

Silex Systems - Operational Update

20th February 2015

The half-year ended 31st December 2014 was a challenging period for Silex, beginning with the implementation of a major restructure which resulted from a strategic review of our entire business, as disclosed to the ASX on 30th June 2014. Shortly after this, the Licensee for our core SILEX laser enrichment technology, GE-Hitachi Global Laser Enrichment LLC (GLE) announced its own restructure which had wide ranging implications for the commercialisation timeline for the technology. Consequently, this has been a difficult time for all of our dedicated staff and of course for our shareholders.

Our Board and Management continue to work towards the completion of our strategic review and we are pleased to see interest in Solar Systems' and Translucent's unique technologies and businesses. A full update on these activities is provided below.

We are committed to returning the Company's focus to our core asset, the SILEX technology, and to that end we were pleased to see a number of recent developments which suggest the beginning of a recovery in the uranium and enrichment markets. We continue to believe the medium to long term outlook for these markets will see strong growth as the global nuclear industry expands significantly. Most importantly, we remain confident of the potential for our enrichment technology, the only third generation laser enrichment technology being commercialised in the world, to participate in these markets.

1) Silex Systems Restructure

On the 30th June 2014, the Silex Systems Limited (Silex) Board completed a strategic review of the entire business, resulting in the announcement of a major restructure of the Company in order to refocus efforts on our primary economic asset, the SILEX uranium enrichment technology.

Since the announcement of this review, implementation of the restructure has advanced significantly. Our first major step in this process was the closure of the ChronoLogic business which was completed in September 2014. In parallel, Silex has been actively pursuing various business development options for its subsidiary businesses Solar Systems and Translucent, including strategic commercial partnerships, divestment transactions or new investment alternatives. The stated aim of our restructure is to minimise or eliminate the need for parent company investment beyond FY 2015.

There has also been a significant rationalisation completed within our corporate team resulting in around 40% reduction in headcount in our group corporate office. Additionally, our CEO Dr Michael Goldsworthy has agreed to a reduction of approximately 55% in Total Maximum Potential Remuneration, including a cut of 31% in Total Fixed Remuneration. The changes to Michael's remuneration package took effect from the 1st January 2015.

On the 24th July 2014, SILEX technology Licensee GLE announced a slowing in the pace of the commercialisation program for the technology to align with adverse market conditions in the global uranium and enrichment services markets resulting primarily from the shutdown of the Japanese nuclear industry. While these changes have resulted in a reduction in funding and the consolidation of GLE’s operations, importantly, the Paducah opportunity is still being pursued with the US Department of Energy (DOE) and the key commercial terms of Silex’s licence agreement with GLE remain unchanged.

2) SILEX Uranium Enrichment Project Update

i) Phase II: Full-Scale Engineering and Economic Validation

The GLE and Silex project teams remain focussed on Phase II of the Commercialisation Program, which includes economic and engineering validation of the technology. Phase II activities previously conducted at Oak Ridge, Tennessee have now been consolidated into the Test Loop facility in Wilmington, North Carolina. The ongoing test and optimisation activities in Wilmington continue to produce positive results, providing a solid base for the design of the full-scale production equipment.

A small team based at our Lucas Heights facility in Sydney, comprising the core of Silex’s laser technology expertise, continues to make good progress with the development of commercial-scale plant laser systems. This work, which is funded by Silex, will ensure our core competency in the SILEX laser technology is maintained, and will assist GLE in the completion of the Phase II program.

The Path Forward

GLE continues to conduct a stage-gated approach to commercialisation of the SILEX laser enrichment technology, albeit at a reduced pace, with the following three phases:

Phase	Objectives	Status
Phase I:	Test Loop technology demonstration and NRC commercial plant license approval	Completed
Phase II:	Economic and engineering validation for the initial commercial production module	Commenced in 2012
Phase III:	Construction of the first full-scale commercial production facility	Yet to commence

ii) The Paducah, Kentucky Commercial Opportunity Update

Silex has been informed that negotiations concerning the establishment of the Paducah Laser Enrichment Facility (PLEF) continue to proceed constructively, and that there is a reasonable probability of a negotiations concluding positively in the coming months. It is worth noting that Silex is not a party to these confidential discussions. Whilst we await an outcome from these negotiations, it is important to understand that this proposal involves the potential disposition of hundreds of thousands of tons of depleted tails inventories owned by the DOE over a 40 year period.

Subject to prevailing market conditions and regulatory requirements being met, including obtaining a combined construction and operating license from the Nuclear Regulatory Commission (NRC), a positive outcome from these negotiations would potentially provide a clear path to market for our disruptive laser enrichment technology. That said, shareholders should also appreciate as per the GLE restructure announced on the 24th July 2014, the market for nuclear fuel will likely remain depressed in the short term, with both uranium and enrichment pricing still struggling near decade lows. Some potential factors and events which may improve market prospects in the medium term are discussed below.

iii) Positive Uranium and Enrichment Market Factors and Trends

Whilst the current adverse market conditions are driven by significant oversupply of nuclear fuel resulting primarily from the shutdown of the Japanese nuclear industry after Fukushima, there are early signs that uranium pricing has bottomed out and the start of a recovery might be around the corner. Momentum in the nuclear industry is steadily building with construction of many more nuclear power plants around the world. Several additional factors may also help speed up the recovery of the uranium and enrichment markets, such as:

- *The global nuclear build:* According to the World Nuclear Association, 5 new reactors commenced operation during 2014, 70 reactors are currently under construction around the world, with another 183 units in the planning stage and a further 311 plants proposed, potentially doubling global nuclear capacity by 2035.
- *Restart of Japan's nuclear fleet:* The first nuclear plants to be restarted in Sendai, southern Japan, are expected to be back on line around the middle of 2015. This could be followed by a further two units at the Takahama Plant in Fukui Prefecture. Currently, Japanese utilities have submitted 21 reactor restart applications. It is expected that up to 40 of Japan's original 54 units could eventually come back on line over the next few years.
- *Russian sanctions:* Russia's actions in Ukraine and the resulting sanctions could reduce Tenex's access to the US and European markets, where utilities are becoming more reluctant to rely on Russian supplied enrichment services. Tenex currently supplies up to 20% of the US market (capped).
- *Enrichment and Uranium Price recovery:* The market prices for uranium and enrichment are set to rise over the next few years as the above and other market factors inevitably tighten supply. However, the question remains as to how soon and fast the recovery will unfold.

iv) South Australian Royal Commission – announced 8th February 2015

We welcome the South Australian Premier's announcement of a formal inquiry to consider what future role the state can and should play in the world's nuclear fuel cycle and we look forward to taking part in the formal inquiry process. South Australia is home to approximately 30% of the world's known Uranium resources – currently exported as 'Yellow Cake' with no additional value added. Whilst finalising the Terms of Reference will take some time, we expect the Royal Commission will factually consider the viability and benefits of Australia potentially participating in all elements of the value chain for the provision of nuclear fuel including, conversion, enrichment, fuel fabrication and ultimately waste storage. We look forward to this inquiry and the potentially positive conclusions that may eventuate.

3) Solar Systems

Solar Systems' business development activities are primarily focused on securing a strategic partnership or equity transaction during FY 2015 with the aim of achieving a value-creating outcome that takes this technology to the next commercial phase. Minimising further parent company investment beyond FY 2015 remains a key objective. A structured corporate advisory process is underway with an advisor appointed. In addition, several intermediaries have been appointed in key target markets. The business has been prepared for due diligence and discussions with potential investors have commenced. The process remains a key focus of the senior management team of Solar Systems with Silex continuing to target completion by 30th June 2015.

In parallel, the Company continues to work on its product development pathway to reduce the Levelised Cost of Energy (LCOE) of its concentrated photovoltaic (CPV) 'Dense Array' dish technology and to improve its competitive positioning. These initiatives encompass both increasing the efficiency and lowering component costs of the CPV dish systems and targeting project opportunities in areas where energy yield can be maximised (i.e. areas of high DNI or sunlight quality). A new medium sized lower-cost dish product has recently been demonstrated, with two units undergoing extensive testing at the Company's Bridgewater development facility. This more simple dish design has the potential to lower manufacturing and construction costs.

The CPV dish solar power station completed in April 2014 and operating at the Nofa Resort in Saudi Arabia has now been optimised for local conditions with the plant recently re-rated to ~0.8MW of nominal power output. We remain pleased with the performance of the plant and the data that is being obtained from the daily operations of the plant.

4) Translucent

Translucent is on an accelerated path to commercialisation. With industries currently forced to use high-cost non-silicon substrates such as germanium, sapphire and silicon carbide for high-end semiconductor devices, Translucent's technology could help transform manufacturing, enabling the power electronics and photovoltaics industries to instead use high performing low-cost silicon-wafer based substrates.

Efforts to realise a value-creating agreement with an industry/strategic partner (via co-investment or divestment) continue. A Silicon Valley based business development consultant has been engaged and the business and technology continues to generate interest. Several leads with third parties are currently being pursued with technical due diligence underway with a number of key targets. Equity investment, full divestment and licensing options are all being considered at present. The Translucent team and Silex CEO, Michael Goldsworthy, remain focussed on securing a value-creating agreement to take this technology to the commercialisation phase with the aim of minimising the need for parent company funding beyond FY 2015.

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.

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About Silex

In June 2014, a major strategic review of Silex Systems Limited (ASX: SLX) (OTCQX: SILXY) resulted in a significant restructure of the Company. Under the restructure, the Board determined to refocus efforts on the Company's primary economic asset, the SILEX laser enrichment technology and to significantly reduce cash burn beyond FY 2015.

This strategic review allows Silex to support uranium enrichment technology licensee, GE-Hitachi Global Laser Enrichment LLC ('GLE') in their efforts to bring the SILEX technology to market. Should this be successfully achieved, Silex could earn attractive royalty revenues, under a technology commercialisation and license agreement, signed originally in 2006.

Under the restructure, it was also announced that the transitions to market for subsidiaries Solar Systems and Translucent would be accelerated, and that operations at ChronoLogic would cease.

For more detailed information on Silex Systems Limited, please visit www.silex.com.au

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, Solar Systems technology, and Translucent 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 commercialisation program; the demand for enriched uranium; 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, instrumentation 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.