

ASX Announcement

21 February 2012

Wasabi Energy Achieves Start-Up of First Kalina Cycle[®] EcoGen Unit at a Japanese Hot Spring.



- **First Kalina Cycle[®] EcoGen unit for GERD completed and installed successfully**
- **Recently installed Kalina Cycle[®] EcoGen unit incorporates next-generation micro-turbine technology**
- **Demonstrates the advanced Kalina Cycle[®] as a technology suitable for global hot spring and geothermal markets**

Wasabi Energy (ASX: WAS, AIM: WAS, OTCQX: WSBLY) is pleased to announce that the Geothermal Energy Research & Development (GERD)¹ organization has recently installed a Kalina Cycle^{®2} power plant at the Matsunoyama Onsen hot spring at Tokamachi, Niigata in Japan (*figures 2 & 3*). The innovative Kalina Cycle[®] units based on the miniaturization of the core technology are known as EcoGen units and were recently developed in conjunction with GERD, as part of an R&D project that was sponsored by the Ministry of Environment in Japan. The Kalina Cycle[®] EcoGen units have been developed specifically for low temperature applications in the Japanese hot spring market and other low enthalpy geothermal markets.

The first Kalina Cycle[®] EcoGen unit was officially opened during a ceremony (*figure 1*) by the Senior Vice Minister of the Environment, Mr. Katsuhiko Yokomitsu in the Niigata Prefecture approximately 160 kilometres from Tokyo (*figure 5*). The geothermal power produced by the Kalina Cycle[®] EcoGen unit will be utilised by the local area and is the first operation of a binary power generation system in Japan utilising thermal energy from hot springs at a temperature below 100°C.

Following installation and start-up, the first Kalina Cycle[®] EcoGen unit will undergo extended testing and commissioning to optimize the performance of the installed unit. A second unit will undergo testing following installation to optimise the performance of the Kalina Cycle[®] system to

ensure power generation is maximised during fluctuations in enthalpy parameters which are common in hot springs.

The recently installed Kalina Cycle[®] EcoGen unit was designed by Wasabi Energy's Recurrent Engineering subsidiary, with the power unit assembled in China by Wasabi Energy's Kalina Cycle[®] licensee in China, Shanghai Shenghe New Energy Resources Science and Technology Co. Ltd (SSNE).

Kalina Cycle[®] EcoGen Opening Ceremony - Tokamachi, Japan



Fig. 1

Additional details regarding the Kalina Cycle[®] project has been provided in the following sections:

- >> Kalina Cycle[®] EcoGen Info page 2.
- >> Next-Generation Technology page 2.
- >> Chairman's Comments page 3.

¹ - Geothermal Energy Research & Development Co., Ltd. - Company Profile, as accessed at: gerd.co.jp/info01-e.html in February 2012.

² - Kalina Cycle[®] is a registered trademark of Global Geothermal Limited³. The Kalina Cycle[®] is a patented power cycle technology owned by Global Geothermal Limited.

³ - Global Geothermal Limited (U.K.) and Recurrent Engineering LLC (U.S.) are wholly owned subsidiaries of Australian Securities Exchange (ASX: WAS) and AIM (AIM: WAS) listed, Wasabi Energy Limited.

Kalina Cycle® EcoGen Information

Next-Generation Technology

The innovative Kalina Cycle® EcoGen units have been developed specifically for low temperature applications in the Japanese hot spring market. The highly efficient units are also suitable in a broad range of low enthalpy applications, including generating power from co-produced fluids during oil-production as well as broader geothermal markets, globally. In addition to the thermodynamic efficiency of the Kalina Cycle®, overall efficiency of the EcoGen units is further enhanced by next-generation micro-turbine technology from United States based Energent Corporation. The micro-scale turbine system is engineered to deliver maximum efficiency at low temperatures, by operating at 58,000 revolutions per minute and incorporating next-generation magnetic bearing technology as well as automated electronic controls. The recently installed Kalina Cycle® EcoGen unit is the commercial debut for Energent's innovative expander technology.

Market Opportunity

Extensive geothermal manifestations can be found throughout Japan. Whilst Japan currently operates 16 major geothermal power plants producing 536 MW of power (approximately 5% of installed geothermal capacity globally⁴), the vast majority of geothermal resources in the form of hot springs are utilised for balneological uses in Japan.

The estimated additional geothermal power generating potential in Japan is estimated to be 11,760 MW⁵. In addition to the geothermal potential, the abundance of hot springs in Japan, consisting of over 27,866 separate occurrences, provide a significant opportunity for recovering thermal energy to generate renewable power. The enhanced thermodynamics of the Kalina Cycle® combined with the cascaded utilisation of hot-spring water as proposed by GERD represents approximately 718 MW of power generation potential from the existing hot springs in Japan⁵. Based on estimates by GERD and Wasabi Energy, the existing Japanese hot spring market could potentially sustain more than 14,000 EcoGen Kalina Cycle® units.

Kalina Cycle® Plants in Japan

Two state-of-the-art waste-heat to power plants utilising the Kalina Cycle® have been successfully operating in Japan, at the Kashima Steel Works (3,450 kW) and the Fuji Oil Refinery (3,900 kW), for 12 and 7 years, respectively (*figure 5*), which provide powerful in country references for the technology.

Through the support of GERD, and following the recent installation at Niigata, Japan, Wasabi Energy continues to work towards further establishing the Kalina Cycle® as the technology of choice in the nascent Japanese hot spring market.

Kalina Cycle® EcoGen - Installed Power Plant



Fig. 2

Kalina Cycle® EcoGen - Installation Works



Fig. 3

Kalina Cycle® EcoGen - Highly Efficient Energent Turbine

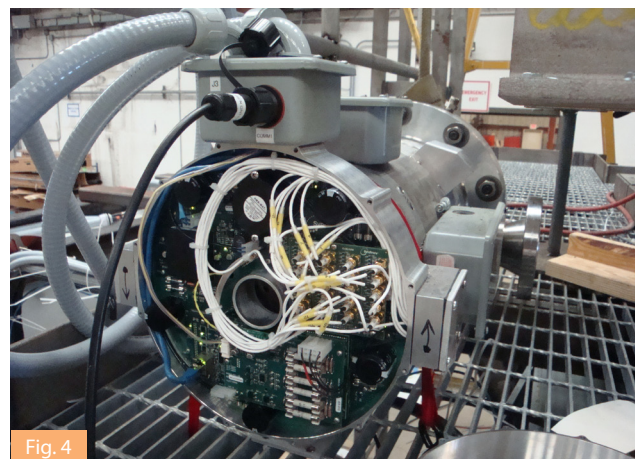


Fig. 4

About the Kalina Cycle®

The Kalina Cycle® is a highly efficient heat recovery and power conversion technology which utilises a patented ammonia-water mixture as its working fluid. The variable boiling point of this fluid allows for higher efficiencies in power generation, especially at low temperatures.

⁴ - Geothermal Energy Association. Geothermal Energy: International Market Update. May 2010.

⁵ - Muraoka, 2008. Hot-spring power generation: A breakthrough to Japanese geothermal developments. National Institute of Advanced Industrial Science & Technology (AIST). March 2009.

⁶ - Analysis by Activated Logic 2010, adapted from Emerging Energy Research, Global Geothermal Markets & Strategies, 2009.

⁷ - NEDO, New Energy and Industrial Technology Development Organisation, is responsible for the research and development of industrial, energy and environmental technologies in Japan.

Kalina Cycle® Installations - Japan

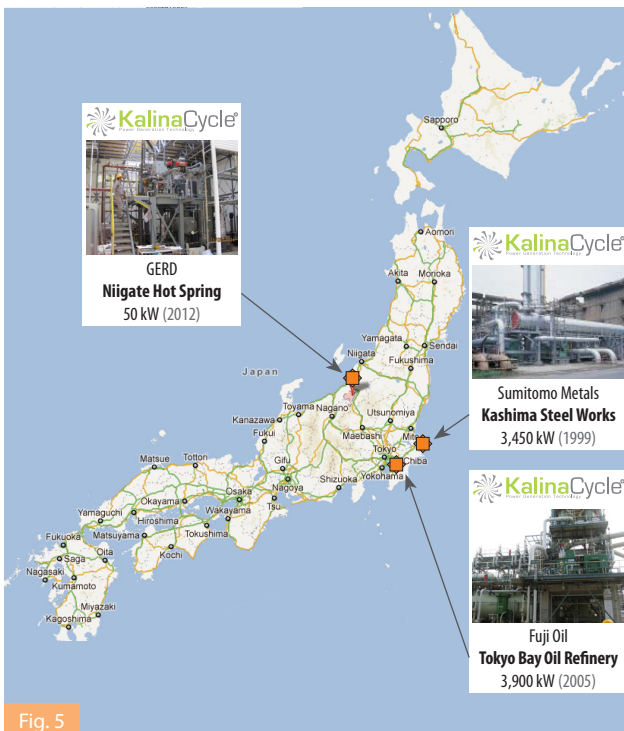


Fig. 5

About GERD¹

GERD

Geothermal Energy Research
& Development Co., Ltd.

GERD is a private Japanese company established in 1975 with the primary objective of supporting geothermal development in Japan. GERD is widely recognised as the leading geothermal institution in Japan and receives support from both industry and government, including financial support from NEDO⁷.

GERD is an important strategic partner for Wasabi Energy as it is owned by 32 major Japanese organisations¹ including three of the largest geothermal turbine suppliers in the world, which have collectively supplied the key equipment for over 75% of all geothermal power plants developed globally⁶. Wasabi Energy is working collaboratively with GERD to continue developing and delivering highly innovative power generation solutions based on the Kalina Cycle® technology to the Japanese geothermal market.

Comment from the Chairman

Executive Chairman of Wasabi Energy, Mr. John Byrne commented:

"The Japanese government's strategy to utilise abundant thermal energy from its hot springs to generate renewable power is very exciting. Wasabi Energy has been working on the development of these Kalina Cycle® EcoGen units for a number of years in collaboration with our colleagues at GERD. The miniaturization of Kalina Cycle® technology for the EcoGen units was made possible as a result of our engineering team making a number of important innovations, particularly in relation to the incorporation of next-generation micro-turbine technology."

"Recent events in Japan have demonstrated the increased importance of decentralized power generation. Japan has shown leadership in its efforts to diversify its power generation mix away from conventional sources such as coal and nuclear generation towards more sustainable sources. In addition to the existing geothermal capacity in Japan, along with GERD we see significant potential to support many businesses, municipalities and local communities to incorporate EcoGen units into local hot springs to provide a reliable and renewable source of electricity."

"This plant is the fourth in Japan, following a demonstration plant by MITI in Fukuoka in 1998, there are two other Kalina Cycle® plants presently operating in Japan. The first is a 3.45 MW Kalina Cycle® plant installed at the Kashima Steel Works operated by Sumitomo Metals which has now been in continuous operation for over 10 years. The second Kalina Cycle® plant in Japan is installed at the Tokyo Bay Oil Refinery operated by Fuji Oil and produces 3.9 MW of electricity. Both these Kalina Cycle® plants provide electricity back to the main operations, offsetting over 60,000,000 kW hours of electricity annually that would otherwise have been sourced from the grid, therefore significantly improving the energy efficiency of the respective operations."

"The Kalina Cycle® technology is continuing to build momentum as an important technology for efficiently generating clean power. We continue to work with leading organisations across key global markets to ensure our cornerstone technology is understood, demonstrated and ultimately adopted on a large scale, globally. Wasabi Energy is leading the way in providing technology for a clean energy future."

Yours Sincerely,

Mr. John Byrne

Executive Chairman
Wasabi Energy

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Corporate Information

General corporate information regarding Wasabi Energy and the companies Wasabi Energy holds a strategic investment in can be found in this section. Announcements regarding Wasabi Energy corporate developments are made to the Australian Securities Exchange (ASX) and the London Stock Exchange's, Alternative Investment Market (AIM), are also available on the Wasabi Energy website. Additional information regarding the investee companies can be found at their respective web sites, details below.

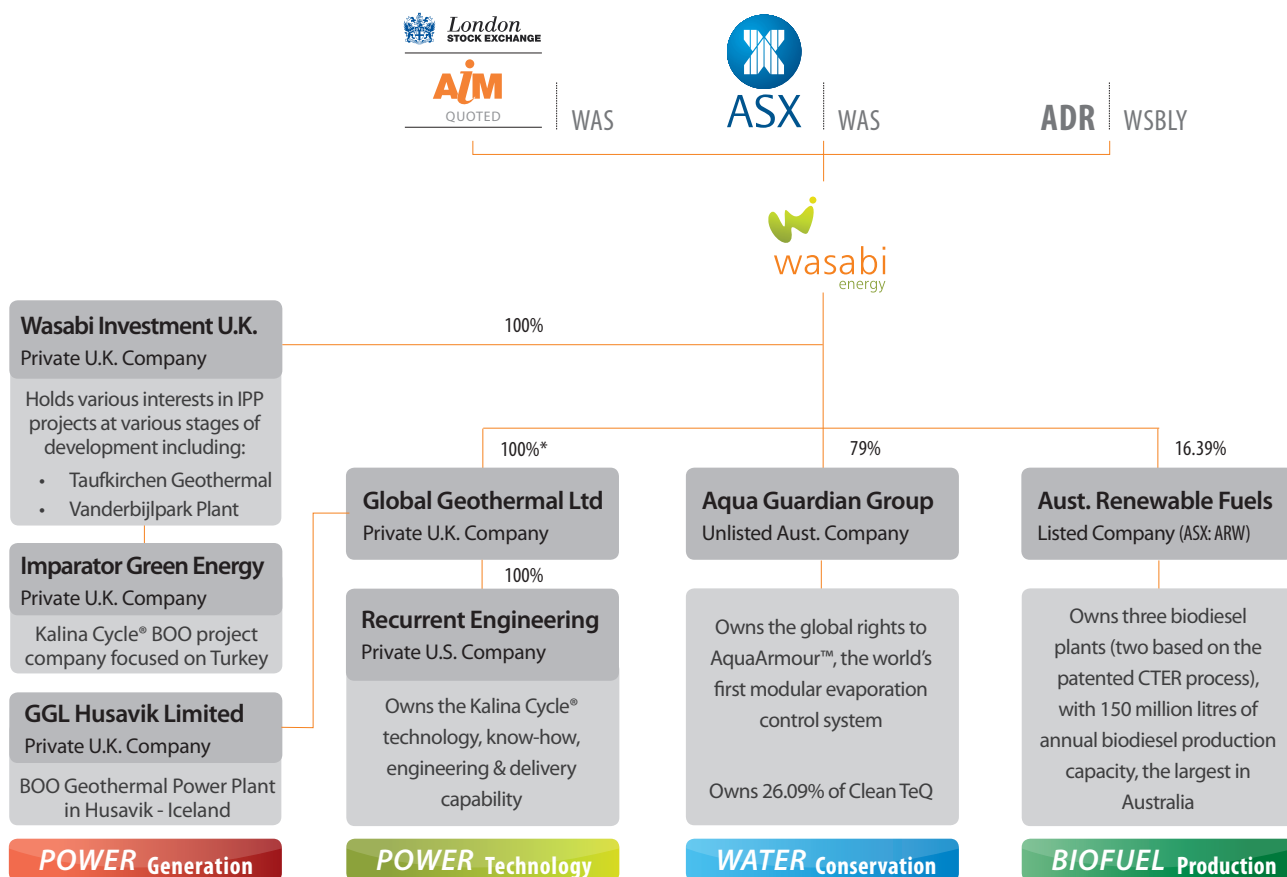


About Wasabi Energy

Wasabi Energy Limited is listed on both the Australian Securities Exchange (ASX: WAS) and the AIM market in London (AIM: WAS). Wasabi Energy has major investments in three key strategic assets. It owns 100% of the Kalina Cycle® power generation technology which utilises low grade, waste heat from industrial facilities or geothermal sources to produce electricity. In a typical industrial application of the Kalina Cycle® technology can increase energy efficiency in an industrial plant by up to 20%. Wasabi Energy owns a 79% interest in Aqua Guardian Group, the developer of the AquaArmour™ water conservation and algal control product. It also owns a 16.39% interest in Australian Renewable Fuels, a separately ASX listed company (ASX: ARW) which produces liquid biofuels from a variety of non-food grade feedstocks.

Additional information:
www.wasabienergy.com

Group Structure



BOO - Build-Own-Operate

* - Subject to finalisation of 2.7% share purchase.