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As Rwanda tries to diversify its sources of energy moving from the traditional ones mainly composed of hydrocarbons and charcoal based use by big institutions like prisons, schools, police and the army which had led to massive deforestation it has now discovered and invested in the exploration of methane gas in Lake Kivu through Public Private Partnership with GasMeth Energy LTD.

Could this be a game changer for the Rwandan users of gas for cooking or other related activities like powering households and even fueling cars and factories?

Speaking at the ground breaking event, Rwandan Prime Minister Ngirante said that methane gas provides an energy resource, valued at billions of dollars from Lake Kivu.

“In order to get the value stored in the methane gas, the Government of Rwanda welcomed the gas extraction project to be undertaken by GasMeth Energy which will extract natural gas directly from Lake Kivu, process and distribute it throughout the country and possibly export.

“This new source of energy will help reduce usage of firewood where national dependency level is over 85% despite strong efforts to reduce this. It will also improve the health and safety dangers related to possible gas eruptions,” he said.

### **Traditionally Rwanda depended on Liquefied Petroleum Gas**

Rwanda has no domestic production of natural gas. The country relies on imported gas especially Liquefied Petroleum Gas (LPG) from other countries. The LPG market in Rwanda is dominated by 10 importers including Société Pétrolière-SP, Kobil, Sulfo Rwanda, Rwanda Oxygène, Merez, Hashi energy, Abbarci Petroleum, Safe gas Lake Petroleum Rwanda and RUCSA Investment.

Retail distribution is done through service stations, independent distributors, and supermarkets in an assortment of cylinder sizes ranging from 3kg to 50kg and also tanks from 500kg to 5000kgs are available for big Institutions.

The use of LPG has started to attract the attention of cooking energy consumers but its penetration has not yet reached a satisfactory level to see its impact on the reduction of biomass use. At household level, the progress is promising looking at the quantity of the imported LPG and sales of the companies involved in this

business and increase in the use of LPG in institutions which before was quite nonexistent in public institutions with bigger consumption amount of firewood that contribute much to deforestation.

According to Rwanda's NST-1 target, LPG use must increase from 6% in 2020 to approximately 40% among the population in 2024. To make it a reality, government has set the Plan that considers three active options:

To develop new policies to improve LPG access and direct public institutions to transition to LPG from Biomass use and implement Full Implementing the Branded Cylinder Recirculation Model (BCRM) plan.

Mobilize industry and financial sector to expand LPG cylinder inventories and distribution networks.

High plus requiring urban residential and institutional users to switch to LPG and prohibiting biomass supply and use for cooking in the urban markets through awareness campaigns.

EPD has 14 active member players in LPG business (10 importers and 4 distributors) who managed to boost their gas sales from 2,749,572 Kg in 2015 to 21,329,751 Kg in 2019. Currently, on average use, a household using LPG uses 12.74 Kg per month at the cost of RWF14,315.

The CEO of GasMeth, Stephen Tierney said that the project is expected to produce 40 MMSCFD (million standard cubic feet per day) which is equivalent to 990,000 cubic metres per day.

Of this quantity, between 35 percent and 40 percent will be cooking gas.

According to estimates from the Ministry of Infrastructure, the demand for LPG is set to rise to more than 240,000 tonnes by 2024 from 10,000 tonnes in 2017.

Gasmeth CEO said the gas could also be exported to other countries.

With the exploration and production estimated to be operational in two years time, Rwanda sees not only the market locally it also plans to export it to its neighbors. In return it is expected to make billions of dollars in the National coffers in terms of taxes.

Gasmeth Energy Ltd was awarded a 25-year Concession Agreement by the Government of Rwanda to extract methane gas from the deep, Methane-rich waters

of Lake Kivu in Karongi district, Western Province.