

ASX RELEASE AND MEDIA RELEASE 30 JUNE 2011

**GREENEARTH ENERGY SECURES WORLDWIDE LICENCE TO
REVOLUTIONARY ISRAELI CO₂ TO FUEL CONVERSION TECHNOLOGY**

Greenearth Energy Limited (ASX:GER) is pleased to announce that it has successfully concluded negotiations with Yeda Research and Development Co. Ltd., the commercial arm of Israel's Weizmann Institute of Science, for an exclusive, worldwide Research and Licence Agreement, which it will assign to an ultimate subsidiary company NEWCO₂FUELS LTD (NewCo₂Fuels), for a revolutionary technology that has the ability to convert CO₂ emissions into fuel.

With the current debate regarding a carbon tax, Greenearth Energy has taken the initiative to invest in the development of this breakthrough technology. Victoria's energy mix is dominated by brown coal generation accounting for more than 90 percent of the States power and over 50 percent of its CO₂ emissions. Greenearth Energy's CO₂ to fuel conversion technology has the potential to reduce emissions substantially utilising low cost generation facilities and resources while at the same time potentially offsetting substantial future power cost increases.



Weizmann Institute of Science's Solar Tower and Field will be used in the CO₂ to Fuel project

The technology concept successfully developed in Israel by Professor Jacob Karni and his group at the Weizmann Institute of Science and proven in laboratory trials involves a new method of using concentrated solar energy for the dissociation of carbon dioxide (CO₂) to carbon monoxide (CO) and oxygen (O₂). The same system can also dissociate water (H₂O) to hydrogen (H₂) and oxygen (O₂), at the same time it dissociates the CO₂. The CO, or the mixture of CO and H₂ (called Syngas) can then be used as gaseous fuel (e.g. in power plants), or converted to liquid fuel (e.g. methanol), which has the potential to be stored,

transported and used in motor vehicles. The oxygen produced can be used in the combustion of the clean fuel, or elsewhere.

The key to delivering low cost clean fuel is a highly efficient process of converting solar radiation to chemical potential in the form of fuel. The technology process is aimed at achieving this goal. The source of carbon dioxide for the process could be existing power plants, cement factories and other emitting industries. The fuel produced could potentially be recycled back into the plant from which it was created (and used in these facilities and in doing so substantially reducing the CO₂ emissions footprint of these plants), or utilized as transportation fuel.

The transaction documentation executed includes the Research and Licence Agreement, an Investment Agreement for the establishment of a company in Israel to help develop the technology (to which the worldwide licence will be transferred) and a Funding and Option Agreement with Erdi Fuels Pty Ltd. These are further described below.

Managing Director of Greenerth Energy Mark Miller said; "Greenerth Energy's subsidiary company NewCo2Fuels Pty Ltd will fund the development of the project (via NewCO2Fuels) from the laboratory into the field. Research will be performed under the supervision of Professor Karni, utilizing the Weizmann Institute's world class solar tower and solar field facilities to generate fuel with the energy input being concentrated solar energy.

"Funding for the initial stage of the project (US\$5.5M) will be generated by way of a combination of a placement in Greenerth Energy to Erdi Fuels Pty Ltd for 10% of the company's issued capital (being 8,093,297 shares at \$0.1171 each, representing a \$0.0511 or 77.42% premium to the share price as at 29 June 2011) and an option payment by Erdi Fuels Pty Ltd.

"The option is for the acquisition of the shares of NewCo2Fuels, the licensee (following assignment) of the worldwide rights to the technology, should the project prove commercially viable, in return for which Greenerth Energy and its subsidiaries will receive a substantial capital sum and an ongoing royalty stream from future product sales.

"We have been working with Professor Karni and the Weizmann Institute's commercialisation arm Yeda for the past 12 months to bring this project collaboration to fruition. We are both excited by the obvious and substantial potential that this project holds and honoured to work alongside a world class institute and team".

"We believe the potential to turn our global CO₂ challenge into an opportunity by way of producing commercially viable fuel from emissions represents literally a paradigm shift in the way society views and deals with one of our greatest challenges. We believe that this technology has the potential to be a viable alternative to CO₂ sequestration and shift our thinking and approach to global CO₂ emissions".

For more information, please contact Greenerth Energy on +61 3 9620 7299.



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New CO₂ Fuels

From challenge to opportunity



About the Weizmann Institute

The Weizmann Institute of Science is one of the world's leading multidisciplinary research institutions. Hundreds of scientists, laboratory technicians and research students working on its lushly landscaped campus embark daily on fascinating journeys into the unknown, seeking to improve our understanding of nature and our place within it.

The Institute has five faculties – Mathematics and Computer Science, Physics, Chemistry, Biochemistry and Biology – and the faculties in turn are divided into 17 scientific departments. In addition, the Feinberg Graduate School, the Institute's university arm, trains research students pursuing graduate degrees.

The Weizmann Institute serves as a meeting place for scientists from different disciplines, setting the stage for multidisciplinary collaborations and the emergence of new research fields. To encourage this creative activity, the Institute has created some 50 multidisciplinary research institutes and centers, most of which provide an intellectual rather than physical framework for joint projects. These institutes and centers stimulate activity in a multiplicity of fields, including brain research, cancer research, nanotechnology, renewable energy sources, experimental physics, biological physics, environmental studies, the study of autoimmune diseases, plant sciences, photosynthesis, genetics and others.

The Weizmann Institute is located in the town of Rehovot, 22 kilometers south of Tel Aviv and 42 kilometers west of Jerusalem. The Institute campus, covering an area of some 1.1 sq km (280 acres), includes more than 100 buildings with a total area of 155,000 sq m (38 acres), as well as some 100 housing units for scientists. Approximately 120 research students live in dormitories on campus.

Yeda Research and Development Company Ltd., which promotes the industrial applications stemming from Weizmann Institute inventions, was founded in 1959. Since then, it has been involved in registering some 1,400 families of patents and hundreds of commercialization agreements.



About Professor Jacob Karni

Professor Jacob Karni of the Weizmann Institute of Science in Rehovot Israel has 20 years of research and development experience with keen interest in the development of new methods for concentration, absorption, conversion, transmission and storage of concentrated solar energy, and implementing these methods in genuine solar power-conversion systems.

Professor Karni's main research interests centre on the utilization of concentrated solar energy at high temperatures.

His pioneering work includes the development of a novel concentrated sunlight absorber, a high-pressure receiver window, a novel volumetric solar receiver, a non-imaging secondary optics device, and a new concept for a non-isothermal high-temperature solar receiver. Over the past 8 years, much of his work has focused on the development of the solar-driven fuel production method now licensed to Greenerth Energy. A common denominator among the aforementioned methods is the ability to operate at concentrations, temperatures, and pressure levels above those previously obtained with solar-driven devices; these abilities match or exceed the requirements of state-of-the-art power generation, chemical processing, and propulsion systems.

Professor Karni and his team have conducted several extensive comparative studies of solar and other renewable technologies. Three industry-led commercialization programs based on Professor Karni's concepts are currently underway.

About NEWCO2FUELS Ltd

NEWCO2FUELS Ltd is a subsidiary company of Greenerth Energy Ltd (ASX: GER). NEWCO2FUELS Ltd will take assignment from Greenerth Energy of an exclusive, worldwide research and license agreement from Yeda Research and Development Co. Ltd., the commercial arm of the Weizmann Institute of Science, for the technology that has the potential to produce fuel from CO₂ emissions utilizing concentrated solar energy.

About Erdi Fuels Pty Ltd

Erdi Fuels Pty Ltd is a member of the Erdi Group of companies controlled by well-known Melbourne businessman and philanthropist, Dr Leslie Erdi OAM Hon LLD *Monash* and his wife, Eva Erdi.

Yeda Research and Licence Agreement

This agreement is originally entered into between Greenerth Energy and Yeda Research & Development Company Limited (**Yeda**) the commercialisation arm of the Weizmann Institute. In return for, *inter alia*, annual research funding of US\$181,148 for the next two years from Greenerth Energy, patent funding and royalty obligations, Yeda grants Greenerth Energy the worldwide licence to market and sell products developed from the relevant research and underlying patented technology. The licence is subject to Greenerth Energy meeting certain development and sales milestones in the future in relation to the commercialisation stage. Greenerth Energy has agreed to pay Yeda a royalty based on the net sale price of various products derived from the technology, such as systems, reactors and offtake commodities. All intellectual property from the research project (and in the patented technology) will remain with Yeda. Greenerth Energy will assign all its rights and obligations under this agreement to NewCO2Fuels.

Investment Agreement

Ancillary to the Research and Licence Agreement, Greenerth Energy has entered into an investment agreement to establish NewCO2Fuels, a joint venture company in Israel, to support the research and be a vehicle for the future commercialisation of the technology. NewCO2Fuels Pty Ltd, a subsidiary company of Greenerth Energy Ltd (ASX: GER), will hold 50% of the joint venture. The other shareholders in the joint venture include Yeda and various scientists involved in the technology. Under this agreement, Greenerth Energy has agreed over a period of two years to provide a further US\$4.5 million to the joint venture to fund costs. The worldwide licence for the technology will be assigned to the joint venture subject to certain conditions precedent being satisfied.

Erdi Option Agreement

To secure funding for the project, Greenerth Energy has entered into an option agreement with Erdi Fuels Pty Ltd. Under this agreement Erdi Fuels Pty Ltd has agreed to a placement of US\$1,000,000 or 8,093,297 shares in Greenerth Energy for \$0.1171 each, as well as providing the US\$4.5 million required for the joint venture funding. The placement is expected to take place upon receipt of funds. In return for the joint venture funding, all parties to the joint venture, including NewCO2Fuels Pty Ltd, have granted Erdi Fuels Pty Ltd an option to acquire all of the shares in the joint venture. The option is exercisable in two years' time should the research have progressed sufficiently to Alpha Proof, the commercialisation stage. If Erdi Fuels Pty Ltd exercises the option it must pay the joint venture partners a total of US\$20 million over 18 months, as well as an ongoing royalty on sales of products (on the same terms as the royalty to Yeda under the Research and Licence Agreement).

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