity by virtue of Section 9(6) of Act 919 quoted above, and, for an onshore project in a basin which covers about 40% of the land mass of Ghana, these assessments are obviously critical.

¹⁸ 2018 Annual Petroleum Report paragraph 60 Table 11 at p. 17; 2019 Report paragraph 78 at p. 22; 2020 Report paragraph 119 Table 20 at p. 41. In 2015, 2016 and 2017 also, amounts of US\$1,525,016.43, US\$4,383,162.28 and US\$3,500,137.08 were expended by GNPC on the project. Between 2015 and 2020, therefore, a total of US\$51,499,38.28 was expended on the project by the Corporation.

during the year on the project, it is indicated that “[t]he acquisition of additional seismic data is expected to commence early 2021.”¹⁹

There is also an account in the same Report of “*presentations done by various companies on technologies [the project team] believe can help in further exploration of the basin*” and “*research on cost-effective technologies to complement the seismic data, locate anomalies or hydrocarbon pools and help define well locations.*” A procurement process for a particular technology that had been selected by the project team as suitable is said to have been halted “*pending Management approval for the way forward.*”²⁰

It has been stated more recently by a Deputy Minister of Energy-designate, Dr. Mohammed Amin Adam, during vetting before the Appointments Committee of Parliament, that a well is to be drilled in the Basin later this year.²¹

Before the Voltaian Basin can even be declared open by the Minister for exploration, Section 7(2) of the Act requires the Minister, “*in collaboration with the Commission and other agencies [to] undertake an evaluation of the various interests in the relevant area before the area is opened for petroleum activities.*” A report of the evaluation is to include “*a strategic assessment of*

- a. *the impact of the petroleum activities on local communities,*
- b. *the impact of petroleum activities on the environment, trade, agriculture, fisheries, shipping, maritime and other industries and the risk of pollution, and*

the potential economic social impact of the petroleum activities.”²² The Report of the Minister is to be published to enable any person who may

¹⁹ Paragraph 65 on p. 22 of PIAC 2020 Annual Report. Available at: https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf (Accessed: 18 July 2021). This is further elaborated in paragraph 158 of the same report under the heading, “Achievements,” as follows: “Based on the results of the integration, GNPC will plan the acquisition of 3D seismic in the most prospective locations in the basin. The 3D seismic data acquisition is expected to commence early 2021.”

²⁰ Ibid. at paragraph 3.6.5 on p. 24.

²¹ Voltaian Basin promising—Dr. Mohammed Adam—Ghana MPS (2021). Available at: <https://ghanamps.com/voltaian-basin-promising-dr-mohammed-adam> (Accessed: 21 July 2021). A reconnaissance license only allows for “shallow drilling”—Section 9(2)(a) of the Petroleum (Exploration and Production) Act 2016, Act 919, quoted earlier.

²² Section 7(3) of the Petroleum (Exploration and Production) Act 2016, Act 919.

wish to express views on it to submit the views to the Minister before a decision whether to open the area or not is made.

If an exploration programme is to be pursued by GNPC in the basin, these steps towards opening up an area for exploration need to be taken by the Minister, particularly having regard to this being an onshore area where impacts on human activities have to be taken into account.²³ The reported delays in compensation payments to farmers in respect of GNPC's conduct of seismic data acquisition give more urgency to the need for compliance with requirements under the Environmental Protection Agency Act prior to a reconnaissance programme referred to in Section 9(6) of the Petroleum (Exploration and Production) Act, 2016 (Act 919).

The reconnaissance programme being undertaken is, clearly, a long way from any oil production and revenues for the Corporation. Yet the amounts expended on it have been the highest GNPC expenditures outside its equity payments for oil and gas production projects. The additional expenditures that are planned need to be re-assessed in terms of the objectives set for GNPC under its statute of incorporation and having regard to national and corporate priorities and the current global oil industry environment.

2.6 GNPC and the National Oil Import Function

While the upstream sector was the primary focus of the new Corporation, oil import and petroleum products marketing were also part of the Corporation's responsibilities from the onset, by virtue of Section 25 of the GNPC Act. The oil import function had previously been undertaken as a direct responsibility of a Department of Government, the Petroleum Department, but was now made part of the new corporate framework.

Section 25(1) transferred to the Corporation and vested in it, *“the assets and liabilities of the Petroleum Department of the then Ministry of Fuel and Power and the Corporation shall exercise the rights and discharge the*

²³ The December 2018 Report titled “Managing the Local Impacts of Potential Onshore Oil and Gas Development,” by Oxford Policy Management, under the Ghana Oil and Gas for Inclusive Growth (GOGIG) programme, raises many pertinent issues to be addressed in connection with exploration in the Voltaian Basin. These include land, livelihoods and residential displacements, community health and safety, and inter- and intra-community conflicts, among others.

obligations that are related to those assets and liabilities.” Section 25(2) provided that: *“On or after the coming into force of this Act, the Corporation is responsible for the discharge of the liabilities and contracts incurred or entered into by the Petroleum Department before the coming into force of this Act in respect of any of the functions to be performed by the Corporation under this Act, and the matters relating to those liabilities and contracts shall be carried out by the Corporation as if the Corporation incurred those liabilities or entered into those contracts.”*

Personnel from the Petroleum Department were transferred to the Corporation under Section 26, and staff involved in the oil import function were among the earliest staff of the Corporation. The assignment to the Corporation of responsibility for the importation of crude oil and petroleum products into Ghana and supply of petroleum products to the retail marketers for sale at the pump meant moving away from purely administrative handling of oil import and related activities in Ghana, taking these activities off the balance sheet of Government into a commercial corporate body, in line with the increasingly familiar mode of integrated national oil companies. GNPC combined the marketing functions of the former Petroleum Department and new exploration and production responsibilities.

The oil import responsibility assigned to the Corporation initiated the relationship between GNPC and its Nigerian counterpart, NNPC, (Nigeria being the main supplier of crude oil to Ghana), with corporate relations replacing Government to Government relations.

GNPC inherited from the Petroleum Department the arrangement whereby imported crude oil was refined on a tolling basis at the Tema Oil Refinery (TOR), formerly GHAIP refinery.

The commercial nature of the Corporation also soon led to GNPC establishing commercial banking and financing arrangements for oil imports independently of the Bank of Ghana through which the Petroleum Department had operated previously. The financing arrangements included a collaboration from 1993 with COCOBOD whereby GNPC, as borrower, raised foreign exchange from a syndicate of international banks in London to finance oil imports using receivables from cocoa export contracts as collateral. The transaction marked Ghana's return to the London syndication markets after a long absence. In return for COCOBOD making its contracts for the sale of cocoa available, GNPC provided local currency in an equivalent amount to COCOBOD for its cocoa purchases from farmers free of the high domestic interest

costs incurred from the financing previously available from the Bank of Ghana.

Such collaboration between two state-owned commercial corporate bodies to tap into international resources generated significant value for the nation and for each corporate body, including giving more scope for improving the price paid to farmers during a time when a firm policy of the farmer getting an increasing share of the revenues from cocoa was in place.²⁴ The GNPC financing arrangements for oil imports and the work of the Marketing Division of the Corporation, in collaboration with TOR, altogether ensured adequate and reliable supply of petroleum products for the country during the period the Corporation had this responsibility.

In 1996, the Government decided to heed the urging of the World Bank to take the crude oil import function away from GNPC on the basis that GNPC should not have a monopoly for crude oil imports and that TOR should itself have responsibility for importing its crude oil.²⁵ The GNPC Marketing Division, nonetheless, remained an essential part of the integrated national Corporation that was established under the GNPC Law and was expected to have a key role in marketing oil production expected to result from the exploration efforts then taking place. It would also enable the Corporation to compete for supply of crude oil to TOR.

However, decisions subsequently taken by the Government in 2001 did dismember the Marketing Division in GNPC, the Executive Director of the Division being moved to the Ministry of Energy.

The decision in 1996 to have TOR import crude oil for its own requirements would be the first time in its history that the refinery would be entering the international oil trading market itself. TOR had always previously operated on a tolling basis, refining crude oil imported by other entities and the new arrangements posed challenges for TOR which had

²⁴ As expressed in Republic of Ghana: National Programme for Economic Development (Revised) 1st July 1987 p. 10 paragraph 28: "Farmer confidence in the future of the industry will be sustained by an increasing share of the world market price going to him directly, not to Cocoa Board or to the Budget. This will also remove the temptation for cocoa to be smuggled to neighbouring countries." COCOBOD subsequently continued on its own annually with the London syndications to finance cocoa purchases and this remains the mode of funding for cocoa purchases.

²⁵ The statement on the GNPC website <http://www.gnpcghana.com/marketing.html> that, "[t]he Marketing Division was dismembered as a result" of this decision in 1996 does not accurately reflect the facts since the Division and its Director and other staff remained part of GNPC after that decision.

not established adequate capacity for this function. Government price-setting for petroleum products also contributed to the financial weakness of TOR,²⁶ as had previously also been experienced by GNPC and is currently a problem for Bulk Distribution Companies (BDCs) which became the main suppliers of petroleum products for the country as TOR was unable to meet national demand.

TOR's difficulties led to GNPC being requested by the Government to resume oil importation for refining by TOR from October 2009 to May 2012 when the build-up of TOR indebtedness ended this arrangement.²⁷

3 GNPC PRIORITISING NATURAL GAS: A NATIONAL IMPERATIVE

In Section 16(2) of the Petroleum (Exploration and Production) Act, 1984, GNPC was given the primary responsibility in respect of associated

²⁶ Oheneba Lovelace Prempeh, Finance Director of TOR from May 1988 to February 2001, notes in his "Ghana's Oil and Gas Industry: An Overview of Ghana's Petroleum Downstream sector, the implications for the upstream oil discovery and recommendations for the structural re-organisation of the oil and gas industry" report (2010) at p. 11 that "TOR never made a loss when it operated as a Tolling Refinery..." At pp. 17–18, he also notes "in September, 1996, after considerable pressure from the World Bank, and as part of the measures to accelerate the deregulation of the petroleum industry, the Ministries of Energy and Finance completely transferred the responsibility for the importation of crude oil and refined products and the marketing and sale of petroleum products from GNPC to TOR ...TOR was suddenly transformed from a tolling Refinery into a full time oil trader...When TOR assumed responsibility for oil trading in September, 1996, TOR's Processing Agreement with GNPC lapsed automatically leading to a cancellation of the processing fee. Consequently, TOR was left naked. No processing fees, no equity cash injection, no working capital and no power to fix the ex-refinery prices of its refined products. It was the genesis of TOR's problems." The author makes recommendations, summarised at p. 3, for "structural reorganization of Ghana's oil industry," including "...formation of a new Holding Company to oversee and co-ordinate the activities of GNPC as an international commercial trader, TOR as a Tolling Refinery earning "Processing Fees," GOIL as a local oil marketing company and BOST as the operator of the country's strategic stocks." The first part of Oheneba Lovelace Prempeh's report was published at <https://www.ghanaweb.com/GhanaHomePage/features/An-Overview-Of-Ghana-s-Petroleum-Downstream-Sector-187641> (Accessed: 28 June 2021).

²⁷ There are still outstanding debts of more than US\$58 million owed by TOR to GNPC from this supply of oil at Government request—captured in paragraph 9.3.2.11 Table 39 of the 2020 PIAC Report https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf. The problems of TOR, unfortunately, remain <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/TOR-plant-collapsing-Workers-insist-1277149> (Accessed: 28 June 2021).

gas as follows: “(2) *Any natural gas produced by a contractor in association with crude oil which is not used in petroleum operations pursuant to subsection (1) of this section and all natural gas produced other than in association with crude oil shall be the property of the Corporation except as may otherwise be agreed upon by the Corporation and the contractor in accordance with the terms of a petroleum agreement.*”

This was a recognition of the reality that the focus of attention for international oil companies in exploration ventures tends to be oil production, natural gas being more difficult to monetise, especially for domestic markets. The local gas infrastructure needed for supplying gas to domestic markets is of lower priority to international companies in allocating capital. A national corporation such as GNPC is best placed to derive the significant value that is available for the nation from natural gas by investment in infrastructure required for domestic gas utilisation.

In the specific context of Ghana at the time GNPC was established, the value of natural gas for electricity generation was evident. The country had depended on the hydroelectric dams on the Volta River—the first at Akosombo from 1966 and, the second, downstream at Kpong, from 1982—both under the Volta River Authority (VRA). Ghana’s eastern neighbours, Togo and Benin, were also dependent on electricity from Ghana; its western neighbour, Cote d’Ivoire, imported some electricity from Ghana. However, fluctuating levels of annual inflows into the dams, with uncertain rainfall, had begun to create power shortages for the country and its neighbours.

As these climate change realities were already being manifested in Ghana’s energy sector, and with demand for power increasing, GNPC, from its earliest days, sought to address the situation by close attention to the use of natural gas for electricity generation. A detailed review of the North and South Tano discoveries, made earlier by Phillips Petroleum, led to the formulation of plans to further appraise and then, develop these discoveries with the primary objective of using the natural gas for power generation, which were approved by the Government of Ghana and included in the Public Investment Programme of the Government, prepared by the Ministry of Finance and Economic Planning, from 1986. In the 1991–1993 Public Investment Programme, for instance, the Tano Fields Development project was thus featured, with stated economic benefits, which included the fact that gas production would “*help satisfy (in part) VRA’s need for thermal power generation to meet the growing*

*demand for electricity in both the domestic and export markets.*²⁸ The Main Report of the 1991–1993 Public Investment Programme, while highlighting the National Electrification Scheme as “*a phased programme for providing electricity to all parts of the country within 30 years for the rapid development of the country*”,²⁹ indicates, among strategies for attaining these and other Government objectives in the energy sector, “*securing future supply through complementation of hydropower generation by thermal, solar, and other cost-effective sources.*”³⁰

The hydropower system was proving inadequate for Ghana’s growing energy requirements as well as the requirements of neighbouring countries, and the use of natural gas to complement it was a national and regional imperative. Optimising the hydropower capacity itself required carefully managing the drawdown from the hydro-reservoir having in mind the uncertainty around annual inflows into the dam.

Studies conducted by the VRA about additional electricity generation upstream the Volta River—the Bui project—had also clearly established that the cost of electricity from Bui would be significantly higher than gas-fired electricity generation.

The GNPC programme of gas-fired power generation, however, faced resistance from the World Bank, which held the view that the additional demand for electricity in Ghana could be met by using crude oil, rather than natural gas, for thermal complementation. In an *Issues and Options in the Energy Sector of Ghana* publication in November 1986, the World Bank refers to an electricity investment study for the period 1983–2003 prepared by VRA’s consultants, Acres of Canada, and states: “*It is envisaged that the thermal complementation plant would only be used for base loading about one year in seven.*” The passage continued: “*Examination of the available all-hydro expansion options has shown that none offer the least-cost solution to generation expansion over the period to the year 2003, with combustion turbines and coal-fired steam plants having a lower cost than available hydro options, which excludes additional hydro from least-cost electricity investment planning over the next 20 years. Natural gas may also*

²⁸ Republic of Ghana, Public Investment Programme, Volume 2.6 Project Profiles and Summary Tables, Energy, April 1991, Prepared by Ministry of Finance and Economic Planning, p. 76.

²⁹ Republic of Ghana, Public Investment Programme, Volume 1, Main Report, p. 44.

³⁰ *Ibid.*, p. 45.

be a viable option depending on the commerciality of deposits. This conclusion appears robust under a variety of assumptions regarding costs and load growth.” Coal-fired plants had more attraction than natural gas in this passage, even as it is recognised in paragraph 1.18 at page 8 of the World Bank Report that *“Ghana does not have any known deposits of coal, lignite, or peat.”* The generation expansion programme recommended by Acres, as noted in paragraph 5.16 at page 85, *“consists of 50 MW tranches of combustion turbines to be commissioned in the early 1990s, followed by a 100 MW coal-fired steam plant in the mid-1990s.”*

The Acres outlook of a thermal plant being only used for base loading about one year in seven was relied on by the Bank through the 1990s. It was the basis of its resistance to GNPC plans to introduce gas-fired power generation into Ghana’s generation mix. It was the Bank’s view that VRA would be adversely impacted financially by long-term commitment to gas offtake as against a periodic need to import light crude oil for thermal complementation.³¹

Hence, the first thermal generation plant constructed by the VRA in partnership with the US-based power producer, CMS Generation, while having dual fuel capabilities (crude oil and natural gas), was designed to be initially fuelled by light crude oil. The plant thus started operations on light crude oil, the conversion of the first unit to natural gas taking place in April 2008.³² Gas imported from Nigeria through the West African

³¹ In its consideration of long-term thermal complementation options, the World Bank also stated that “[a]n economically attractive option over the longer term would be the proposed 330 kV West Africa Interconnection between Cote d’Ivoire, Ghana, Togo, Benin and Nigeria. This connection would provide access to any available low-cost, gas-generated electricity in Nigeria. ... The thermally-based Nigerian system and the hydro-based system in Ghana would complement each other well inasmuch as thermal generation could cover shortfalls of hydro in dry periods and increased use of hydro in wet years would allow fuel savings. Nigeria could absorb at least 2,000 GWh of hydropower that would otherwise be spilled in Ghana in wet years” (paragraph 5.23 on p. 88). Gas-fired power based on natural gas from Ghana was evidently not viewed as a likely solution even as it was recognised in the study that: “The optimal utilization of the natural gas potential needs to be given particular attention. While natural gas is likely to be of little interest to international companies because of its limitation to the domestic market and its liability to price controls, it could provide significant benefits to the national economy. Natural gas might be an interesting option for the domestic energy market, especially electricity generation, provided it is delivered at a price not higher than about US\$2.50/Mcf to be competitive with other sources of thermal generation” (paragraph 4.9 at p. 52).

³² See https://www.vra.com/our_mandate/takoradi_thermal_power_station.php (Accessed: 14 June 2021). CMS Generation was later acquired by the Abu Dhabi

Gas Pipeline was what was then used. Supplies from this source were, subsequently, often interrupted, leading to frequent resort to crude oil. As gas from fields in Ghana became available, gas is now used consistently. Having to rely on light crude oil for power generation has had devastating impacts on VRA finances.³³

GNPC pursued its plans for developing the North and South Tano fields by an appraisal programme which involved the drilling, in 1992, with the GNPC-owned drillship, Discoverer 511, of a horizontal well in the South Tano field. An extended well test was conducted using a well testing package installed on the drillship by MODEC. A tanker was moored to the drillship for oil storage during the well testing period, and recovered oil was subsequently refined at TOR. GNPC was operator for the project, with technical support from Horwell, a French company, in designing and drilling the well.

Financing of US\$294 million was raised from the US Eximbank for undertaking the development of the fields and constructing a pipeline to transport gas to a barge-mounted power plant located nearshore, in a pond at Effasu. The loan to GNPC had been guaranteed by the Government of Ghana and, ultimately, could not be drawn down for the project because of the World Bank requiring the Government not to maintain the guarantee.³⁴ The project could, therefore, not proceed.

GNPC was the driver of the West Africa Gas Pipeline (WAGP) project, working initially with the Nigerian National Petroleum Corporation (NNPC) and subsequently bringing Chevron and Shell on board. The commercial consortium that was formed to undertake the project consisted of NNPC, GNPC, Chevron and Shell, with Chevron as the managing sponsor. Gas companies created in Togo and Benin (Sotogaz

national company, TAQA, which is now privatised and listed on the Abu Dhabi Securities Exchange (ADX).

³³ In 2013, the World Bank recognised that VRA faced imminent financial collapse (pp. viii and x). See World Bank. 2013. Energizing Economic Growth in Ghana: Making the Power and Petroleum Sectors Rise to the Challenge. Available at: <https://openknowledge.worldbank.org/handle/10986/16264> (Accessed: 19 July 2021).

³⁴ The World Bank was focused on the Government providing incentives to the private sector for natural gas development and was later to support the ENI/Vitol Sankofa Gye Nyame project with a security package in respect of natural gas take-or-pay obligations of GNPC at US\$9.80 per mmbtu, well beyond the market price of such gas. This was contrary to the position of the Bank in the 1990s when it strongly advised against VRA entering into gas take-or-pay obligations.

and Sobegaz) were also subsequently part of the consortium. From the perspective of the Corporation, the WAGP project would enable Ghana to be connected with the abundant gas resources of Nigeria, thus ensuring security of gas supply for the thermal power plants that were envisaged for Ghana.³⁵

By a decision of the Government in 2001, however, GNPC participation in the WAGP project was terminated and the interest GNPC held in the project was assigned to VRA, a body mandated to develop hydropower, specifically on the Volta River. The power barge project at Effasu was also transferred to VRA.

With its continued focus on natural gas for power generation in Ghana, GNPC successfully negotiated in 2009 with the consortium undertaking the development of the Jubilee field for the first 200 billion cubic feet gas of their share of the partners to be delivered free of charge to GNPC. The price offered by the consortium for selling their share of associated natural gas had been US\$4 per mscf. Value of US\$800 million was thus achieved. In return, GNPC took up the responsibility for construction and operation of the pipeline infrastructure to send the gas and to shore. This was a crucial aspect of the finalisation and approval (in July 2009) of the Plan of Development for the Jubilee field, which then enabled the field to come onstream in November 2010.³⁶ The gas from the Jubilee partners, taken together with gas belonging to the Government (as royalty), and GNPC (through its participating interest) has resulted in all the natural gas exported from the Jubilee field to date belonging to the Government and GNPC.

The availability of natural gas has ensured increased power generation to meet ever growing demand, including demand from neighbouring countries, and has dramatically transformed the country's energy mix. The Energy Commission reflects this in its April 2021 National Energy Statistics report as follows: "In 2000, hydro plants generated the highest proportion (about 92%) of electricity requirement whereas thermal plants

³⁵ This perspective was clearly different from that of the World Bank which highlighted the West African Electricity Interconnection with power from Nigeria as the long-term thermal power option to complement Ghana's hydropower—see footnote 27 above.

³⁶ The Chief Operating Officer of Kosmos Energy was quoted in a 15 July 2009 news release as saying: "Kosmos and its Jubilee Field partners are providing the first 200 billion cubic feet of natural gas to GNPC at no cost to help fund the development and construction of the country's initial gas infrastructure." See: http://www.kosmosenergy.com/press/kosmos_PR_071509.pdf (Accessed: 16 June 2021).

generated the remaining 8%. However, in 2020, the generation mix stood at approximately 36.2% of hydro against 63.6% of thermal and 0.3% of renewables.”³⁷

Significantly, the Commission further reports that Ghana’s power exports reached a record level in 2020, climbing by approximately 26% to 1801 GWh (Gigawatt hours) from the previous record of 1430 GWh in 2019, increased supply to Burkina Faso driving this.³⁸ The Commission projects for 2021 a generation capacity of 5328.1 MW, with dependable capacity of 4879 MW, 68.5% of which will be from thermal sources. The Commission notes in its 2021 Energy Outlook for Ghana that: “Thermal has surpassed hydro as the most dominant source of electricity generation in Ghana since 2015.”³⁹ Indeed, thermal generation is forecast to form Ghana’s electricity mix backbone over the next ten years (2021–2030).⁴⁰ Thus, the availability of natural gas clearly enables the country to meet increasing domestic electricity demand and boost export earnings through electricity exports.

³⁷ Paragraph 3.2 at p. 11 of 2020 Energy Statistics. Available at <http://www.energycom.gov.gh/files/National%20Energy%20Statistics%202021.pdf> (Accessed: 18 July 2021). The 2021 Energy Outlook of the Energy Commission notes at p. 20: “Thermal plants constitute 69.0% of total installed generation capacity in the country. The main fuel sources for the thermal plants are Natural gas, Light Crude Oil (LCO) and Heavy Fuel Oil (HFO). Up to 89% of installed thermal plants depend on natural gas as the primary fuel source due to its comparative advantage over oil in terms of indigeneity, cost and environmental friendliness.” See: <http://www.energycom.gov.gh/planning/data-center/energy-outlook-for-ghana?download=120:energy-outlook-for-ghana-2021> (Accessed: 28 July 2021).

³⁸ *Ibid.* at paragraph 3.3 on p. 12. It is also reported on p. 13 that “Ghana has been a net exporter of electricity for three consecutive years. The net export registered in 2020 was the highest, increasing by 33.8% over 2019.”

³⁹ See 2021 Energy Outlook of the Energy Commission <http://www.energycom.gov.gh/planning/data-center/energy-outlook-for-ghana?download=120:energy-outlook-for-ghana-2021> (Accessed: 28 July 2021).

⁴⁰ 2021 Electricity Supply Plan—a power supply outlook with medium-term projections for Ghana http://energycom.gov.gh/files/2021%20Electricity%20Supply%2020Plan_Final.pdf (Accessed: 30 July 2021); Acheampong, T., Menyeh, B. O., & Agbevivi, D. E. (2021). Ghana’s Changing Electricity Supply Mix and Tariff Pricing Regime: Implications for the Energy Trilemma. *Oil, Gas & Energy Law*, 19(3).

4 THE PETROLEUM REVENUE MANAGEMENT ACT (PRMA) AND GNPC FINANCES

The Petroleum Revenue Management Act, 2011 (Act 815), was enacted in 2011. It established a centralised system for collecting and allocating petroleum revenues. Section 2(1) provides: “*A Petroleum Holding Fund is hereby established as a designated public fund at the Bank of Ghana to receive and disburse petroleum revenue due the Republic.*”

In the original Section 7 of the Act, after the provision in subsection (1) that “*Revenue due from the direct or indirect participation of the Republic in petroleum operations, including the carried and additional participating interests shall be paid into the Petroleum Holding Fund,*” subsection (2) provides that: “*The payment into the Petroleum Holding Fund shall be net of (a) the equity financing cost, including advances and interest of the carried interest of the Republic, and (b) the cash or the equivalent barrels of oil that shall be ceded to the national oil company out of the carried and participating interests recommended by the Minister and approved by Parliament*” (Emphasis supplied).

This meant that amounts GNPC needed for equity financing, such as advances made by the Contractor in respect of the Corporation’s additional participation, did not have to be paid into the Petroleum Holding Fund (PHF). Payment into the PHF was net of equity financing cost as well as share of revenue from its participating interest that was ceded to the Corporation.

However, the section was amended in the Petroleum Revenue (Management) (Amendment) Act, 2015 (Act 893); Section 7 now simply has the provision in subsection (1). All revenues, including those from carried and participating interests, have to be first paid into the Petroleum Holding Fund. There would, then, by the amendment to Section 16, be disbursements from the Fund “to a national oil company” for the equity financing cost and other amounts allocated the national oil company. A consequence of the amended provision is the delays to the receipt of funds by GNPC to meet cash calls in respect of ongoing production.

In its 2019 Report, the Public Interest and Accountability Committee (PIAC) states at paragraph 4.6 that: “*Due to GNPC’s inability to honour its cash calls, the Ghana Group which should have lifted three (3) cargoes per its equity holding in the Field used two (2) out of the three (3) parcels to defray the Development and Production expenditures incurred by the*

*partners on behalf of the Ghana Group.”*⁴¹ An earlier paragraph in the Report shows a build-up of GNPC indebtedness from one year to the next and the consequence: “4.4.3 *There was an outstanding cost from 2018 of US\$41.15 million, bringing the total amount payable for 2019 by GNPC to US\$95.16 million. Out of this amount, US\$89.22 million was paid by way of crude oil offset...*”.

The failure of GNPC to fund its share of ongoing expenditures in a timely manner has implications beyond the loss of lifting entitlements. The framing of work programmes by the Contractor, with financial commitments, has to take account of GNPC’s inability to fund its share and the Contractor having to factor that into raising capital for projects.

Section 16(4) of the PRMA, as amended, makes it the obligation of the Minister of Finance to “*ensure that the Bank of Ghana transfers to a national oil company, the relevant portion of the revenue due to that national oil company under subsection (2) not later than three working days after the receipt of petroleum revenue into the Petroleum Holding Fund.*” The Annual Petroleum Reports of the Ministry of Finance reveal consistent breach of the provision. For 2020 liftings, as many as fifty days and not less than twenty-one days elapsed from the dates of receipts into the Petroleum Holding Fund of revenues from the current oilfields to the dates of disbursement to GNPC. Table 1 set out the details.

The statutory responsibility of the Minister of Finance to ensure payments to the national oil company within three days of receipt of funds in the PHF has, clearly, not been fulfilled.

Regulation 9 of the Petroleum Revenue Management Regulations, 2019, LI 2381 provides: “(1) *In furtherance of sub-Section (4) of Section 16 of the Act, a national oil company shall present an invoice to the Ministry for the portion of revenue due a national oil company within twelve days of the lifting of the crude oil. (2) On the receipt of the petroleum revenue into the Petroleum Holding Fund, the Minister shall request the Controller and Accountant General to instruct Bank of Ghana to pay the national company within three days.*”

This requirement for an invoice to be submitted to the Minister by the national oil company erroneously makes the claim to the share of the funds a claim on the Minister of Finance, when in fact it is a claim on

⁴¹ See https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2019_annual_report.pdf (Accessed: 1 July 2021).

Table 1 Date of lifting, receipt date and date of distribution for Ghana's Petroleum Receipts (2020)

		<i>Jubilee</i>				
A	Date of lifting	04-February-20	04-April-20	23-June-20	28-August-20	07-October-20
B	Receipt date	05-March-20	05-May-20	23-July-20	28-September-20	06-November-20
C	Date of distribution	22-April-20	03-June-20	03-September-20	27-October-20	03-December-20
D	D = B - A	30	31	30	31	30
E	E = C - B	48	29	42	29	27
<i>TEN</i>						
A	Date of lifting	15-December-19	26-February-20	22-June-20	27-September-20	
B	Receipt Date	14-January-20	27-March-20	21-July-20	27-October-20	
C	Date of Distribution	04-March-20	22-April-20	11-August-20	25-November-20	
D	D = B - A	30	30	29	30	
E	E = C - B	50	26	21	29	
<i>Sankofa/Gye Nyame</i>						
A	Date of lifting	16-January-20	07-June-20	27-September-20		
B	Receipt date	14-February-20	08-July-20	27-October-20		
C	Date of distribution	03-April-20	29-July-20	02-December-20		
D	D = B - A	29	31	30		
E	E = C - B	49	21	36		

Source Constructed from Tables 7-9 and Appendix 4 of the 2020 Annual Petroleum Report of Minister of Finance <https://mofep.gov.gh/sites/default/files/reports/petroleum/2020-Annual-Petroleum-Report.pdf> (Accessed: 21 July 2021).

the PHF, a distinct public fund established under the PRMA. The interposition of a request by the Minister of Finance to the Controller and Accountant General to instruct the Bank of Ghana to pay the national oil company the funds due to it is clearly no way to ensure payment within three days as the Minister of Finance is required, by Section 16(4) of Act 893, to do. This also erroneously treats the funds received in the PHF as if they were Government funds under the Controller and Accountant General who, therefore, has to be asked to instruct the transfer. Even if an invoice submission from GNPC is considered an administrative process to facilitate payment, there is no reason why such an invoice cannot be directly to the PHF itself copied to the Minister of Finance. Note must be taken of Section 3(5) of Act 815: *“For the purposes of this Act, petroleum revenue paid into the Petroleum Holding Fund shall not be treated as part of the normal tax revenue for purposes provided for in relevant laws of the Republic; and used as a basis for the determination of any statutorily earmarked funds.”*

The procedure that Regulation 9 of LI 2381 introduces also does not reflect the order of priority of disbursements provided for in Section 16(1) of Act 893: *“Disbursements from the Petroleum Holding Fund shall be made in the following order of priority and only:*

- *to the national oil company for the purposes of subsection (2);*
- *to the Consolidated Fund in support of the national budget;*
- *to the Ghana Petroleum Funds for the purposes of savings and investment; and*
- *for exceptional purposes according to the provisions of this Act.”*

Regulation 9 of LI 2381, subsidiary legislation at variance with the operation of statute, namely Act 815, as amended by Act 893, is clearly invalid.

4.1 GNPC Finances: Government and State Agencies' Indebtedness

The PIAC 2020 Report records large amounts of indebtedness to GNPC by Government and various state organisations, some going back ten years. The indebtedness of the Ghana National Gas Company (GNGC) in an amount of US\$564.126 million and VRA to the tune of US\$253.503 million, totalling US\$817.629 million, for gas supplied over a number of

years stand out.⁴² Paradoxically, while GNPC is unpaid for years of natural gas supplied to GNGC and VRA, its foreign partners, ENI (the Italian national oil company) and Vitol (an international oil trader), receive payments for gas supplies without fail on the basis of a security structure that was put in place by Government and GNPC, with the support of the World Bank.⁴³ ENI and Vitol are paid on the basis of the take-or-pay contract for gas supplies but not GNPC even in respect of its paid participation which should really be on the same footing as the Contractor's gas supply. ENI and Vitol also lift oil that is part of the entitlement of GNPC when GNPC does not meet its equity financing requirements. GNPC, however, is both unable to receive funds from crude oil sales, in the time frame statutorily provided for, and also not paid for gas supplied to both GNGC and VRA. No recourse appears to be available to GNPC.

Neither the establishment of a Cash Waterfall Mechanism (CWM) for disbursement of the revenues of the Electricity Company of Ghana to various beneficiaries along the electricity value chain, including GNPC, nor the proposed Natural Gas Clearing House (NGCH) have successfully addressed the outstanding indebtedness to GNPC in respect of gas supplies.

The extent of the use of GNPC resources at the behest of Government is highlighted at page 97 of the 2020 PIAC Report in Table 39 headed: "Payments & Guarantees Made on Behalf of Other Agencies, Government National & Local Infrastructure Projects." A total amount of US\$1.512 billion that is reflected there highlights the scale of the problem.⁴⁴ Securing ECG fuel oil supply by Litasco in the amount of US\$200 million and providing Karpower guarantees to the tune of

⁴² Paragraph 9.3.2.11 at p. 96 https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf (Accessed: 2 July 2021).

⁴³ World Bank Group. Ghana Sankofa Gas Project. Available at: <https://thedocs.worldbank.org/en/doc/969011518200591340-0100022018/original/BriefsGuaranteesGhanaSankofa.pdf> (Accessed: 29 July 2021).

⁴⁴ The "OCTP Escrow Account" listed in the Table, however, appears to be a part of the security package that GNPC and the Government put up in respect of the take-or-pay obligation undertaken by the Corporation for gas supplies from the Sankofa Gye Nyame fields referred to above. If so, it is, properly, a GNPC responsibility and should not be in this Table of Government responsibilities that GNPC is made to fund. The existence of the Escrow account does underscore the point that payments to ENI and Vitol for gas are guaranteed, while GNPC does not get paid by GNGC and VRA for gas supplied.

US\$145 million, two of the items listed in Table 39, are financial commitments of Government and need to be on the balance sheet of the Government, not the Corporation.

There is, in the 2020 Annual Petroleum Report of the Minister for Finance, in respect of Karpower, a record of payments by GNPC in respect of “*a US\$31 million loan obtained to facilitate the relocation of the Karpower barge from Tema to Takoradi, per the decision of Government.*”⁴⁵ It is also stated in that Report at paragraph 124 that “*US\$11.72 million was expended on the Gas enclave road project In line with the Corporation’s role as the gas aggregator, GNPC was requested by the Government of Ghana to financially support the construction of key roads within the western corridor to facilitate the evacuation of gas from the Ghana Gas Company at Atuabo.*” The 2020 PIAC Report, however, records “*a Presidential directive*” (dated 11th May 2020) that confirmed GNGC as: “*the aggregator for all gas;...and which is being implemented by a Ministerial Gas Task Force.*”⁴⁶

It is obvious that there is constant pressure on GNPC resources from Government interests. Pursuit of the commercial corporate agenda will, likely, yield more resources in the end for Government to address its priorities. The Corporation, by demonstrably pursuing a commercial corporate agenda that seeks to advance the objectives in the GNPC statute, such as the planned and orderly development of the petroleum resources of Ghana and ensuring national benefits thereby, will be well placed to hold at bay deviations from the statutory responsibilities of the Corporation. In its 2019 Report, PIAC reiterated earlier calls for Parliament to consider

⁴⁵ Paragraph 127 at p. 44 of the Report <https://mofep.gov.gh/sites/default/files/reports/petroleum/2020-Annual-Petroleum-Report.pdf> (Accessed: 2 July 2021).

⁴⁶ Paragraph 10.3 on p. 101 https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf (Accessed: 2 July 2021). In the Gas Master Plan developed by the Ministry of Petroleum in 2016, a contrary view had been taken as follows: “based on international comparators, gas sector development is facilitated by providing a simpler structure more suitable to the nascent state of the gas market in Ghana. The decision to appoint GNPC as the aggregator of gas and making GNGC a fully owned subsidiary of GNPC will improve coordination in the sector and facilitate infrastructure investment and financing” (p. 11). See: https://uploads-ssl.webflow.com/5a92987328c28c00011db053/5bbf7dca7a04d6da6a45aa82_GMP-Final-Jun16.pdf (Accessed: 25 July 2021).

placing some restrictions on the proportion of GNPC's budget on Corporate Social Investments and guarantees to state institutions, particularly in the light of their inability to respond to some of their cash calls.⁴⁷

Yet, in 2020, GNPC spent an amount of US\$44.477 million on "Sustainability & Stakeholder Relations and GNPC Foundation," almost seven times the amount spent on the Sankofa Gye Nyame fields (US\$7.094 million) and about as much as the US\$48.488 million spent on Jubilee.⁴⁸ The 2020 PIAC Report notes, "*GNPC spent 71.81 percent of its Level B Expenditure receipts [equity financing costs are Level A] on Sustainability & Stakeholder Relations and GNPC Foundation.*"⁴⁹ Such a level of expenditure on "Sustainability etc.," in a year when GNPC received from the PHF an amount of \$198.65 million and spent \$270.39 million, resulting in a negative position/deficit of \$71.74 million, is clearly unsustainable without increased oil and gas production and revenues therefrom. Limiting the Corporation's capacity to meet its equity financing costs in respect of the very fields from whose production the revenues for the Petroleum Holding Fund (PHF) are generated by all these other expenditures is, obviously, imprudent. A plan for ensuring the investments needed for increasing oil and gas production is, without doubt, the current imperative for the Corporation.

4.2 *Establishing GNPC Expenditure Priorities*

A primary responsibility of the Corporation as a commercial partner in upstream ventures is to prioritise production from existing fields such that the production is sustained, if not enhanced. Section 16 of the PRMA, as amended by Act 893, in giving the highest priority to payment to the national oil company for its equity financing costs and other obligations, correctly recognises that these equity financing costs undergird the very sustainability of the PHF itself. An appreciation of this by all national institutions, including GNPC itself, is required, and expenditure priorities for the Corporation must be established on that foundation.

⁴⁷ PIAC 2019 Report paragraph 10 of Recommendations at p. 14.

⁴⁸ 2020 Annual Petroleum Report of Minister of Finance, Table 19 on p. 42 <https://mofep.gov.gh/sites/default/files/reports/petroleum/2020-Annual-Petroleum-Report.pdf> (Accessed: 2 July 2021).

⁴⁹ See p. 98 https://www.piacghana.org/portal/files/downloads/piac_reports/piac_2020_annual_report.pdf (Accessed: 2 July 2021).

The 2020 Annual Petroleum Report of the Minister of Finance recognises situations around currently producing fields which clearly necessitate urgent actions by partners, particularly GNPC as the national oil company. In respect of the Jubilee Field, it is indicated that: “31. The major challenges of the Greater Jubilee Field are high water breakthrough (water cut), elevated Gas-oil-ratio (GOR) and gas handling especially gas export, all of which affect oil production in the Field.”⁵⁰ In respect of the TEN fields: “37. *The main challenge on the TEN Field is to do with gas export. This is due to lack of market for the gas and more lately the hydrate blockage on the gas export pipeline. Plans are underway to curb the blockage in pipeline while the market for gas is more of a long-term challenge. This has led to increased gas injection into the reservoir with the expected increase in Gas Oil Ratio (GOR) and gas cycling in some of the oil producing wells in the Ntomme reservoir. This could have an impact on the TEN Field reserves in the long run.*”⁵¹

In paragraph 153 on page 51 of the 2020 Annual Petroleum Report, it is stated: “*The SGN take-or-pay obligations have ensured that gas from the Sankofa Field is the first to be dispatched. This makes gas supply from the Jubilee and TEN Fields interruptible. In effect, the associated gas in these fields are reinjected to accommodate SGN production, leading to rising gas-to-oil ratios.*”

Gas utilisation to increase the Sankofa Gye Nyame fields’ oil production is also, fortunately, noted in the Report: “44. *Eni Ghana Exploration and Production Limited, Operator of the Sankofa Gye Nyame (SGN) Field, requested for approval from the Minister of Energy to amend the Plan of Development (PoD) to use the gas produced from SNKE-2A (Cenomanian level) for injection into the Cenomanian level for the purpose of oil optimisation.*”

The PIAC, in its 2019 Report, rightly “calls on government to expedite action on the infrastructure requirement for gas evacuation and utilisation in order to avoid the huge backlog of make-up gas volumes and eventual resource waste.”⁵²

⁵⁰ See p. 16 <https://mofep.gov.gh/sites/default/files/reports/petroleum/2020-Annual-Petroleum-Report.pdf> (Accessed: 2 July 2021).

⁵¹ *Ibid.*, p. 18. The 2019 Annual Petroleum Report of the Minister of Finance had exactly the same statement at paragraph 28 on p. 5.

⁵² 2019 PIAC Report recommendation 11 at p. 14.

There can be no doubt that the investments required for addressing, particularly, the danger of poor gas handling substantially decreasing oil recovery in the Jubilee and TEN fields, represent the pressing priorities for GNPC according to its mandate. More so as 2020 saw an almost 7% decline in Ghana’s oil production after four years—2016–2019 inclusive—of increasing production (Fig. 1).

The danger of much oil (value estimated to be in billions of dollars) being left in the ground, from high levels of gas reinjection into the reservoir in both the Jubilee and TEN fields, earlier referred to, deserves urgent steps being taken by GNPC in the national interest. Expenditures in the “pre-exploration” activity in the Voltaian basin, for instance, should certainly not be given higher priority. Unnecessary gas reinjection is also at a cost, while utilising the gas creates value.

The scale of potential value to be derived from a focus on the producing assets is evident from information provided in Tullow Oil’s April 2021 independent reserves audit. In the Jubilee field, reserves attributable only to the Tullow stake are certified as 141.3 million barrels of oil equivalent while in the TEN fields reserves of 68.7 million barrels

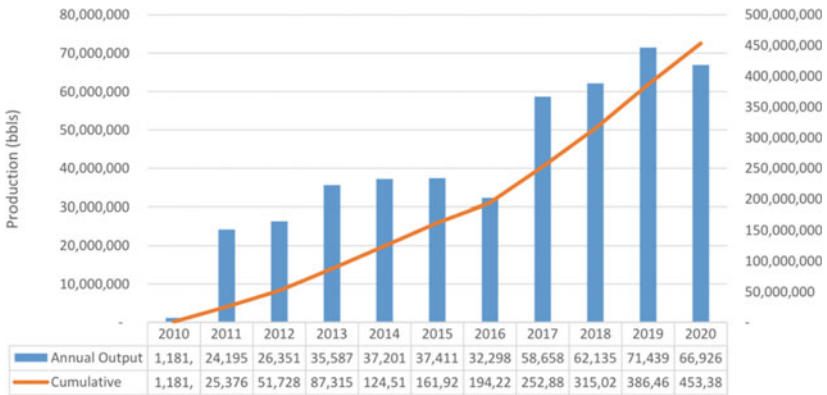


Fig. 1 Annual cumulative crude oil production (2010–2020) (Source PIAC [2020])

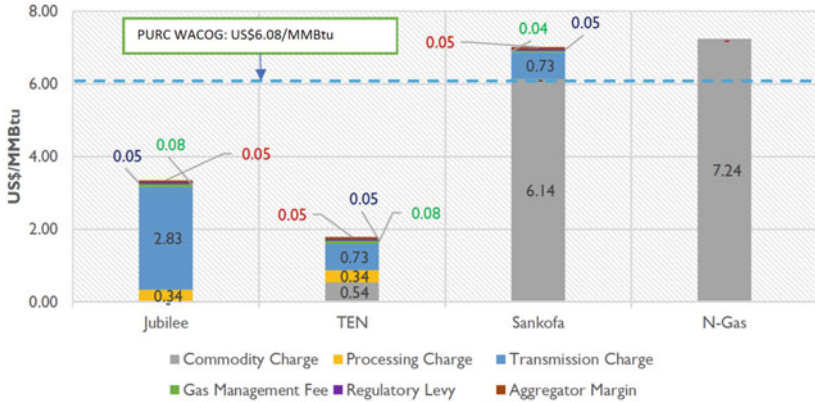


Fig. 2 Ghana's gas pricing for the different sources (*Source* 2021 Energy Outlook for Ghana, Energy Commission [2021, p. 22])

of oil equivalent are certified.⁵³ Contingent resource estimates provided are 111.5 million barrels of oil equivalent for Jubilee and 230.3 million barrels of oil equivalent for the TEN fields.⁵⁴

Figure 2 from the 2021 Energy Outlook for Ghana of the Energy Commission shows the striking difference between the cost of gas from the Jubilee and TEN fields, on the one hand, and the cost of gas from the Sankofa Gye Nyame fields or gas from N-Gas through the West African Gas pipeline. This also underlines the value to the country, in lower electricity tariffs, of GNPC's 200 billion cubic feet of free natural gas from the partners in the Jubilee field.

While GNPC negotiated a zero cost from the partners for their share of gas, the responsibility for the gas infrastructure, which the Corporation took on, has a cost and it would be more consistent with the Corporation having to operate on sound commercial lines for there to be a commodity charge for Jubilee gas reflected in the PURC tariff. There appears also to be a disparity between the US\$2.83 transmission charge on Jubilee gas and the US\$0.73 transmission charge for TEN and Sankofa gas in this

⁵³ Audit of Reserves, p. 13 https://www.tulloil.com/application/files/9316/1969/2964/Independent_Audit_of_Tullow_Petroleum_Assets_final_2P_only_send.pdf (Accessed: 28 July 2021).

⁵⁴ Ibid., p. 19.

Table. Consistent application of a US\$0.73 transmission charge would reduce the weighted average cost of gas in the PURC tariff.

The low cost of Jubilee and TEN gas makes it important for the gas from those fields to be prioritised as against both Sankofa Gye Nyame gas and gas from Nigeria through the West African Gas pipeline. Minimising the effect of take-or-pay obligations in the relevant gas supply contracts, including even paying and deferring offtake of gas from Sankofa Gye Nyame in favour of cheaper gas will ensure an even lower Weighted Average Cost of Gas (WACOG) in addition to enabling enhanced oil production from Jubilee and TEN.

GNPC's need to prioritise the realisation of value from the reserves of the existing fields and from gas utilisation as well as accelerated development of discoveries also necessitates urgent reconsideration of the prohibition of borrowing against reserves in Section 5(2) of the Petroleum Revenue Management Act, 2011, Act 815, as amended by Act 893. It is there provided: "In order to preserve **revenue streams from petroleum** and ensure the object of this Act, there shall not be **any borrowing** against the petroleum reserves" (Emphasis supplied). The PRMA, in Section 5(2), had only prohibited borrowing against "the Petroleum Holding Fund." The amended provision is, in its terms, actually applicable not only to GNPC but to the Contractor as well. Reserve-based lending is a widespread commercial practice in the oil and gas industry and the provision has evidently not been invoked to prevent such borrowing by any of the Contractor parties. There is no reason why GNPC should not borrow against the nation's oil and gas reserves even as its international partners are borrowing against these national reserves to advance their corporate objectives, including exploration in other countries the partners operate in.⁵⁵ The terms of Section 5(2) do not debar GNPC or, indeed, the Government, from forward sales of future oil or gas production and receiving prepayments in respect of such sales.

⁵⁵ Thus, Tullow announced completion of "the bi-annual redetermination of its RBL credit facility with \$1.8 billion of debt capacity approved by the lending syndicate" in a press release of 7 October 2020 <https://www.tulloil.com/media/press-releases/rbl-redetermination-confirms-debt-capacity-18-billion-and-headroom-c500-million-capital-markets-day-be-held-25-november-2020> (Accessed: 23 July 2021). Also, Kosmos Energy announced a similar successful completion of "the amendment and extension of its reserve based lending ("RBL") facility" in a 10 May 2021 press release <https://investors.kosmosenergy.com/news-releases/news-release-details/kosmos-energy-successfully-completes-reserve-based-lending-1> (Accessed: 23 July 2021).

Enhancing GNPC's financial capacity in ways that are common practice in the oil industry would enable more effective fulfilment of its statutory mandate, particularly its responsibility to "promote the exploration and orderly and planned development of the petroleum resources of Ghana" (Section 2(a) of the GNPC Law). As GNPC borrowing is subject to approval by the Minister of Finance and only upon the recommendation of the Minister of Energy (Section 4(2) of the Act), there is every opportunity for Government to ensure that GNPC borrowing does not compromise Government revenues under the PRMA framework.

5 CONCLUSION: STRENGTHENING GNPC AMIDST THE ENERGY TRANSITION

For GNPC to be able to address the priorities outlined above, there is clearly a need for it to be strengthened as an organisation. In a study by the African Natural Resources Centre of the African Development Bank on Enhancing the Performance of African National Oil Companies, there is recognition of the strength of "*GNPC's experienced upstream technical staff and deep understanding of Ghana's geological potential.*"⁵⁶ However, it is also observed that "[o]verall, GNPC: *iv. Has limited enterprise, finance, accounting and risk management capability and basic risk management tools (e.g., a formalised, systematically maintained risk register)*" and that "*[s]pecifically, in its upstream segment, GNPC: i. Lacks approved upstream policies and procedures which are needed for stand-alone operatorship.*"⁵⁷

Observations of management staff interviewed for the study are also pertinent. For example, "*[w]hen asked to describe GNPC in one word, interviewees offered many instead: bureaucratic, slow, centralised... This opened discussions on how they would like to see the company: one with a defined corporate culture that guides employees towards more personal accountability, more delegation and cascading authority, enabling decisions to be taken at the operational level, more continuity and less politics,*

⁵⁶ Page 20. African Natural Resources Centre (ANRC). 2021. Enhancing the Performance of African National Oil Companies. African Development Bank. Abidjan, Côte d'Ivoire.

⁵⁷ Ibid., p. 104.

and more openness.”⁵⁸ Also, “when asked about the operatorship strategy, managers in the upstream frequently replied that it was unrealistic.”

Having the Corporation operate in accordance with its commercial corporate mandate is clearly the legitimate aspiration of the management staff interviewed. The capacity and focus of GNPC and its personnel should be aligned to the priorities of its mandate.

In the midst of the current international outlook of energy transition from fossil fuels expressed, for instance, in the Net Zero by 2050 Agenda outlined by the International Energy Agency,⁵⁹ it is crucial for Ghana’s successful navigation of the energy transition that GNPC should “ensure that Ghana obtains the greatest possible benefits from the development of its petroleum resources” and “ensure that petroleum operations are conducted in such manner as to prevent adverse effects on the environment, resources and people of Ghana” (Sections (2)(b)) and 2(2)(e) of GNPC Act). It is most unfortunate that the operatorship aspirations of GNPC have been expressed mainly in terms of the Voltaian Basin “flagship” project and its Explorco subsidiary, preventing closer attention to the more critical priorities discussed here.

The establishment of GNPC was to give an impetus to exploration efforts so as to enable oil production in Ghana and reduce the drain on scarce foreign exchange resources. In the relatively short period since the establishment of GNPC, not only has Ghana attained significant success in petroleum exploration and production, but oil has become a major contributor to, not a drain on, foreign exchange earnings. Petroleum revenues amounting to US\$6.5 billion have been earned cumulatively from petroleum in the 2011–2020 decade, the first decade of significant oil production in Ghana (Fig. 3).⁶⁰

GNPC now focusing its scarce resources on increasing oil and gas production from existing producing fields will initiate a new momentum

⁵⁸ Ibid., paragraph 2.2.3, p. 38.

⁵⁹ IEA—Net Zero by 2050—A Road map for the Global Energy Sector. Available at: <https://iea.blob.core.windows.net/assets/822e602e-a42d-46a0-aec1-1f17b16e95d6/NetZeroBy2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers.pdf> (Accessed: 15 June 2021).

⁶⁰ The claim attributed to the Chief Executive of Tullow Oil that the Jubilee partners have “paid a little over \$6 billion to the State in taxes” <https://www.myjoyonline.com/jubilee-partners-invest-over-19bn-in-oil-fields-since-2010-paid-6bn-in-taxes> of 10 June 2021 is obviously wrong; most of the State revenues are through the GNPC carried and paid participating interests as well as royalties.

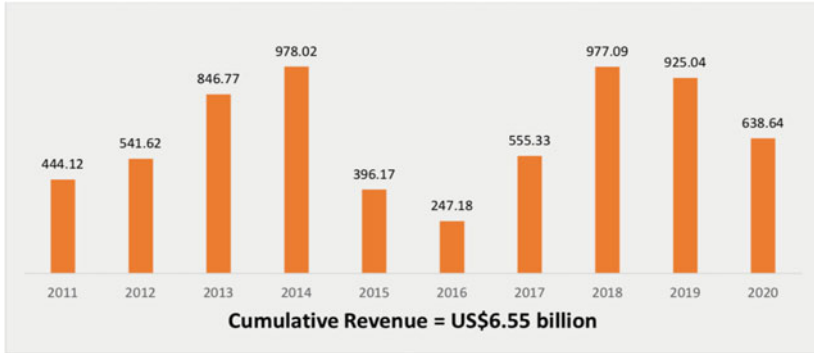


Fig. 3 Annual petroleum receipts (2011–2020), US\$mm (*Source* PIAC [2020])

of increasing oil and gas production in the near term. This would involve development of existing discoveries using innovative technology approaches and recourse to enhanced oil recovery techniques, including, for instance, those that use carbon dioxide, and which could, therefore, be part of a carbon capture, utilisation and storage (CCUS) strategy. The harnessing of natural gas for increased power generation—for domestic requirements and export—will further consolidate the consistent gas-to-power outlook of GNPC from its earliest years. While the focus of a foreign company as regards the flaring of natural gas may be on reducing carbon emissions, for a national company like GNPC, a country's natural resource being wasted while many citizens have little access to energy provides greater urgency to avoiding flaring.

Even as International Oil Companies (IOCs) strategise about their various paths to Net Zero, National Oil Companies (NOCs), such as GNPC, also need to position themselves with strategies to capture national benefit amidst the energy transition. International Oil Companies relinquishing fields on account of their energy transition agenda should not disable national oil companies from continuing with production where there are reserves still worth recovering. There is considerable incremental value to be derived from the existing producing fields in Ghana and appraised discoveries and from optimising the infrastructure that has been established for production from these field.

In connection with GNPC priorities also, the current situation of Anadarko Ghana, following the acquisition of the parent company, Anadarko Petroleum, by Occidental in 2019 and the clear lack of interest of Occidental in Anadarko Ghana,⁶¹ creates an opportunity for GNPC to increase its stake in these prized national assets, especially with a view to accelerating the steps needed to optimise oil recovery through improved gas handling as well as enhanced oil recovery.

ENI's recent announcement of the latest discovery, Eban-1, in the Offshore Cape Three Points block, gives GNPC opportunities for maximising the value of existing production infrastructure. ENI states, assuredly: *“Due to its proximity to existing infrastructures, the new discovery can be fast-tracked to production with a subsea tie-in to the John Agyekum Kufuor FPSO, with the aim to extend its production plateau and increase production. The Eban discovery is a testimony to the success of the infrastructure-led exploration strategy that Eni is carrying out in its core assets worldwide.”*⁶² According to the company: *“The new discovery has been assessed following comprehensive analysis of extensive 3D seismic datasets and well data acquisition including pressure measurements, fluid sampling and intelligent formation testing with state-of-the-art technology. The acquired pressure and fluid data (oil density and Gas-to-Oil Ratio) and reservoir properties are consistent with the previous discovery of Akoma and nearby Sankofa field. The production testing data show a well deliverability potential estimated at 5000 bopd, similar to the wells already in production from Sankofa Field. The estimated hydrocarbon in place between the Sankofa field and the Eban-Akoma complex is now in excess of 1.1 Bboe and further oil in place upside could be confirmed with an additional appraisal well.”*

In this situation with the Eban-1 and Akoma -1 discoveries (which are in CTP -Block 4, separate from the Sankofa Gye Nyame Development and Production Area in the OCTP Block), GNPC can realise value, for instance, from the options provided to it in Section 19 of the Petroleum (Exploration and Production) Act 2016 (Act 919), to own physical assets purchased, installed or constructed by a contractor for

⁶¹ Occidental regards these as “discontinued operations” and excludes them from its corporate presentations. <https://www.oxy.com/investors/Documents/Earnings/OXY1Q21ConferenceCallSlides.pdf> (Accessed: 26 July 2021).

⁶² See <https://www.eni.com/en-IT/media/press-release/2021/07/eni-announces-significant-discovery-block-ghana.html> (Accessed: 26 July 2021).

petroleum activities where the full cost of such assets has been recovered, or even after 50% of cost recovery by paying the remaining unrecovered cost to the Contractor. Such assets would then be leased to the Contractor for both the continued production from the existing Development and Production Area and the development of the new discoveries in the neighbourhood.⁶³ Indeed, the additional oil and gas reserves from the new discoveries ENI expects to be processed on the existing infrastructure would also significantly reduce the price of the natural gas from Sankofa Gye Nyame since the current pricing reflects project capital costs in relation to reserves anticipated in the Plan of Development.

GNPC's responsibility to drive the generation of such value for the benefit of the nation cannot be over-emphasised. There is even more urgency about the key objects set out for the Corporation from the beginning. National clarity about this, with clear alignment among the key stakeholders, is the surest way to empower GNPC to pursue a field development and production-focused agenda and enable Ghana to continue to derive significant value from her oil and gas endowments in the midst of the energy transition. Without such a focus, Ghana could soon easily end up with rapidly declining oil and gas production and, hence, drastic reduction in oil revenues for both Government and GNPC.

⁶³ See footnote 12 above.