

THE NEWTIMES

Rwanda's First Daily

2009 IN FOCUS : Energy quest; what is in store for 2010?



A section of the Kivu Methane Gas Project. This is one of the projects where government is targeting to solve the energy problems in the country (File Photo)

As Rwanda's economy picks up steam, albeit being besieged by an ominously fast growing population, efforts are being made to modernize the economy and, among the strategies, energy security ranks high.

Looking at the wider regional context, the low connection rates and outages experienced in 2009 are a down factor to business and development but could as well provide opportunities to take advantage of especially in 2010.

This is largely premised on the fact that the region has ample hydroelectric and geothermal energy potential, among others, although only a fraction is developed, albeit with obvious reasons – especially those related to management and funding.

At present, Rwanda is one of those economies championing the concept of a 'green economy' through the supply of clean or green energy and has an ambitious plan of depending on clean energy by 2015.

Initiatives aimed at achieving this target now encompass ongoing efforts to look into the country's energy potentials – methane gas extraction and transformation, geothermal, solar, wind, biomass, in addition to hydro-energy.

Presently, about 67 percent of the population lives within a range of five kilometers of the existing grid.

The country now boasts an estimated, all inclusive, 85.3 MW electricity generation capacity (on-grid and off-grid), and an access average rate of nine percent but this scenario looks set to change for the better in the near future.

• Are 2010 expectations feasible?

As we enter the New Year, a good number of expectations would not be hard to predict, if resources are available.

Even though one cannot put exact figures now, there's no doubt that 2010 will see more homes with light, especially from clean or green energy.

Backing up this is the fact that government and donors have already committed more than USD 300 million for the energy sector as Rwanda works to achieve the set target of connecting 350,000 (16%) homes by the year 2012 and ultimately 35 percent by 2020.

Already, it is projected that at least by April 2010, six districts – Kirehe, Gisagara, Ngororero, Bugesera, Nyaruguru and part of Gicumbi, that were previously not connected to the national grid will come on board.

Close to 25 micro-hydro power plants are under construction and it is projected that by end February 2010, about 23 MW or more will have been added to the national grid.

Furthermore, over 300 other mini and micro hydro potential sites have been identified for possible exploitation, progressively in 2010 and afterwards.

As the country looks to diversify its energy sources, solar is also being tapped into and, the electrification of 55 health centres, with support from the Belgian Government, started in 2009.

Following this, and with EU support, are plans to put electricity into 300 schools country-wide, in 2010. Pilot project studies for rural electrification with solar kiosks (solar battery charging stations) in Gakenke district have as well been commissioned.

Besides this, the biggest photovoltaic (PV) solar installation known in Africa, so far, the Kigali Solar 250 KW plant that is operational on Jali hill adds into the solar energy sphere.

On geothermal energy, promising reservoirs have been identified near Kalisimbi and drilling could start in 2010.

Biomass initiatives too are part of the wider approach and, improved cooking stoves as well as the use of biogas in prisons, health centres, schools and other institutions has been encouraged. Countrywide domestic biogas programmes as well have been considered and so far, over 500 digesters are operational in rural households.

The target is to achieve at least 15,000 biogas digesters by 2012.

• **Looking beyond 2010**

It is important to note that long-term projects have also been set in motion.

Also providing for 2010 but looking further beyond are regional interconnections with Uganda, DRC and Burundi that are scheduled to start early 2010 since finance has already been secured from the AfDB.

Works on the country's biggest hydro-electric power plant – 27.5 MW – along River Nyabarongo are underway and expected to fully conclude in 2012.

Expected to come on board as well in the next 5-7 years, are joint regional hydropower projects such as Rusizi III, Rusizi IV and Rusumo.

If all goes well, studies for Rusizi III (145 MW) and Rusumo (62MW) will be ready early 2010, along with pre-feasibility studies for Rusizi IV (267MW).

Furthermore, Rwanda recently signed a USD 250 million investment deal with US-based Eco Fuel Global and the UK's Eco Positive, to produce green energy by means of biofuels.

Wind Energy too has been considered and studies are on to explore the country's wind energy potential.

Also noteworthy is the ongoing 'promising' oil and gas exploration in Lake Kivu.

• **Current Electricity Access Level**

- 137,287 grid connections, including households, industries, schools, health facilities and others.
- 2,428 off grid customers connected to micro-hydro or solar schemes
- Access rate at 9%

• **The numbers**

6 – Number of the remaining unconnected districts in country that will be connected by April 2010.

25 – Micro hydro power plants whose construction ends February 2010.

55 – Health centres that embarked on solar electrification by Belgian government support in 2009.

300 – Country schools that will get electricity in 2010, by EU support.

500 – Biogas digestors operational in rural households.

350,000 – Set target of homes to be connected to national grid by 2012.

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