



## VANUATU GEOTHERMAL

### PROJECT UPDATE

22 JUNE 2011

#### HIGHLIGHTS

- ✓ **Surface exploration works complete**
- ✓ Preliminary well design & draft drilling contracts prepared. **Rigs identified – contract negotiations in progress.**
- ✓ **Development Bank funding** – European Investment Bank discussions in progress.
- ✓ **Utility re-engaged** on power off-take.
- ✓ **World Bank energy study nears completion** – trigger for KUTh to move to drilling.
- ✓ **Strong investment interest in the project** - joint venture partner discussions initiated.
- ✓ **Next steps:** Finalise tariff and power off-take arrangements, close funding and proceed to drill.  
Note all these items in progress at the time of this report.
- ✓ This project positions KUTh to **accelerate the path to revenue and profitability**

In previous quarterly reports KUTh has provided updates on its geothermal project in Vanuatu. We have reported that two issues have been holding up the project with the first involving the electricity utility and its arbitration case with the Vanuatu energy regulator and secondly a World Bank study on future energy demands and how geothermal will be integrated into the energy mix. We are pleased to announce that there has been significant progress in both of these areas.

## 1. Background

KUTH holds exploration licences over the area indicated in Figure 1.

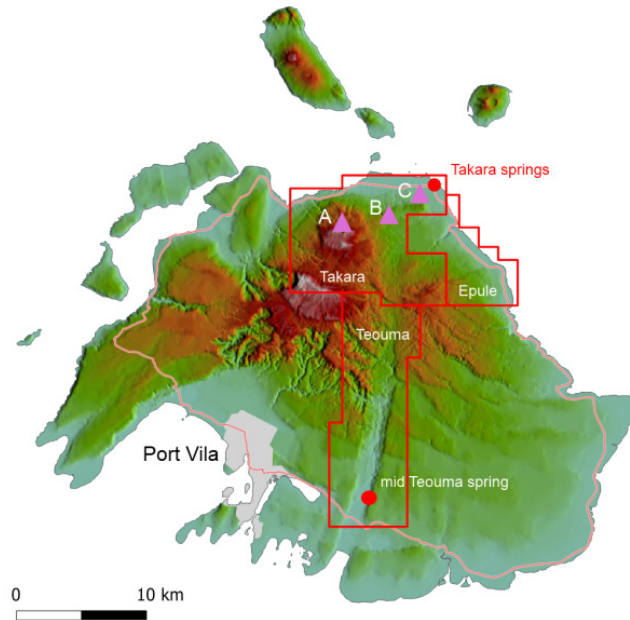


Figure 1 : Island of Efate , Vanuatu with KUTH tenements Takara, Teouma and Epule outlined.

The collation of data from KUTH's exploration programs coupled with previous resistivity studies and legacy data were evaluated by KUTH management and then independently reviewed by Sinclair Knight Merz (SKM) in New Zealand to arrive at an Inferred Resource statement – a summary of which is included in Figure 2 (reported on 5 October 2010).

Target Zone	Inferred Geothermal Resource at Confidence Level						Estimated Power Plant Capacity (Mw <sub>e</sub> )		
	PJ <sub>th</sub>			MW <sub>th</sub> -years					
	P10	P50	P90	P10	P50	P90	P10	P50	P90
A Mt Fatmalapa	2,900	1,700	720	91,000	54,000	23,000	75	43	15
B Central	1,300	860	350	43,000	27,000	11,000	37	22	7.4
C Takara	1,000	730	430	32,000	23,000	14,000	28	18	9.6
Total Mean Values	3290 PJ <sub>th</sub>			104000 MW <sub>th</sub> -years			83 MW <sub>e</sub>		

Figure 2: Inferred Resource Estimate table completed by SKM from exploration data collected by KUTH and further surface exploration and legacy data compiled and evaluated by SKM.

The Inferred Resource statement provides three possible drilling targets and, after considerable interrogation of these options by KUTH and its consultants, the decision has been made to focus initially

on Target C. This is projected at a P90 level (highest level of confidence) to offer a potential target capacity of 9MW which will more than deliver the project's Phase 1 start-up needs.

Target C has the advantage of clear surface expressions (See Figure 3), a relatively straight forward logistics program and close access to the main ring-road (and future transmission lines) circling the island.

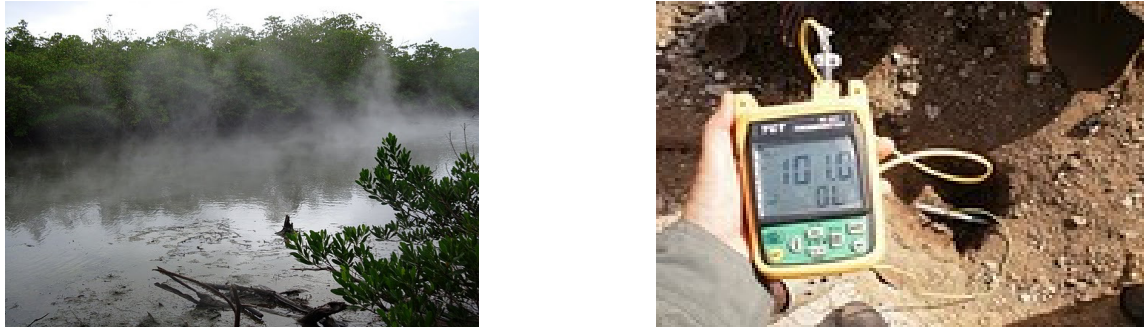


Figure 3: Takara hot springs and temperature measurement.

## 2. The Commercial Case

Vanuatu offers KUTH a unique opportunity to maintain momentum and seek to deliver shareholder returns during the extended period of debate on climate change initiatives in Australia. The uncertainty surrounding carbon pricing mechanisms and renewable energy development support programs coupled with an investment market that has been unwilling to invest the large sums of capital needed to progress Enhanced Geothermal Systems (EGS) has made it strategically inappropriate to be focussed on a single Australian development project. The Pacific region and in particular Vanuatu was identified as a natural early target for expansion of KUTH's geothermal portfolio for the following reasons:

- ✓ Vanuatu is located in the “ring of fire” and has surface expressions of conventional geothermal potential.
- ✓ The drill targeting / rig capability and general experience in developing conventional geothermal resources is readily available in nearby New Zealand and elsewhere.
- ✓ Australia has a strong presence in the region and Vanuatu is easily accessible.
- ✓ KUTH is targeting the replacement of diesel generated electricity which has higher pricing benchmarks than coal or gas fired power stations. Geothermal power can be competitively priced and create a domestic security of supply.
- ✓ Vanuatu is a signatory to the Kyoto protocol and through the Clean Development Mechanism (CDM) may offer KUTH the potential to access carbon credits (CER's) for the proposed project.
- ✓ Vanuatu has a Geothermal Act which provides a regulatory framework for KUTH to operate within.
- ✓ The utility is privately owned and managed (through UNELCO – a subsidiary of GDF Suez) and offers KUTH a commercial entry point for off-take arrangements.

- ✓ Development Bank funding is active in the Pacific Region and with a strong emphasis on clean energy projects KUTH's geothermal project has attracted significant attention from this sector.

### 3. What has been holding us up....

With the drill targets identified in late 2010 and a Memorandum of Understanding for power off-take already in place with the utility UNELCO (signed in 2009), KUTH was poised for the implementation of the drilling program. This was however put on hold pending the outcome of two key issues that emerged.

- UNELCO Arbitration Case with Vanuatu Energy regulator over future tariff pricing.
- World Bank study commissioned by the Vanuatu government to address the future energy demands that may be generated by the recently completed sealed ring-road around the island of Efate and how KUTH's geothermal development could be integrated.

We are pleased to advise that the arbitration case between UNELCO and the Utilities Regulatory Authority of Vanuatu (URA) was settled in May 2011 and **KUTH is now pushing forward to close off-take arrangements with UNELCO** so that a comprehensive tariff submission can be lodged with the Energy Regulator.

We are further pleased to announce that the **World Bank review of Vanuatu's future energy needs** and how the KUTH geothermal project can be integrated into the energy mix is nearing completion with the final report **expected to be delivered in August/September 2011.**

This report will help to determine the future power demands that can be expected from the opening up of the island (via the coastal ring-road) and the specification of the power transmission lines that will need to be constructed. What is evident from the works undertaken to date, is the strong international donor interest in the development of power infrastructure to respond to the economic opportunities and rural access on the island of Efate.

KUTH personnel have worked closely with the World Bank consultants throughout the process of the energy review. While the study took some time to be commissioned the consultants are working diligently to complete the assignment and we are encouraged by the projections of future power demand and the potential role that geothermal supply can play in the future development of the country.

### 4. Project Funding

KUTH has used the delays to its program to actively canvas interest from investors and funding agencies in the future development of the project. This has included:

- The development of a comprehensive business model to forecast the future capital needs and profitability of the project under various development scenarios. This assumes a Phase 1 start-up supply of 4MW of base-load power which is consistent with the MOU signed between KUTH and UNELCO. A second stage duplicated 4MW plant is assumed post 2016 to be able to capture the market growth, with the ability of the second stage plant to target supply during peak demand periods.

- The company is also in discussion with a potential joint venture partner who could not only bring equity participation to the project, but also other core competencies that will facilitate project delivery.
- Development Bank funding options have been canvassed for the project and, as reported in the quarterly report for 30 September 2010, the company is in discussions with European Investment Bank (EIB) concerning financing for the project. This can be pushed forward once the World Bank report is complete.



*Figure 4: Vice President EIB visit to KUTh Target C Takara hot springs – June 2011.*

The Vanuatu project offers a unique opportunity to implement a project of a scale that KUTh can deliver with its development partners. The diesel replacement dynamics coupled with the availability of development bank funding and potential carbon credits is a compelling story and certainly one that has generated stronger interest from the investment community than we initially expected.

## **5. Current Status**

KUTh management is spending considerable time during June in Vanuatu pursuing the following activities:

- Meetings with the World Bank to assist in the completion of their study.
- Community consultation with the landowners in the general vicinity of the planned power plant development.
- Survey of the land areas required to put in place the necessary land leases to cover drilling and subsequent power plant development.
- Discussions with environmental agencies to develop a two stage approach to permitting for the drilling and development programs.
- Discussions with UNELCO on future initiatives for geothermal integration.

- Discussions with European Investment Bank on project funding and implementation issues.
- Approach to government departments for all necessary approvals to proceed with the project once the World Bank study is finalised.

## **6. Next Step – Drilling**

The company is reviewing the possibility of diamond core drilling one or more deep (up to 1500 m) exploration holes to further refine well targeting. Quotes are being developed for mobilisation of both diamond core drilling and production well drilling rigs to evaluate the cost benefit option of adopting this approach.

The Vanuatu project offers KUTh the potential to maintain momentum and develop a project of a scale that is manageable and fundable as well as environmentally and socially significant. This project not only offers potential for faster revenues but also offers considerable upside as development takes place along the newly constructed ring road opening up coastal development opportunities. If we can maximise the resource potential, the company will be well positioned to capture this upside.

I look forward to continuing to update the market on this very exciting project.

*The information in this Statement that relates to Geothermal Resources has been compiled by Mr James Vincent Lawless, a former employee of Sinclair Knight Merz Ltd. Mr Lawless has over 20 years experience in the determination of geothermal resource capacities relevant to the type of geothermal play under consideration, is a member of the Australian Institute of Mining and Metallurgy and abides by the Code of Ethics for that organization.*

*Mr Lawless is a Competent Person as defined by the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition). Mr Lawless has consented in writing to the public release of this Statement in the form and context in which it appears.*

**ENDS**

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