

INTERIM REPORT

Prepared by Steve Sherner, Duluth Harbortown Rotary Club

Project #13.1.06 / Duluth Harbortown and North Shore Logou Haiti Water/ Electric Project (WCS)

I met with the Lougou electricity committee in December when there for the HNWP distribution of first 500 filter systems. They had pursued an estimate from the utility but didn't have an answer back then so we reviewed the options documented in the email below. The committee preferred Options 2 or 3 anyway for power available to the two community buildings most of the time. Option 1 turned out to be above our remaining budget and too difficult given the utility won't use their own equipment in this remote, rugged terrain.

A member of the Leogone Rotary Club had offered to help me pursue the other options with an electrical supplier/contractor in PAP upon my next visit in March but the remaining HNWP filter distributions have had to be delayed twice now due to weather and other conflicts. I'm waiting for a new date proposal and then will travel down and meet with the firm in PAP to see if we can do either Option 2 or 3 with funds available yet this year. If not I'll close out the project, propose how the remaining funds be redistributed to the two clubs and District, and prepare a final report.

From: nicaise avignon [mailto:nicaiseavignon@msn.com]
Sent: Friday, February 26, 2016 4:06 AM
To: Steve Sherner
Cc: Fritz G Pierre-Louis; 'Craig Loughery'; communityliaison@cofhed.org; lougoukids@yahoo.com
Subject: RE: Lougou Electricity

Hi Steve,

COFHED does not know of any electrical supplier in the area of Les Cayes. We needed some inverter batteries for the mission house and we recently purchase 12 units from MSC Plus in PAP. We know an electrician in Camp-Perrin that has installed the batteries for us.

Thanks for all your work and research.

Nick

From: ssherner@centurytel.net
To: nicaiseavignon@msn.com; lougoukids@yahoo.com; communityliaison@cofhed.org
CC: fritz@magepa.com; tradercraig2005@yahoo.com
Subject: Lougou Electricity
Date: Tue, 23 Feb 2016 18:10:55 -0600

On December 15, 2015, I met with the Lougou community committee regarding the uncompleted portion the Rotary Lougou Phase 2 efforts, that being electricity improvements. The year before I had provided a sketch and description of an option to get the single phase, high voltage power line extended to the academy and health clinic with new transformers and utility meter installed at each location (copies attached). The committee was to try and meet with the power company EDH and see if they would provide a cost estimate to do this construction.

Due to my health situation I was not able to travel to Haiti and pursue this with the village committee in spring, as I intended. I re-initiated the effort this Fall with my HNWP trip planned for December. The committee had recently approached EDH with the option I'd described and EDH said they'd provide an estimate but would not use their equipment for the construction because of the bad roads and terrain involved.

Given this I decided we should review the various options available and their advantages and disadvantages to see what the committee felt would be the best to pursue.

Option 1 (already discussed above) involved the extension of the single phase, high voltage overhead line to the academy and clinic with new transformers and utility meters at each location. The sketch and description for this are attached. EDH was working on an estimate of the cost for this option.

Advantages would be better quality electricity (good voltage) and it provided the beginning of extending electricity further into the village.

Disadvantage was that there would only be electricity when EDH provides it, currently estimated by the committee as 70% of the times.

Option 2 was going back to the batteries, inverter and diesel generator system envisioned in the Rotary grant. It also involved a new 240 volt underground (and under bridge) cable to the clinic. Electric service would come from the current small EDH transformer at the lagoon and the existing secondary service to the academy with the new backup system operating when there was no electricity from EDH.

Advantage – 100% power to school and clinic, some improvement in quality, as batteries and inverter can help boost and stabilize voltage.

Disadvantage – extra cost for diesel fuel and ongoing expenses of maintaining batteries, generator, etc. Does nothing to extend electricity service to the rest of the village. The existing EDH 10kva transformer limits the service possible to the school and clinic, and the current poor 240 volt overhead service wires reduce quality of service.

Option 3 that we discussed involved the batteries and inverter at both the school and the clinic but with solar panels at each site for charging the batteries when

EDH service is not available. In this option new 240 volt underground services would be installed between the EDH transformer and the school and also between the school and clinic or from the existing EDH transformer to the clinic overhead. If sufficient funds existing possible the EDH transformer could be replaced with a large one. One concern may be sunlight available at clinic location.

Advantage – 100% electric service and less new expense without the diesel generator to maintain and fuel. Improved quality of electricity.

Disadvantage – O&M of the batteries and solar panels. Limited electricity when EDH is off for extended period. Limited power because of small 10kva EDH transformer

By the time of this writing the village committee had received the cost estimate for Option 1 from EDH which is well above the Rotary available funds. Given this, I'm suggesting that we research the costs of the other two options.

My Rotary contact in Leogane, Fritz G Pierre-Louis, had offered to help me interface with an electrical supplier /contractor he has worked with in PAP. Does COFHED know of any such supplier/contractor in Les Cayes area or in PAP that you dealt with for the system at the old or current mission house? If not, I'll check with RCC to see if their members know any such local supplier/contractors.

From: nicaise avignon [<mailto:nicaiseavignon@msn.com>]

Sent: Wednesday, January 06, 2016 9:45 PM

To: Steve Sherner

Subject: Expense estimation for Lougou power

Hello Steve,

I hope that you had a fun and relaxed Holiday season with family and loved ones. I wish you a safe, healthy and productive new year.

Finally, I received from Guy (Lougou teacher) a copy of EDH expense estimation to distribute power to the Lougou school and clinic. It's in French and I did not attempt to translate the info because most of it is highly technical to me. But if you do need it in English to get started, I could try to take a swing at it.

Anyways the total amount in Haitian gourdes is 1,556,369.18 gourdes, which is roughly equivalent to \$27,304.72 USD considering the current exchange rate of \$1.00 USD to 57.00 Haitian gourdes.

Please find attached the copy of the expense estimation. Take care Steve...

Nick
Camp-Perrin