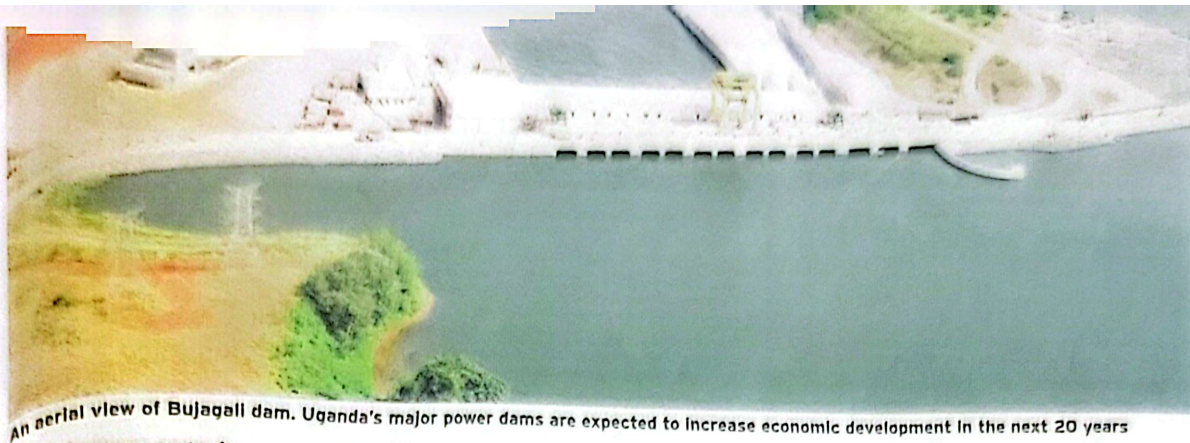




An aerial view of Bulagaali dam. Uganda's major power dams are expected to increase economic development in the next 20 years

UEGCL can work with the private sector to increase investment in energy generation. There is wealth of opportunity in the evolving energy sector

Uganda needs a diverse energy mix

Uganda's energy sector is experiencing rapid growth and transformation. Two major power plants, Isimba (183MW) and Karuma (600MW) will increase the energy capacity of the country, leading to increased rural electrification, industrialisation, and other important infrastructure projects to ensure a robust market for the electricity produced. Eighty per cent of Uganda's energy is renewable, and Uganda Electricity Generation Company and others are looking to increase the renewable energy mix, with new explorations in geothermal and solar. **HARRISON MUTIKANGA**, the Uganda Electricity Generation Company Limited (UEGCL) boss, explained to the UK's *Daily Telegraph* the opportunity the sector holds.



Harrison Mutikanga

Q How would you describe this particular moment in time for Uganda's power sector?

A The power sector is undergoing significant transformation. We are developing hydroelectric facilities that will bring almost 800MW to the grid by next year. This will have a positive impact on the socioeconomic status of the country.

Can you describe what the journey has been like with Isimba and Karuma so far? Where do these flagship projects stand?

The journey has not necessarily been smooth, but we have made very significant progress. The projects are now at 75% physical completion and we anticipate that these projects will be complete by the end of this year.

Is the infrastructure in Uganda well equipped to facilitate power distribution in the country?

This question has generated a lot of debate. As the agency in charge of electricity generation, we are cognisant that we need to sell this electricity so the industry can be self-sustaining. We are working closely with our sister agencies

80%

Of Uganda's electricity is renewable. This means that the country is safe from future cases of pollution

Uganda has exciting prospects in the area of geothermal energy. How is UEGCL pursuing these less obvious sources of renewable energy?

It is very important to have a diverse energy mix. As much as we are endowed with generous water resources, it is important, particularly in light of climate change, to be able to tap into other renewable sources of electricity. There are studies ongoing that are assessing the potential for wind, in addition to solar, geothermal and natural gas.

What are the main pillars of the strategic plan to manage this sector growth?

We just developed a five-year strategic plan. Our main focus is on developing the energy mix. We will continue to utilise hydroelectric as our cheapest source of renewable energy, but we are also working with the Department of Geological Surveys and Mines on geothermal exploration and with other departments on investment in solar. We would like to develop hybrid plants that can switch between hydro and solar depending on natural resource availability.

Are there any peculiarities about the ways these new plants have to be constructed? What is special about these projects?

The Karuma hydroelectric project

is a run-of-river plant, but in order to generate more power, we had to move it underground, utilising tunnels. I think that we have the longest tunnels in the whole of Africa. This has caused a lot of excitement and we are examining whether we can use this technology to tackle other challenges, like reducing traffic congestion by moving some traffic flow to underground tunnels.

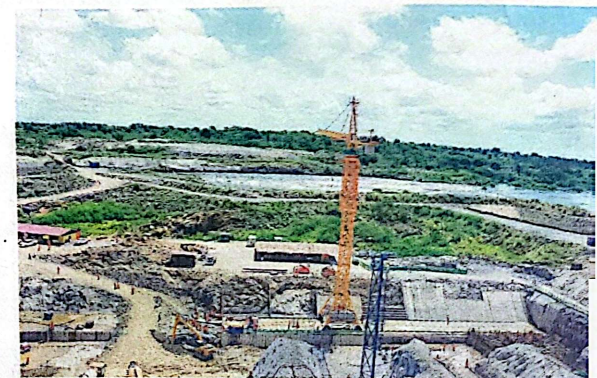
All these projects require a lot of capacity. How does UEGCL engage foreign participants in the sector? What opportunities are there for foreign investors, and British investors in particular?

We follow the procurement guidelines put in place by the Government. This ensures a transparent and competitive process. The opportunities are numerous. We are building a number of hydropower plants. The first hydroelectric power plant was built by the British Government in

1954. However, the second plant was not built until 2001, many years later. Now, the Karuma and Isimba follow another long break in construction, so many of the experts working on our current projects are around retirement age, and we need to train young, local Ugandans to participate in project development and the next phase of Operation and Maintenance. We are looking for partners to help us in capacity building as well as the rehabilitation of our older plants. We already have successful relationships with British stakeholders, and just last week, we held a workshop on Public Private Partnerships (PPPs) funded by the British High Commission and the British Department for International Development (DFID). We are trying to see how UEGCL can work with the private sector to increase investment in energy generation infrastructure. Electricity access in this country is still only about 20%, so in order to make the big leaps and reach our target of full connectivity for our people by 2040, there is tremendous amount of work to be done. We cannot do it alone. The energy sector is evolving and there is a wealth of opportunity.

Where would you like to see the sector in the next 20 years?

In the next 20 years, I expect that we shall have built our own capacity. We want to work with our development partners so that in the next 20 years we are in charge of our own destiny and can operate and maintain all the infrastructure we are building. Our tag-line is to continue "generating for generations."



The Karuma power plant that is under construction. Electricity access in Uganda is still low, according to experts