

An Annual Petroleum Commission Publication

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First Oil from Jubilee South East Projects - Prez Akufo Addo Turns the valve The Jubilee South East Projects, Orsam Energies and the Local Content Factor Enhancing Value Creation in the Upstream Petroleum Industry through Strategic Alliance & Channel Partnership Arrangements



# Our Profile

Zeal Environmental Technologies Limited (ZETL) is an indigenous industrial leader in ailfield waste management services to the Jubilee partners, with Tullow Oil as Lead Operator, and other Oil and Gas companies in West African sub region.

Zeal was founded in 1977. In 2006 ZETL took over the going concern of Zeal Ltd to operate the Takoradi Port Reception Facility in conformity with the International Maritime Organization (IMO) MARPOL73/78 Treaty.

ZETL operates an Integrated Oilfield Waste Management Facility at Nyankrom, in Shama District-Western Region of Ghana, providing best industrial practice in management of hazardous waste, non-hazardous waste, tank form, supply vessel and oil rigs tank cleaning.

ZETL is highly committed to Environmental, Health and Safety as its core value and this has been the firm basis for our long-term success and environmental leadership.

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- Equipment Rentals

# Clients



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# Waste Streams We Manage

# Hazardous Waste;

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- Chemical drums and containers with residue Sludge from Tank clean out
- Expired Industrial and consumer chemicals

# Non - Hazardous Waste;

Glass, Paper, Food, Ferrous and Non-Ferrous Metals, Plastic and Wood

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# **Editorial**

# 10 Years of L.I. 2204

This year's Local Content Conference & Exhibition (LCCE) also marks 10 years of the passage of the Petroleum (Local Content and Local Participation) Regulations, 2013; L.I. 2204.

L.I. 2204 entered into force on the 20th day of November, 2013, having been gazetted on the 12th day of July, 2012. Since its entry into force, L.I. 2204 has been one of the main legislation that has been used by the Petroleum Commission (Commission) to regulate and manage local content and local participation as well as Job Role Localisation (JRL) in Ghana's upstream sector.

As we mark 10 years of the implementation of L.I. 2204, we at the Commission join hands with the Ministry of Energy, all companies operating at various levels of the upstream petroleum industry and all stakeholders to mark this epoch.

Ghana has made significant strides in its upstream petroleum sector within 10 years of L.I. 2204. Nevertheless, the period has also witnessed a number of challenges that have warranted an evolution of strategies to ensure seamless upstream operations.

It is against this backdrop that the Ministry of Energy led the Commission to effect amendments to L.I. 2204. Accordingly, the Petroleum (Local Content and Local Participation) (Amendment) Regulations, 2021 (L.I. 2435) came into force on the 17<sup>th</sup> day of February, 2021. The Commission places on record its gratitude to Dr. Matthew Opoku Prempeh, the Hon. Minister for Energy and Member of Parliament for Manhyia South for the leadership he provided in getting L.I. 2435 passed.

Prior to the coming into force of L.I. 2435, the primary mode for Non-Indigenous Ghanaian Companies (NIGCs) that desire to provide goods and services within Ghana's upstream sector was through the incorporation of a Joint Venture (JV) with an Indigenous Ghanaian Company (IGC). L.I. 2435 has introduced two other options, being strategic alliances and channel partnerships for NIGCs to do business in Ghana's upstream sector.

The Commission desires further changes to the existing laws on local content in the upstream sector and will continue to work with all stakeholders to effect desired amendments, where necessary.

In the course of the last 10 years, one of the achievements of the local content objective has been the strengthening of the Local Content Committee. The Local Content Committee has through its meetings in the last few years sought to execute its mandate in a firm and fair manner.

A major concern of the Commission is the fact that some IGCs operating in the industry as JV partners have done little to improve their growth in some of the JVs. The Commission deprecates such conduct. Local Content does not just happen. It takes deliberate efforts backed by willing indigenes involved in the sector as well as willing NIGC partners to make local content happen.

The next decade should witness IGCs operating at various levels in the upstream petroleum industry break out of the current operational status quo and aggressively participate in the core operations of their partners.

The Commission looks forward to a future where IGCs would position themselves to acquire proprietary/Intellectual Property Rights to technologies for their own use.

The next 10 years should also witness the existence of at least one Indigenous Ghanaian Oilfield Services Company. Considering that oilfield operations are largely technology driven, the challenge is for IGCs to invest in oilfield technologies as their contributions to their partners. Beyond that, the Commission expects such Ghanaian companies to transition to full blown oilfield service companies.

The Local Content Fund has seen growing contributions over the last few years. A strong case may be made for grants or loans from the Fund to support the activities of technologydriven IGCs in that direction.

The successes of the 10 years of L.I. 2204 will be meaningless if all stakeholders do not collaborate to create and grow fullblown indigenous Ghanaian oilfield services companies among others within the next decade.

The Commission challenges IGCs to do a rethink of their respective roles in Ghana's upstream petroleum industry to ensure their continued existence in an era of Energy Transition.

The Commission wishes all of its stakeholders and the Ministry of Energy success as we go forward.

# **Local Content Committee Members**



Mr. Egbert Faibille Jnr. - Chairman



Dr. Jemima Nunoo



Hon. Abdul-Razak Tahidu





Mr. Kwaku Boateng



Dr. Alexander Yaw Adusei Jr.



Mr. Michael Tawiah





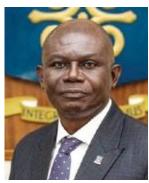
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# First Oil from Jubilee South East Project – President Akufo Addo Turns the Valve

# **Editorial Team**

The President, Nana Addo Dankwa Akufo Addo turned on the valve to symbolically pour First Oil from the Jubilee South East Project on Friday, 8th September, 2023 on the FPSO Kwame Nkrumah. The Jubilee South East project is an extension to the Jubilee Field which is operated by Tullow Ghana Limited and its Jubilee partners namely Ghana National Petroleum Corporation, Kosmos Energy, Petro SA and Jubilee Oil holdings.

The Jubilee partners have invested over US\$1 billion on the Jubilee South East project over the last three years. The project sought to extend the Jubilee field by tapping into previously undeveloped reserves for additional oil and gas resources by drilling wells and installing the relevant infrastructure. This endeavour increased the gross Jubilee production from between 70,000 and 80, 000 to over 100,000 barrels per day.

The occasion witnessed the participation of the Minister for Energy, Hon. Dr. Matthew Opoku Prempeh, the Chief Executive Officer of the Petroleum Commission, Mr. Egbert Faibille Jnr., Mr. Ahweneeh Opoku Dankwa, Chief Executive Officer of the Ghana National Petroleum Corporation (GNPC), Country Managers of the Jubilee partners, captains of industry and many other dignitaries. President Akufo Addo remarked that the success of the Jubilee South East project is a testament to government's resolve to encouraging investments in Ghana's upstream sector. He further intimated that the government's position on local content and local participation in the upstream sector is not only about supplying products and providing services, but also deepening equity participation in the businesses as well.

The Hon. Minister expressed his pleasure about the participation of competent Ghanaian workforce in upstream petroleum activities. He congratulated Tullow Ghana Limited and the Jubilee partners for their varied contributions in achieving this feat for Ghana.

He reiterated that the government will continue to work with all partners in the upstream sector to harness maximum benefits from the oil and gas find for the people of Ghana.

Later in the day a ceremony was held at the Best Western Atlantic Hotel to commemorate the event.



# The Jubilee South East Project, Orsam Energies and the Local Content Factor



Officials from the Petroleum Commission & ORSAM Energies after an inspection of the P6 Manifold at ORSAM Takoradi Yard

When President Akufo Addo turned the valve aboard the Kwame Nkrumah FPSO on Friday 8th September, 2023 to symbolically pour First Oil from the Jubilee South East (JSE) Project, the occurrence also represented a giant leap in the Upstream Local Content agenda.

One of the significant achievements of the Jubilee South East project was that a P6 Manifold fabricated entirely in Ghana at the Takoradi Engineering Yard of Orsam Energies, a Joint Venture between an Indigenous Ghanaian Company and a Non-indigenous Ghanaian Company was part of the subsea installations that was used in bringing the JSE oil to the well head.

This feat, a first in Ghana's 13 year oil and gas production history since the Jubilee Field came on stream signals a monumental success in oilfield services as far as local content is concerned.

Amaja Oilfield Limited, an Indigenous Ghanaian Company and Orsam Limited, a Non-indigenous Ghanaian Company being the JV partners won the contract to fabricate the P6 Manifold for deployment in the JSE project. Generally, a manifold is a arrangement of piping and/or valves designed to combine, distribute, control and monitor fluid flow. The manifolds are installed on the seabed around different wells to gather production fluids or inject water or gas into the wells.

The P-6 Manifold is one that has 12 slots and is hooked to 6-8 wells.

The significance of this feat is that Ghana today has local expertise to fabricate the most critical subsea equipment for extracting oil and gas from wells.

Orsam Energies used about eight months to fabricate the P6 Manifold.

On the localisation side of the fabrication of the P6 Manifold, Orsam Energies employed over 300 welders, fabricators, fitters, mechanics, riggers, coating and welding technicians amongst others.

This feat means that in future, manifolds and other subsea equipment such as suction piles, goose-neck, jumpers can be fabricated in Ghana.

The contract was awarded by the Jubilee Partners namely Tullow Ghana Limited, with their joint venture partners such as Ghana National Petroleum Corporation (GNPC), Kosmos Energy, Petro SA and Jubilee Oil Holdings.

The Jubilee partners invested circa US\$1 billion over a three period to drill wells and install subsea infrastructure to bring previously undeveloped reserves into production

The Jubilee South East Project (JSE) is an extension to the Jubilee field offshore Ghana.

Upon being awarded the contract, Orsam Energies adopted a robust capacity development plan to marshall the needed skilled manpower to successfully deliver on the project. The company trained and certified over 100 Welders which included females. It also trained and certified two Welding and Coating Inspectors who are both females. Orsam Energies also trained four Engineers in dimensional survey techniques using state-of-the art technology to handle the project. Many interns had the opportunity to acquire hands on and on-thejob training throughout the entire project life. The project took about 18 months to complete, and at peak performance, there were 320 personnel on site -20 expatriates and 300 Ghanaians.

Orsam Energies successfully completed the project and handed over to the Jubilee partners in June 2023. Before the P6 Manifold was handed over to the Jubilee partners, the Petroleum Commission, led by its Chief Executive Officer, toured the facilities of Orsam Energies located at Apowa in Takoradi in April 2023, and inspected the work done by the Joint Venture company.

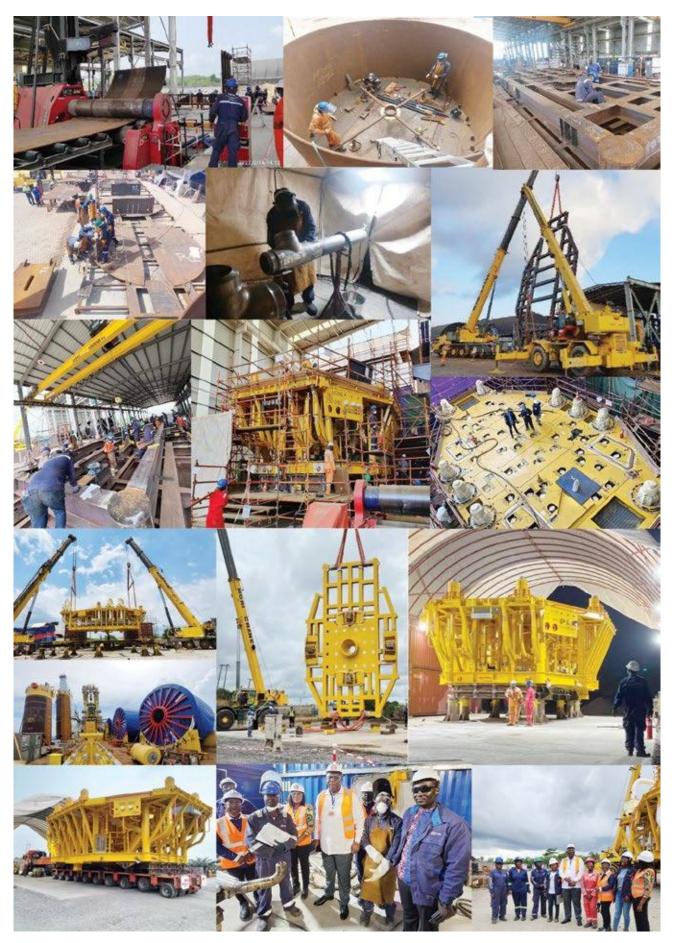
Mr. Egbert Faibille Jnr, Chief Executive Officer of the Petroleum Commission praised Orsam Energies for the awesome work done, and applauded the company's hard work, determination and enthusiasm in successfully executing the project. At the end of the tour, Mr. Faibille Jnr. remarked that local content and local participation in Ghana's upstream sector has prevailed, and Ghana is the ultimate winner.

The Commission also commended the Jubilee Partners for the faith shown in a Ghanaian JV to fabricate the P6.

Below are some pictures depicting the project at various levels of completion.



A Riser Pile (60T) fabricated by Orsam as part of the JSE Project.



A picture gallery of the Orsam Yard during an inspection tour by the Commission during the fabrication of the P6 Manifold

# 2023 Annual Localisation Conference Provides Impetus to Sustained Capacity Development in Ghana's Upstream Petroleum Industry

**Corporate Affairs Department** 



A Section of Participants at the 2023 Localisation Conference

The L.I. 2204 provides for the gradual localisation of jobs in the upstream petroleum sector over a defined period of time after the commencement of every petroleum activity. Specifically, regulations 17, 18 and 19 of L.I. 2204 enjoin International Oil and Gas Companies and International Service Companies to provide for the employment, training, and capacity development as well as the transfer of skills to Ghanaians.

It is in light of this, that the Commission organised the third edition of the Job Role Localisation Conference held on Tuesday, 27<sup>th</sup> June 2023 at the Accra International Conference Center. In a bid to deliberate on issues and adopt pragmatic strategies to train and utilise skilled manpower for the upstream petroleum sector and allied industries, the Commission chose a theme that sought to bring such discussions to the fore. The theme chosen for the conference was **"Utilising Trained Ghanaian Technicians to Achieve Job Role Localisation in the Petroleum Upstream Sector"**. The Conference also sought to discuss and seek inputs from stakeholders on the Draft Human Resource Localisation Policy which has the objective of creating sustainable employment for trained and skilled local workforce in Ghana.

In his welcome address, the Chief Executive Officer of the Commission, Mr. Egbert Faibille Jnr., bemoaned the challenges faced by Ghanaians in seeking job opportunities in the petroleum industry.

He remarked that it is as a result of such challenges that the Commission created the Localisation Directorate to critically look into, and drive policy actions towards the attainment of the human resource localisation objectives in the L.I. 2204. The CEO called for a closer collaboration between government,



industry and academia to catalyse competency development for the benefit of Ghanaians.

The Ag. Director of Localisation, Sarah Quayson Danquah, presented statistics on efforts and successes made by the Commission in ensuring that Ghanaians receive the requisite training and capacity development to be gainfully employed and attain eventual job role localisation in the upstream petroleum industry.

Mr. Herbert Krapa, Deputy Minister for Energy, who represented the Hon. Minister for Energy, re-emphasised government's commitment to provide the needed support to the Commission to pursue its mandate of training and building the capacity of Ghanaians for job role localisation.

The Conference witnessed the participation of over Two Hundred and Fifty (250) attendees, made up of stakeholders in the upstream petroleum industry, government agencies and academic institutions, among others.





Highlights of the 2022 Localisation Conference

# Enhancing Value Creation in the Upstream Petroleum Industry in Ghana through Strategic Alliance & Channel Partnership Arrangements

Kwaku Boateng

# Background

One major challenge that confronted Ghana following the discovery of petroleum in commercial quantities in 2007 was how to develop the oil and gas industry with optimal local content and Ghanaian participation, enhance national development, and create jobs. To overcome these difficulties and, realising the enormous potential and challenges of the new oil finds for national development and in pursuit of the objective of maintaining socio-economic stability, the government of Ghana implemented a number of policies and initiatives to promote participation of indigenous Ghanaian companies (IGCs) and facilitate the utilisation of in-country capabilities in the exploitation of the country's petroleum resources by creating enabling environment for IGCs to succeed.



Hence the government approved Local Content and Local Participation policy to promote Ghanaian participation in the oil and gas sector in 2011 and passed the Petroleum (Local Content and Local Participation) L.I. 2204 in 2013 to specify minimum obligations for operators in the petroleum sector with respect to local capacity development. The policy recognises joint venture (JV) formation as one effective tool for realising objectives of the policy.

Many literatures support the formation of JVs between local companies and their more experienced and well-resourced foreign counterparts as an effective strategy to stimulate local content and local capacity development. However, partnership and JVs in the oil and gas industry have yielded varying outcomes in different countries and among different companies. While some countries have achieved significant success in maximising local content through JVs, others such as Ghana, have produced mixed results. The industry over the years although has seen an increase in the number of JV companies, it however, has been wrought with a plethora of issues with JV arrangements remaining as the only avenue for participation for foreign companies, thus stifling the level of Ghanaian participation and as such hindering the attainment of government's local content objectives. It is therefore imperative that the Local Content Regulations is amended to address such challenges.

The Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I.2204) was amended with the Petroleum (Local Content and Local Participation) (Amendment) Regulations, 2021 (L.I.2435) to introduce other forms of partnerships to further deepen local content and local participation in Ghana's upstream petroleum industry. *Strategic Alliance and Channel Partnerships* were therefore introduced as options alongside the JV requirements for the participation of Non-Indigenous Ghanaian Companies (NIGCs).

This paper explores the challenges with JV formation as the only avenue for foreign participation in the Ghana's upstream industry, rationale behind the amendments to the L.I. 2204, benefits and prospects of increasing increasing value creation in the sector with the implementation of Strategic Alliance and Channel Partnerships arrangements.

# Operational Challenges with Joint Venture Formation

Searching for and producing oil and gas is a complex task. It does not only require a lot of technical know-how, but also a great deal of investment – and a certain willingness to take risks. This is why joint ventures have long been common in our industry. A good collaboration through JV arrangements brings a lot of mutual benefits that allow a foreign firm and local company exploit synergistic advantage of each other and facilitate know-how and technology transfer. That is why L.I. 2204 recognised JV as one of the co-operative strategies Ghana can follow in order to enhance competitive advantage of IGCs and to ensure their sustainability by way of continuous participation in the service delivery in the industry.

However, the nature and duration of certain contracts makes it difficult to implement local content as envisaged by Regulation 4(6). In addition, there are challenges in the provision of certain types of goods and services under JV arrangements:

Some instances in which formation of JV act as constraints in the delivery of service within the industry values chain and realisation of local content objectives are:

- Short-term contracts
- · Contracts executed under emergencies.
- · One-off projects
- · Purchase of standardized and even bespoke software
- · Low value contracts
- Overseas-based contracts & Contracts of Works where the project is undertaken at specific foreign locations with minimal or no in-country activity.
- Original Equipment Manufacturer (OEM) contracts

Further the administrative burden (in terms of cost and time) of forming JV far outweighs the benefits of compliance for certain types of contracts. Some of the challenges identified by the Petroleum Commission (Commission) in the formation of JVs are:

- parent company's Board approval
- home country's legal and regulatory requirements especially for the listed companies
- compliance requirements of multinational companies
- risk of legal "marriage" with less-known foreign enterprise
- registration requirements at the Registrar General Department of Ghana
- complying with Ghana Investment Promotion Centre (GIPC) requirements and
- bureaucratic process of obtaining other statutory documents such as Tax Clearance, Value Added Tax (VAT) clearance, (Social Security and National Insurance Trust (SSNIT) certificates and other sector specific certificates.

JV formation as the only avenue of foreign companies' participation in the service space of the industry often leads to the sole and single sourced of OEM and other contracts without local participation.

The Petroleum Commission as a prudent regulator over the years have adopted practical approach by approving certain contracts involving foreign companies without JVs to permit business/operations continuity and ensure cost optimization.

The table 1 below provides a list of some contracts that due to their nature have been executed in the past with limited or no local participation. Between 2016-2022, the value of contracts in respect of these activities are over US\$150M.

# Table 1: List of OEM & Short-Term Contracts/Purchase Orders between 2016-2022

Amlea Service Implementation	DCS - Replace Faulty Monitor On PRT Crane	Technowrap Materials	Starboard Crane - Spares Required For Main & Auxiliary Winch Gearbox-brake Assemblies	Dresser Rand Spares Parts
Sections - Spares	HP & LP Flare Gas Meter Annual Service & Inspection	Dresser - Rand Spares	Critical Spares For TEN Liebherr Cranes Bos	Repair Kits
Supply Of Ball Valve Assemble Y. 12" Nominal X 9 ½"		PSV Block Valves TCP		Cartridge; Centrifugal Pump
	SEVERN GLOCON Valve spare parts	Sea current measurement system	Autoclave fittings & Tools for Subsea HPU & TUTU	Chemical Flowmeters
Sulzer Pumps Spare Parts	HP A Flash Gas Compressor	Soda Ash Pump, Ex cabinet zone, Hose	EMCC CTRL Gil	
High Pressure Hoses	Dry Gas Seals	Riser 10 Shutdown Valve	FSS Mobilization	SRU Motor
Dresser Rand Compressor	Marine Offtake Hoses	s Pumps	Yokohama Double Carcass Hose	SRU Clean Up Pump
Marine Lubes	Auxiliary Boiler		Boiler Tubes	Circle h Lighting
Unitor Products	Heat Exchanger	Transmitters High Voltage (Hv) Motors	Hydraulics Motor	SRU Membrane Replacement
Jotun Marine Paints	Bareshaft Pump	Dampers And _ Filters	HPGC -	Nitto Membranes
Specialised Pumps	Inter Wells Tracers Technologies	Electro chlorinator	Stator Bars	Pump Barrel Casing
Valves	HP & LP Flare Gas Meter	Aircraft and Machine Spares	€ HV Motor	SRU Feed Pump
Helideck Circle	h Lighting	Water Mist Fire	Electro Chlorinator	Hoist Ropes

### **Rational for the Amendment**

It is against this background that the Ministry of Energy in collaboration with the Commission initiated amendment to L.I. 2204 to among others broaden channels of participation for participation of Non-Indigenous Ghanaian Companies(NIGCs) in the industry by introducing 'Channel Partnership' and 'Strategic Alliance' as options alongside the incorporation of JVCs.

Among the reasons behind the amendment are:

- Globally, partnerships and alliances type of business have increasingly become renowned form of business models across all industries and sectors.
- (ii) Today's world requires business models which incorporate cooperation and alliances in order to cope with business competition and run smoothy in the technological world.
- (iii) Joint ventures, partnerships and alliances have similar benefits of developing new industries, penetrating new unreached markets, diversifying risk and acquiring technology.
- (iv) a need to create enabling environment for Foreign Direct Investments in the era of energy transition, low investment in oil and gas projects, liquidity tightening and drying up investible fund and evolving ESG requirements further constraining IGCs capabilities.

All these factors make it imperative to adopt a pragmatic approach to the implementation of local content regulations to encourage investment in local content development. This pragmatic approach requires a less prescriptive, more industry-based collaboration to achieve optimum local content.

### Applicability of the Amended L.I.

The Amended L.I. just like L.I. 2204 is applicable to Contractors, Subcontractors, Licensees or other allied entities operating in Ghana's upstream petroleum industry. The Amendment is also applicable to GNPC where subject to the authorisation of the Minister, the GNPC undertakes a petroleum activity in an open area pursuant Section 7(9) of Act 919.

# Concepts of Strategic Alliance and Channel Partnerships

There are many definitions and conceptual descriptions of Strategic Alliance and Channel Partnerships. However, for the purpose of this paper, we shall limit the definition of the two concepts to the definitions provided in the interpretation section of the amended regulations.

# **Concepts of Strategic Alliance**

Regulation 49 of L.I. 2204 as amended by Regulation 2(d) of L.I. 2435 defines Strategic Alliance as

"an arrangement between a Non-Indigenous Ghanaian Company and an Indigenous Ghanaian Company by which the responsibilities of each partner are clearly defined and partners agree to share resources to undertake a specific mutually beneficial project while each retains independence"

It should be noted that there are five key elements in this definition:

- (i) It is a contractual arrangement between a Non-Indigenous Ghanaian Company(s) and an Indigenous Ghanaian Company(s);
- (ii) The role and responsibility of each party in the alliance should be clearly defined.
- (iii) Each party should contribute resources (financial, technological know-how, material etc.) to the partnership.
- (iv) The purpose of the alliance is to undertake a specific project and lastly.
- (v) Each company in the alliance maintains its distinct legal identity.

# **Channel Partnerships**

Regulation 49 of L.I. 2204 as amended by Regulation 2(d) of L.I. 2435 defines Channel Partnership as

"channel partnership means an arrangement between an indigenous Ghanaian company including a distributor, a vendor, a retailer, a consultant, a system integrator, an original equipment manufacturer, or a value added reseller to market and sell the products, services or technologies of the non-indigenous Ghanaian company in the country

The key elements of Channel Partnership include:

- i. The partnership is between an IGC and a NIGC.
- ii. The purpose of the partnership is for the IGC to market or sell products or service of NIGC in-country.
- IGC is expected to add value to the product, service, or technologies of NIGC.
- iv. The duration of the arrangement is long-term as long as both parties wish.

# Policy Objectives of the Amendments and Expected Benefits of the Amendment

The primary objective of the amendment is to deepen local content development in Ghana upstream petroleum sector. Specifically, the amendment intends to achieve the following policy objectives and impacts:

- Provide avenues other than JV arrangement for participation by both foreign and (IGCs) in the oil and gas industry.
- Open up business opportunities that are currently inaccessible to IGCs.
- Increase local capacities and capabilities and enhance value retention in-country broaden collaboration between IGCs and their foreign counterparts.
- Increase the degree of control for Ghanaian businesses in the execution of contracts.
- Provide a flexible regulatory regime in the implementation of local content regulations and encourage investments in industry.
- Promote flexibility in business and sharing of operational risks.
- Enhance access and accelerate the development of skills, and know-how to promote a mutually beneficial partnership to create a credible atmosphere for industrial collaboration and transfer of expertise and technology.
- Reduction of transaction cost of arranging partnerships and alliances.
- Improved management systems and increased certification of IGCs in core technical areas as they conform to the requirements of their Strategic or Channel partners.
- Enhance international competitiveness IGCs by opening up IGCs to emerging markets and enhance their marketing, distribution and sales networks and most importantly develop skills and manpower of IGCs over time.
- Ensures that all contracts (including OEMs, short-term contracts, software, overseas contract of works etc.) have components of local content.
- Promote community development through investments in host communities.

# **Milestones and Way Forward**

Following passage of the amendment by the Parliament of the Republic of Ghana, the Commission has undertaken the following activities:

- Stakeholder engagement on the new amendments, where opinions, concerns and suggestions of stakeholders were solicited, and collated.
- Develop guidelines for the implementation of the amended L.I. based on the solicited views of the industry stakeholders to bring clarity and regulatory predictability in the implementation of the L.I.
- Develop Permitting Regime and Model Agreement for the formation of Strategic Alliance and Channel Partnership.
- Conduct sensitisation campaign among IGCs under the Commission's Business Academy about the opportunities of the new amendments.
- Develop monitoring framework for compliance in accordance with the Guidelines to ensure compliance with the Regulations.
- The Commission will formally launch the Guidelines by the close of 2024 for full implementation.

#### Conclusion

The Commission will continue to spearhead the development of local content and local participation in petroleum activities by strategizing to maximise indigenous Ghanaian participation in the upstream petroleum sector. This first amendment, which has been proven to further deepen local content and in-country investments would be followed with further review of the Local Content Regulations, to make it more pragmatic and enhance transparency and regulatory predictability in challenging yet exciting times facing the industry.

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# Specialty and Commodity Products:

- · Decanting/ Chemical Transfer Services
- · Chemical Warehousing and Inventory Management
- · Importation and Exportation of Chemicals
- · Repackaging and Toll Blending of Chemicals
- · Chemical Spill Response



# **CHEMICAL DISTRIBUTION**

Specialty and Commodity Products:

- Production Chemicals
- Drilling/ Completion Chemicals
- Cementing Additives

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# **Interview with Chemsolv**

#### Edward Appiah-Brafoh & Priscilla Kwarteng Boampong

ULCM meets with Mr. Kakra Osei-Barnieh, Managing Partner of Chemsolv Ltd, chemical supplier in the upstream petroleum industry. He shares ideas, experiences, and challenges he has encountered over the years.

# ULCM

Thank you for having us. We will start with the first question. How did you start your company?

### ков

I did chemical engineering in school and my brother also read Industrial Chemistry. We are from a family that is keen on exploring various business avenues. I had a chance to work at Tema Oil Refinery after school, and then I also worked in a Ghanaian company called U.B.I, which supplies diesel for offshore operations. I left UBI to join Baker Hughes. There, I learnt a lot about chemicals. Of course, I had the prior knowledge from school and then also from my former job. In September 2013, my brother and I decided to set up Chemsolv.

We started the business in Takoradi because that is where we lived. We started at the same time when oil became very popular.

#### ULCM

At the very onset of business operations, what were some of the challenges that Chemsolv confronted?

#### KOB

They were many challenges. Our business is more like a chemical provider and there is no chemical manufacturing company in Ghana, so most of the products we sell are imported. So, if you have to sell products, you need to have a stock, and getting a place to store our products in the beginning was a problem. There were no credit facilities at the time and that was a major problem. The banks were not that okay with us because we did not have any collateral. We lost many businesses because we didn't have the financial capital.

In terms of financial challenges and infrastructure, where to operate from in the beginning was very difficult. We had the technical knowhow to operate the business but we lacked the requisite infrastructure to help move the business forward. Another challenge we faced was human resource capacity. The industry was fairly new at the time and there not many Ghanaians who were well versed in chemical management. So, we the founders had to be fully involved in the technical operations to get the business going.

### ULCM

So, in the face of these challenges, what motivated you to keep going?

# ков

As I said earlier, my brother and I had always been interested in the business. We were intrinsically motivated to work at all times. We had no reason to stop. On some few occasions we travelled to Nigeria just to meet some businessmen and industry players. We also went to Europe on a few occasions to meet with oil and gas businesses and participated in petroleum conferences and fairs. We then realised that the chemical business in the upstream sector is a good one, and that there was every need to commit to it and make it succeed. We became re-energised and committed time, resources, and capacity development to the business and that has brought us this far.

### ULCM

So, what do you do for the oil industry? What specific operations?

# ков

Chemsolv is a chemical provider. So, what we do is more like the go-to company for chemicals for industry operations.

### ULCM

That is awesome.

#### ков

Yes, we are specialised in chemicals. We actually have a contract to supply most of the commodity chemicals for ENI. We also supply to Tullow for Well operations. We stock most of the chemical products in Ghana. A lot of companies do not like to manage chemicals because of the inherent risks, and that is where we come in. We are trained to manage the chemicals. We can supply the chemical and also manage them well. So, you do not have to worry about chemicals and how to manage them for your company. Chemsolv is here to do that for you.

# ULCM

Beyond Tullow and ENI, who are some of your clients?

# ков

Every company in Ghana needs chemicals. So for the oil and gas industry, we supply to Schlumberger, Halliburton, Champion X and Expro. We do not provide such service for these companies in Ghana alone, but through Schlumberger, Champion X and Baker Hughes, we work in Mauritania and Senegal. We have done some work in Kenya, and currently very strong in Congo and Gabon. We have also worked in Namibia and Egypt. We operate from Ghana and then work everywhere in southern Africa.

# ULCM

That's good. So, within the industry, what is your intended future outlook?

# ков

As a company, we are seeking to build requisite infrastructure for the storage, supply and management of chemicals This is what we plan to do. Our idea is to grow a business that has realities. Now as it stands, there are products that we are blending locally in Ghana.

### ULCM

The next question has been touched on a bit. In what ways has the promulgation of the Local Content and Local Participation Regulations helped in the advancement of your business?

# ков

A lot to be honest, especially the amendment to the L.I. (2204). We doubled our revenue. It gave us a lot of respect. That was big for us as a company. I don't know what it has done for other companies. It puts us in a healthy competition with some of our foreign counterparts. We always get our sales people to read the L.I. 2204 to understand every provision in it so as to be compliant with its requirements and also appropriate its inherent benefits

# ULCM

That is good. This is our final lap. Do you have any suggestions or recommendations to the Petroleum Commission regarding Local Content development?

# ков

I will comment on the monitoring side. The Commission should vigorously monitor the operation of all upstream companies to ensure that companies are following the rules and regulations of the industry, and that indigenous Ghanaian companies are fully supported to take full advantage of the strategic initiatives the Commission has put in place through relevant laws.

# Addressing Credit Constraints in Local Content Development

Ebenezer Harmah

### a. Introduction

Since the inception of Ghana's upstream petroleum industry in 2007, local content and local participation have been key focus areas for the government. Industry experts hold the consensus view that legal framework, regulatory enforcement and access to finance are key bedrocks necessary for harnessing increased indigenous participation, local capacity and competencies in the oil and gas industry.

It is in the light of the above that Ghana passed the Local Content and Local Participation Regulation, 2013 (L.I. 2204) to strengthen its legal framework relating to local content. In addition, the Petroleum Commission was established in 2012 to promote regulatory enforcement and compliance.

The Local Content and Local Participation Regulation, 2013 (L.I. 2204) among other things placed strict local content obligations on International Oil Companies (IOCs) and International Service Companies (ISCs) to employ Ghanaian citizens in the petroleum operations, provide a minimum five percent (5%) equity participation of an Indigenous Ghanaian Company (IGC) other than the GNPC to be qualified to enter into a petroleum agreement. Additionally, a foreign company that intends to provide goods or services in the Ghana's petroleum sector shall incorporate a joint venture company with an IGC and afford that IGC equity participation of at least ten percent (10%).

It is an undisputed assertion that funding plays a critical role if Ghanaian citizens desire to take advantage of the abovementioned opportunities provided by the Local Content and Local Participation Regulation, 2013 (L.I. 2204). For instance, the capital requirement for the minimum five percent (5%) equity participation of an Indigenous Ghanaian Company (IGC) in petroleum agreement could runs into hundreds of million united states dollars from exploration to development. Again, the minimum ten percent (10%) participation of IGCs in joint ventures also tends to require prohibitive initial capital outlay. A cursory introspection of the ten (10) years of implementation of the Local Content and Local Participation Regulation, 2013 (L.I. 2204) reveals that Ghanaian citizens and IGCs have not been able to fully take advantage of these opportunities due largely to financial constraints.

In view of this, meaningful and accelerated local content development requires a pragmatic solution to the issue of funding constraints. Local content development will continue to be a mere rhetoric where no concrete interventions exist for funding supply chain development as well as skill training and development.

Consequently, this article seeks to probe the issue of financial constraints on the part of citizens and IGCs in relation to local content development, and to explore solutions focusing on tackling the constraints associated with access to credit.

# b. Credit as a Barrier to Local Content Development

Regardless of the intended purposes of the Local Content and Local Participation Regulation, 2013 (L.I. 2204) and the development of a robust regulatory framework, it is an incontestable fact that Ghana has not yet achieved the desired levels of local content despite the reasonable strides made over the past ten (10) years of implementation of the Local Content and Local Participation Regulation, 2013 (L.I. 2204). Many of the targets specified in the L.I. 2204 remain ambitious and highly unlikely to be met within the stipulated timeframe.

A number of challenges and constraints have been identified to inhibit the attainment of specified local content targets as set forth in the Local Content Regulations. Some of these challenges and constraints include:

- · limited access to capital,
- · unavailability of required skilled workforce and
- · limited in-country supply chain capacity.

However, among all the factors inhibiting local content development in Ghana's upstream petroleum sector, access to capital and other form of funding is by far the critical challenge requiring immediate and urgent attention if Ghana desires to rake in any significant gains from its oil and gas industry for the benefits of its citizens.

It is a well-known fact that the oil and gas business is a lucrative one with so much potential which when unlocked with local participation results in enhanced benefits for the host government and its people. However, the high risks associated with the oil and gas industry coupled with the substantial capital requirement presents a major challenge to the effective participation of IGC, many of whom do not have the requisite financial muscle.

Consequently, IGCs have had to resort to debt capital to finance their participation in the industry. Despite debt capital being the commonest source of financing in many matured petroleum provinces, the same cannot be said of Ghana. Many IGCs in their bid to secure credit to finance their operations, are faced with two main issues:

- access to credit which has to do mainly with challenges IGCs encounter with securing credit facilities from banks who are risk averse to the upstream oil and gas industry, and
- cost of credit which relates to the price at which these credit facilities are advanced to IGC.

There is generally limited access to credit coupled with high cost when it comes to financing local content development. It is generally the feedback from IGCs who have attempted seeking credit that Ghanaian banks are mostly risk averse towards IGCs and the oil and gas industry as a whole. This is largely attributed to a lack of understanding, by the banks, of the operations of the oil and gas industry. This phenomenon continues to significantly narrow the access to credit by IGCs.

Notwithstanding the foregoing, where Ghanaian banks offer credits to IGCs under the strictest of conditions, the banks often tend to raise the risk premium for such credit facilities leading to high interest rates charged on the loans. Ultimate result of such high interest rate is that it makes IGCs commercially less competitive when bidding for contracts with their foreign counterparts. Evaluating commercial bids of tenders, funding cost often result in IGCs trailing of the time and makes it difficult for IGCs to win contracts on a level playing field. The persistence of the issue of limited access and high cost of funding continue to deepen the vicious cycle of stunted IGC growth, limited business expansion, research and development and general supply chain development.

# c. Addressing the Credit Constraints

In addressing the issue of credit constraints in relation to local content development, a number of interventions are proposed. These interventions mostly require some form of cooperation, collaboration, and coordination between financial institution on the one hand and some relevant State agencies on the other hand. Below are some of the interventions necessary to address the challenge of credit constraints:

- i. Establishment of a Local Content Fund: The Local Content Fund as established by the Petroleum (Exploration and Production) Act, 2016 (Act 919) is considered as an effective elixir for local content development. It is a special purpose development fund set up to provide "financial resources for citizens and indigenous Ghanaian companies engaged in Petroleum activities". By the objective of the Fund, it seeks to address the challenges of access and cost of credit to IGCs by providing concessionary loans to IGCs to support their participation in petroleum activities. To ensure its sustainability, the Local Content Fund is guaranteed relatively stable sources of inflows, including one percent (1%) of contract sum payable by the contractor or licensee for every contract.
- ii. Direct Collaboration with Financial Institutions: To enhance the understanding and the appreciation of financial institutions about the risks associated with the oil and gas industry, the Petroleum Commission is expected to deepen its collaboration and cooperation with bank and non-bank financial institutions. The collaboration with some key financial institutions has led to some major deals been unlocked for local content development. The participation of the financial institutions in workshops, conferences and educational programmes organized by the Commission continue to yield fruits.
- iii. Business Advisory and Enterprise Development: Another intervention to improve access to credit is the establishment of the Business Advisory and Enterprise Development programme. The programme resides in a dedicated department in the Commission with the objective of nurturing and developing IGCs into large corporates. There are periodic workshops organized for IGCs, educating them on how to prepare and present bankable projects to access credit from financial institutions. The department also exposes IGCs to other sources of funding available to them to ensure that they are not limited to one source only. With the necessary knowledge, skills and support, local businesses would be able to identify which financial institutions to approach for credit facility.
- iv. Access to Exim Bank Facilities: By the nature of their operations, many IGCs are engaged in import substitution activities and hence rightly qualify for concessionary loans from the Ghana Exim Bank. This funding has so far not been fully explored by IGCs. It is

highly recommended that IGCs take advantage of the opportunity of the cheap Exim Bank loans to finance their operations.

### d. Conclusion

To address the credit constraints in local content development, require a tripartite cooperation between government actors, financial institutions and the IGCs. While the Petroleum Commission seeks to create an enabling framework for partnership with financial institutions to improve their appetite for funding IGCs in the industry, the IGCs are also expected to honour their obligations under any financing arrangements in order to improve the credit ratings of the industry which will eventually reduce the risk premium associated with the industry. The Contractors and subcontractors are also required to support the establishment of the Local Content Fund by making the mandatory contribution to the fund to ensure its sustainability and effectiveness to finance local content development in Ghana.



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# Promoting Local Content through Supplier Development Programme: The Case of the Ghana Upstream Petroleum Business Academy



# 1. Background

The Petroleum Local Content & Local Participation Policy recognises limited capacity among the Indigenous Ghanaian Companies as one of the constraints in local content development. Therefore, recognizing capacity building as catalyst for participation of IGCs in the industry, the Commission, introduced of Supplier Programme to accelerate capacity building of IGC.

Supplier development is working collaboratively with critical, strategic, and high-potential suppliers to improve their capabilities and competitiveness in the areas of cost, quality, time and technology for the mutual benefit of both the buyer and the supplier. The importance of supplier development in the implementation and improvement of local content and local participation cannot be overemphasized. Consequently, in collaboration with the International Oil Companies (IOCs) and major International Service Providers (ISPs), the Commission has identified "supplier development" as cardinal to building

the capacities of Small and Medium Enterprises (SMEs), educational institutions, young engineering professionals and artisans. This is essential to enable these categories of stakeholders to improve their competencies and capabilities thereby positioning them to produce and deliver goods and services that otherwise would have been sourced from abroad.

# 2.0 Establishment of the Ghana Upstream

# **Business Academy**

The Commission took a strategic decision to provide business advisory and enterprise development services to Ghanaian companies to address the teething capacity challenges. Such policy decision led to establishment of the Business Advisory and Enterprise Development Department (BAED). The aim of this was to facilitate the provision of business advisory support and appropriate capacity development for indigenous Ghanaian companies (IGCS) to help them meet international requirements of the industry and position them competitively.

To adopt a more proactive strategy to provide structured trainings to equip IGCs, the BAED created a capacity building programme under an umbrella called **Ghana Upstream Petroleum Business Academy**. The objective of the Business Academy is to deliver a series of training programmes aimed at equipping IGCs in the oil and gas industry with the necessary knowledge and skills needed to operate effectively.

Following the creation of the Business Academy, the BAED department in consultation with the technical team and relevant departments of the Commission developed the curricula for specific training programmes. Key resource persons and facilitators are selected to facilitate the trainings on a case-by-case basis.

Tullow Ghana Limited, Yinson Production, and Eni have supported the Academy in this regard. However, Tullow Ghana Limited bought into the initiative and accepted to align its Local Content Supplier Development programmes with the Ghana Upstream Petroleum Business Academy – yielding remarkable results.

Some of the thematic areas and programmes that have been undertaken under the Business Academy over the last five (5) years include workshop on the Overview of the Upstream Oil & Gas Industry, Overview of Laws, Regulations & Guidelines, Responding to Invitation to Tender, Quality Management and the Health Safety & Environment Local Content Compliance and Reporting , Joint Venture & Contract Negotiation and General Business Management and Due Diligence to mention a few. There have been specific sessions for Pre - Tender workshops seeking to provide specific instructions, scope of work and other requirements needed ahead of time to bid for contracts. Some of the Pre -Tender workshops held include Workshop on Aviation Service. Pre-tender on Crane & Forklift Services, Well Drilling Tools, Cleaning Services, Pre-tender on Marine Gas Oil Bunkering, Fixed Wing Services, Reverse Auction.

The Business Advisory & Enterprise Development department further teamed up with financial institutions to develop curricula in areas such as Ghana's Petroleum Tax regimes, financial reporting, Business Ethics, Compliance and bookkeeping procedures, hydrocarbons formation, the upstream value chain, and the various laws and regulations, all geared at improving the capacities of IGCs in the industry. Some of the key financial institutions that have benefited from training include Fidelity Bank, GCB Bank, Absa Bank, UBA, Ernest and Young, Deloitte, KPMC, PWC etc.

Available data from 2019 to 2023 shows that the Ghana Upstream Petroleum Academy has attracted and trained a total of about Two Thousand and over Four Thousand SMEs and beneficiaries respectively. The continual training given to these SMEs and beneficiaries have resulted in an increase in the value of contracts awarded to both indigenous and joint venture companies between 2019 and 2023, indicating that out of a total of \$5.2 billion spent over the period, \$1.5 billion worth of contracts have been awarded to IGCs.

# 3.0 Challenges of the Implementation of the Ghana Upstream Business Academy

### **3.1 Technical Challenges**

The reliability of internet connectivity among participants during virtual engagements presents a major challenge. Weak and erratic internet connections cause interruptions that lead to an unfulfilling experience for all participants.

#### 4.2 Less Engagement and Participation

Due to the online nature of engagements, it is difficult to correctly determine the extent to which participants have benefitted from the sessions. It becomes challenging to gain insight into the degree of involvement due to the lack of realtime visibility into their engagement and participation.

# **3.3 Limited Feedback**

Unlike in-person gatherings where feedback collection is relatively simple and straightforward, virtual gatherings create challenges in getting comprehensive feedback from participants. This is due to the voluntary nature of feedback submission which hampers the collection of constructive suggestions for improvements.

#### 4.3 Lack of Networking

The audience expressed a preference for in-person meetings as a platform for networking, voicing out some concerns about the effectiveness and confidentiality of the current form of virtual networking.

# 4.0 Way Forward for the Implementation of the Ghana Upstream Petroleum Business Academy

To ensure and achieve the objectives of the Ghana Upstream Petroleum Business Academy, the following are recommended.

- Attendees must be encouraged to test the reliability of their internet connections before virtual sessions. Backup materials such as recordings can be provided to ensure that attendees do not miss out on any crucial information.
- A Hybridge of in-person and virtual meetings should be considered in the near future to increase the level of involvement by participants.
- iii. Interactive and dynamic elements such as polls should be incorporated into virtual sessions to gauge participant engagement in real time.
- iv. To enhance participant engagement, quality video conferencing facilities that offer interactive features and features such as private breakout rooms must be used to allow participants to actively participate during virtual engagements and to foster a sense of confidentiality during networking.



# Are Indigenous Ghanaian Companies Facing Stunted Growth?

Rodney Kwesi Acquah

The Petroleum (Local Content and Local Participation) (Amendment) Regulations, 2021 (L.I. 2435) defines Indigenous Ghanaian Company (IGC) as a company incorporated under the Companies Act, 2019 (Act 992) which,

- a. Is fully owned by a Ghanaian; and
- b. has Ghanaian citizens holding,
  - i. at least eighty percent of executive and senior management positions; and
  - ii. one hundred percent of the non-managerial and other positions.

In the execution of contracts, the Petroleum (Local Content and Local Participation) Regulations 2013, (L.I. 2204) enjoins International Service Companies (ISCs) to incorporate joint venture companies (JVCs) with IGCs. L.I. 2435 has introduced channel partnership and strategic alliance as other forms of deepening local content and local participation to maximise technology and skills transfer to IGCs.

Global concerns on increasing greenhouse gas emissions from fossil fuels have led to a purposeful push for energy transition. Current data indicates that there is a significant reduction in fossil fuel investments. In addition, recent setbacks to the world economy such as the Covid-19 pandemic and the Russian-Ukraine war, have also negatively impacted the volume of investments. Due to these challenges, Ghana's upstream petroleum sector is experiencing a reduction in the volume of investments which has affected the promotion of local content and local participation as stipulated in L.I. 2204.

The use of international service providers and external workers (expatriates) are industry practices which support operations and enable companies to fulfil contractual obligations. In Ghana, their presence offers indigenous companies and workers the opportunity to build capacity through technology and skills transfer.

Despite the merits of outsourcing oilfield services and bringing into Ghana expatriates from related parties of ISCs, there are certain outcomes that are negatively impacting the growth of IGCs, a couple of which are discussed below:

### 1. Poor Financial Results

Data collated in the past few years by the Petroleum Commission (The Commission) indicates a trend where some oilfield service providers who usually outsource services to their affiliates continue to make losses in their Joint Venture operations<sup>1</sup>. The abysmal financial performance of these JVCs is stifling the ability of IGC partners to earn profits and dividends needed for investments to grow their businesses.

# 2. Inadequate Employment, Training, and Succession opportunities

Available data in the Commission indicates an increasing trend of short-term external workers (rotators) compared to long term external workers<sup>2</sup>. This trend is currently limiting the ability of IGCs to build capacity through employment, training, and skills transfer to Ghanaians. This is because it is not feasible to put forth any reasonable succession plan for expatriates who usually spend an average of one month in short term positions and usually do not require a succession plan.

It is worth noting that the volume of contracts being executed by most JVCs has drastically reduced because of the current low level of activities occasioned by the Covid-19 pandemic, the Russian-Ukraine war and most importantly the push for Energy Transition.

JVCs can aggressively pursue their local content and local participation obligations when they are executing contracts which align with their technology transfer programmes and where these contracts are of a longer duration.

It is expected that ISCs who usually outsource services to their affiliates explore strategic ways of working by integrating IGCs into the service delivery process. By this approach, IGCs could claw back some of the unusually high expenditure associated with outsourcing services to affiliates of ISCs. JVCs must find innovative solutions to curtail the two outcomes discussed thus far to reduce losses and low return on investments which continue to hinder the growth of most IGCs.

<sup>1</sup> Securing capital in the current financial landscape, AEW Presentation by Opoku Danquah 2022, BankTrack: Fossil Fuel Financing, 2022

<sup>2</sup> Srinivasan A, (2019). Examining the role of outsourced service providers and external workers. The World Oil Magazine, February, vol. 240 (No 2), pp 77, https://www.worldoil.com/magazine/2019/february-2019

<sup>3</sup> Petroleum Commission in house data analysis on financials of companies

<sup>4</sup> Petroleum Commission in house data on work permit facilitation processes

# Interview with CONSHIP

Edward Appiah-Brafoh & Priscilla Kwarteng Boampong

Consolidated Shipping Agencies Ltd. also known as CONSHIP is a wholly owned Ghanaian company and one of the leading freight forwarding and logistics companies in the country making significant strides in the oil and gas industry and other allied industries.

Founded by Dr. M. C. Vasnani in 1996, CONSHIP joined other Indigenous Ghanaian companies to take on opportunities in the upstream petroleum following the discovery of the petroleum resource in 2007. Currently he leads a workforce of over 200 Ghanaians making varied contributions in industries including the upstream petroleum industry. Correspondents from ULCM engage Dr. Vasnani to find out more about his journey to become one of the leading freight forwarding companies in the country.



M C Vasnani, CEO, Conship

### ULCM

Good morning and thank you for granting us this interview. Can you share with us how CONSHIP's journey began?

# Dr. Vasani

It's a long story. I started working in the freight industry in 1981 employed as a partner in one of the companies in Ghana. In 1996, I left the company because I didn't see much progress and my expectations were not met so I resigned and formed CONSHIP. I chose the name 'consolidated' because of my dream to consolidate as many agents and partners as possible. That led me to start this company in 1996. We have branches in Takoradi, Accra and Houston, Texas and a total workforce of 234 Ghanaians in the company.

### ULCM

What are the challenges or constraints your company has faced over the years in relation to the oil and gas industry?

## Dr. Vasani

Our first oil and gas business was in 1998 before Ghana discovered petroleum in commercial quantities. We had an invitation from a company in the USA to help them run their project in Nigeria, a major challenge at the time. We had to make a trip to the USA and understand what happens in the industry.

The first scary thing as a Ghanaian was having to do what we call the Foreign Corrupt Practice (FCP) Act. You had to go through due diligence and as a Ghanaian you wonder why you must disclose all these information. That was a major challenge at the time-- a requirement that improves your chances of taking your business to the international level. Especially at a time when we needed the international support to open doors for us.

Aside this, the oil and gas industry has many other challenges. What has kept us going is passion for the job. I have always said if you love what you do you would do it to the best of your ability. Logistics is key, freight forwarding and understanding the international aspect of it. It involves a lot of travelling exposing you to different cultures and perspectives. It's interesting -- once you have those you don't want to stop.

### ULCM

What opportunities did you see that kept you going and made you stay within the oil and gas space?

#### Dr. Vasani

Before the passage of the Local Content regulations or the establishment of the Commission, we had great opportunities as we were working for almost all the companies who were coming to work in-country. This has given us a competitive edge especially when bidding for contracts.

### ULCM

That is very motivating. So in terms of oil and gas operations, what does CONSHIP do and who are some of your major clients?

### Dr. Vasani

We are an all-round logistics company where we provide freight forwarding, project support, vessel agency, husbandry services among others. I would rather not mention names of companies but we have worked with IOC's, Service Providers, National Oil Companies and other industry players in the oil and gas space.

#### ULCM

With the promulgation of the local content regulations, in what ways have these regulations supported the CONSHIP business?

### Dr. Vasani

Well, it has got its good and bad sides. The good side being promotion of indigenous companies participation in the industry. When it came up there was that notion that there should be a minimum structure of 90-10. Certain services in the industry have now been reserved local companies like us. Other companies have built capacity over the years, and I believe that we can do more.

I believe the L.I. 2204 is very useful but it still needs to be finetuned. I know the upstream petroleum chamber, which I am a member of is in discussions with the Commission to fine-tune certain areas of the regulations.

# ULCM

This will be the last question. You have already touched on some aspects briefly. Do you have any suggestions that you could offer the Commission in terms of how we enhance the implementation of the local content regulations?

### Dr. Vasani

Our biggest issue right now is the taxes. We know the country needs taxes. We appreciate how they have digitised it now and how it's working. But when you have a country that has so many tax requirements, it's challenging--tax before profit, corporate tax, COVID tax etc.

A lot of people have gone ahead to invest in Takoradi--with Hotels, hospitality institutions, and the Technical Institutes which the Commission partners with and to expand in this sector, you require enough capital to own a facility which includes paying so much interest and taxes towards the industry.

One of the things also is that fine line between the Commission and Ghana Investment Promotion Centre (GIPC). For instance, GIPC says come in as an investor. The investor comes in, brings in half a million dollars, and given a tax break, tax concessions and more. The indigenous companies, in a year invest more than that amount and don't get any concession. I might as well create an offshore company and come in as an investor. I suggest PC through its Local Content regulations helps to adjust the number of taxes that we service providers pay.

#### ULCM

Great. I think we have come to the end of our interview, Dr. Vasnani, and thank you very much for giving us your time this morning.

### Dr. Vasani

You are welcome.

# Is it Time to Adopt the UK's Industry Mutual Hold Harmless (IMHH) Scheme in Ghana?

Daniel Amoah Boakye Esq. & Samiratu Seidu Esq.

# Background

The exploration and production of petroleum resources are characterised by high-risk activities and liabilities for all the parties involved. The parties include the operator and its co-venturers, licensees, subcontractors, and other allied entities. The contractual arrangements among these parties are often complex with huge variations in the allocation of risk in relation to matters such as injury, death, property damage, pollution, and financial loss.

# Liability for the Conduct of Petroleum Activities under the Petroleum (Exploration and Production) Act, 2016, Act 919

Section 59 of Act 919 makes contracting parties jointly and severally liable to the Republic for financial and other obligations, and liability arising out of petroleum activities. Additionally, section 59 stipulates that a contractor, subcontractor and licensee shall keep the Republic indemnified against claims arising from petroleum activities.

Further, Section 83 of Act 919 makes a licensee, contractor or the Corporation carrying out a petroleum activity strictly liable for any pollution damage caused by or resulting from petroleum activities.

### Upstream Insurance Arrangements in Ghana

The Insurance Act, 2021, Act 1061 regulates the insurance industry in Ghana and sets out the general requirements for the placement of insurance. Section 221 of Act 1061 requires that all insurable risk in the upstream petroleum sector in Ghana are to be placed in-country. However, specific requirements for the placement of insurances in Ghana's upstream petroleum sector are provided under the Petroleum (Exploration and Production) Act, 2016, Act 919 and the Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204).

Section 92 of Act 919 makes it mandatory for oil and gas companies operating within the upstream petroleum industry to obtain reasonable insurance cover for petroleum activities. The law further requires that a subcontractor insure its employees to the same extent as the contractor or licensee insures its own employees.

Regulation 27 of L.I. 2204 also requires insurable risk to be insured through an indigenous brokerage firm or where applicable, a reinsurance broker.



The Petroleum Commission (Commission) has observed that some companies in Ghana's upstream petroleum sector have adopted the practice of allocating liability using the mutual indemnity and hold harmless (knock-for-knock) arrangement. Also, some companies purport to adopt the Industry Mutual Hold Harmless (IMHH) Scheme - practiced on the United Kingdom Continental Shelf (UKCS).

Under both the knock-for-knock and the IMHH arrangements, contracting parties depart from the Guilty Party Pays principle and assume responsibility for injury and death of their personnel and loss or damage to property irrespective of the party who caused the injury, death of personnel or damage to property. The parties then indemnify and hold each other harmless for the injury, death, loss or damage arising out of a breach of duty of care. Based on this liability re-allocation, the parties procure insurance to cover their personnel and property. Unlike mutual hold harmless clauses, the IMHH is a scheme developed by companies operating within the oil and gas industry in the UKCS to bridge the possible lacunae that may exist in the risk allocation process.

There is the need to consider whether the IMHH Scheme practised in the UKCS is supported by Ghanaian law and if it is time to adopt the IMHH Scheme in Ghana.

# **IMHH Arrangements**

The IMHH initiative was introduced to address the contractual gaps' that exists between contractors working on the same platform or petroleum facility. These contractual gaps can create considerable loss of time and expense in the determination of risk allocation, the pursuit of legal action and significantly increase diversity of insurance purchase.

The IMHH is a voluntary scheme open to contractors only (known as subcontractors in Ghana) and administered by the Leading Oil and Gas Industry Competitiveness (LOGIC). Members of the IMHH scheme sign up to a Deed on a long-term basis, thereby creating a mutual hold harmless arrangement between them, as if there exists a contractual relationship in force between them. This means that each member or signatory is responsible for their own property,personnel and consequential losses of their own group. The IMMH Scheme allows third parties who wish to participate to do so by executing a Deed of Adherence.

It Is worth noting, however, that LOGIC's standard contract (Deed) is meant to act as a template and allows for variations to be agreed for each contract by the parties.

# Consistency of the Industry Mutual Hold Harmless (IMHH) Arrangement with the Relevant Laws of Ghana

The arrangement under the IMHH Scheme became possible on the UKCS with the passage of the Contracts (Right of Third Parties) Act 1999 which created exception to the common la w doctrine of privity of contract.

In Ghana, there also exists the exception to the doctrine of privity of contract under Section 5 of the Contracts Act, 1960 (Act 25) which ecognizes third party rights as have been prescribed therein.

As mentioned earlier, Section 92 (1) of Act 919 makes it mandatory for all petroleum activities conducted under a petroleum agreement or under a transportation, treatment or storage licence to be covered by insurance at all times and in accordance with the Insurance Act2021, (Act 1061) and other applicable laws. From the foregoing, it can be concluded that both the knockfor-knock and the IMHH arrangements appear not to conflict with Ghanaian law.

# Is it Time to Adopt the UK'S IMHH Scheme in Ghana?

The applicable laws in Ghana's upstream petroleum industry do not restrict the adoption of the IMHH Scheme. However, in adopting the scheme, G\hana must decide whether to adopt the scheme as practised in the UKCS or adopt IMHH with modification. As has been done in the UKCS, Ghana must develop a framework for the implementation of the scheme.

In the UKCS, IMHH is administered by LOGIC on behalf of industry, independent of the government. Ghana must therefore decide whether to have an industry-led scheme or one administered by the government. Also, Ghana must decide on the tenure of the scheme and the nature of the agreement to be signed by parties under the scheme.

Ghana must take into consideration the fiscal regime under the petroleum agreements, which is based on the royalty tax system. Ghana must also take into consideration the state participation in all petroleum agreements through the Ghana National Petroleum Corporation (GNPC), the applicable laws including but limited to Sections 59 and 83 of Act 919.

# Conclusion

Following the review of the IMHH Scheme as against applicable laws and as well as the insurance practices in Ghana, the IMHH Scheme could be adopted in Ghana. Government of Ghana, through the Petroleum Commission, may develop a framework and guidelines for the implementation of an MHH scheme. The IMHH Scheme and principles may run parallel to traditional guilty party pays principle.

# Developing Local Content in Ghana's Upstream Oil and Gas Industry through Technology and Skills Transfer

Priscilla Antwi-Boasiako

# Introduction

The discovery of oil and gas in commercial quantities culminated in heightened expectations among Ghanaians and Ghanaian businesses. This was evident in the number of Ghanaian businesses seeking opportunities in the industry. Whereas some companies were newly incorporated, others moved from allied sectors to the oil and gas industry while others expanded their scopes to include oil and gas services. Nonetheless, many of these companies lacked the requisite expertise, financial capacities, technologies, and infrastructure to support the oil and gas industry.

Conscious of this gap, Government established the Local Content Policy and subsequently enacted the Petroleum (Local Content and Local Participation) Regulations, 2013, (L.I. 2204) and its amended legislations to develop local capacities, enhance expertise development, and create petroleum and related supportive industries that would sustain economic development.

The Regulations identified technology transfer as an effective strategy to enhance the competitiveness of local businesses, indigenize technologies, increase value-added investment and stimulate local content development in the industry. The requirement to incorporate joint ventures, strategic alliance or channel partnerships was made a prerequisite for foreign companies to participate in the industry to enable Indigenous Ghanaian Companies (IGCs) effectively adapt technologies, know-how, and expertise monopolised by foreign companies in the oil and gas industry. Similar requirements were made for IGC participation other than Ghana National Petroleum Corporation (the Corporation) in Petroleum Agreements (PAs) or petroleum licenses to ensure that sufficient local capacity is built to spearhead exploration and production activities.

Ten (10) years after the passage of the Regulations, the expectation is that Ghanaians and Ghanaian business have developed sufficient technical and technological capacity to fully participate in the oil and gas industry. Yet, the implementation of technology transfer in the industry has been a mixed bag of successes and challenges.

Despite IGC participation in Joint Venture Companies (JVCs), the rent seeking behaviour as well as the low absorptive capacity of IGCs, the lack of commitment of foreign partners – save for regulations to incorporate a JVC –, among others have impeded effective technology transfer.

This article highlights the development of local capacities in the industry through technology transfer, the challenges, the strategies adopted to enhance technology transfer and proffer recommendations for further policy actions.

# Technology Transfer and Local Capacity Developments in the Industry

It is widely acknowledged that transfer of technology has played a key role in the economic and industrial development of many countries. The concept has been used by most emerging countries to stimulate economic growth, acquire technical knowledge and skills, accelerate the process of industrialisation, and catch up with technologically advanced countries.

The concept has been defined differently by scholars depending on the context, philosophy, or industry. The Committee on Development and Intellectual Property (CDIP) defines it as the 'flow between two or more participants of technological information and its successful integration into production by the recipient(s)'. UNCTAD draft International Code on transfer of technology also defines it as the 'process by which commercial technology is disseminated' while TWI Global defines it as the 'movement of data, designs, inventions, materials, software, technical knowledge or trade secrets from one organization to another or from one purpose to another<sup>1</sup>.

<sup>1</sup> Maskus, K., et al (2014), International Technology Transfer: An Analysis from The Perspective of Developing Countries, Committee on Development, and Intellectual Property (CDIP), WIPO United Nations (2001), Transfer of Technology, UNCTAD series TWI Global, 'What is Technology Transfer' (Definition and Examples)

Notwithstanding the varied definition, it is generally agreed that the process of transfer of technology is complete when the receiving entity obtains it, uses it, and integrates it in their operations. Associating with this assertion, L.I.2204 and other relevant legislations envisage that the process of technology transfer must transform and enhance the capabilities of IGCs to progressively deliver goods and services that meet the highest standards in the industry.

Sections 52, 62 and 63 (3)(b) of the Petroleum (Exploration and Production) Act, 2016 (Act 919), Regulations 4 (7), 23 and 24 of L.I.2204 as well as Article 21 of Petroleum Agreements (PAs) imposes a duty on Contractors and JVCs to support, prepare and implement programmes, initiatives, and strategies to transfer technological expertise, technical capabilities, information, data, and facilities necessary for the efficient conduct of petroleum operations of the Corporation and IGCs. The expectation is that the parties would identify technical scopes of the operations, ring-fence mutually agreed areas, develop, and implement programmes, and where capacity has been built perform the ring-fenced technical scopes as part of their roles and responsibilities. Certainly, IGCs are equally responsible to put in place systems and procedures for effective absorption and integration of technology during and after the technology transfer programme.

Undeniably, the requirement for 'at least five percent equity participation of an Indigenous Ghanaian company other than the Corporation to be qualified to enter into a petroleum agreement' has resulted in the participation of IGCs in ten (10) out of fourteen (14) PAs signed. It is worth noting that two (2) blocks are currently operated by IGCs, Springfield and Base Energy. The Corporation has developed capacity to spearhead the reconnaissance survey for the Voltaian Basin and obtained authorisation to operate Block GH-WB-01.

Through the participation of JVCs, IGCs have delivered major fabrication and engineering scopes involving technical knowhow and expertise. To highlight but a few, Baker Hughes, in its quest to develop local capacities entered a framework agreement with Amaja Oilfield Services Limited (AOSL) to enable them to successfully cut T2 Pin on 9½" Ontrak in Ghana which hitherto was cut in Aberdeen or in Celle – Germany. Today, AOSL in a similar partnership with Tenaris Global has adopted the 'dopeless technology' to increase its capacity in threading pre-deployed oil country tubular goods (OCTGs) in-country.

Again, TechnipFMC as part of its technology transfer initiative, has demobilised its subsea flying lead (SFL) termination assembly facility in its Houston office to Ghana. The intent is to transfer the operation of the facility including expertise, technologies, equipment, tools, and machinery to Amaja Oilfield, its partner as part of its technology transfer initiative for the Jubilee South East project.

The establishment of blending facility by Eco Natural Resources and its partner Champion X for the blending of production chemicals in-country, the assumption of Tuboscope operations of NOV Oil and Gas by its local partner Seapack Ventures, the manufacturing, refurbishment and repairs of valves by Rigworld Solutions using Hydrasan technologies, as well as the recent feat achieved in the fabrication of the 6-slot manifold in-country by Orsam Oil and Gas attest to the successful diffusion of technology in the industry.

Nonetheless, the pace of development has been slow with less than 1% of IGCs particapting in technology-intensive goods and services which accounts for over 80% of total upstream spend<sup>2</sup>. The low participation can be attributed to technical, financial, regulatory, and systemic factors impeding effective transfer of technology.

### Challenges

Until recently, the concept technology transfer of was hazy in the industry. Indeed, the implementation of technology transfer requirements were premised on the development and publication of a national technology policy on transfer. The absence of the policy and a clear definition in the Local Content Policy or Regulations had created misconception on technology transfer requirements among upstream companies. While some JVCs misconstrue the localisation of roles and training of employees as fulfilment of technology transfer obligations others are of the view that their obligations are towards the

# Localisation VS Technology Transfer

Localisation focuses on expertise development of Ghanaian employees in a company to assume expatriate roles.

Technology transfer focuses on the wholistic development of the IGC to acquire all or a combination of the elements of technology transfer – software, hardware, expertise, and organizational development – to progressively deliver goods or services that meet the highest standards in the industry.

JVC and not the IGC. Yet still the perception that IGCs may compete in similar services or 'take over' from their foreign counterparts fuelled the erroneous interpretation of the requirements and the unwillingness of foreign companies to support technology transfer initiatives despite assurances of adherence to intellectual property (IP) rights requirements.

<sup>2</sup> Tullow Ghana, 2022

Again, not to discount the capital intensiveness in the cost of technologies, the absence of strategic plans by IGCs and the lack of interest and focus to grow and become sustainable, have resulted in the failure of IGCs to invest in qualified personnel, workforce training, competencies, systems, certifications, and facilities thus affecting their ability to absorb, assimilate and apply new or existing technologies to enhance their operations. Participation of IGCs is therefore limited to 'low hanging fruits' and peripheral scopes in the operations of JVCs.

It is intrusive to note that, the nature of certain contracts and the duration of the contracts inhibits the implementation of technology transfer initiatives. This is exacerbated by the strikingly different business objectives of parties in some JVCs which makes it difficult for the transfer of technology particularly in the execution of technical contracts.

Despite provisions made in the Regulations, exogenous factors such as the absence of infrastructure to acquire and utilise modern technologies or support research and innovation at the firm and national level, absence of effective coordination between academia and industry to support Research & Development (R&D), technology, and innovation, and the absence of fiscal incentives to support technological initiatives has impacted on the pace of technological diffusion in the industry.

# How Then Do We Address these Bottlenecks?

The Petroleum Commission (Commission), mandated to promote local content and local participation, has developed a draft Technology Transfer Policy and Guidelines to provide clarity to the requirements, expectations, and philosophy of technology transfer in the upstream petroleum industry. The policy intends to address the issue of IP restrictions, licensing of technologies, and fiscal and non-fiscal incentives to encourage investment in technological capacity, infrastructure development, and research and development. A draft Agreement has been developed to provide guidance on partnership arrangements.

Furthermore, the Commission has painstakingly reviewed its processes to ensure that JVCs do not register or execute contracts without a Technology Transfer Agreement, and a Programme or Plan approved by the Commission. The parties in JVCs have been requested to re-align their business objectives and technology transfer programmes to ensure smooth transfer of technology while IGCs have been requested to develop and implement Strategic Plans to enhance their absorptive capacity. The Commission has also identified priority sectors (*Engineering, Fabrication and Construction, Operations and Maintenance, and Well Drilling Services*) along the supply chain to focus and deepen local content

development through enterprise development programmes, contract strategies, mandatory minimum requirements, and ring-fencing of scopes for IGCs.

Notwithstanding the strategies deployed by the Commission it is imperative that the industry adopts a long-term strategy to impact the industry significantly.

- Government must focus on the development of industrial clusters in enclaves such as Tema and Takoradi to create strategic linkages that would enhance innovation, technology, and research and development among companies in the enclave. Without adequate return on investment, it is impossible for foreign companies to develop, invest, or transfer technology. Thus, the requisite infrastructure, incentives, and conducive environment to facilitate exchange of ideas and technologies must exist to enhance the diffusion of technologies.
- 2. R&D must be prioritised to ensure the development of new technologies, solutions, facilities, and infrastructure needed to enhance technology and innovation in the industry. The Corporation being party to every PA must partner local and foreign companies, foreign academic and research institutions to develop cutting edge technologies in specialised areas like drilling, subsea, process systems, etc. to enhance the dissemination of technologies in the industry.
- Cost recoverable clauses in PAs must be explored to access technologies, systems, methodologies, software, etc. obtained by operators or their subcontractors to enhance the dissemination of technologies in the industry.
- IGCs must enhance their absorptive capacities and establish requisite business culture, philosophy, and strategy to ensure business continuity and sustainability.

#### Conclusion

Technology Transfer has become a strategic tool for most emerging producing countries to fill the technological gap and enhance their competitiveness. It is in this regard that L.I.2204 as amended by L.I.2435 provides for the formation of JVCs and other forms of partnerships in the upstream petroleum industry to accelerate the transfer of skills, know-how, and technology to the Corporation and IGCs.

Despite the challenges faced, it is expected that the strategies adopted in recent years would propel the development of local capacities in the industry. Nonetheless, each stakeholder must play its part to ensure its success.

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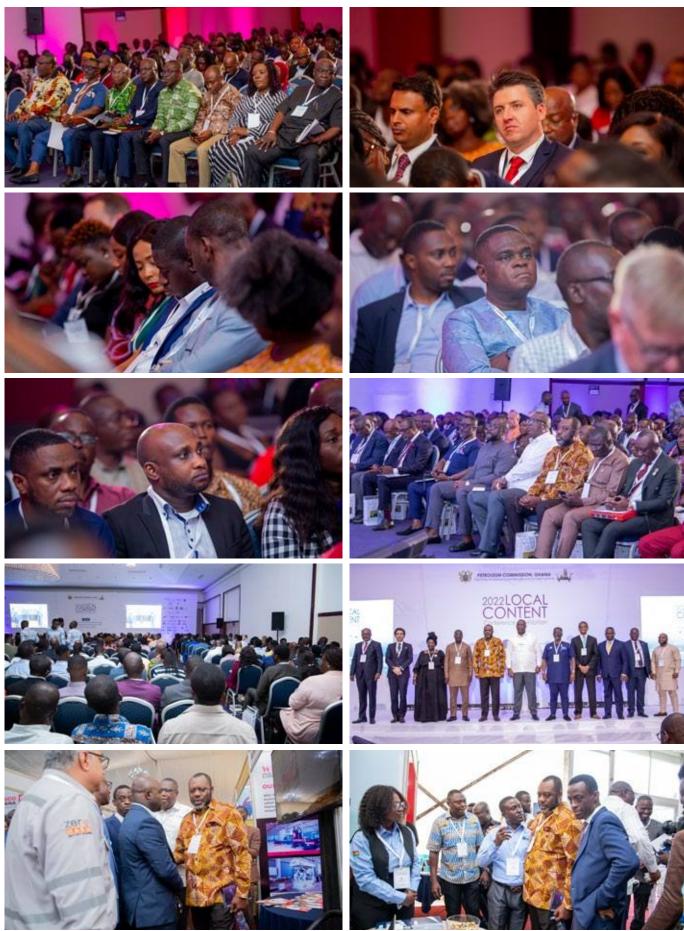








# Highlights of the 2022 Local Content Conference & Exhibition



### Highlights of the 2022 Local Content Conference & Exhibition



### Interview with Mr. Kofi Yalley, C.E.O, Ensol Energy

Linda Kosi & Mimi Ama Sika Baako

Licensed by several international certification bodies such as ABS and DNV, Ensol Energy has been operating in the upstream oil and gas sector in Ghana since 2018 providing varied services to the upstream petroleum industry and other allied sectors such as the mining, downstream petroleum, amongst others. CEO of Ensol Energy, Mr. Kofi Yalley, sits with the ULCM and shares his journey over the years.



**ULCM:** Gooday Sir and thank you for making time out of your busy schedule to speak with us. Please tell us how you started this company and what motivated you to set-up?

**KY:** Thanks for having me. I am Kofi Yalley, an entrepreneur. "So how did the company start?" I was in another sector but that was becoming a bit boring, so I decided to find something more challenging to do . Then I thought about the oil and gas industry and a few other sectors. Considering many other factors, I decided on oil and gas.

Before I started the company, I attended a few workshops and conferences including the Offshore Technology Conference (OTC) held in Houston, USA, just to have a scope of what the industry was all about and to see if it was really something that I would be interested in. I also did some research into the oil and gas industry in Ghana to understand the industry. I found the whole thing very interesting. So, in 2018, Energy Solutions was established, now called Ensol Energy.

**ULCM:** What was the staff strength when the company started?

**KY:** In 2018, we were just about three or four people when the company started. Now, I can say we have about 16 employees for Ensol Energy and about 108 for Southey Contracting, our sister company. We have about 90 pool of technicians who go on rotation offshore and 20 support staff onshore. Currently, there are 40 of them offshore, so the rest are personnel on standby. It is a 28-day rotation cycle, so whilst personnel are disembarking, other are ready to embark the FPSO.

ULCM: What is the core mandate of the company?

**KY**: Ok, so we have three entities now. There is Ensol Energy, Southey Contracting Limited (SCL) and Ensol Technology and Engineering. Currently, **Ensol Energy** has entered the commodity chemical space and involved in a bit of supply chain and procurement of OEM equipment all in a bid to support the industry. But then what SCL does is mainly Asset Integrity (Corrosion Management and Fabric Maintenance). **Ensol Engineering** is mostly focused on engineering operations such as the two bespoke solutions currently introduced (Fortec Pipe Repair Solutions and Coldpad Solutions for Nonintrusive repairs). In the past, operations and production had to be halted to enable Technicians conduct repair works, but to prevent downtime, the cold repairs was introduced. This means that we can be working, and at the same time do the repairs.

**ULCM:** Interesting, so how did Southey Ghana come into the picture?

**KY:** Just around the same time we started Ensol Energy, we had the opportunity to get into partnership with Southey Ghana. This partnership also gave birth to Southey Contracting Limited which became the Joint Venture (JV) company that we set up.

**ULCM:** Can you shed a little light on your JV with Southey Ghana?

**KY**: Yes, we started with Southery Ghana in a joint venture arrangement with 15% equity participation. Our plan was to eventually take over the company or become the majority shareholder. So we started with 15% equity interest, it increased to 20%, then we bought more shares until we became the majority shareholder with 51.49%. Before the L.I 2204 was introduced, we had discussions with our former partners about our intention to buy them out. So, when the L.I. 2204 was passed, it became a catalyst for us to buy over the 49% interest of Southey Ghana making us 100% owners of the company.

**ULCM:** I'm quite certain that since you started in 2018, the journey hasn't been smooth sailing. What are the challenges you faced and how did you manage them?

**KY**: Well, the two major challenges, I would say, were financial and human capital. With financial capital, I believe it's selfexplanatory. In this business, you really need financial capital to succeed, that's why these international companies come down here and succeed more because they have access to all the capital they need than the local companies. But of course, that's why there's also the issue of joint ventures which help the local companies to operate and build financial capacity. The other challenge, the human capital aspect, is the lack of relevant competencies on the part of the local workforce. Our company is trying to be a real local company, making it not just Ghanaian owned but also employing mostly Ghanaians. But the challenge has been that most Ghanaians do not have the necessary skill set and the required certifications.

**ULCM:** When you talk about local skill set required for your business, what exactly do you look out for in that area? You mentioned a robust succession plan; how did you handle that?

**KY:** The succession plan started while we were still in partnership with Southey and then gradually, we built the capacity of the local staff. The Commission also helps by keeping us on our toes with frequent inspections. We were very serious about it because we knew that eventually we were going to own this company and therefore we had to put in that plan and follow through with them to make sure that it all materializes. Initially, I will admit that it wasn't that strong, but later we made sure that we followed through with it. I wouldn't say we are 100% there yet; it's still a work in progress. But I can tell you that we've made some good progress, and the employees are also picking up well with the trainings and all of that.

**ULCM:** In terms of human capital, what stands out for you in following the robust succession plan that you've mentioned?

KY: OK. On fabric maintenance, I think when we started, the locals working with us had Rope Access Level One. But today, we have Ghanaians who have Rope Access Level 3. This has all been due to our energetic push and encouragement to the guys to upgrade themselves. Although we are putting in the money for the training, we also encourage them to use their own money and after they come back, we reimburse them. It's a way to make them serious as well. Yes, and some of them have embraced this strategy very well. This has helped to reduce the number of expats in our operations drastically. Our aim, as I said earlier, is to have 100% locals on both FPSOs and in everything that we do, and of course, encourage our people to take on key roles in the industry. During COVID, when the borders were closed, we couldn't have a lot of the expats coming in, so the staff we had trained were the ones who were manning the FPSO. So, for FPSO J. E. A. Mills, we had 100% local crew that was recognised by both Tullow and Modec manning it at the time for a couple of months before the covid restrictions were eased.

Currently, we have a lady here who would be the first female going offshore as a Rope Access and NACE certified Technician, and she's not just going to work there but she's going to be Quality Assurance Quality Control (QAQC). This is one of my goals, to push more women in the oil and gas sector to the top.

#### ULCM: What is your outlook for future operations?

**KY**: There is a major opportunity to go into the fabric maintenance space because not too many companies are in there. We are also looking the chemical space because, as long as production is ongoing, there will be the need for chemical supply. This is a a long-term investment outlook for us. We are not only looking at supply, but we are also looking at the whole value chain when it comes to the chemical business for both the oil and gas and mining sectors. In future, we're looking at having a blending plant in the country to take care of the upstream, downstream and the mining sectors, including the water industry as well. We have ambitious plans for the future.

ULCM: Currently, who are your major clients?

**KY:** Currently, we are working with Tullow, Modec and Yinson on the upstream side. We also have Gold Fields, Newmont, Orsam etc. those are on the mining side. We are pushing hard to get Eni on board, but we've not been successful yet, hopefully we will in the not-too-distant future.

**ULCM:** Moving on to the Local Content Regulations, in what way has the Local Content Regulations supported the growth of your business?

**KY**: It has supported us a lot. A lot in the sense that, when the L.I. 2204 was passed, it helped us to increase the participation of Ghanaians in the company. I hope my fellow Ghanaian business leaders will take advantage of that and go in for some expansion or some strategic partnerships. But for us it's been perfect. Also, the annual monitoring activities by the Commission has kept us on our toes and has helped us in driving our succession plan because, the reporting obligation of the companies to the Commission keeps us always alert and mindful of our responsibilities. So for us that has helped us keep our house in order.

**ULCM:** Do you have any suggestions on how the Commission can enhance Local Content to benefit the Indigenous Ghanaian Companies (IGCs)?

**KY:** Well, I think again the Commission has done great for the industry so far. One of the things that I pray for is that the Commission can help the local companies have access to capital from the banks to help the companies with their operations. It's very, very important. We know how high the interest rates are. But if the banks and insurance companies as well can be engaged to reduce their interest rates for IGCs, that will be very good. You know everything within the oil and gas industry ought to be insured and it's quite pricey.

In our business, you cannot insure less than \$10 million and that's paying some serious premiums. So if the Commission can come in and help us in that regard, I think it would go a long way to help the local companies. Also, I think the Commission could also organise more seminars, symposia, and conferences to the very serious local companies because they tend to encourage local businesses. We heard about the local content fund, which would have been one of the easiest ways of facilitating access to concessionary capital, but we are yet to hear any further news from the Commission on that. My final point will be that the Commission can facilitate for Ghana to become a training hub so that beyond the oil and gas, Ghana can export manpower outside of the country.

**ULCM:** Let's move away from the formal and get to know you better. What is a typical day in the life of Mr. Yalley?

**KY:** I wear numerous hats, so my normal day is always fully packed , but I try to manage it. When it comes to family, travels and work it keeps me quite busy. It's not been easy, but I thank God for my able General Manager, Ishmael Amegah, who has been of so much help to me. Yes, I have good guys around who are helping me a lot and that I can depend on so much. It gets crazy sometimes. I love what I do and the fact that I am making impact in the lives of these young Ghanaians, I really love that.

**ULCM:** Awesome. Unfortunately, we seem to be taking more time than we promised. We will have to bring the interview to a close. It's been a pleasure speaking with you. Once again, thank you for your time. We appreciate your warm reception.

KY: You're welcome. It was a pleasure having you here.

ULCM: Thank you.

### Local Content and the Use of Arbitration Clauses in Upstream Petroleum Contracts in Ghana

Egbert Faibille Jnr

The upstream petroleum industry all over the world is very familiar with the use of dispute resolution clauses as part of agreements executed between countries, contractors and sub-contractors for the provision of goods, materials and services among others.

From exploration, discovery, appraisal, field development, production, plugging and abandonment to decommissioning, various contracts ranging from petroleum agreements, service contracts and sub-contracts amongst others are used.

Contracts generally spell out among others the rights and obligations of the parties to it. Thus, if a party to a contract for example fails to meet its obligations to the other party(s) to a contract, that other party(s) may terminate the contract or file an action in a court of law to seek orders among others to compel the party in default to meet its obligations.

Over the years, whether by convention and/or practice, International Oil Companies (IOCs) and International Service Companies (ISCs), perhaps relying on past experiences in other oil producing jurisdictions appear to have decided that rather than referring disputes arising from contracts between them and contractors who work for them to the courts, they would rather refer such disputes for international arbitration.

The bases for oil and gas companies preferring international arbitration to court litigation are varied. Among others, international arbitration, because of its confidential nature, helps to avoid the disclosure of highly sensitive information, international arbitration, relying on the principle of party autonomy also allows parties the flexibility to prescribe their own procedure to how the dispute should be settled.

Additionally, the insistence by resource-rich countries on the use of their national courts rather than international arbitration tends to send negative signals to IOCs about such countries and invariably result in a reduction in investments in upstream oil and gas projects in such countries.

Ghana, being part of the resource-rich nations over the world has over the years seen dispute resolution clauses establish a foothold in agreements in use in its upstream petroleum sector. Thus, from petroleum agreements executed between the state and contractor parties to standard contracts executed between International Oil Companies (IOCs), International Service Companies (ISCs) and Indigenous Ghanaian Companies (IGCs), the trend is that there is an increasing number of contracts that have dispute resolution clauses in Ghana's upstream sector.

This article will focus on the use of dispute resolution clauses with particular emphasis on arbitration in Ghana's upstream sector involving IGCs and their partners and also IGCs and companies that contract them to provide goods and services in the petroleum upstream sector.

This is for reason that it has been observed that almost all contracts for execution of works and/or services between IOCs and JVs or IGCS in Ghana's upstream petroleum sector today have dispute resolution.

The issue of whether or not JVs and IGCs that sign contracts that provide for arbitration in the event of disputes is one that has resulted in this write-up

### What is a Dispute Resolution Clause in an Agreement?

Generally, a dispute resolution clause is a provision in a contract per which the parties to the contract agree to how disputes that may arise between them in the course of the tenure of a contract should be settled.

Some of the ways in which parties to a contract agree on the settlement of their disputes may be litigation in a court of law, mediation, conciliation or arbitration.

Additional reasons exist for why parties to contracts in the upstream sector generally prefer alternative dispute resolution modes for the settlement of disputes that arise between them. One of these reasons is that whereas litigation in the courts may take a long time to arrive at judgment, arbitration, for example, leads to expedited hearings and outcomes. Another reason is that whereas court hearings are public, arbitral hearings are private and confidential. Additionally, disputes in the upstream petroleum sector require specialist knowledge and often the court system, though it may have knowledgeable judges do not have petroleum experts sitting as Judges. On the other hand, parties to arbitration may get the opportunity to appoint experts in the area of a particular dispute between them as arbitrator(s).

Often, parties to contracts that have dispute resolution clauses tend to oust the jurisdiction of the state courts by their agreement. Simply said, parties to contracts who opt for dispute resolution clauses in their contracts as a way of resolving their disputes tend to be definite that all or any disputes arising from their contract should be settled by arbitration.

Evidence abounds that the preference of most parties to such contracts with dispute resolution clauses provide for what is known as multi-tiered dispute resolution clauses.

### Local Content & Dispute Resolution Clauses in Upstream Petroleum Contracts

Regulation 49 of the Petroleum (Local Content and Local Participation) Regulations, 2013; L.I. 2204 defines 'local content' as "...the quantum or percentage of locally produced materials, personnel, financing and services rendered in the petroleum industry value chain and which can be measured in monetary terms."

From the above definition, local content signposts in Ghana's upstream petroleum sector include the fact that some goods and services that are used or rendered in Ghana's upstream petroleum industry value chain ought to be produced or provided locally.

Apart from good and services that are provided in the upstream industry chain by Indigenous Ghanaian Companies (IGCs) on their own, it is recognised that upstream petroleum operations are highly technical in nature such that often IGCs need to partner by way of joint venture (JV) arrangements with non-indigenous Ghanaian Companies (NIGCs) to provide particular goods and services. The recent amendment to L.I. 2204 by way of the Petroleum (Local Content and Local Participation)(Amendment) 2021; L.I. 2435 has also introduced channel partnership and strategic alliance as the other options for NIGCs to collaborate with IGCs to provide goods and services to the upstream petroleum sector.

Invariably, all JV, strategic alliance or channel partnership arrangements are underpinned by respective agreements between the parties. As has been stated earlier, most, if not all of these agreements contain dispute resolution clauses that indicate that the parties agree that disputes between them shall not be settled at the courts but through negotiations, and if negotiations fail, mediation, and if that also fails, arbitration. Such dispute resolution clauses are known as multi-tiered dispute resolution clauses. Its effect is that when a dispute arises between the parties and it is provided in the clause that any or all disputes between the parties shall be resolved first by negotiations between the parties, and if the negotiations are not successful, a reference will be made by one or all of the parties for the settlement of the dispute by mediation, and failing that; a reference to arbitration whose award shall be final and binding on the parties, that is the only way any dispute between the parties to the contract will be resolved.

With such a dispute resolution clause, none of the parties to a contract can disregard what has been agreed as the method(s) for resolution of disputes between them and resort to litigation in the courts. A party to an agreement that has a dispute resolution clause in the nature of the type discussed in this article, even if it proceeds to court will have the other party(s) to the agreement applying to the court to stay the court proceedings and order the parties to go and settle their dispute within the meaning of the dispute resolution clause. However, where the other party omits to apply to the court to stay proceedings and files the necessary court processes such as an entry of appearance and a Statement of Defence, it may be too late for such a party to raise an objection to the other party resorting to court instead of the provision of the dispute resolution clause Thus, effectively, parties that agree to settle their disputes in other ways than the courts ought to be guided that they cannot in one breath preclude the courts from hearing disputes involving them and be seen to be running to the same court for a resolution of disputes involving them which they have willingly contracted should be resolved through negotiations, mediation and/or arbitration.

### Some Implications of Resorting to Arbitration in Ghana's Upstream Petroleum Sector

There are a number of considerations that any company that executes a dispute resolution clause that provides for arbitration in an upstream petroleum contract ought to be mindful of. Some of these are:

- · Arbitration is a private method for settling disputes
- Whether a particular dispute between the parties is arbitrable at all
- Without an arbitration clause in a valid contract, there cannot be arbitration. Sometimes, parties to a contract that did not provide for arbitration as a means of dispute resolution can opt for an arrangement where after a dispute arises, they can execute a Submission Agreement by which they agree to submit their dispute

to arbitration rather than go to court as was provided for in the original contract between them.

- Arbitration typically takes place in a neutral country. Thus, when two companies execute a contract that has arbitration as the only means or part of the means to settle disputes, the seat and/or place of the arbitration will be in a country that is different from the countries of the respective parties to the contract. This comes with some costs as regards travelling for arbitration hearings and somethings hiring Lawyers who are authorised to practice in the country where the arbitration is to be held.
- Unlike court litigation where Judges are not paid any monies/fees by litigants, in arbitral causes, the Arbitrator(s) charge fees that must be paid by the parties to the arbitration.
- Additionally, parties to arbitration are required to pay money to the institution that provides services for their arbitral hearings to take place.
- What is the law chosen by the parties as applicable to their disputes?
- · Arbitral Awards are final and not appealable

The above list is by no means exhaustive. It however sums up some critical differences between the resort to court litigation as opposed to arbitration for the settlement of disputes.

### Conclusion

Understandably, arbitration has become standard fare in dispute resolution clauses in upstream petroleum contracts and will be resorted to in most contracts.

Ghana recognises arbitration as a method of dispute resolution and has passed the Alternative Dispute Resolution Act, 2010; Act 798 to provide for the regulation of arbitration as well as mediation and customary arbitration.

Section 1 of Act 798 provides that matters that relate to the national or public interest, the environment, the enforcement and interpretation of the Constitution or any other matter that by law cannot be settled by alternative dispute resolution methods.

Companies that execute contracts with arbitration as part of the dispute resolution methods will do well to protect their interests by seeking the necessary legal advice prior to executing such contracts.

### The Role of Indigenous Ghanaian Companies in a Just Energy Transition

Rodney Kwesi Acquah

### Just Energy Transition

For more than a century, fossil fuels have been the cornerstone of global energy systems, driving industrialization and economic development. However, this reliance has sparked an environmental predicament with greenhouse gases from fossil fuel extraction and utilisation emerging as the leading cause of climate change. In response to this environmental crisis, 195 nations, including Ghana united to endorse the 2015 United Nations Paris Agreement, an accord which empowers each participating nation to define its distinctive carbon reduction goals and formulate strategies for its achievements to combat climate change. It is within this context that the urgency for the adoption of the Just Energy Transition (JET) movement has gained prominence, offering a comprehensive framework to steer decarbonisation efforts.

At its core, the JET concept champions a collaborative and phased approach to transition away from fossil fuels. It is expected that this approach secures fairness and justice for impacted industries, workers, communities etc., preventing adverse effects on their well-being. In practical terms, a just and equitable energy transition demands fair distribution of costs and benefits (distributive justice), inclusivity of all stakeholders in decision making (procedural justice) and the preservation of the status and dignity of people throughout and after the phase out (restorative justice). However, a sudden and unplanned shift away from fossil fuels towards wholesale renewables bears the potential to threaten the energy security of most global economies. This contradicts the JET principles, which emphasises the significance of planning the phase out to ensure environmental sustainability and economic stability.

Drawing from the Energy Commission of Ghana's 2021 data, the nation's electricity generation mix is dominated by thermal sources (65.3%), complemented by hydropower (34.1%) and other renewable sources (0.55%)<sup>1</sup>. This composition presents a pivotal opportunity for Ghana to bolster its renewable energy capacity, steering away from the traditional reliance on fossil fuels. In an effort toward decarbonisation, the Government of Ghana, at the Global Africa Business Initiative event in September 2023, announced an ambitious Energy Transition and Investment Plan, backed by a USD 550 billion investment.<sup>2</sup> This plan outlines policies guiding Ghana's trajectory towards achieving net zero emissions by 2060 and offers policy direction to encourage both public and private entities to contribute to this transformative journey. This article

delves into the crux of this transition, with a particular focus on the role that Indigenous Ghanaian Companies (IGCs) play in steering this transformative course.

In pursuit of a JET in Ghana, the key private actors in the Oil and Gas industry are International Oil Companies (IOCs) including service companies and Indigenous Ghanaian Companies (IGCs). Notably, some International Oil Companies have taken steps to broaden their investment portfolios to include green energy financing. This strategic shift places a strong emphasis on renewables, low-carbon technologies, and carbon credit transactions, shaping a future characterised by sustainability and environmental consciousness. Within this context, IGCs with strong local and foreign connections could position themselves to drive forward the transition process whilst ensuring adherence to the procedural, distributive, and restorative principles of JET.

#### **Role of IGCs**

The Energy Transition and Investment Plan in Ghana serve as a promising entry point for IGCs looking to align their investments with the imperatives of the JET drive. This policy guide outlines key decarbonisation technologies, including electrification, renewables, low carbon hydrogen, battery electric technologies and clean cooking technologies. However, the extent to which the principles of JET are embedded in the plan is not explored in this article. The role of the IGCs in JET encompasses:

<sup>1</sup> https://energycom.gov.gh/files/2022%20Energy%20Statistics.pdf Energy Commission, 2022 National Energy Statistics page 12

<sup>2</sup> https://www.seforall.org/news/ghana-launches-usd-550-billion-energy-transition-and-investment-plan-for-achieving-net-zero

#### Public and Private Partnership

IGCs should continue engaging government and funding agencies, sharing valuable insights and inputs as part of efforts to pursue Ghana's Energy Transition Plan in a progressive and sustainable way. This would establish the groundwork for a robust public - private partnerships, a key aspect of the plan. The Tullow Ghana Limited and the Forestry Commission planned nature-based carbon offset initiative<sup>3</sup> should serve as a building block for IGCs in this direction. The project which is awaiting final investment decision by end of 2023 is expected to align Tullow Ghana's commitment to achieving net zero on its scope 1 and 2 emissions. Moreover, it aspires to contribute to Ghana's commitments under the Paris Agreement by offsetting at least 40 percent of hard to abate emissions recorded on its facilities. Forestry Commission, Ghana on the other hand stands to gain funding to spearhead forest management and development programmes within local communities which would enhance their socio-economic opportunities. In essence, IGCs can forge similar alliances to guide their own impactful public-private partnerships in the journey towards fulfilling JET initiatives. This not only augments their competitiveness but also upholds a positive brand image, showcasing their steadfast commitment to plan implementation."

### Investment in Skill Development

IGCs play a role in fostering a fair and JET in Ghana by actively investing in skill development and building the capacity for the clean energy industry. Through strategic collaborations with research and educational institutions, IGCs can discern the essential skills required for the clean industry. This includes identifying skills that might become redundant during the transition and those that would remain crucial. This strategic investment not only ensures a skilled workforce for the success of the JET but also acts as a driving force for long term economic growth and stability. By proactively addressing skills gaps, IGCs contribute to Government of Ghana's evaluation of the nation's readiness for the transition which also sets the foundation for sustained economic prosperity and competitiveness in the evolving global landscape. Additionally, as clean energy transitions become a global norm, locally developed skills become exportable commodities. IGCs, by contributing to skill development, not only cater to local demands but also enhance Ghana's global competitiveness with the potential for international collaboration in the expanding clean energy industry."

#### **Community Development and Resilience**

Recognising the integral connection that IGCs have with the communities in which they operate, active contribution to JET initiatives fosters job creation and enhances access to clean energy. This positive influence stimulates community level developments, addressing specific needs within various communities since they are not homogenous. It is crucial to recognise that IOCs can shift focus and operations away from Ghana during the transitioning phase, but communities especially those in vulnerable regions, lack such flexibility for relocation due to strong ties. Thus, collaboration between IGCs and communities promote a sense of ownership within communities as they influence decision making. Additionally, IGCs, by spearheading the development of clean energy opportunities in communities, bridge the gap, ensuring sustained support and community empowerment.

#### Investments in Renewable Energy

IGCs should actively explore investments in renewable energy such as solar energy as a strategic initiative. This involves the inclusion of renewable energy as part of their investment portfolios as well as financing clean energy projects through strategic partnerships. By diversifying their portfolios to incorporate clean energy initiatives and exploring green financing, IGCs could deliberately position themselves as responsible corporate entities, sending a strong message to the international community for increased funding opportunities. Investors, aligning with the trend of prioritising Environmental, Social and Governance (ESG) considerations are more inclined to support IGCs in their clean energy financing support.

In summary, as Ghana paves the way for a sustainable energy future, the role played by IGCs emerges as driving force behind the success of the JET, showcasing their contribution.

### **Challenges and Considerations**

While there are numerous benefits to JET which has not been exhausted in this article, its essential to recognise potential challenges. Transitioning away from traditional energy sources require technological advancements especially in clean energy storage capabilities to improve efficiency and affordability. Investments in new infrastructure such as carbon capture and storage technologies require funding which may pose challenges. Public perception and acceptance therefore remain critical to the success of energy transition efforts. This may include addressing concerns from industries and communities regarding job security, revenue losses and type of infrastructure required etc.

<sup>3</sup> www.tullowoil.com/application/files/4416/7964/2278/Tullow\_Oil\_plc\_SustainabilityReport\_2022.pdf

To address these challenges, IGCs can partner research institutions to gain access to cutting-edge technologies, addressing the technological gap. Secondly, exploring green bonds as financing mechanisms can help overcome new infrastructure funding challenges. Lastly, engaging in comprehensive awareness campaigns and communication strategies can alleviate concerns related to job security and public opinions, securing local buy-ins, and strengthening social license to operate.

#### Conclusion

In conclusion, the journey towards Ghana's JET underscores the integral role Indigenous Ghanaian Companies (IGCs) play in steering this transformative course. Beyond financial investments, when IGCs actively engage in green financing, spearhead skills development, and champion community empowerment, it would contribute to the economic prosperity as well as societal and environmental well-being of Ghana.

While the benefits of a JET are evident, persistent challenges demand innovative solutions, including technological advancements, infrastructure funding, and the delicate task of managing public perception. Robust collaboration and cooperation initiatives among IGCs, government bodies, local communities, and the international community is therefore essential for a successful and sustainable transition.



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### Strategic Options for Developing Start-Ups to Scale Up

Kwasi Agyeman Manu Senya

### Introduction

Ghana, after decades of sustained exploration for hydrocarbons received the news of the discovery of the Jubilee Oil Field in June 2007 after the drilling of the Mahogany – 1 Well. The discovery which became the first commercial deepwater discovery, paved way for further deepwater exploration leading to additional discoveries. The discoveries which have since been developed and producing sparked debates on economic development as well as participation by Ghanaians.

The lessons from the debates led to the passing of several laws and regulations aimed at addressing the concerns of Ghanaians, and providing mitigating measures that will help steer the management of the utilisation of petroleum resources to avoid the pitfalls that have plunged other economies into chaos. Some of the laws and regulations passed include:

- 1. The Petroleum Commission Act, 2011 (Act 821)
- 2. Petroleum Revenue Management Act, 2011 (Act 815)
- Petroleum (Exploration & Production) Act, 2016 (Act 919)
- Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I.2204)
- Petroleum Commission (Fees & Charges) Regulations, 2015 (L.I.2221)

Through the passage of the aforementioned laws and regulations, Ghana's upstream oil and gas industry has witnessed significant growth and offered numerous opportunities for indigenous Ghanaian companies to maximise value addition through the use of local expertise, goods and services.

Not oblivious of the challenges faced by indigenous Ghanaian companies, especially, start-ups, this article explores strategic options that can enhance the scaling up of start-ups to thrive in the highly competitive and technology-driven upstream oil and gas industry.

### 1. Strategic Partnerships and Alliances

One of the most effective ways for startups to scale up in the oil and gas industry is by forming strategic partnerships and alliances with established players. Collaborating with experienced companies can provide startups with access to valuable resources, industry knowledge, and networks. Cognisant of these, L.I. 2204 and L.I. 2435 restricts the participation of non-indigenous Ghanaian through strategic partnerships and alliances with indigenous Ghanaian companies – which are mostly start-ups with the expectation that through such arrangements, the capacities of the startups will be developed to the extent that they can scale up their operations to take on larger projects and enter new markets on their own.

### 2. Technology Adoption and Innovation

Innovation and technology adoption are critical for startups looking to scale up in the oil and gas industry. Investing in research and development to create cutting-edge technologies can give startups a competitive edge. Advanced technologies such as artificial intelligence, data analytics, and IoT devices can enhance operational efficiency, reduce costs, and improve decision-making processes, enabling startups to compete with established players.

### 3. Talent Development and Training

Building a skilled workforce is essential for startups aiming to scale up in the upstream oil and gas sector. Investing in talent development programs and specialised training can enhance the capabilities of employees, making them better equipped to handle complex projects. Additionally, startups can collaborate with universities and research institutions to tap into the pool of skilled graduates and researchers, ensuring a continuous influx of fresh talent.

### 4. Regulatory Compliance and Risk Management

Navigating the regulatory landscape is crucial for startups in the oil and gas industry. Ensuring compliance with local regulations and international standards is necessary to avoid legal issues and reputational damage. Moreover, startups must implement robust risk management strategies to mitigate potential challenges such as geopolitical uncertainties, price fluctuations, and environmental concerns. Developing a comprehensive understanding of the regulatory environment and proactively managing risks can safeguard startups during their scaling up process.

### 5. Market Diversification and International Expansion

To scale up successfully, startups must not restrict their operations to Ghana alone – they must strategically consider diversifying their market presence and exploring opportunities in other African countries as part of the African Continental Free Trade Area (AfCFTA) Treaty. This approach will not only help them hone on their capabilities but also help them scale up their operations in the new markets. Relying solely on the domestic market limits growth potential, whereas expanding internationally can open new revenue streams and customer bases. Conducting market research to identify suitable regional markets, understanding local regulations, and building relationships with local partners are essential steps for startups seeking global expansion.

### 6. Sustainable Practices and Corporate Social Responsibility

Incorporating Environmental, Social and Governance (ESG) Framework and other sustainable practices can enhance a startup's reputation and attract environmentally conscious investors and clients. Embracing green technologies, reducing carbon footprint, and supporting local communities through CSR initiatives not only contribute to environmental and social welfare but also create a positive image for the startup. This positive reputation can be leveraged to attract partnerships, investors, and customers, facilitating the scaling up process.

### Conclusion

Scaling up in Ghana's upstream oil and gas industry requires a combination of strategic planning, innovation, and effective collaboration. Startups must focus on forming strategic partnerships, embracing technology, investing in talent, ensuring regulatory compliance, diversifying markets, and demonstrating sustainable practices. By employing these strategic options, startups can enhance their competitiveness, expand their operations, and achieve sustainable growth in this dynamic and challenging industry.

### Women Making Impact in Ghana's Oil and Gas Industry

Spotlight on five female Engineers at Orsam Energies

Edward Appiah-Brafoh & Mimi Ama Sika Baako



Some female engineers at Orsam Energies

Over the years, the upstream petroleum industry has largely been considered male dominated, with more women operating in the less technical areas such as human resources, administration, legal, communications etc.

Lately, it has been identified that there is a gradual increase in the number of women eager to contribute to the sector through their engagement in diverse technical roles including Welding, Health and Safety, Coating Inspections and amongst others.

Challenging stereotypes, some of these women are driving innovations and making impact through the various technical contributions they make in the upstream petroleum sector.

In Ghana, the case is no different. Orsam Energies, a leading industrial, energy and environmental service company in Ghana, is taking on this charge to encourage females to play key technical roles in the oil and gas business. Female Engineers, whether through internships, national service or direct employment are given opportunities at Orsam, to be equipped with the relevant skills, training, know-how and experience needed to play key roles in their various fields.

Through their determination, and commitment, these young women are, in their own small ways, transforming the oil and gas space in Ghana, inspiring others to follow in their footsteps.

The ULCM encountered five of these ladies, who, in their own unique ways, are charting impactfulpaths in the industry. We share excerpts of discussions we had with them.



Hilary Nyadroh, Quality Control and Assurance Officer, Orsam Energies: I would describe myself as a motivated young lady who is ready to explore more, and is open to new experiences in the oil and gas industry. I studied General Science at Ghana National College in Cape Coast, and I furthered my studies in Petroleum Engineering at the University of Mines and Technology (UMAT) in Tarkwa.

I will encourage young ladies who want to enter into this field to believe in themselves, and to take advantage of the resources they have available to improve upon what they already know.



Mary Amoateng - Welding Trainee, Orsam Energies: I chose to study welding because growing up, I was encouraged by other female welders to join them because there weren't a lot of female welders especially in the oil and gas sector. I listened and I haven't regretted the decision.

It hasn't really been easy. At the beginning there was pressure to prove the point that I could do the same job as my male counterparts. But fortunately, I have been able to learn on the job and prove myself that I can do it too. I was able to overcome those challenges through self motivation and encouragement from other female welders.



Patricia Akosua Acheampong - Health, Safety and Environment (HSE) Officer, Orsam Energies: A daily routine here at Orsam as an HSE Officer is to have meetings in the morning with the workers and make them aware of the risks and hazards involved with the job. I also make sure they follow procedures put in place for everybody's safety, and address situations as they come by because every day comes with its own challenges. The overall goal is to make sure that everybody is safe. So that's my everyday routine here. it's not easy. It's challenging but I push through.

One challenge you would face as a woman is this industry is the male ego, because the job is instructive, and as a woman giving instructions in a male dominated environment, sometimes make the men feel challenged. But fortunately, the guys at Orsam are supportive and it's been a great learning platform for me to develop my skills and capacity in what I do here at Orsam Energies.



**Dorothy Ekua Aidoo - Welding Inspector, Orsam Energies:** As the only female Welding Inspector in the yard, it has not been easy. Many guys are not used to taking instructions from ladies but with the support of my quality team and self-motivation I am able to withstand the pressure. When I am ready to settle down, I wish to marry a man who understands and respects my profession. A man who will be supportive and not one who will prevent me from pursuing my career to achieve my potential. We are to help each other as we also serve the nation with our individual professions as well.



**Olivia Addo Danso - Coatings Inspector, Orsam Energies:** As the only female Coatings Inspector in West Africa with Level 2 of the National Association of Corrosion Engineers (NACE), I am very proud of myself and how far I have come. It has been a tough and challenging journey, even when it comes to getting your certification. The certification is not done here in Ghana, hence you must travel outside outside the country to sit for the examination for the certification. This is quite an expensive process.

My final words will be to thank the Petroleum Commission for encouraging young people out there to take advantage of the opportunities the industry has to offer. When I was in primary school, I didn't know a woman could become an Engineer; it wasn't so common. The only Engineer I knew was an uncle. It is quite refreshing to know that currently a lot of young people, especially girls are not just opting for the usual professions such as Law and Medicine anymore, but also Engineering. I feel like things are changing now through career fairs and this medium, your magazine.

## **OmniEnergy**

### Leading the Way in Oil & Gas Services in Africa

Incorporated in 2008, Omni Energy Limited is a wholly owned indigenous Ghanaian company specializing in the delivery of value-added oilfield support services to companies in the upstream petroleum sector. We are strategically present in locations across Africa with a team of competent personnels committed to delivering world-class products and services. We are in Ivory Coast, Dubai, South Africa and still expanding.

In our commitment to providing our clients with the highest level of service, we have expanded our capacity and footprint in the oil and gas industry by building strong relationships with manufacturers and suppliers in Europe and Asia. Our ability to reliably deliver high-quality products and services on time and at competitive prices while adhering to strict quality assurance and safety standards distinguishes Omni Energy over other industry players. As a leader and trusted partner over the years, we have consistently and successfully delivered products and services to our clients in Ghana and other locations in Africa.

Omni Energy's facilities include a **6000sqm Chemical Warehousing Facility**, which has dedicated areas for the storage of solid and liquid chemicals used in the oil and gas industry. We ensure rigorous compliance with safety and environmental regulations. Additionally, we have a **Chemical Decanting Platform** for the safe transfer of liquid chemicals to clients.

Omni Energy also operates a **2000sqm Offshore Cargo Carrying Unit and Storage Facility**, where we store various cargo carrying units for the offshore industry. These units, such as containers, chemical tanks, reefers, skips, and baskets, meet international standards and are stackable and convenient for shipping. Our **Wipe Rope Slings Fabrication** Unit offers wire rope slings and lifting accessories for industrial lifting and rigging purposes. We provide a wide range of lifting accessories and inspection services such as Tubular, NDT and Lifting Equipment Inspections etc.

Furthermore, Omni Energy has a Thermal Desorption and Sludge Treatment Plant, located at Eshiem, which utilizes heat to separate contaminants from solid matrices, such as soil, sludge, or filter cake.

### Our operations and facilities are accredited to ISO 9001:2015 and ISO 45001:2018 standards.

#### Omni Energy's product includes:

- Supply of drilling chemicals such as Barite, Bentonite, Calcium Chloride, and several others
- Supply of production chemicals such as such Methanol, MEG, TEG and SMBS from either ISO tanks, Flexi tanks or drums are transferred through a filtration medium into designated chemical tote tanks and/ or IBCs for our client.
- Fabrication of Steel Wire Rope Slings and Supply of Lifting Accessories
- Supply of Cil and Gas Tools and Consumables

#### Omni Energy's services includes:

- Rental of different Offshore Cargo Carrying Unit (CCU's) including refrigerated containers (Reefers)
- Inspection and Testing Services
- Waste Management Services
- Tank Cleaning Services
- Chemical transfer /Decanting operations
- Chemical Warehousing Services

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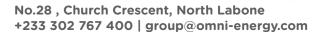


Sling Fabrication and Supply of Lifting Accessories

20ft Half-Height Containers

OMNI-2019-2008-19710697 2808

Mini Containers





### Developing the Next Generation of Ghana's Oil and Gas Professionals: The Role of Ghana Welding Bureau

Dr. Patrick Akanpaaba

### Background

Building the capacity of the next generation of professionals in the oil and gas industry in Ghana is crucial to ensure a skilled workforce capable of addressing industry challenges and transitioning to a more sustainable future for our young industry which is threatened by the Energy Transition mantra. This paper seeks to highlight the strategies needed to facilitate the development of future professionals in this sector which is critical for the sector's long-term success. The process of developing an individual's ability, knowledge, and skills to effectively perform is a long-term and systematic approach that requires commitment.

There are several strategies to achieving this objective, amongst the strategies are: Education and Training Programs, Industry-Academia Collaboration, On-the-Job Training, Technology and Innovation, Diversity and Inclusion, Leadership Development, and Environmental and Sustainable Practices etc.

The Ghana Welding Bureau (GWB) is the creation of the Petroleum Commission (PC) under the leadership of its Chief Executive Officer, Mr Egbert Faibille Jnr. in 2021. It was established to facilitate the development of welding science, technology, and engineering in Ghana, and to promote the appropriate use of welding and joining technologies. Welding or fabrication in general serves as the engine of industrialisation in any economy, in Ghana, beyond the oil and gas industry, welding, fabrication and plumping are key skills that are needed to drive our development from the real estate sub-sector to general industry. The objective of this article is to draw your attention to how GWB can be used as a vehicle to harness the potential of the Ghanaian professional and driving the oil and gas industry forward. Let's explore some of the strategies that can be deployed to achieve this objective.

### **Education and Training Programs:**

To realise the objective of building the capacity of the Ghanaian professional, there is the need to collaborate with educational institutions to develop specialized curricula and training programs that align with the evolving needs of the oil and gas industry. The GWB is positioned to be the appropriate



vehicle to achieving this feat. The Petroleum Commission in the last few years through the Government Accelerated Oil and Gas Capacity Building programme (AOGC) resorted to empowering Ghanaian Technical Universities and Technical Institutes by training Master Instructors in various models including welding and pipe fitting. With the ultimate vision of setting up the Centres of Excellence to serve as a hub for GWB certification training programmes. The PC have facilitated the training of several Instructors in Canada and others yet to be trained in Singapore all in a bid to build the capacity of local faculty to scale up the training of the Ghanaian professional who wish to pursue careers in the oil and gas industry and beyond.

#### **On-the-Job Training:**

Ghana's welding industry is huge, with an estimated housing deficit of over 3,000,000 housing units, beyond the oil and gas industry the demand for welding and fabrication services will still be in high demand. Developing comprehensive on-the-job training programs that allow new professionals to gain practical experience while working alongside experienced mentors will be a strategic weapon to fighting sub-standardisation in the industry.

Ghana has welders; however, these welders are not certified and a large section of them have little to no appreciation of health and safety practices which is key to building a sustainable industry. This is where GWB comes in as a certification body to first, enhance the skills of these artisans and to also give them the opportunity to get certified. Onthe-job training will therefore be a tool to preparing these professionals in the real-world situation which is key for them to pick the needed skills and best practices to work safely.

### **Technology and Innovation:**

The GWB is a very good vehicle to deploy to ensure both institutions and individual professionals are current and understand the new requirements of the industry.

The world today cannot do without digitalization and automation, especially in the case of Ghana where we are seeing the emergence of industries such as the car manufacturing and assembly industry. This industry is a heavy consumer of the services of the welding and fabrication industry, however, without the appropriate skill of technology and automation, the Ghanaian professional will not be ready to participate in the industry, which means the industry cannot be scaled up. By providing training in emerging technologies such as artificial intelligence, data analytics, and remote sensing, professionals will be up to date with industry trends and advancements through continuous learning and professional development opportunities which will be made possible by GWB.

### **Environmental and Sustainable Practices:**

With the GWB as an International Institute of Welding (IIW) recognised certification body, it is positioned to train Ghanaian professionals to international standards. GWB can therefore prioritize safety and environmental training to instil the much-desired culture of safety and sustainability in the workforce. By developing training modules on risk management, hazard identification, and environmental compliance etc. will promote education and training on sustainable practices especially in the era of the energy transition drive to equip professionals with the needed skills to address the industry's evolving landscape.

#### **Diversity and Inclusion:**

The oil and gas industry are not gender balanced, we have very few females participating in the industry, about 15% of the total Ghanaian participation are females which is woefully inadequate. One of the reasons beyond the key issues of low female training in the STEM areas in our educational system, one other factor is the perception of the industry as risky, this discourage the full participation of females as most are risk averse as compared to their male counterparts. GWB is therefore positioned as an appropriate vehicle to promote diversity and inclusion within the industry, with health and safety consciousness in the industry, the perception of the area being risky will be dealt with and therefore more likely to attract talent from a wide range of backgrounds and perspectives which is key to the growth of Ghana. The GWB as a more organised body can implement programs to support the advancement of underrepresented groups which will create an inclusive work environment.

### Leadership Development:

It is often said leadership is everything especially in our paternalistic culture, people need to be given a sense of direction. This is where GWB can position itself as an appropriate vehicle to driving the agenda leadership development to nurture future leaders within the industry. As an internationally recognised certification body, it serves as a platform where both the experienced and the not so experienced meet. This creates a fertile platform to mentoring and coaching opportunities to help professionals advance their careers and take up leadership roles. This also gives GWB the opportunity to train professionals on the key leadership skill of adaptability and resilience in the face of industry fluctuations and challenges.

The GWB also have the opportunity to encourage a mindset of continuous improvement or learning by instituting minimum professional training requirements as part of re-certification requirements. This will help professionals navigate both prosperous and challenging periods.

### **Networking and Industry Engagement:**

Professional association in the oil and gas industry is key as it creates a platform for sharing of knowledge, new trends and best practice from around the world. The GWB is positioned as the right vehicle to encourage participation in industry conferences, seminars, and associations to foster networking and knowledge-sharing among professionals in Ghana and beyond.

With networking opportunities made possible by GWB might help make the professional space more attractive which is key to attracting the needed talent to grow the oil and gas industry in Ghana.

### Conclusion

By implementing these strategies, the oil and gas industry can effectively develop the next generation of professionals who are well-prepared to tackle industry complexities, promote sustainability, and drive innovation. Additionally, the oil and gas industry can nurture the next generation of leaders who are not only technically proficient but also capable of addressing the industry's evolving challenges and contributing to its long-term sustainability and success.

Author: Dr Patrick A. Akanpaaba (SHRM-SCP)

### Challenges of Procurement in Ghana's Upstream Oil and Gas Sector

Edward Addo

### Introduction:

The Ghanaian oil and gas industry has experienced remarkable growth in recent years, driven by the discovery of oil in commercial quantities in the Jubilee fields approximately 16 years ago. This substantial growth in Ghana's oil and gas sector underscores the need for robust procurement strategies tailored to its unique demands.

Companies operating in the Oil & Gas sector must recognize the pivotal role that procurement plans in this emerging industry. Procurement has a direct impact, positively or negatively, on the bottom line of every organisation and its importance and management thereof cannot be over emphasised.

This article delves into the intricacies of planning and sourcing within a strategic Procurement management system designed to meet the specific needs of Ghana's oil and gas sector, and some of the challenges Procurement professionals face in the industry. It examines key considerations and offers tailored strategies for companies operating in this domain. By exploring these aspects, we aim to provide some perspective on Procurement & some of the challenges faced in the Ghanian Oil & Gas sector.

### **Understanding Procurement Management:**

Procurement is the process by which organizations source and acquire the goods and services they need to operate. It involves everything from identifying needs, sourcing suppliers, negotiating prices, and ensuring timely delivery. It's not just about buying commodities or services; it's about making sure you're getting the best value, building strong supplier relationships, and aligning purchases with business objectives.

Within Procurement management, several activities play a crucial role, including planning & strategic sourcing, cost savings, risk management, supplier development, relationship management, contract & compliance oversight, innovation and continuous improvement, data analysis & training.

However, our focus centers on the first two: planning and sourcing and their challenges. For organizations operating in the oil and gas industry, the foundation of an effective procurement system lies in meticulous planning. Effective planning begins with clear objectives and a comprehensive understanding of the industry landscape and the specific challenges facing the Ghanaian oil and gas sector.

### Planning and Setting the Right Objectives:

To achieve a successful Procurement management plan, organizations must establish SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) objectives.

#### Challenges:

### Lack of aligned Corporate & Procurement Objectives.

Vague or non-specific objectives can lead to the breakdown of the procurement system. These objectives should align with the organization's short and long-term plans and consider industry-specific factors.

Unfortunately, some operatives in the sector do not set clear procurement objectives, and when they do, they may be divergent from the corporate objectives. Without these objectives which are regularly reviewed, monitored, adapted according to the market conditions and dynamics, organisations fail to realise the true value of their procurement power.

Companies must set clear procurement/procurement objectives which are clearly aligned with corporate objectives.

### Lack of Comprehensive Procurement/ Procurement Data:

A lack of in-depth analysis of the Ghanaian oil and gas industry and an understanding of its dynamics, competitive landscape and regulatory framework can hinder the implementation of procurement strategies & plans. The lack of essential data on supply and demand patterns, potential bottlenecks, and the performance of existing procurement practices, hinders organisations from making informed decisions.

Organisations must gather data from relevant sources to help identify areas for improvement, optimize existing structures, and enhance overall operational efficiency.

### **Sourcing Right**

The second phase of implementing a successful Procurement strategy involves strategic sourcing.

Strategic sourcing is the acquiring of the right goods or services at the best value. It is essentially the selecting, evaluating, and managing suppliers who can deliver on time, considering price, quality, and availability. Developing an effective sourcing strategy contextualized within the industry and region is vital for a resilient and efficient procurement systems in the Ghanaian oil and gas sector.

Strategic sourcing involves three key considerations: supplier selection, supplier development and supplier relationship management. Before selecting suppliers, organizations must assess factors such as reliability, quality standards, pricing structures, product/service availability, delivery capacity, and geographical proximity. These standards help organizations meet the specific needs and standards of the oil and gas industry, ensuring incident-free operations and excellence in procurement management.

### **Challenges:**

### Limited pool of Indigenous suppliers:

One of the Key challenges procurement professionals encounter in the oil and gas sector, is finding indigenous suppliers with the requisite skill set and technical know how to operate in the Oil and gas sector. Even when there is the willingness to source to such companies, in order to comply with L.I.2204, there is a limited pool of suppliers to engage and build relationships with.

Effective supplier development and relationship management by the IOC's, which includes clear target driven objectives, clear communication, collaborative partnerships, and performance monitoring is crucial to turn this situation around.

Companies must have committed budgets for supplier development and training to upskill the indigenous companies within the sector.

### Lack of Policies & Procedures:

Companies operating in the Oil and Gas sector need to have procurement policies and procedures which specify supplier engagement, development, and relationship management. Unfortunately, companies either do not have such policies or those that do, are outdated, and not aligned to current industry practices of excellence.

### **Conclusion:**

Developing a value-driven Procurement system for planning in Ghana's oil and gas industry requires meticulous planning and strategic sourcing. Setting clear and achievable objectives and benchmarks is essential for success.

Ultimately, sourcing right and planning correctly contribute to increased operational efficiency, reduced costs, improved service delivery by oil and gas companies, and a competitive advantage in Ghana's rapidly growing oil and gas sector. Well-crafted procurement strategies across board is the key to success in this dynamic and promising industry.

### Interview With Ms. Salamatu Mahamadu, Country Director, Baker Hughes Ghana & Ivory Coast

#### Linda Kosi

Ms. Salamatu Mahamadu is the Country Director for Baker Hughes, Ivory Coast and the first Ghanaian Country Director for Baker Hughes since the company started operations in Ghana 15 years ago. In an industry which has been considered male dominated, Ms. Mahamadu is, in her own little way changing that narrative and paving the way for other women to take up leadership roles in the industry. ULCM caught up with her to learn about her experience in her new role.



Congratulations once again on your new role as Baker Hughes' Country Director for Ivory Coast and the first Ghanaian Country Director after 15 years of operations in Ghana.

Thank you and it's my pleasure and honour to serve my country and Baker Hughes over these years.

Before we start, we want to know more about you, Ms. Salamatu Mahamadu.

I am a Ghanaian from Bawku, in the Upper East Region of Ghana. I am married and blessed with three children. I am a certified Supply Chain Professional with over 18 years of experience, 14 of which have been with Baker Hughes. Prior to my current role as Country Director for Ghana and Ivory Coast, I was the Operations Supply Chain Director for Sub Sahara Africa region for Baker Hughes until May 2023 when I was given a global role as Global Procurement Leader for Baker Hughes based out of Houston, Texas. . I have held leadership positions in the Africa Region as -Geomarket Procurement Manager, Geomarket Strategic Sourcing Manager, Geomarket Category Manager to list but a few. I also took local roles such as Country Procurement and Administration Manager, Takoradi Base Leader and Sub Sahara Africa Region diversity, equity, and inclusion champion for the company.

### Take us to the beginning of your career and how you got into this role.

I started my career in the oil and gas industry working in procurement and administration for Ghana and West Africa in 2009. It was the start of the oil and gas industry in Ghana following the exciting discoveries that the country made offshore Ghana. My company was one of the first to arrive in Ghana to partake in those projects. Coming into an industry that was new for most of us, and learning the requirements of the industry was very difficult. I had the privilege to work alongside very experienced professionals and to be led and mentored by some of the industry's finest professionals working for Baker Huges at the time, and that propelled my growth within the company. At Baker Hughes, learning is fundamental to our business, and employees can learn and grow at their own space.

Starting in 2009 to establish the procurement function with support from my Managers at the time gave me an exclusive opportunity to learn, make mistakes, and re-learn. Baker Hughes has high global standards for procurement and having to implement such standards in an industry that was so new in Ghana, coupled with an undeveloped supplier based at the time, are some of the best lessons and insights I have learnt, and which will continue to guide my career.

My journey to a global role with Baker Hughes has been one of resilience, determination, and commitment to both my company and my personal goals. I love the job I do and I ensure I get things done to the expectations of our stakeholders. I believe in doing an excellent job knowing that there is always room for improvement.

### What is the vision of Baker Hughes, and what contributions are you making to achieve that vision?

Our vision at Baker Hughes is to take energy forward by making it safer, sustainable, and affordable to the world, and we are happy to partner with customers across the world to achieve this vision. In Ghana, we are working with our customers and the government to provide best in class technologies for offshore operations whilst growing and developing Ghanaian oil and gas professionals and infrastructure to provide superior services to Ghana and the rest of the world. Our commitment to the country and our communities forms the basis of our investment and continuous presence in Ghana. Our Ghanaian employees are at the forefront of projects and operations across the Sub Sahara Africa region and around the world, and this makes me proud even considering the low level of activities in Ghana.

As a company we have invested in massive infrastructure in Ghana to position the company to deliver world class services and products to our customers. Our Ghanaian employees and teams are trained and exposed to technologies and systems to deliver quality service for the industry.

At Baker Hughes we put people first and our communities are a key part of our presence. We continue to invest in our communities and groups as part of our social responsibilities. We have supported projects at Sekondi School for the Deaf, provided scholarships to students at Ghana's major universities, sponsored special welding courses overseas for Ghanaian professionals to update their knowledge in welding for the oil and gas industry, we have donated ICT equipment to basic schools, to list but ab few.

As our outlook for the future, Baker Hughes will continue to invest in the growth and development of our Ghanaian teams, whilst leveraging best in class technologies to support our customers and projects through the current energy transition agenda.

### Can you share some of the challenges you faced trying to rise to the top?

My career has been exciting, and not short of challenges either. I remember travelling and spending days in desert camps in Hassi Messouad in Algeria, and travelling on long hauls to Sfax between the Libya-Tunisia borders in search of reliable local sources of goods and services to deliver on our projects in those locations. My times in East and Southern Africa is another exciting challenge that will live with me. I have travelled several days on a roll to destinations far across Africa and globally, and as a mother, it was very difficult for me and my family because I was not around on some key occasions.

The industry continuous to be male dominated, though we have made significant progress over the years and Baker Hughes has consistently improved in gender diversity over the last 10 years to make and create an equal opportunity environment for all our employees. At Baker Hughes, our investment in Diversity, Equity and Inclusion (DEI) is a testament to the company's efforts to reduce the challenges minority groups face at their workplaces.

### A key strategic objective of the Commission is to ensure the participation of Ghanaians in the upstream petroleum industry. What has your company done to support the achievement of this objective?

Baker Hughes continues to lead with cutting-edge technologies and vibrant team of professionals to support the Petroleum Commission in executing its mandate to promote local participation in the industry through investments in the following areas:

- Two modern facilities in Ghana which we currently use to support other operations outside of Ghana and thereby propelling the development of local suppliers.
- Sponsored the training and certification in Germany of the personnel of a local machine shop.
- Sponsored the training of specialized welders to bridge the gap in the industry in Ghana.
- Provide scholarships to university students in STEM programs.
- Provide technology to aid teaching of technical programs.
- Conduct audits and provide improvement recommendations to local companies.
- · Transfer of technology and systems to local companies

Baker Hughes will continue to participate in efforts aimed at growing the local industry and bridging the gaps to enable Ghana to achieve the goals and growth required of this industry.

### What has been your biggest learning experience since becoming Country Director, of Baker Hughes Ghana & Ivory Coast.

I have learnt several things in this role and one that stands out is the power of teamwork. We had to deliver a very complex project for ENI in Ivory Coast for an Oilfield Equipment Product line and this was the first time such massive equipment was arriving into Ivory Coast. and it was a learning opportunity for the team members, and our collaborations with the customer, government departments, suppliers and our teams made it a success. I cherish the teamwork and the lessons we learnt which will help us in improving upon our delivery in the next phases of that project. My other biggest learning experience has been managing the business in Ghana and Ivory Coast through the Covid period, with Ghana going through one of its toughest economic challenges in record history. I had to work with various stakeholders to ensure we continued to deliver global standard products and services whilst ensuring that our Ghanaian employees and their families were catered for in this crisis.

#### What is your view of Ghana's oil and gas potential?

Ghana has significant discoveries along the coast of Sub-Sahara Africa and is conducive for businesses to thrive. This puts us in a unique position to attract major IOCs to invest in our oil and gas sector. We simply need to drive more activity in Ghana to sustain the companies in the country.

Ghana has a potential of being an oil and gas hub for most companies operating in the Sub-Sahara Africa region and it is important for the country to position itself to meet such opportunities, noting that the oil ansd gas industry has high standards for safety, compliance and quality among other requirements.

### What advice can you give to younger professionals trying to climb the corporate ladder?

The level of complexity in the corporate world varies from industry to industry, yet the consistent attributes of leaders and anyone wanting to rise through the ladder of leadership includes determination, consistent performance/learning and ability in making complex decisions and leading/working in complex projects across diverse backgrounds.

### The Seaweed Restoration Project; Turning Challenges into Sustainable Opportunities

**Community Relations Department** 

The coastline of Ghana experienced influx of Sargassum in 2009. Since the first report, the densities have been observed to increase annually. Though a constant feature for over a decade, not much empirical evidence has been collected to explain the drivers and extent of the impact on the environment and coastal communities.

Sargassum Seaweed is a type of brown macroalgae that originates from the Sargasso Sea in the Atlantic Ocean. Due to various environmental factors, such as ocean currents, temperature changes and nutrient availability, substantial quantities of Sargassum deposits are found along the coastlines of West Africa, including Ghana every year.

Seaweed provides habitat and food for marine organisms, contributes to nutrient cycling, and supports local fisheries. The influx of seaweed in Ghana comes along with positive and negative impacts. However, when excessive amounts of Seaweed accumulate on the beaches, it creates challenges for coastal communities and tourism.

Prominent among the challenges posed by the invasive Seaweed include accumulation on beaches in large quantities, which leads to the formation of thick mats on beaches with pungent odour from the decomposing Sargassum. Fishermen end up with Sargassum filling their nets instead of fish. Given that the influx of the invasive Sargassum Seaweed coincided with the outset of Ghana's nascent Oil and Gas industry, local fisherfolks tend to associate it with petroleum activities.



PC Community Relations Team observing the Sargassum engulfed beach in the Western Region of Ghana

Section 25 of the Environmental Assessment Regulations, 1999 and section 3 of Petroleum Commission Act 2011, (Act 821)envisage that the management of cumulative impacts in Ghana's oil and gas industry is crucial to ensure sustainable development and minimize adverse effects on the environment, communities, and the economy. For this reason, at a round table discussion in 2021, Upstream Petroleum stakeholders agreed that the invasion of Sargassum Seaweed along Ghana's coastline could be attributed to oil and gas operations.

### **Tullow Ghana Limited's Intervention**

The Petroleum Commission has underscored the need for a clear industry position and communication plan to manage the misreporting on seaweed and its repercussion on the Upstream Petroleum Industry. Consequently, the Commission approved for Tullow Ghana Limited and its partners to engage the Council for Scientific and Industrial Research (CSIR) to identify and promote economic uses of Sargassum Seaweed to mitigate its adverse impact on coastal communities and create economic value from it.

In 2021, based on the research findings, the partners in collaboration with Opportunities Industrialization Centre (OIC), the Ghana Enterprises Agencies (GEA) and the Veterinary Service Department established a Seaweed Processing Plant on pilot basis at Sankor in the Ahanta West District of the Western Region to support communities along the coast to manage Seaweeds and the challenges it posed to them. The first phase involved production of organic fertilizer and animal feed using Sargassum Seaweed as raw materials which was approved and endorsed by the Agricultural Extension Department of the Council for Scientific and Industrial Research.

According to the Tullow Ghana Limited, some key considerations were made which culminated into the pilot Seaweed Restoration Project including Mitigation and Offset Measures of the project which was designed using locally available technology and resources to hasten the restoration of affected ecosystems and support alternative livelihoods for affected communities.

Tullow indicated that the management's approach adapted allowed for ongoing assessment, learning and adjustment of strategies to address cumulative impacts.

#### **Opportunities**

The project brought some form of relief to fisherfolks along the coast through the realisation that the Seaweed which hitherto was a nuisance is now a raw material for agro products. Moreover, about 150 volunteers including pig farmers and vegetable producers drawn from Butre, Busia, Dixcove, Achonwa, Akyinim, Akwidaa, katakor, Cape Three Points, Agyan and Akonu in the Ahanta West and Nzema East Districts of the Western Region underwent training on various business models by the Ghana Enterprise Agency as part of the project.



Sargassum Seaweed produced organic fertilizer from the TGL Project

Additionally, the project contributed to reduced cost of production for pig farmers and vegetable producers through the availability of cheap animal feed and organic fertilizer respectively. This contributed to an increase in the profitability of their businesses. It also further highlighted the resource basket of fishing communities which could be harnessed with the right technologies to improve their living standards.

Currently being piloted in selected communities in the Nzema East District in the Western Region, the technology which has been approved by the Fisheries Commission.

#### Challenges

During the evaluation of the pilot phase of the project, some challenges were identified as hindrance to the implementation of the project by Tullow and its partners.

The animal feed was found to have unacceptably low Fiber and Crude Protein that ought to be augmented with other plant sources such as maize and sorghum to increase the quality of feed produced. Additionally, there was low acceptability and or fear of transmission of toxic/trace elements from Sargassum to humans through the animal feed and organic manure thereby hindering adoption and use of the new products. Given the widespread nature of the invasive Seaweed along the coast, it was found that high transportation cost inhibited the gathering and supply of the raw materials to the processing plant from neighbouring communities.

Lastly, the purchase price per kilogram of the raw materials was low leading to low motivation by fisherfolks to gather Sargassum and sell to the factory.

Consequently, reports on the animal feed and manure would be shared with the Environmental Protection Agency (EPA) and CSIR as a contribution to knowledge development and to support further research into the use of sargassum.

Consequently, reports on the animal feed and manure would be shared with the Environmental Protection Agency (EPA) and CSIR as a contribution to knowledge development and to support further research into the use of sargassum.

### New Strategy for Sargassum Project

Based on the outcomes of the project evaluation and stakeholder engagements on the challenges faced with the project, Tullow and its partners have introduced a new strategy for using the sargassum to produce charcoal briquettes and sargassum bricks. The fundamental processes of collection, drying and milling of sargassum will continue as part of the new strategy to support the fishing communities manage the influx of sargassum at the various landing beaches. The project will continue to purchase dried sargassum from the trained coastal community inhabitants.

To assess the impact of the sargassum project in the communities, the Community Relations Department and the Western Region Office of the Commission undertook a field visit to the Hydroform Interlocking block technology site at Axim where Sargassum Seaweed was being used as raw materials in the production of hydroform blocks for the construction of fish smoking ovens So far, fifty (50) fish mongers are beneficiaries of the ovens in the six coastal districts of the Western Region for the pilot phase representing 85%. It is expected that by the end of Q4 2023, a total of 100 fish smoking ovens will be distributed to fishmongers in all the coastal Districts in the Western Region.



Samples of the Seaweed used for Hydraform Blocks for the construction of fish smoking ovens

During a visit to some of the f Fish Smoking Facilities at Axim by the Community Relations team of the Petroleum Commission, the beneficiaries commended Tullow Ghana Limited for the Seaweed Hydroform block ovens. They showed the team how beneficial the oven has been to their fish smoking businesses compared to what they used previously used. The women requested for additional ones to support what had already been given for the pilot phase.



Fish Smoking Oven constructed with Hydroform blocks

The feasibility and commercial viability of these products may vary depending on factors such as the specific species of Sargassum, local regulations, availability of processing technologies and market demand. The project has adopted a more measured approach in rolling out the new phase.

Currently, feasibility studies are ongoing to among others determine the commercial viability and environmental sustainability of the newly proposed products. At the ended of Quarter 4 2023, 100 ovens will be distributed to fishmongers in the 6 coastal districts. Production of the charcoal Briquettes will commence in 2024.

The project also seeks to complete all relevant documentation and certification processes by end of Quarter 3 to pave way for collection of raw materials, training of beneficiaries and production by the end of year 2023.



Charcoal Briquettes to be produced under phase 2 of the TGL project

#### By: Community Relations Department

# Job Role Localisation in the Upstream Petroleum Sector

Sarah Quayson Danquah

The Localisation Directorate was set up by the Petroleum Commission to ensure the full participation of Ghanaians in the upstream oil and gas sector through Employment, Training and Capacity, Succession and eventual Job Role Localisation as provided for in Regulations 17,18,19, of the Petroleum (Local Content and Local Participation) Regulations, 2013, L.I 2204.



Mr. Egbert Faibille Jnr, CEO of the Petroleum Commission speaking at the graduation of the 150 AOGC Beneficiaries in Takoradi

The Directorate's mandate is to promote Ghanaian employment, succession, and human capital development in the Upstream Petroleum Industry. Through this, highly skilled Ghanaian professionals with technical competencies have been employed to assume critical job roles in the upstream oil and gas sector.

The Directorate is made up of the following:

- 1. Localisation Department
- Accelerated Oil and Gas Capacity Building (AOGC) Programme

The mandate of the Localisation Department ensures that Ghanaians are given first consideration in every employment opportunity that occurs in the Upstream Oil and Gas sector. This has led to many Ghanaians participating in the upstream sector in various job roles. Presently, many high-level managerial and technical roles are occupied by Ghanaians working with International Oil Companies and International Service Companies.

The Directorate's strategy is to position Ghanaians for participation through employment, internships, succession, and eventual job role localisation, which means expatriates continue to transfer skills to Ghanaians and ensures competent Ghanaians assume job roles previously occupied by expatriates. The Commission acknowledges the contribution of expatriates and believes that whiles they are in the country,



Ag. Director, Localisation, Madam Sarah Quayson Danquah and Ag. Director, HCGS, Madam Adjoa Van Vicker with the Nine Lectures (AOGC Beneficiaries) before their Departure to begin their Training at NAIT, Canada

it is imperative that the local workforce also avails itself to acquire critical technical skillset through skills and knowledge transfer opportunities.

### **Achievements**

There are total of 4,147 with 3,759 Ghanaians employed in the upstream petroleum industry at the moment. Of this, females number 671 with 3,088 being males. In its efforts to prepare a pool of competent Ghanaian workforce, the Directorate has through the Ghana Upstream Sector Internship Programme (GUSIP) placed graduates on internships through all the phases of the upstream exploration and production or trained them on short offshore courses since 2018. Through this initiative, several of them have been permanently employed. In addition, 339 job roles have been localised since 2018. Examples of localised roles include Offshore Installation Manager (OIM), Production Delivery Manager, Offshore Field Manager, Marine Superintendent etc. The Directorate is also leading the charge for the adoption of the Ghana Upstream Human Resource Localisation Policy that addresses some of the major challenges in job role localisation and enable the maximization of employment opportunities for the benefit of Ghanaians.



Some of the Five Welders (AOGC Beneficiaries) during their Training at NAIT, Canada

Since its inception, the AOGC Programme has successfully initiated and completed the following training programmes for Ghanaians:

- 150 young technicians at the Takoradi Technical University's Jubilee Technical Training Centre
- Five trained in Welding and Fabrication at NAIT in Canada

 Nine instructors/lecturers from selected Technical Universities and Training Institutions at NAIT in Canada on a 10-month programme titled "Becoming a Master Instructor." These nine lecturers or instructors will be teaching pipefitting, welding, and millwright/mechanical engineering in technical training institutions.

The Commission established the Ghana Welding Bureau (GWB) to ensure that welding training and certification in Ghana meet international standards. It has the following areas of focus:

- Welding and Pipefitting Education and Training
- Welding training in the informal sector
- Welding and Pipefitting standards in Ghana
- Ghana Specific and Internationally Recognised Welding
- Pipefitting Qualification and Certification for the upstream petroleum sector and other allied industries, and
- Occupational Health, Safety and Environment (OHSE).



A Section of the 150 beneficiaries during their Graduation in Takoradi

### Enhancing Exploration and Production (E&P) Activities to Sustain Local Content Development

Kwaku Boateng

### Background

Ghana's upstream oil and gas industry continues to evolve and grow at a steady and promising rate, rife with opportunities and certainly some challenges for the country and investors.

In the last two decades, significant E&P activities have been carried out in the Western (Tano-Cape Three Points) Basin resulting in over 30 offshore discoveries. Some of these discoveries have been developed with the three offshore fields (Greater Jubilee, Tweneboa, Enyenra and Ntomme (TEN) and Sankofa-Gye Nyame Fields) which are currently in production. The remaining discoveries are yet to be developed.

In contrast, limited E&P activities have been undertaken in the Central (Saltpond) Basin, the Eastern (Accra-Keta) Basin, and the Voltaian Basin despite their projected petroleum prospectivity. Indeed, the pace of activities across the entire geological basins have slowed down as the country is yet to add additional field(s) to the three already producing fields. The slow pace of exploration and new field developments in Ghana's Sedimentary Basins which is due to factors such as previous persistent global oil price decline (where the International Brent Crude plummeted momentarily to as low as US\$18.38 in 2020), Ghana-Cote D'Ivoire maritime boundary dispute, COVID-19 pandemic, concerns of energy transition etc. has adversely affected investments and growth in local content in the industry.

However, Government's objective is to use its petroleum resources by replacing reserves to rapidly accelerate growth and industrialisation through active participation of Ghanaians and Ghanaian businesses. This government's policy is largely dependent on the level of activities in the industry. In the wake of energy transition and emerging global trends, it is imperative that the country stimulates E&P activities through enhanced investment to sustain local content development.

This paper will explore the proposed initiatives to increase E&P activities and how they will translate into growth in local content in Ghana's upstream petroleum industry. The paper will briefly examine policy, regulatory and fiscal measure options to enhance the level of E&P activities and transmission

mechanism through which such policy/regulatory measures will translate into local content development.

### Low Level of Investments

Jubilee field discovery in 2007 enhanced the prospect of Ghana's sedimentary basin and led to an increased investment in exploration activities between 2009 to 2014. The maritime border dispute between Ghana and Cote d'Ivoire resulted in an interim injunction imposed by International Tribunal for the Law of the Sea (ITLOS) on new drillings and exploration activities between 2015 and 2017.

Despite several E&P rights being awarded between 2014 and 2018, the trend of exploration investments remained below pre-2014 levels. Activity levels, however, picked up briefly in 2019 with three (3) discoveries made from four (4) exploratory wells. The impact of the covid-19 pandemic also affected exploration investment in Ghana.

### Policy Response Towards Enhancing E&P Activities

### 1. Review of Regulatory Framework to Accelerate Exploration

The government of Ghana has undertaken important review of existing legal and regulatory framework to attract new investment in exploration activities, encourage existing companies to continue to invest in new drilling and optimise recovery from existing fields and resource utilisation.

Amendments have been made in the Petroleum (Exploration & Production) General Regulations, L.I. 2359 to permit the Minister responsible for Energy to grant approval for the conduct of exploration within Development and Production Area (DPA) and for the Petroleum Commission to expand the delineation of DPA to cover prospects and leads in a contract area. These could stimulate Infrastructure-Led Exploration (ILX). ILX refers to an exploration strategy in which the availability of existing

infrastructure such as subsea facilities, pipelines, FPSOs etc., play a central role in motivating exploration activities.

In addition, the regulatory reforms have also introduced flexible relinquishment arrangements for contractors to enable them retain some prospects and leads for exploration and extension of contract area into adjoining open acreages (non-awarded) to exploit low risk prospects (without need for new PA).

#### 2. Strategic Investment Promotion

The government through Ministry of Energy, Petroleum Commission (Commission) and Ghana National Petroleum Commission (GNPC) is pursuing aggressive investment promotion (particularly the Eastern Basin-Offshore Ghana and the Tano Basins) at key oil and gas conferences, international trade expos and investment road shows with targeted investors and companies. The objective is to attract private capital to undertake exploration in Ghana's sedimentary basin.

The result of the Roadshow is beginning to show some fruits with the quality of engagements and interests expressed in Ghana's sedimentary basins by some oil majors and other independent oil companies. These engagements and interests have been followed up with Data Room visits and some signing of MOUs with the Commission.

#### 3. Review Fiscal Terms to Attract Investment

One critical aspect of Ghana's investment promotion drive is the attractiveness of its fiscal regime. Fiscal Regime can be explained as the set of laws, regulations, and agreements which govern the exploitation of natural resources and the sharing of associated economic rent. Generally, fiscal regimes are influenced by the objectives of the State, such as the attraction of investment, fair returns for investments with varying risk profiles, desire for revenue, local content and developmental aspirations of the host country.

It essential to point out that the specific terms of the elements of the Ghana's fiscal regime have evolved over time, to respond to the de-risking of the Tano Basin, regional competition and market conditions.

There is therefore a need to review our fiscal regime especially in the wake of the current bearish investment climate in the oil and gas industry, which has been necessitated by the looming energy transition and other global trends. Rightly so, competition for oil and gas investment among countries is keener than ever, with many countries frantically racing to the bottom with the revision to the fiscal terms to attract investment.

Notwithstanding the competition, Ghana has a winning strategy for investment attraction using its fiscal terms. The strategy, which currently being developed by the Commission under the supervision of the Ministry of Energy, is to focus more on designing fiscal terms which are "sensitive and flexible" to:

- sizes of discovery,
- · water depths,
- · development and operating costs, and
- · market conditions such as oil price

The fiscal regime under review will also be aimed at rationalisation of GNPC's participation, and minimisation of front-load elements of the fiscal system. It is expected that the proposed review will introduce more progressive and attractive fiscal terms to attract investments into the sector.

However, in pursuing the above strategy, Ghana will not give away its hydrocarbon resources on a silver platter in the name of investment attraction and under the pressure of the energy transition. We will ensure a fair share for the country while guaranteeing reasonable returns for investors who advance risk capital against all odds of the industry.

### 4. Promotion of Gas Utilisation

To accelerate exploitation of Ghana's natural gas resources and prevent this resource from been stranded with the looming energy transition and Ghana's net zero target by 2070, the government of Ghana is working with the relevant state agencies and upstream companies to enhance gas offtake by expanding gas processing and transportation infrastructure. This programme will also accelerate Ghana's strategic gasled industrialisation agenda to create demand for natural gas.

### 5. National Oil Company (NOC) Operatorship Capacity Development to Cope with Challenges of Energy Transition

It is becoming increasingly difficult to attract reputable International Oil Companies (IOCs) due to the raging impact of energy transition and constraints on equitable funding for oil and gas projects. Some large oil and gas companies are set to make a switch to "energy" companies that supply a diverse range of fuels, electricity and other energy services to consumers. Fossil fuel financing is dwindling globally. Global investments in upstream sector hast dwindled from \$680B in 2015 to \$395B as of 2021, though this trend appears to have been reversed momentarily due to the energy security concerns emanating from Russia-Ukraine war. Clearly, until the transition is fully achieved, fossil fuels will continue to have a place in the world's energy mix - particularly cleanerburning fuels such as natural gas. However, the long-term expectations are that investments in hydrocarbons will dwindle in the longer-term.

This potentially leaves NOCs to face crucial choices – particularly those with limited technical and financial capacity

to independently undertake E&P activities. The stakes are high for NOCs that are charged with the stewardship of national hydrocarbon resources, and for their host governments and societies that often rely heavily on the associated oil income. Changing energy dynamics have prompted the government to renew its commitment to reform and enhance capacity of GNPC to pursue aggressive reserve replacement programme.

As part of the efforts to build its operatorship capacity and accelerate the exploitation of the country's petroleum resources, GNPC has leapfrogged with exploration efforts in the highly prospective Voltaian Basin. GNPC is currently in the phase 3 of its 2D seismic acquisition programme which commenced in December 2021. This is an infill campaign expected to acquire an additional 1655 kilometres of 2D seismic lines. GNPC, upon completion and interpretation of the seismic data, plans to drill some exploration wells in the basin by Q2 2024. The exploration of the Voltaian Basin, once successful, will open a dawn of onshore hydrocarbon exploitation/production in Ghana.

GNPC is also through its subsidiary Explorco is partnering with a number of companies in both the Eastern and Western basins to undertake exploration activities. Further GNPC is also stepping up research efforts targeting models of resource development that are compatible with sustainable hydrocarbon exploration.

### 6. Open Onshore and Offshore Acreages to Accelerate Resource Exploitation

The government has demonstrated a commitment to transparent acreage award regime with the first licensing rounds held in 2018. This resulted in petroleum agreement negotiations with three reputable E&P companies. Further, pursuant to the Petroleum (Exploration & Production) Act, 2016, Act 919, the Ministry of Energy in 2020 published an invitation for direct negotiations for Petroleum Exploration and Production Rights in respect of Block GH\_WB\_04 offshore and eleven (11) Blocks in the Eastern Basin-Offshore Ghana in an attempt to further boost exploration activities in the country.

In addition, to support the acceleration of exploration activities by new E&P Contractors, the Government, through the Commission, has approved the acquisition of multi-client 3D Seismic data for; Tano Cape Three Points Basin: ~ 12,000 sq.km, Accra-Keta Basin: ~ 13,900 sq.km and Saltpond Basin ~ 10,000 sq.km. These projects are expected to make seismic data readily available to E&P companies who desire to explore Ghana's sedimentary basins for hydrocarbon.

By closing critical seismic data gaps with multi-client Seismic Acquisition Projects, Ghana will improve and modernise data

on the available blocks and further spur exploration drive in our geological basins.

### 7. Clear Energy Transition Plan and Commitment

Ghana is a signatory to several global protocols and agreements relating to climate. Prominent among these are Sustainable Development Goals, Paris Agreement and Glasgow Climate Pact.

In line with this and in order to achieve sustainable exploration, development & production of oil & gas environment, Ghana, has put in place measures to uphold its commitments to climate change which include:

- strict adherence to the zero-gas flaring policy,
- use of electricity generated from cleaner sources on offshore platforms instead of gas-based electricity by 2050,
- inclusion of Carbon Capture and Storage in oil and gas exploration and production by 2050,
- establishment of natural carbon sinks e.g., forests by E&P Companies operating in Ghana,
- accelerate natural gas production to serve as fuel for power generation and blue hydrogen generation by 2050, and
- availability of adequate gas processing and transportation infrastructure by 2025.

These commitments are to ensure that Ghana continue to attract foreign investments into its hydrocarbon sector as the country enhances its net zero compliance capabilities.

### Local Content Development Through Increased E&P Activities

The level of local content and in-country investments depend on the pipeline of E&P activities. The strategic initiatives mentioned above are beginning to yield results with evidence of completed and planned development programmes.

- The TEN Enhancement Project which is under consideration by the Operator is expected to proceed between 2024 to 2026. The project will focus on the development of the large discovered but undeveloped resources in the TEN Area with an initial planned CAPEX of over US\$1 billion. This will include the drilling of exploration wells on identified prospects and infill wells in the developed areas as well as installation of subsea structures.
- The Pecan Field Development which is expected to commence in 2024 will include subsea operations, drilling and completions, FPSO refurbishments and O&M activities. The Pecan Field Plan of Development

was approved by the Honourable Minister for Energy in the last quarter. This Plan of Development will seek a phased development of nearly 400 million barrel of oil reserves in the Deepwater Cape Three Points Contract Area. The Pecan Field production is expected to add about 80,000 barrels per day at plateau production to Ghana's total crude oil production in Phase one of Pecan development.

- ENI made a Cenomanian gas and condensate discovery from the drilling of the Akoma-1X pending appraisal and a Cenomanian oil discovery from drilling the Eban-1x well. The contractor is on course to appraise these two discoveries by Q2 2024.
- Jubilee South East Project, which was commissioned by Jubilee partners in September this year, with investment of over US\$1 billion has added about 30,000 barrels of oil to the Jubilee field production.

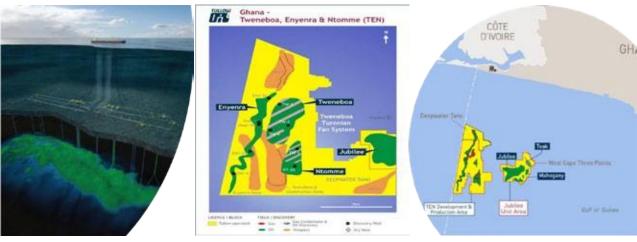
These projects among others are expected to make significant impact on local content development in Ghana. Indigenous Ghanaian Companies (IGCs) with demonstrated capacities are expected to benefit from Engineering, Procurement, Construction and Installation (EPCI), allied and support service contracts . As part of the Pecan Field Development, it is anticipated that over 3,000 tons of steel would be fabricated in-country for integration into the FPSO, Subsea Production Systems (SPS) and Subsea Umbilicals, Risers and Flowlines (SURF). These major contracts will come along with multiple subcontracts. The Project is also expected to deepen the development of local supply chain with new local businesses created and existing businesses strengthened.

For instance, between 2014 and 2019, over 3,500 contracts and purchase orders amounting to about US\$1.2 billion were awarded/issued by IOCs and major companies to IGCs with respect to the TEN and OCTP developments. It is expected that IGCs will benefit more from the planned projects than the previous projects.

Further, Ghana's upstream petroleum industry will also witness a significant increase in investments in infrastructure, facilities and technologies with the realisation of these projects. As IGCs participate in these projects, they will also increase their capabilities and international competitiveness to participate in other future projects.

Jubilee South-East

### The Pecan Field Development Approved

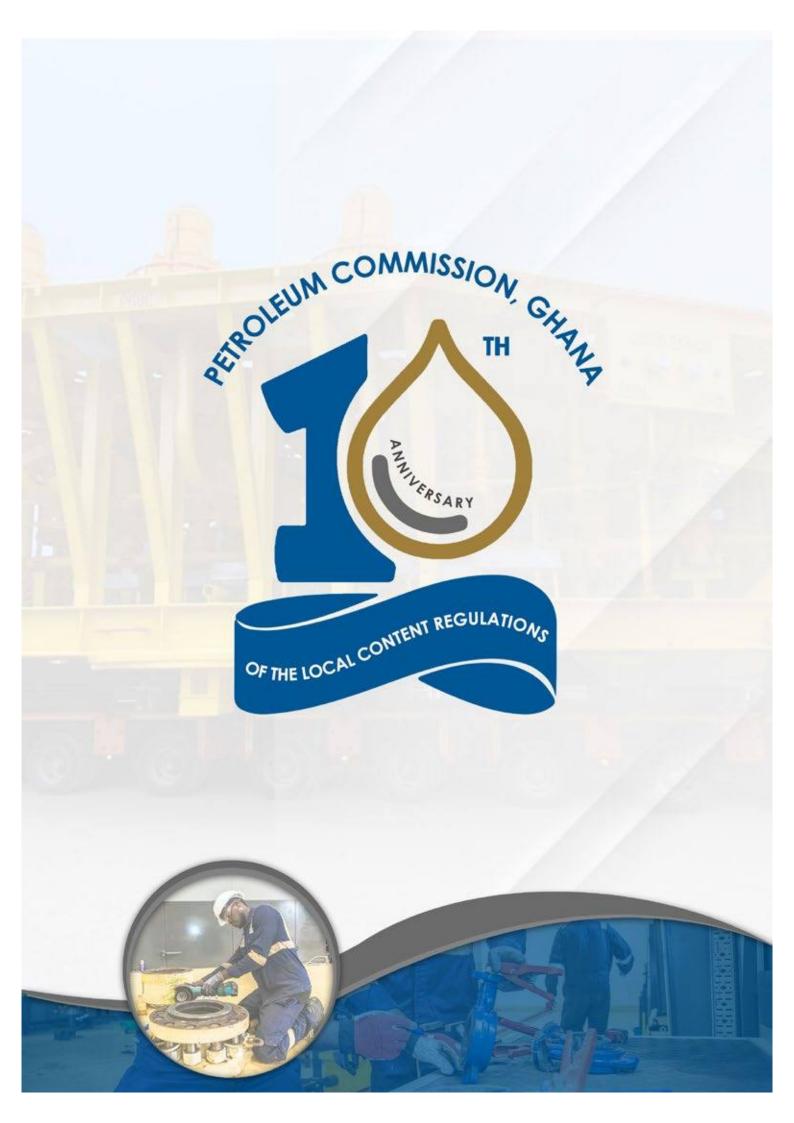


**TEN Enhancement Project** 

#### Conclusion

Continuity with the past they say is a necessity, not a duty. Ghana continues from the past to reform its policy and regulatory environment to make it consistent with the dictates of contemporary era. Accountable Regulators of our time face two principal challenges in determining the regulatory framework for the exploitation of oil and resources in their countries. First, they must create a business climate that attracts private investment, a necessary precondition to the development of the extractive industries. Second, they must address relevant domestic policy issues, such as the local content and local participation, environmental impact on communities affected by extractive activities and ensure the equitable distribution of revenues from the industry.

It is in this regard that the Commission is working assiduously with the sector Ministry and other stakeholders to ensure that the exploitation of Ghana's petroleum resources and enhanced production from these resources are prudently managed and utilised for the benefit of the people of Ghana. The Commission under the direction of the sector Minister will continue to put in place a number of policies, strategies and regulatory initiatives to improve governance and enhance growth of local content in the sector.







### Who We Are

 Regulator and manager of Ghana's Upstream Petroleum industry
Custodian of Upstream Petroleum Data
Gateway to Ghana's Upstream Petroleum industry
One stop shop for all permits in the Upstream Petroleum industry
Facilitator of Ghanaian participation in Upstream Petroleum industry
Upstream Agency under the Ministry of Energy, formed by an Act of Parliament, Act 821, 2011





### **OUR SPECIALTIES**

Contract Catering (OFFSHORE & ONSHORE) Offshore Catering & Supply Services Inflight Catering Event Management & Planning Ship Chandelling Housekeeping,Laundry & Cleaning Services Facility Management & Design Services

Mobile Kitchen Services

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