



KNK Transformation Supplier Market Briefing

Tullow Ghana Ltd
October 2021

KNK Transformation - Supplier Market Briefing



Agenda:

1. Introduction
2. Project Summary & Objectives
3. Scope and Boundaries
4. Shared Prosperity
5. Timeline & Contracting Process
6. Expressions of Interest
7. Q&A



KNK Transformation - Executive Summary



General

- After careful consideration, Tullow intend to pursue a self-operate model for the KNK FPSO O&M services;
- A Value Proposition has been affirmed with clear case for change around safety, production efficiency, cost and local content;
- Key stakeholders are supportive with moving forward with self-operate;
- Project has progressed well through the various gate stages to the execution stage;
- MODEC have been informed of Tullow's decision;
- A joint Tullow and MODEC Transition Team is established;
- A detailed project execution plan and schedule has been developed outlining all milestones and activities;
- We recognise the role that MODEC has played in supporting KNK operations since first oil.

Key Scopes

- Contracting strategy and contracts plan completed ready to commence the contracting scope;
- Operating Management System (OMS) structure formulated and detailed development started;
- Self-operate organisational archetype formulated, build on existing technical capability, supplement were needed;
- Key technical work fronts commenced including systems, integrity, maintenance, data, documentation handover;
- Project risk register established with mitigation actions.

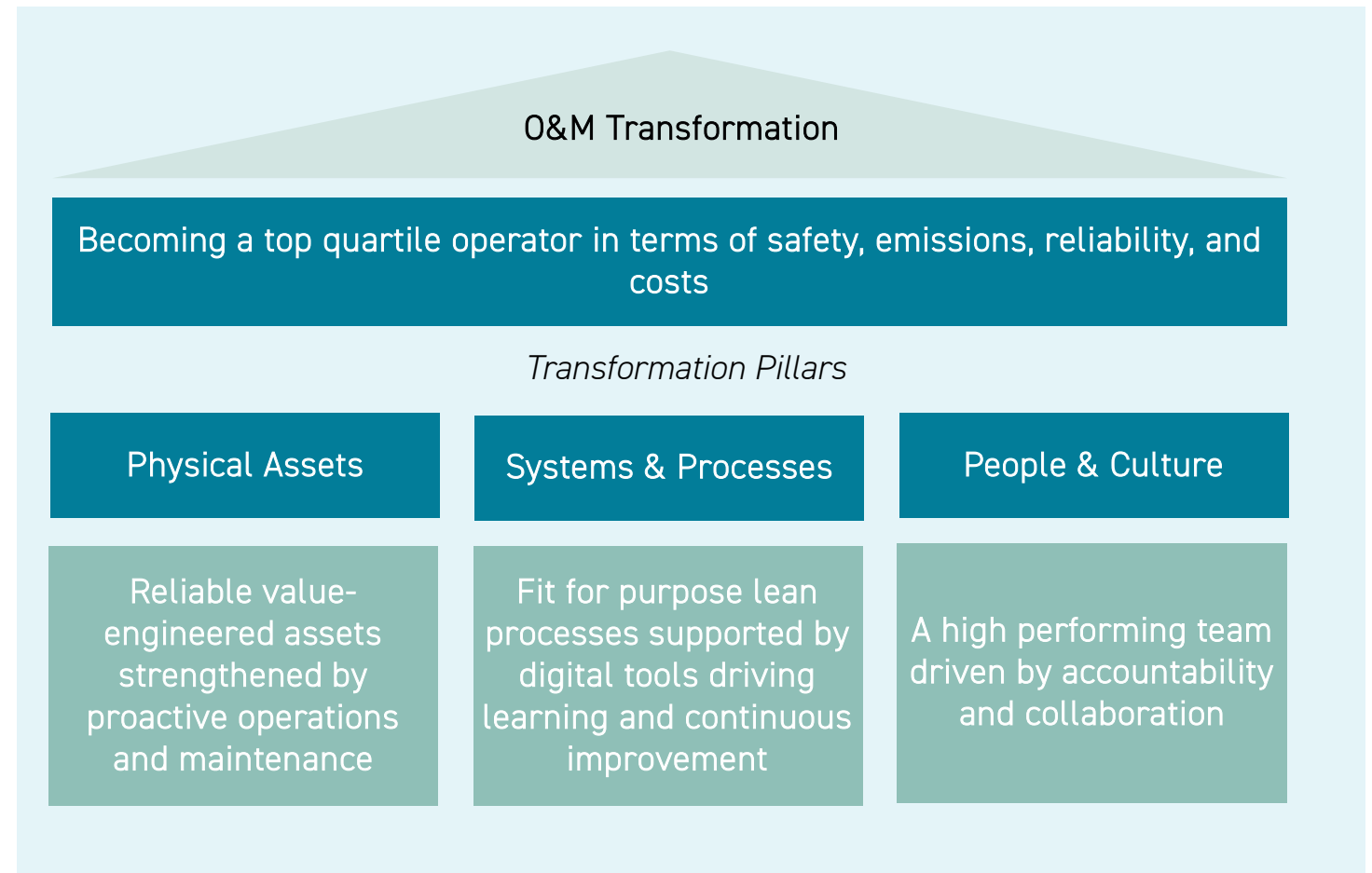
Objectives of this Briefing

- Not a seminar on how to submit a bid;
- Engage and inform the supply market;
- Canvass expressions of interest;
- Receive any immediate feedback or clarifications.

KNK Transformation - Objectives

The self-operate model supports the asset's **three priorities** to:

- (1) ensure continuous safe and efficient storage and offloading;
- (2) ensure maximum production potential is enabled through optimum available system capacity; and
- (3) ensure the lowest possible cost is maintained through improved workforce productivity, safety, supply chain stability and continuous improvement.



KNK Transformation - Scope and Boundaries



- Overarching contracting strategy approved that sets clear deliverables with focus on:
 - Technical/Operational/EHS capability;
 - Commercial/Pricing competitiveness and value;
 - Local Content sustainable step change;
 - Contracting scope and boundaries are well understood;
 - Supply market capability understood but needs validating through competitive tender;
 - Move from a single integrated contract to ~60 new scope specific contracts for core O&M services;
 - Consider opportunities to bundle work-scope if there is a clear value proposition;
 - MODEC will continue to provide O&M services on TEN through their own contractor network.
- Boundaries are defined but the scope and scale of this contracting activity is significant:
 - In-scope Items: Core O&M services (see later);
 - Optional Scope Items: e.g. Engineering Services and Mooring System;
 - Consequential Scope Items: Expansion of existing Tullow contracts to accommodate new demand, e.g. logistics, occupational health, travel, welfare;
 - Out of Scope Items: e.g. Subsea, subsurface, drilling and completion, oil liftings;
 - Significant contracting opportunity for Ghanaian suppliers at all contracting levels across the supply chain;
 - New entrants to Ghana are strongly encouraged to identify Ghanaian partners;
 - We expect robust local content development plans to form the basis of contractor evaluation and selection.

KNK Transformation - Summary of Work Scopes

Personnel & Welfare Services	Maintenance Support Services	Manpower & Labour	Construction & Minor Modifications	Materials and MRO	OEM Equipment Support
<ul style="list-style-type: none"> • Offshore Medics & Svs • Training & Competency 	<ul style="list-style-type: none"> • Flexi Hose Mgmt • Offshore Inspections • Offshore Cranes • Lube Analysis • Motors & Large Drives • Switchboards • UPS • HVAC • EX Inspection • Instrument & Controls • Metering 	<ul style="list-style-type: none"> • Ops Core Crew • Maintenance Core Crew • Marine Core Crew 	<ul style="list-style-type: none"> • Construction Engineering and installation • Onshore Minor Fabrication • Scaffolding • Rigging, Lifting & Rope Access • Fabric Maintenance • Composite Wrap • Pipework Spool Replacement modelling • Flange Mgmt & Leak Testing 	<ul style="list-style-type: none"> • General MRO • E&I MRO • Mech MRO 	<ul style="list-style-type: none"> • Pumps • Valves & Actuators • Safety Equipment

Note, additional information on each services is provided at the back of the presentation pack.

KNK Transformation - Shared Prosperity

Tullow is committed to generating in-country capability to support the long term development of the oil and gas industry in Ghana:

Local Content and Supplier Capacity:

- *Optimise local sourcing and build supplier capacity*

People:

- *Build local skills and develop local people*

Investment:

- *Focus socio-economic investment and enhance local economies*



Tullow is committed to use the change in KNK operating model to create a sustainable step change in local content:

- Grow participation of indigenous Ghanaian companies in O&M works - 13% to 33% over a 5 Year period;
- Enable investment in facilities – long term contracts to build capacity, e.g. certified service centres and testing facilities;
- Promote and invest in skills development – at all levels of the organisation;
- Increase the employment of Ghanaians – in both Tullow direct Tullow contracts and their subcontracts;
- Targeted social investment opportunities – that make a positive impact within our communities.

Tenderers should familiarise themselves with the *Petroleum (Local Content and Local Participation) Regulations 2013 (LI. 2204)*. Information can be found on the Petroleum Commission website www.petrocom.gov.gh.

KNK Transformation - Enabling a Step Change



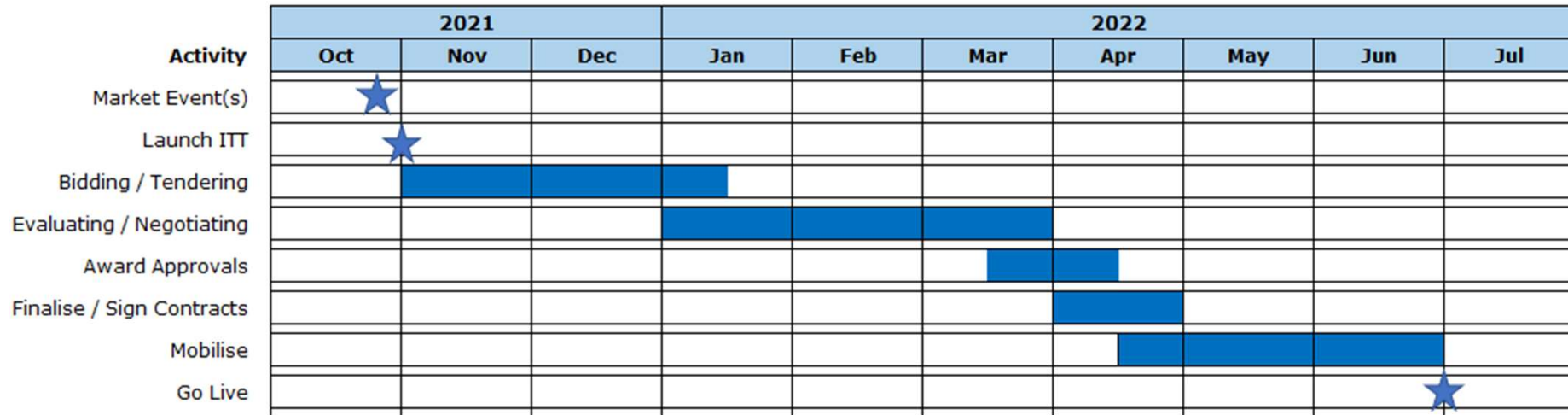
Enablers:

- Comprehensive tender lists with Ghanaian companies given a fair opportunity to win work;
- Tender individual scopes of work / contracts to allow active participation at all levels of the supply chain;
- Ring-fence scope items already provided by indigenous Ghanaian companies;
- Award multiple overlapping contracts if this provides an opportunity to develop Ghanaian companies;
- Award longer term contracts (up to 5 Years) to support the development of sustainable local content;
- Avoid awarding contracts that are merely “fronts” where goods and services are simply Ghana;
- Detailed local content questionnaire as part of the tendering process;
- Local content given adequate weighting in evaluations.

Results:

- All Tier 1 and Tier 2 contracts shall have a robust local content development plan:
 - Goods & Services;
 - People;
 - Sustainability & Social Performance;
 - Knowledge & Capability Transfer;
 - Ghanaian Professional Services;
- Whilst emphasis will be on Ghanaian Joint Ventures we will ask indigenous suppliers to provide data/statistics;
- Particular focus will be given to knowledge/capability transfer;
- We expect local content to increase (broadening and deepening) over time;
- Plans will be hard-wired into contracts and subject to regular and focussed performance review.

KNK Transformation - Timeline & Contracting Process



Coupa Sourcing (online platform) will be used to issue and receive tenders



Prequalification exercises may be completed where necessary



Tullow will not accept requests for extensions of time



Alternative offers will be requested where additional value can be offered

KNK Transformation - What Next - Expressions of Interest



Tullow is requesting Expressions of Interest via an online form which is accessible from:

1) This link:

<https://forms.office.com/r/w4GNEL5Ar2>

2) QR code:



3) By visiting the 'Suppliers' area of Tullow's website:

<https://www.tulloil.com/suppliers/>



Questions?



Scopes/Services – Step Through



Personnel & Welfare Services

Offshore Medical Support Services:

Scope to offshore medical to manage medical care for offshore personnel, including onshore medical support, supply of required pharmaceuticals, medicines and drugs as well as medical equipment, supplies and medical consumables.

Training and Competency Management:

Scope to include provision of competency management assurance services including training, competency framework development, competency assessment, cloud-based software application, reporting.

Scopes/Services – Step Through



Manpower & Labour

Operations Core Crew:

Scope include the provision of competent production operators and supervisors including control room technicians and permit to work coordinators. Scope to include to all manpower management services of personnel provided.

Maintenance Core Crew Services:

Scope to include the provision of competent maintenance technicians and supervisors including topsides, engine room and materials and logistics coordinators. Scope to include to all manpower management services of personnel provided.

Marine Core Crew Services:

Scope to include the provision of competent marine technicians and supervisors including control room marine technicians, marine pump/motor technicians, deck operators and supervisors and crane operators/deck crew. Scope to include to all manpower management services of personnel provided.

Scopes/Services – Step Through



Maintenance Support Services (1)

Flexible Hose Assembly Management Services:

Scope to include an initial baseline survey of all flexible hoses already identified on current hose register, conduct gap analysis of the facility hose registers and presentation of a report, audit company provided information in relation to flexible hose assemblies across topside production systems, provide ongoing, routine/planned inspection and maintenance services of FHAs as defined in the management and control procedures. Contractor to provide all personnel, equipment, materials and supplies.

Offshore Inspection Services (With Option for Rope Access):

Scope to include carrying out NDT inspections offshore, creation of inspection plan based on RBI and safety critical work orders, provide reporting. Scope to consider execution of inspection via rope access technicians/inspectors; rope access is also covered under scaffold services. Contractor to provide all personnel, equipment, materials and supplies.

Offshore Crane Services:

Scope to include the maintenance, inspection and repair of offshore cranes. To include crane operatives. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Maintenance Support Services (2)

Lube Analysis Services:

Scope to include lube oil analysis as part of condition monitoring regime, including carry out oil and grease analysis to the appropriate standards, provide concise reporting of results from the oil condition analysis, provide an online (cloud based) reporting system, provide oil sample bottles complete with labels. Contractor to provide all personnel, equipment, materials and supplies.

Motors and Large Drives:

Scope to include the inspection, maintenance, repair, rewinds, health checks, partial discharge and motor current signature testing, and replacement. Contractor to provide all personnel, equipment, materials and supplies.

Switchboards & Switchboard Equipment Services:

Scope to include the inspection, maintenance, repair, of equipment and systems. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Maintenance Support Services (3)

UPS System & Electrical Panel Services:

Scope to include the inspection, testing, maintenance, repair of the UPS system and electrical panels and HV electrical contactor. Contractor to provide all personnel, equipment, materials and supplies.

HVAC Services:

Scope to include inspection, maintenance, repair and modification of HVAC system and associated equipment. Contractor to provide all personnel, equipment, materials and supplies.

EX Inspections:

Scope to include inspection, testing and repair of certified electrical equipment on the KNK facility, Contractor to provide program management services (planning, scheduling, recording results in ArnLea or equivalent, data/results analysis, inspection optimisation. Contractor to provide input to CMMS for work management purposes. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Maintenance Support Services (4)

Instrument & Control M&I Services:

Scope to inspection, maintenance, testing, calibration, and repair of various instrumentation and controls equipment include non directional beacons, oil-in-water (pro-analysis), portable tank ullage equipment calibration annual servicing. Contractor to provide all personnel, equipment, materials and supplies.

Metering M&I Services:

Scope to include field service technicians (for offshore), technical support services, metering hardware, software and licensing, fiscal meters servicing, repair, calibration and certification, master and check meters (independently accredited 3rd party certification (oil offload & gas export)), HP & LP flare gas meters and its certification, metering core crew technicians and general metering support. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Construction & Minor Modifications (1)

Construction Engineering and offshore installation Services:

Scope to include work pack preparation, method statements, JSA's, construction campaign plans, constructability reviews, procurement of construction materials, equipment and consumables, managing temporary equipment, construction labour, commissioning labour and procedures and QA/QC services. Contractor to provide all personnel, equipment, materials and supplies.

Onshore Minor Fabrication Services

Scope to include ad-hoc fabrication services to support offshore activity based on engineering drawings provided by others. Scope to include procurement of fabrication materials. Contractor to provide all personnel, equipment, materials and supplies.

Fabric Maintenance and composite wrap Services:

Scope to include provision of management services including surveys, planning & scheduling of work, performance management and reporting, insulation condition assessment, remove, installation, surface preparation (shot blasting), coating and painting, repair and replacement of tertiary steelwork. Scope to also include design, engineering and installation of composite wraps repair. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Construction & Minor Modifications (2)

Scaffolding Services:

Scope to include offshore scaffold services including scaffold erection and dismantling (offshore), scaffold inspection and certification (offshore), onshore engineering support to issue approved drawings for engineered scaffold. Contractor to provide all personnel, equipment, materials and supplies.

Rigging, Lifting & Rope Access Services:

Scope to include qualified personnel and certified equipment for offshore rigging and lifting services, maintenance, refurbishment and recertification of lifting gear, qualified personnel and certified equipment for offshore rope access services. Note, that inspection services are also likely to require rope access to carry out inspection activity. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



Construction & Minor Modifications (3)

Pipework Spool Replacement Services:

Scope to include provision and maintenance of model for pipework systems, recording and tracking of temporary repairs on model, provision of isometric fabrication drawings, oversight on the dimensional control at the fabrication site.

Contractor to provide all personnel, equipment, materials and supplies.

Flange Management & Nitrogen Leak Testing Services:

Scope to include qualified personnel, certified/rated equipment, tools and materials, pre works such as supply of procedures, work-packs, flange management register, and leak test plan, equipment supply including nitrogen, helium, leak test equipment, flange inspection, machining and torqueing equipment. Offshore execution to include drain flush purge vent isolation (DFPVI), leak test boundary walkdowns, pressurising & monitoring leak test, depressurise and/or decant, flange face inspections, management and control of joint integrity using flange break register, hydrotesting, commissioning and provision of handover certification. Contractor to provide all personnel, equipment, materials, supplies.

Scopes/Services – Step Through



Materials and MRO

MRO Supply General:

Scope to include the stocking and supply of general maintenance repair and operational supplies, tools and equipment to support operations, e.g. general consumables lubes, oils, greases, PPE supply.

MRO Supply E&I:

Scope to include the stocking and supply of electrical and instrumentation type maintenance repair and operational supplies, tools and equipment to support operations, e.g. instruments, gauges, small bore tubing.

MRO Supply Mechanical:

Scope to include the stocking and supply of mechanical type maintenance repair and operational supplies, tools and equipment to support operations, e.g. stub-bolts, gaskets, flanges.

Scopes/Services – Step Through



Original Equipment Manufacturer Support

Pumps & Emergency Generator:

Scope to include inspection, maintenance, testing and repair of various pumps and the emergency generator installed offshore. Contractor to provide all personnel, equipment, materials and supplies.

Valves & Actuators Services:

Scope to include inspection, maintenance, testing and repair services for various valves and actuators including offshore field service engineers, spares management, PSV recertification, SDV/BDV flush, lubricate sealing, arrangements, refurbishment. Contractor to provide all personnel, equipment, materials and supplies.

Safety Equipment Maintenance:

Scope to include inspection, maintenance, repair and replacement of lifeboats (including load testing), life-rafts, fire extinguishers, and the like. Contractor to provide all personnel, equipment, materials and supplies.

Scopes/Services – Step Through



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