Electric News

Kisiizi Electricity

January 2008

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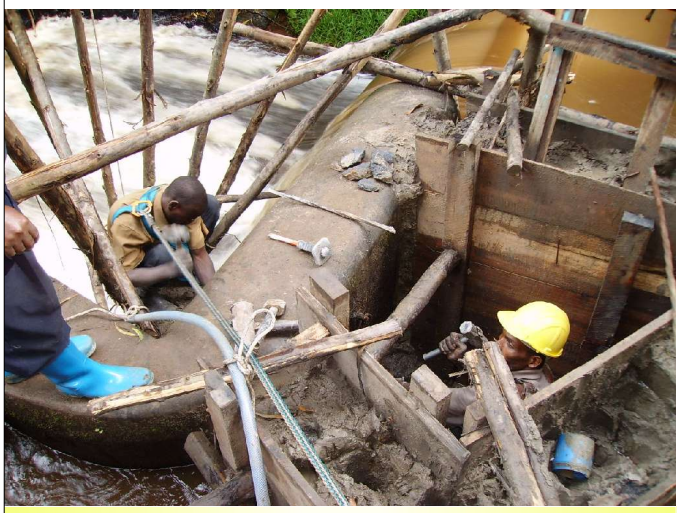
It looks as though Kisiizi Hospital has a real sight of the completion of the construction phase of the project.

Water Supply

The river intake and all the headrace works at the top of the hill are now effectively complete

60 kW and 300 kW supply channels and de-silting tank and gates

After a lot of struggle – not least in trying to keep the river in the right places – the existing weir has been cut through.....



The temporary dam (note stretchy rope and safety harness!)

.....and a carefully sized jet placed in the wall of the dam.

The reserve flow – arrowed - is now ensured.

This means that no matter what amount of electricity is required by the network, there will always be a minimum flow over the Falls of at least 150 litres per second. This is to ensure that the ambience and environment of the Falls area is maintained.

Turbine

The steel work at the Turbine House, and lined outflow

The Turbine and Generator are now scheduled for arrival at at Kisiizi in August, if not before, by which time all other components of the scheme should be in place. Further work on the turbine house had been awaiting the revised installation details from the manufacturer.The slab was cast on January 10th. See next page....

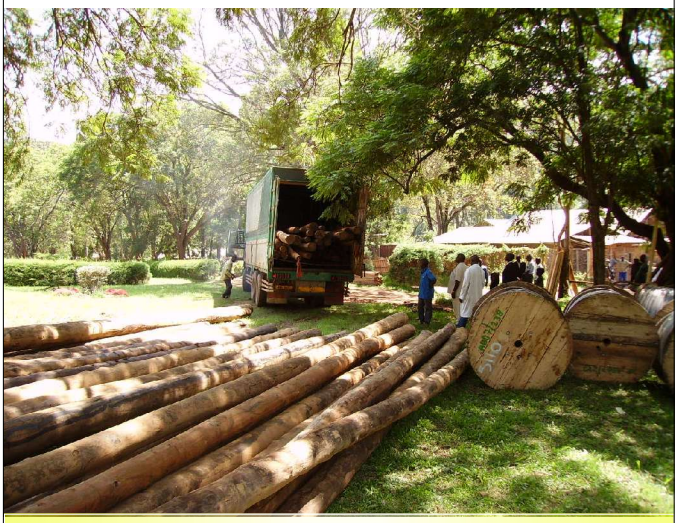
This was done in one day to ensure maximum integrity of the concrete, and fortunately it didn't rain until the end!

Concrete poured – in one day.

Penstock

The pipe is ready. It has been made in Dar es Salaam. The couplings have been made by the same firm in Nairobi. Arrival in Kisiizi should be some time in February

Poles and Wires



The poles arrive at Kisiizi- and some of the conductor wire.

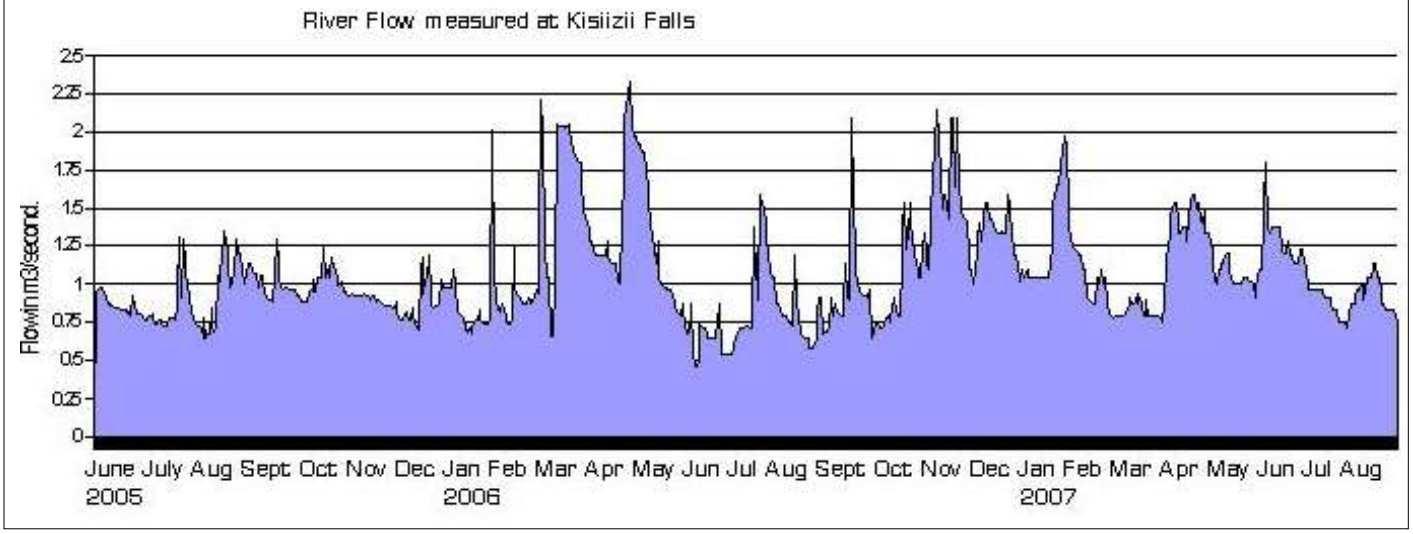
The network is being erected by contractors - namely Utility Engineering Services. Payment is being handled by the Rural Electrification Agency in Kampala.

Paul Darral from Southern Electric in the UK has kindly offered to assist as independent monitor and advisor.

Inspecting some of the Kisiizi pipework (the larger diameter yellow pieces) at TSP works in Dar es Salaam

Although the power plant is capable of a maximum output of 360 kilowatt, the all year continuous output will be in the region of 200 kW due to river conditions, with 250kW about 65% of the year.....

The 200 kW figure represents an output of over 3 times the existing generator - which will be kept as standby and for supplementary power.It is in good condition and has recently been fitted with a replacement "runner" - the heart of a turbine.



Energy Saving

What this means is that from an early stage there will be a need for load control. Laurence Phin, a VSO volunteer in Kabale, has now completed a tested and working design for the Frequency Aware Load Cutouts. These will be fitted to all single phase connections on the network. An Electronics Engineer - Simon Rush who just happened to be passing Kisiizi at the right moment - is now designing the printed circuit layout for the first prototype.

Volunteers

Laurence and Paul are two of a number of very helpful volunteers involved during the course of the project. Full credits and credit will be given in the next or final construction update.

Time Scale

We will have to cease construction at the end of February 2008 until further funding is available.

The cost of the project has been a constant challenge but bit by bit completion draws near, and that will definitely be a "Glory be to God" moment!

Charles

Looking towards the main distribution area.