



Silex

SYSTEMS LIMITED A.C.N. 003 372 067

Silex to Acquire the Assets of the Solar Systems Group

Ultra High Efficiency Utility Scale Solar Technology
To Complement Silex Solar Rooftop Panel Business

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Silex Systems Ltd (Silex) announced today that it has entered into a conditional agreement to acquire the assets of Melbourne based Solar Systems Group (SSG) from the company's Administrators. SSG was placed in Administration on 7th September 2009 following a resolution of the company's Directors in response to financial difficulties which beset the group during the financial crisis.

SSG's solar technology is applicable to large utility-scale electrical power generation using its proprietary "Dense Array" concentrating photovoltaic (CPV) solar conversion technology. This technology utilizes ultra-high efficiency photovoltaic (PV) cells (initially developed for space applications) and is ideally suited to the burgeoning global utility-scale solar power station market. The key and unique advantages of this technology include the use of advanced 'triple junction' solar cells capable of at least 35% efficiency - approximately double the efficiency of today's best silicon-based cells - and the use of active cooling to maximize power output and lifetime performance from the solar cells.

Development and refinement of the SSG technology is at an advanced stage, with approximately A\$150million having been spent on it to date. Following completion of the acquisition, Silex will conduct a 12 to 18 month technology commercialization program in parallel with business development and marketing activities, with the aim of commencing commercial project activities in 2011. This program could then lead to the construction of a 2MW pilot facility in Mildura (potentially a precursor to a ~150MW power station), pending confirmation of financial support from the Victorian State and Australian Federal Governments (see attached Supplementary Information below).

"This is a very exciting development and a priceless opportunity for Silex to enter the utility scale concentrating photovoltaic market for a fraction of the cost it has taken to develop" Dr Michael Goldsworthy, Silex's CEO said today. "Combined with our acquisition of the Sydney Olympic Park solar panel manufacturing facility in mid-2009, Silex will have world class technology for both the distributed rooftop solar panel market as well as the utility scale CPV power generation market. Both of these solar technologies will play an important part in the renewable energy industry, as global climate change policies become mainstream in the energy sector "; he added.

The potential global market for utility scale solar projects, based on third party estimates (refer to Supplementary Information), could be in the order of US\$25 billion per annum in 2015, with significant growth thereafter. Subject to successful commercialization, the acquisition of SSG's unique CPV technology could provide Silex with a strong competitive advantage to enter this growing market, at relatively low entry cost.

Assets to be Acquired:

As noted above, approximately \$150 million has been invested to date in research and development activities, power generation projects, manufacturing plant and equipment, and business development activities. The assets to be acquired include:

- Patented IP relating to Dense-Array CPV technology. This technology has the potential to provide low cost utility-scale electricity.
- A manufacturing facility located in Melbourne with an annual capacity of up to 500MW of CPV solar modules per year;
- A fully functional power generation demonstration facility (rated at ~140kW) in Bridgewater, Victoria;
- A development site and adjoining acreage (option to acquire) for a proposed 154MW solar power station project in Mildura, Victoria. This project potentially has the support (to be confirmed) of the Australian Federal Government (\$75m in funding previously announced – refer Media Release – 25/10/06 at www.solarsystems.com.au) and the Victorian State Government (\$50m in funding previously announced – refer same).

Details of the Transaction:

Completion of the acquisition is subject to several conditions, including resolution of various arrangements with key stakeholders. It is expected that, subject to finalisation of these arrangements, completion will take place in mid-March 2010. The purchase price of A\$20 million comprises the following:-

- \$2 million in cash upon completion (\$1 million of which has been paid as a fully refundable deposit).
- \$18 million in fully paid ordinary shares in Silex to be issued as follows:
 - \$13 million worth of shares to be issued on completion and held in escrow with \$6.5 million worth of shares to be released from escrow 12 months following completion, and the remaining \$6.5 million worth of shares to be released from escrow 24 months following completion;
 - \$1 million worth of shares to be issued each month after completion for 5 months. Silex will have the option to pay cash in lieu of shares issued in any of these 5 months.
- The number of shares to be issued at and post completion will be determined based on the VWAP of Silex shares for the 10 trading days prior to the relevant date of issue.

Additional supplementary information in relation to this acquisition has been provided in the following pages.

Further information on the Company's activities can be found on the Silex website: www.silex.com.au or by contacting Dr Michael Goldsworthy on (02) 9532 1331, or Mr Chris Wilks on (02) 9855 5404.

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SUPPLEMENTARY INFORMATION:

About SSG CPV Technology:

As climate change issues bring about a paradigm shift in energy production from conventional fossil fuel sources to renewable energy sources and nuclear power, there has been increasing interest in developing solar energy technology which could be economically viable in very large scale utility projects in the order of 10's to 100's of megawatts (MW's) electrical output. Conventional photovoltaic technologies were designed for much smaller scale (residential and commercial) rooftop systems distributed all around the community. Typically, these small systems use unconcentrated sunlight (or "1-sun" strength), so large areas of solar panels must be used. This requires large amounts of silicon and other expensive photovoltaic materials in panels which are mounted in a fixed position.

SSG solar technology utilizes a fundamentally different approach whereby simple large-area mirrors reflect the sunlight onto a small-area solar conversion module, effectively concentrating the sunlight to around 500 suns (ie the area of the mirrors is ~500 times the area of the PV module that collects the sunlight). This is called Concentrating Photovoltaics (CPV). The principle advantages of SSG's CPV technology are:

- A much smaller area module is used (~500x smaller than a conventional system with the same output), dramatically decreasing the costs of the PV material, thereby permitting use of more expensive but much higher efficiency solar cells;
- The compact 'Dense Array' PV module can be actively cooled (eg with water), significantly decreasing both the power losses and lifetime performance degradation caused by extended operation at high temperature;
- The ground-mounted mirrors (either parabolic dishes or flat) are relatively cheap and are controlled with proprietary technology to track the sun through the day, increasing the total solar power produced compared to non-tracking systems;
- SSG technology can be easily upgraded. Currently available cells have ~35% solar conversion efficiency. Future cell designs projected to reach 50% - 60% efficiency can be readily swapped out (assuming the same form factor). Also, higher concentration systems (eg 700x or higher) can be achieved in future designs by increasing the size of the low cost mirror array.

At present, there are two configurations for commercial deployment of SSG technology (pictures of which can be found on the website – www.solarsystems.com.au):

- i) *Concentrator Dish*: A large parabolic dish made up of curved mirrors reflects the sun light onto a centrally mounted PV receiver module. Nominal power output is currently ~35kW per dish, meaning ~30 dishes would be required for 1 MW.
- ii) *Heliostat Concentrator*: A large ground-mounted array of flat mirrors (called heliostats) is utilized to concentrate sunlight onto a large central receiver mounted at the top of a tower. In principle, these systems can be built to much larger scales, potentially driving costs down further. A test facility operating in Bridgewater, Victoria has a nominal power output of 140kW.

About the Utility Scale CPV Market:

There are two types of Concentrated Solar Power (CSP) technologies: Concentrator Solar Thermal (CST) systems, and Concentrator PV (CPV) systems such as the SSG technology. Most of the development work for concentrating solar systems to date has focused on CST technologies, which use the sun's concentrated heat to produce steam and drive a small turbine or Stirling engine mounted on the system. Unlike the conventional PV panel market, there are currently very few technologies being developed for large utility scale CPV systems. SSG technology, being the only one to utilise the actively cooled 'Dense Array' module concept, is unique and very innovative.

The utility scale Concentrated Solar Power market is in its infancy, with only a handful of modest sized projects based on CST systems in operation around the world (eg: Nevada One, (64MW) USA, Andasol (50MW) and Abengoa (20MW) in Spain). However, there is little doubt that the CSP market is set to spring to life and undergo dramatic expansion over the next decade and beyond.

Market projections for utility scale CSP are difficult to assess at this early stage, with significant variability in forward market scenarios. However, two well-founded sources are referenced here. Firstly, the International Energy Agency and collaborators estimate that in an unconstrained market, CSP investment will be running at around 21 billion Euros per year in 2015 with approximately 420MW installed capacity, increasing to 174 billion Euros per year and ~1500 GW installed in 2050. Meanwhile, Greentech Media (www.greentechmedia.com) estimates that today there is a pipeline of CSP projects in the US of approximately 2.8GW likely to start generating power in the next four years. At today's valuations, this represents a market in the USA alone of at least US\$10 billion. It would be reasonable to assume the current world market is at least double this.

Potential Solar Power Station Project Pipeline:

Several utility scale projects for SSG technology have been identified for potential deployment during the Due Diligence process conducted over the last few months – the first in Australia (Mildura) and several thereafter in the USA. Additionally, there is good scope to undertake projects in Asia with the right partner.

Mildura, Victoria: In October 2006 Solar Systems announced a major CPV project of up to 154MW (refer to www.solarsystems.com) with the backing of the Federal Government (\$75 million conditional funding grant) and the Victorian Government (\$50 million conditional funding grant). Subject to continued support (to be confirmed), the first stage of this project – a 2MW pilot solar power facility, would most likely be the first project to be undertaken in the first year (Yr1) after the commercialization program is complete (refer below).

US Project Pipeline: Several potentially viable utility scale projects in the US were identified during the SSG Due Diligence process. If these projects were to proceed, approximately 2MW could be undertaken in Yr1, and up to ~70MW in Yr2. Silex envisages setting up a small marketing team in the US towards the end of the Commercialisation Program to further develop the US market opportunities.

Commercialisation Program for SSG Technology:

Subject to completion of the acquisition agreement, Silex will set up a Special Purpose Vehicle (SPV) to complete the commercialization of SSG technology and thereafter to take the technology to market.

During Due Diligence, Silex identified several key areas which need to be addressed over the next 12 or so months in order to prepare the SSG Technology for market. These include:

- Completion of the commissioning of the new state of the art module assembly plant in Abbotsford, Melbourne. This plant is fully installed but is yet to be commissioned and optimized for maximum yield and throughput. Subject to satisfactory completion of these activities, the Abbotsford production facility will be capable of producing approximately 500MW of module capacity per annum.
- Completion of yield and reliability tests with the suppliers of the ultra-high efficiency 'triple junction' solar cells which form the core of the SSG conversion modules.
- Completion of cost reduction activities with key suppliers of the 'balance-of-system' components for SSG technology. Work already undertaken in this area with potential suppliers indicates significant cost reductions of 20% to 30% can be achieved for the first generation SSG technology.

A technology commercialisation program has been drafted in preparation for these activities. A budget of up to A\$10 million over 12 to 18 months will be sufficient to cover this work. Discussions are underway with various stakeholders to potentially contribute a significant portion of the required funding.

Compatibility with Silex Solar Panel Business:

SSG CPV technology is fundamentally different from the solar panel technology being produced and marketed by Silex Solar at the Sydney Olympic Park manufacturing plant acquired by Silex in mid-2009. Rooftop solar panels have traditionally been produced for the smaller scale residential and commercial market which is well established all around the world. Clearly the SSG CPV technology is aimed at the large utility scale power generation market which is now emerging as a major player in the utility power industry. Recently Silex has undertaken an assessment of solar technologies for larger scale utility projects and is now in an enviable position of having two technology platforms to consider for such projects – each of which will have differing physical and economic factors.

Subject to completion of the acquisition agreement, Silex will potentially have state-of-the-art technology in both the distributed rooftop and centralized utility solar PV markets. With our strong focus on technology innovation, this will place Silex in the very unique position of potentially being a world class solar technology company capable of providing a wide range of solar power solutions.

Synergy with Translucent Advanced Solar Materials Research:

Silex subsidiary Translucent Inc based in Palo Alto, California, has been developing advanced materials for potential application to the solar industry for several years (refer to the Translucent website: www.translucentinc.com). Although still early days, it appears that Translucent's solar materials incorporating patented 'Rare-Earth Oxide' layers may also have potential application to alternative high efficiency cells similar to those used in SSG technology, possibly providing further cost reductions. Translucent will disclose more information on this opportunity as development activities progress.

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Forward Looking Statements and Business Risks:

Silex is a research and development Company whose assets are its proprietary rights in technologies, including, but not limited to, the SILEX technology, the Silex Solar technology and business, Translucent technology and ChronoLogic technology. Several of the Company's technologies are in the development stage and have not been commercially deployed, and therefore are high-risk. Accordingly, the statements in this announcement regarding the future of the Company's technologies and commercial prospects are forward looking and actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors. Some risk factors that could affect future results and commercial prospects include, but are not limited to: results from the uranium enrichment development program and the stable isotopes program; the demand for enriched materials including uranium, silicon, oxygen, carbon and others; the business risks associated with Silex Solar's manufacturing and marketing activities; the outcomes of the Company's interests in the development of various semiconductor, photonics and alternative energy technologies; the time taken to develop various technologies; the development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property associated with its numerous technologies; the potential impact of government regulations or policies; and the outcomes of various commercialisation strategies undertaken by the Company.

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