Ghana Oil & Gas Upstream Outlook

**Highlights**

- Based on field already producing and field development plans, Ghana could be SSA’s fourth largest oil producer by 2020, with oil output above 240kbpd.
- The TEN project, which kicked off in August, is a significant revenue boost for the government of Ghana and boosts optimism for other projects such as the Sankofa gas project & MTA fields.
- More importantly, the TEN and Sankofa could literally eliminate the country’s need for gas from the West African Gas pipeline, restricting dependence on WAGP gas to back-up status.
- Ghana’s new oil law is largely a positive development for the oil and gas industry as it provides incentives to attract investors while balancing local content drives.
- Ghana’s deepwater projects can survive on $40 oil so will remain attractive to investors.

**Ghana could be SSA’s fourth largest oil producer by 2020**

Ghana’s oil output has been boosted with the start of production from the Tweneboa, Enyenra & Ntomme (TEN) project in August. The oilfield, which is expected to peak at about 80,000 bpd in 2018 has produced its first barrel, and is expected to maintain a steady flow of about 20,000 bpd in 2016. We believe this has increased Ghana’s average oil output to over 100,000 bpd in 2016, considering ongoing challenges at the Jubilee oil field, which is yet to resume 2015 peak level production of 115,000 bpd. Based on existing fields and field development plans Ghana crude oil output is estimated to be over 240,000 bpd by 2019. This could potentially make Ghana the fourth largest oil producer in Sub Saharan Africa by 2020, based on existing fields and planned field development in the top ten oil producing countries in the region.

**Chart 1 – Ghana oil output projection**

**Chart 2 - Top oil producers in Sub Saharan Africa**

**Chart 3 - Indices of oil output forecast for top 7 producers in SSA (2014 = 100)**

Source: GlobalData, OPEC, Ecobank Research

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TEN field is a major part of Ghana’s oil and gas future
The TEN field, operated by Tullow Oil, is estimated to hold about 240 million barrels of oil and 60 million barrels of oil equivalent gas reserves. The full field development plan will involve the drilling of 24 wells in total, comprising water and gas injections wells and production wells. The current production is being undertaken from the first 10 wells of the 24 planned wells. The remaining wells will be drilled from 2017 to achieve peak output by October 2017 while gas output is expected to begin in 2018. The development of the TEN field was achieved on schedule and within the budget expected. This was achieved despite some disruption following Cote d’Ivoire’s dispute with Ghana over maritime borders, which would have affected operations on the TEN field. However, Ghana won the suit and was allowed to proceed with the TEN field. Furthermore, the development of the TEN project utilized a considerable level of local content in its development, affirming the potential of the Ghanaian oil field servicing segment. This could be potentially good training ground for future projects in Ghana such as the MTA fields to be developed by US Independent Kosmos Energy and partners, among others.

Chart 4 – Ghana’s existing & planned oil output 2016 – 2025, 000 bpd

The TEN field is one of the projects that are being developed to boost the supply of gas in Ghana over the next few years. While the older Jubilee field is yet to reach its peak gas output level of about 120 million standard cubic feet (mmscf) of gas daily, the TEN field project is expected to produce about 170 mmscf. The TEN field is expected to commence gas production in 2018. The start of the TEN project on time and within budget also lends further optimism to the ongoing Sankofa project, which is also on track to deliver first oil by August 2017 and has received strong support from the World Bank. The Sankofa field is expected to also add about 30,000 bpd to Ghana’s output when it comes on-stream. The Sankofa project, operated by ENI, is also expected to commence gas production by February 2018 and add an estimated 180 mmscf of gas daily at peak output. The Sankofa project is being developed to monetize over 1.5 trillion cubic feet of gas offshore Ghana and could support nearly 1,100MW of power generation by itself. These fields are thus expected to provide a minimum boost of at least 350 mmscf of natural gas for Ghana’s power sector. In our estimate, the gas supply from these fields could support generation of an additional 2,000MW of gas fired power supply.

Passage of new petroleum law raises optimism for new investments
The recent passage of the new oil regulation, the Petroleum Exploration and Production Bill 2016, has further brightened the prospects of the Ghanaian oil and gas sector in our view. The new law replaces the older law passed in 1984, which was no longer in tune with current trends in the industry. The new law gives legal backing to the government’s right of first refusal on sale of stakes and further entrenches transparency, accountability and use of competitive bidding in securing contracts and disbursement of funds. The law also introduces new fiscal terms such as bonus payments and increases the state’s share of carried interest in exploration phase to about
15%. One of the sections included to improve transparency include the opening of a petroleum register for all petroleum agreements, licenses, permits and authorizations. The new law also requires parliamentary ratification of all petroleum agreements, adding another layer of checks on petroleum operations. The bill also provided for the establishment of a local content fund, which will be disbursed competitively to assist small and medium-scale Ghanaian businesses engaged in the oil and gas sector. The passage of the bill is likely to signal to investors that Ghana is keen to engage investors in the oil and gas space on mutually beneficial commercial and legal terms. Considering the yet undeveloped potential lying offshore the country, the passage of the new law is likely to attract investment to the country.

Chart 4 – Comparison of estimated break-even oil prices required by various oil fields in West Africa, $/bbl

Ghana is attractive to investors despite the low oil prices for several reasons, chief among which are the favourable oil regulations and low breakeven\(^1\) cost of production even in its deepwater offshore region. The full-cycle breakeven oil price of the TEN project is estimated at less than $45, which compares favourably with recently launched or near-production deepwater projects in the Gulf of Guinea. More importantly, operators tend to focus on the long term perspective for fields, thus as long as oil prices remain higher than direct field operating costs, especially after all the capital expenditure is done, operations will continue without issues. Consequently, the project remains viable even at lower prices. Most of Ghana’s existing and planned fields are in the deepwater offshore West Africa, a more attractive region cost-wise compared to the lower Gulf of Guinea. This provides an added advantage of fewer disruptions from host communities or pipeline vandals, such as have disrupted Nigerian oil operations in the last few months. However, the currency weakness and macroeconomic challenges remains a key risk for investors.

\(^1\) Includes all costs from discovery to decommissioning of oil field
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For any question, please contact: Edward George, Group Head, Research, 20 Old Broad Street, London, EC2N 1DP, United Kingdom

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