



Silex

SYSTEMS LIMITED A.C.N. 003 372 067

Lucas Heights
Science & Technology Centre
New Illawarra Road
Lucas Heights NSW 2234 Australia
PO Box 75
Menai Central NSW 2234
Tel: (02) 9532 1331
Fax: (02) 9532 1332
www.silex.com.au

INTERIM OPERATIONAL UPDATE

15 November, 2011

Silex Systems Limited (ASX:SLX; "Silex") is pleased to provide the following operational update.

The Silex group is forging ahead with its technology development programs despite continuing volatility in equity markets. The Company believes it is well placed with sufficient resources to capitalise on the world's growing demand for energy security and the need to shift to carbon-free alternative energy technologies, such as nuclear and solar, in response to global climate change.

Silex CEO, Dr Michael Goldsworthy said, "Development of Silex's globally focused technologies continues to gain momentum. We remain very excited by the potential of these technologies as they move closer to key commercial milestones."

Key Operational Updates

- **SILEX** – NRC confirms schedule for licensing GLE nuclear plant, targeting the decision by 31 August 2012. Recent optimized tests with the Test Loop facility have confirmed enhanced process performance.
- **Solar Systems** have commenced construction of a single CPV solar dish demonstration system at the King Abdullah University for Science and Technology in Jeddah, Saudi Arabia.
- Dr Guoying Ding has been appointed Marketing Director at **Translucent** as the company moves closer to commercial activities.
- Due to continued market deterioration, **SilexSolar** has suspended all manufacturing operations and placed its PV panel plant in 'care and maintenance' mode.

1. SILEX Uranium Enrichment Project

US Nuclear Regulatory Commission (NRC) Licensing Schedule

- As disclosed to the ASX on 20 September, the NRC has recently undertaken a review of the schedule for issuing a license for the world's first third-generation commercial laser-based uranium enrichment plant being developed by GE-Hitachi Global Laser Enrichment LLC (GLE) which will utilise the SILEX Technology.
- The new schedule is now confirmed with the NRC Atomic Safety and Licensing Board, targeting 31 August 2012 as the latest date for the license decision.
- The scheduling revision relates only to the standards of the building structure that the enrichment plant building must adhere to and does not involve the SILEX Technology.

Test Loop Project and Engineering Design Program

- Enrichment tests and engineering design for the commercial plant continue according to plan, with recent tests focusing on process optimization confirming enhanced process performance.
- Test Loop activities in Wilmington, North Carolina, in parallel with engineering design and prototyping activities at the Oak Ridge, Tennessee Engineering and Manufacturing Facility will continue through to the revised target date for the NRC license decision.
- GLE will continue to evaluate the project throughout this period leading to a decision regarding the construction of a commercial production facility with a target capacity of up to 6 million Separative Work Units.

Nuclear Industry Status and Growth Outlook

- Global demand for enriched uranium is expected to increase significantly over the next few decades, with the anticipated construction of a new generation of nuclear power plants to help meet the world's converging needs to achieve energy supply security and address climate change.
- Recent data from the World Nuclear Association indicates that global nuclear electricity capacity will potentially increase from today's 376 GWe to a total of around 1000 GWe in 2030 – nearly a three-fold increase. This will place substantial demands on new uranium enrichment capacity over the next two decades – an outlook that bodes well for GLE and the SILEX Technology.

2. Solar Systems

Melbourne-based Solar Systems Pty Ltd continues to make progress on several fronts.

Product Development and Manufacturing Activities

- The product development program is well advanced and is expected to be largely complete by the end of Q1 2012.
- The Abbotsford automated manufacturing facility in which the core of the technology, the Dense Array Receiver will be produced, is in the final stages of preparation for initial production activities. Low volume pilot manufacturing is expected to commence in the next few weeks.

Bridgewater Demonstration Facility

- Construction of a 500kW (0.5MW) test and reliability facility consisting of 16 CS500 Dish System units at the Company's Bridgewater Demonstration Centre in Victoria is progressing on track for expected completion around the end of Q1 2012. A recent photo of the Bridgewater test facility is shown below.

Mildura Solar Power Station Project – Stage 1 Progress

- Construction works for Stage 1 of the Mildura Solar Power Station Project (up to 2MW capacity) will commence in early December, after final DA sign-off is received from Mildura Council. Construction of Stage 1 is expected to be completed by the end of 2012 after which a period of tests and evaluation will take place. Upon successful finalization of this work, Mildura Stage 2 – a 100MW Power Station – will commence. This will be one of the largest Solar Power Stations in the world.
- The Mildura Solar Power Station Project has received \$125 million in support from the Federal Government (\$75 million) and the Victorian Government (\$50 million – less approximately \$5 million that has been applied to the current commercialization project).

Demonstration Projects and Pilot Plants

- The construction of a single demonstration CS500 Dish System has commenced at the King Abdullah University for Science and Technology (KAUST) in Jeddah, Saudi Arabia. This unit will showcase the Dense Array CPV Dish System at the New Energy Oasis Center at KAUST from December 2011. KAUST is a leading research University in Saudi Arabia with considerable support from the Kingdom's government.

- Solar Systems is pursuing several other off-shore opportunities to demonstrate its CPV Dish technology through the deployment of pilot plants of between 10 to 30 dishes each (approximately 0.33MW to 1.0MW). At the present time, the company is in negotiations regarding a demonstration site in southern California.



Recent photo of the Dish System Test Array under construction at the Bridgewater Demonstration Centre, Victoria

3. Translucent

Translucent is moving closer to commercial outcomes in three target markets – LED lighting, power electronics and CPV solar cells. Translucent is developing distinct product lines for these markets based on the advanced Rare Earth Oxide (REO)-based 'cSOITM' silicon wafer platform.

Product Development Progress

- Translucent has recently expanded its 'virtual substrate' production capability for both CPV solar and power electronics applications to larger industry-standard 150mm wafers for the first time. The results of wafers produced to date are very encouraging for both types of substrates, which will now be used for further manufacture of the respective active device layers at commercial partner foundries.
- Translucent has already made several shipments of smaller sample 'vGa_NTM-on-silicon substrates to potential customers for device fabrication and testing. Substrates are currently being evaluated by four significant Asian LED manufacturers and one US-based company in the power electronics industry, with initial results and feedback expected from early in the New Year. We expect this evaluation period to continue over the following months, possibly involving additional companies.

Appointment of Marketing Executive

- Dr Guoying Ding has been appointed Marketing Director at Translucent. She joins Translucent from a Fortune 100 executive marketing and product background at Hewlett Packard, Intel, Cisco, and more recently JDSU, a leading provider of optical products and test and measurement solutions for the communications industry.

- Dr Ding has more than 15 years' experience leading customer relations programs for complex multilayer optoelectronic and electronic device businesses. Combined with a Stanford PhD in material semiconductor growth, Dr Ding is ideally qualified to coordinate and develop strong technical and commercial relationships with Translucent's power electronics, CPV solar, and LED lighting customer base.

4. SilexSolar

Continuation of Restructure and Cost Reduction

- In August 2011, SilexSolar announced a major restructure of its PV panel business including a major cost reduction program and the replacement of cells made by Silex with cells from new strategic partner Hareon Solar.
- Since then, the Australian PV panel market has continued to deteriorate. Sales volumes have been decimated by the abandonment of reasonable support policies from various governments, and panel prices have plummeted under the strain of a massive oversupply across the global PV market. The high Australian dollar has completed a trifecta of negative market factors for SilexSolar.
- As a result of these and other factors, SilexSolar has decided to suspend all manufacturing operations and place the plant in 'care and maintenance' mode until the future direction of the business can be determined. Most of the manufacturing employees have been made redundant, along with several engineering, technical and administrative staff. These and other measures have dramatically reduced ongoing costs. SilexSolar has sufficient inventory to support sales over the next few months, and will focus on sales in the residential rooftop market as well as opportunities in the commercial medium-scale project market.

Further Information

Further information on the Company's activities can be found on the Silex website: www.silex.com.au or by contacting the persons listed below.

Contacts: Michael Goldsworthy or Julie Ducie on (02) 9532 1331

Forward Looking Statements and Business Risks:

Silex Systems is a research and development Company whose assets are its proprietary rights in various technologies, including, but not limited to, the SILEX technology, the SilexSolar technology and business, Solar Systems 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 SILEX uranium enrichment development program and the demand for enriched uranium; the business risks associated with SilexSolar's manufacturing and marketing activities; the risks associated with the development of Solar Systems technology and related 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