

## **SILEX Uranium Enrichment Project**

### **Silex Board Decides to Abandon the GLE Restructure**

**12 June 2018**

The Board of Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) regrets to inform shareholders that it has decided to abandon the acquisition of a majority stake in GE-Hitachi Global Laser Enrichment LLC (GLE), the exclusive Licensee of the SILEX laser enrichment technology. Despite being at an advanced stage in negotiations with GE-Hitachi (GEH) with regard to Silex's potential acquisition of GEH's 76% interest in GLE, the Board decided that there remained too many risks associated with GLE's business case, and that the investment in GLE and the ongoing expenditure that this would entail would not be in the best interests of shareholders.

"This is a very disappointing outcome for the Company," Dr Michael Goldsworthy, Silex CEO said today. "The SILEX technology remains one of the most exciting developments in the nuclear industry for several decades, and after 20 years of cooperative development with the US, was just three years from reaching a key demonstration of full-scale 24/7 operation. Unfortunately, the continuing decline in the nuclear fuel markets precipitated by the tragic events of Fukushima in 2011, in combination with unresolved issues relating to the GLE restructure and the associated cash burn, has forced the Board to draw a line and make this decision" he added.

The Company has given notice to GEH with respect to termination of the Term Sheet signed in 2016 (and as amended on 31 August 2017) under which Silex held an exclusive option to acquire GEH's equity interest in GLE. Silex's funding obligations for GLE's operations under that Term Sheet (approximately A\$600k per month) ceased upon notice of termination. Unless circumstances change dramatically in the short-term, Silex also intends to give notice to GLE of termination of the SILEX technology license, pursuant to the Amended and Restated Technology Commercialisation and License Agreement, signed in 2013.

The overarching factor which contributed to this decision is the worsening outlook for the global nuclear fuel markets, which have deteriorated steadily since 2011. In addition to the continued disruption to the Japanese nuclear industry, with only 8 out of around 40 operable reactors restarted, the impact has also been felt in several countries in Western Europe, Asia and the US, where the share of nuclear power generation is set to decrease under current government policies and/or economic pressures. Despite this, several other countries including China, India, Russia and the UAE are undertaking significant expansion of their nuclear energy programs, however the fuel markets for these countries are generally less accessible.

Other key issues challenging the GLE restructure and business case, which Silex was unable to resolve despite many months of interaction with key stakeholders, are as follows:

- The need to obtain external funding assistance to support the completion of GLE's commercialisation program currently being conducted in Wilmington, North Carolina. Whilst progress had been made with various third parties including the US Department of Energy (DOE) on this matter, there was no clear path or timeline for such funding to be obtained at the time of the Board's decision;
- The need to mitigate a number of risks relating to market access and project financing in connection with the first commercial project proposed for Paducah, Kentucky. The Paducah project is facilitated under an agreement signed in November 2016 between the DOE and GLE, providing for the purchase of around 300,000 metric tons of the DOE's depleted tails inventories for re-enrichment to natural grade uranium using the SILEX technology in a plant to be built at Paducah;
- Continuing delays and uncertainty regarding the passage of a bipartisan bill through the US congress, entitled the Nuclear Energy Innovation and Modernization Act which would, amongst other things, effectively guarantee GLE's right to sell the natural grade uranium derived from processing the DOE's tails inventories into the market at acceptable annual rates.

"We are particularly disappointed that so many opportunities will be lost by not being able to participate in the US nuclear fuel market," Dr Goldsworthy noted. "For example, we were excited with the prospect of playing a key part in the remediation of the massive quantities of tails inventories stored at the DOE's Paducah and Portsmouth facilities, through a pioneering laser enrichment facility which would have created hundreds of high tech jobs in Kentucky and throughout the US. Furthermore, the opportunity to support the United States regain its leadership position in advanced nuclear technology has also been lost, and the unique ability to produce a highly flexible range of fuels for the next generation of advanced small modular reactors will now not be realised" he added.

Silex also sought support from the Australian government to assist in resolving these issues as a means to continue the close collaboration between the US and Australia in developing the SILEX technology under the Bi-lateral Agreement for Cooperation (the 'SILEX Treaty') which came into force in 2000. We wish to thank the Australian government for assisting us in this matter and look forward to working further with the government as we seek to repatriate the SILEX technology back to Australia.

The Board will continue to assess various options and actions which are considered in the best interests of shareholders, including appropriate steps to repatriate the technology from the US to the Lucas Heights facility. Consideration will also be given to exploring commercialisation of the technology with third parties in other countries should opportunities arise and as market conditions improve. The Board notes that the Company has a relatively strong balance sheet with net assets of A\$47 million (including cash of A\$32 million and IQE shares currently worth A\$10 million) in addition to the IQE royalty agreement for the Translucent cREO™ technology. These assets will be preserved as fully as possible while all options are explored.

Further information on the Company's activities can be found on the Silex website: [www.silex.com.au](http://www.silex.com.au) or by calling +61 2 9704 8888.

#### **Forward Looking Statements and Business Risks:**

*Silex Systems Limited (Silex) is a research and development company whose primary asset is the SILEX laser uranium enrichment technology, originally developed at the Company's technology facility in Sydney, Australia. The SILEX technology, which has been licensed exclusively since 2006 to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA, has reached an advanced stage of development. However, in view of the current announcement, plans for commercial deployment are now highly speculative and extremely uncertain.*

*Silex also has an interest in a unique semiconductor technology known as 'cREO™' through its ownership of subsidiary Translucent Inc. The cREO™ technology developed by Translucent has been acquired by IQE Plc based in the UK. IQE is progressing the cREO™ technology towards commercial deployment in various advanced semiconductor products. The outcome of IQE's commercialisation program also remains subject to technology and market risks.*

*The commercial potential of these two technologies is currently unknown. Accordingly, the statements in this announcement regarding the future of the SILEX technology, the cREO™ technology and any associated 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.*

*Risk factors that could affect future results and commercial prospects include, but are not limited to: the final outcome of the GLE restructure which Silex is abandoning; the future of the SILEX uranium enrichment engineering development program (in particular whether this program will be continued in any way); the market demand for natural uranium and enriched uranium; the potential development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property; the potential impact of prevailing laws or government regulations or policies in the USA, Australia or elsewhere; results from IQE's commercialisation program and the market demand for cREO™ products; and the outcomes of various strategies undertaken by the Company.*