

UEGCL rising to the challenge

By Prossy Nandudu

The Uganda Electricity Generation Company Ltd (UEGCL) is to streamline its processes and activities, following the acquisition of the ISO 2005 certificate. The certificate spells out key principles that must be followed by the company.

The principles include establishment, acquisition, operation and maintenance of electricity generation facilities to the satisfaction of stakeholders.

The revelation was made by the chief executive officer of UEGCL, Eng. Harrison E. Mutikanga.

Once processes are streamlined, it will be easier for UEGCL to implement and monitor projects, such as the operations of Kiira/Nalubaale Complex, enhancing procurement processes, human resource management and information technology platforms, among others.

Why UEGCL considered ISO certification

UEGCL board chairperson Eng. Proscovia M. Njuki said three years ago, they



Bujagali dam control room. UEGCL aims to complete construction of more hydropower stations to bolster generation capacity

ISO CERTIFICATION IS ALIGNED TO THE MINISTRY'S QUEST TO ACHIEVE EFFICIENCY IN SERVICE DELIVERY, WHICH WILL BE ASSESSED THROUGH ADEQUATE, RELIABLE AND AFFORDABLE ELECTRICITY

set a number of goals and targets aimed at increasing shareholder value and meeting customer and citizen aspirations.

The goals were channelled into the company's strategic plan, which took into account the need to manage the generation capacity of ongoing works on Karuma (600MW) and Isimba (185MW) to bolster economic growth.

Other works include

Muzizi (44MW) and Nyagak (5.5MW) hydropower projects, Njuki explained. To manage them effectively,

there was need for the company to work in line with internationally accepted standards.

"It was necessary for the organisation to adopt quality management systems as pillars of effective delivery of service, hence, the journey to get the ISO certification as to align our projects to internationally acceptable practices," Njuki stated.

With the standards in place, there will be more electricity supply in the country, once the conditions stipulated by the certification process are implemented.

New outlook

To match the demands of the ISO certification to work within internationally accepted practices, Njuki added that the board has instituted a number of changes within the company to fulfill its mandate.

UEGCL is training staff, starting with those who will be involved in the operation and maintenance of the new hydropower infrastructure based on the demands of the certification for proper service delivery.

"Therefore, the certification of UEGCL is timely as it has set the stage for standardised systems for the operation and maintenance of the plants under development. As a company, the ultimate objective of ISO certification is ensuring customer satisfaction for both internal and external customers," Njuki said.

Energy consumption

According to UEGCL, Uganda currently has 862MW of installed electricity generation capacity and access is estimated at 20.4%, meaning that over 25 million Ugandans have no access to electricity.

The two large hydropower plants under construction that will be commissioned before 2020 include Karuma that will

Progress at generation facilities

Karuma

Construction works at Karuma power station are almost complete. A key milestone is the installation of draft tubes and the associated concrete works in the power house section.

A statement from China's Sinohydro, contractors for the Karuma power dam, explains that the draft tube is a specialised pipe, through which water flows after running the turbine blades.

In a hydropower station, such as Karuma, water is used to run turbine blades, which rotate a metallic rod called a shaft on which the elements of electricity generation are mounted.

The draft tube is, therefore, a major component in a hydropower station and its installation is a celebratable milestone. Karuma hydropower will have six generating turbines and, thus, six draft tubes.

Supervised by UEGCL, the construction of the project kicked off in 2013 and was to take 60 months.

Once complete, the Karuma Hydroelectric Power Station shall have an installed generation capacity of 600 megawatts with transmission lines running from Karuma to Kawanda, near Kampala; Karuma to Olwiyi on Pakwach road and Karuma to Lira.

As part of the project's corporate social footprint, two hospitals will be constructed. One of the hospitals will be built in Masindi military barracks to serve both the civilian and military population in the district.

Isimba

Construction of the 183MW Isimba

power dam project is in progress. The completion of Isimba project is expected to boost the country's industrialisation agenda.

Currently, less than 20% of the country's energy needs have been met. Located 50km downstream of Lake Victoria, in Kamuli district, the project will also include the construction of transmission lines from Kayunga.

Fifteen percent of the total \$568m financing is from the Government, while 85% is a concessional loan from China Exim Bank. Isimba project is one of the many projects that the Government is pushing in order to raise Uganda's electricity generation capacity from 852MW to 2,000MW by 2020.

It is expected that once the generation capacity rises to the target, the cost of generating electricity will reduce from \$0.10 to \$0.05 per unit.

Kiira/Nalubaale

The plant, formerly called Owen Falls dam, was renamed Nalubaale by President Yoweri Museveni during its commissioning in 2000.

The plant was installed with 10 Kaplan turbines, each rated 15MW, making a total of 150MW. The rating of the Nalubaale station is 180MW.

The station was refurbished in the 1990s to repair the accumulated wear from a decade of civil disorder. During the repairs, the output power of the generators was increased. Electricity generated from this plant is supplied to Jinja town and the surrounding areas.

Currently, the station is operated and maintained by Eskom Uganda Ltd.

of stakeholders, ISO certification

generate 600MW and Isimba that will generate 183MW. The hydropower plants will be supplemented with five other small hydropower projects that will be commissioned before this year ends to generate about 36.3MW, all together.

Plans
To further ensure that the energy sector performs as expected, energy minister Eng. Irene Muloni said they have initiated a number of policy changes to explore and develop various sources of energy.

The target for the energy sector as per the National Development Plan (NDP II, 2015-2020) is to increase generation capacity from the current 825MW to about 2,500MW by 2020.

Officiating at the ISO 2005 Certification function, Muloni said the ISO certification is aligned to the ministry's quest to achieve efficiency in service delivery, which will be assessed through adequate, reliable and affordable electricity.

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Nalubaale power station generators. The station has a generation capacity of 180MW. It supplies power to Jinja town and the surrounding areas

and affordable electricity. Muloni added that the Government is addressing the low access to electricity through continued generation, using available

facilities, which will become more efficient with proper management of generation facilities. "It is good to learn that you are adopting quality

management methods, which will translate into satisfied customers and affordable services," Muloni said. She noted that achieving ISO certification is part of the

wider internal transformations that UEGCL is undergoing, in the face of increasing expectations from various stakeholders. At the same time, the

ministry also launched UEGCL's bi-annual newsletter codenamed GenNews, aimed at promoting information sharing on new developments within the company.