

Sh121.4 billion Lamu pipeline takes shape as designs unveiled

A British firm has presented two plans with a price variation of Sh12.37 billion for the crude oil duct project extending from Coast to Lokichar



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Game-changer > Tendering process ongoing but final investment decision is expected by June next year

Kenya will spend close to Sh121.45 billion to build the Lokichar-Lamu pipeline, which is expected to traverse more than five counties, the Front End Engineering Designs (FEED) and Environmental Impact Assessment (ESIA) reports seen by the Nation reveal.

British firm Wood Group Plc has presented two designs for the Lokichar-Lamu crude oil pipeline (LLCOP) project with a price variation of Sh12.37 billion, and is now expected to make a decision by mid-January 2020 before construction starts.

The project is currently at the pre-Final Investment Decision (FID) stage, with the engineering, procurement and construction (EPC) tendering process ongoing.

The final investment decision is expected by June next year.

With land acquisition currently being handled by the National Land Commission (NLC), and approval of the ESIA by the National Environment Management Authority (Nema) expected by end of March next year, the project would be ready for launch.

According to the design documents, Kenya can opt for a pipeline with onshore storage facilities that would cost Sh121.45 billion to construct or one with floating storage facilities at a cost of Sh111.33 billion.

In the two options, the designs show construction of the onshore pipeline will cost Sh57.50 billion and Sh16.64 billion for pump stations, with the variation mainly being in the marine terminal set to be built in Lamu, which will cost Sh14.77 billion for onshore and Sh4.55 billion for floating storage.

According to the designs, the onshore storage will comprise a buried, insulated, electrically traceheated 18-inch, 824km pipeline from Lokichar to Lamu; 16 stations; Lamu marine terminal with 1.5 million litres capacity; onshore storage tanks; and a load out to Suezmax tankers at Berth 3 in Lamu port.

“This option is for a large conventional tank farm with three 500,000 barrels floating-roof storage tanks (1.5 million barrels storage). Offloading would utilise large flow pumps to pump about one million barrels of crude oil from the storage tanks into export tankers (Suezmax) at berth 3 within a 30-hour window,” the FEED study shows.

Should the country opt for floating storage, it will get a Lamu marine terminal with no storage capacity; a permanently moored very large crude carrier (VLCC) storage tanker at berth 3 in Lamu port; and load out to Suezmax tankers from VLCC (ship to ship).

“This option is for a much smaller facility onshore (no storage tanks) with a leased VLCC tanker (1.45 million barrels storage) acting as a storage facility permanently moored at berth 3. Offloading would utilise pumps on the VLCC to pump one million barrels of crude oil from the VLCC into export tankers (Suezmax) moored alongside the VLCC at berth 3 within a 30-hour window,” the FEED report reads in part.

The firm that will be contracted to implement the project under an EPC basis will pocket Sh11.5 billion, with the firm identified to supervise the project earning Sh1.32 billion.

The FEED study shows Kenya’s pipeline will have a flow rate of 65,000 barrels of oil per day (bopd) and an expansion case of up to 80,000 bopd instantaneous flow.

For its heating system, it will require up to 4MW supply of electricity to maintain a level of between 64 degrees Celsius and 57 degrees Celsius along the entire route due to the waxy nature of Kenya’s crude.

In terms of pumping stations, Garissa will have the highest with six stations gobbling up to Sh2.69 billion, followed by Samburu with five stations worth 2.63 billion, then Turkana and Lamu with two jointly costing Sh1.27 billion. Isiolo and Meru will only have one station each costing Sh1.65 billion.

The design also shows that the pipeline will cut across Turkana, Samburu, Isiolo, Meru, Garissa and Lamu, mostly sticking to government land to prevent huge payouts in land compensation.

The construction of the onshore pipeline is expected to begin 15 months after final investment decision to allow for pipe manufacture, insulation and transport to site.

“The total construction duration for pipelines and stations is 24 months,” the British firm said.

At a glance

TRUCKERS POISED TO MAKE A KILLING

The designs forecast that Kenya will spend up to Sh71.2 billion to move the materials and pipes to site, with Sh4.92 billion of this going to transporting of equipment and materials from the docks.

Local trucking firms are also poised to make a killing, as the report shows it would require at least 18,925 truck journeys for the line pipe delivery.

A further 11,600 truckloads would be required to deliver station materials.