

Silex Systems - Operational Update

27 February 2017

Highlights

- An agreement was signed in November 2016 between SILEX technology Licensee, GE-Hitachi Global Laser Enrichment LLC (GLE) and the US Department of Energy (DOE) which could result in the first commercial SILEX enrichment plant being built in Paducah, Kentucky;
- Pursuant to the Term Sheet signed in April 2016 between GE-Hitachi Nuclear Energy (GEH) and Silex, under which the Company has an exclusive assignable option over GEH's 76% interest in GLE, Silex continues to lead the search for new investors in GLE with discussions and due diligence activities advancing with a number of parties;
- The Company is encouraged by the recent turn around in the uranium market price, which has seen an increase of over 25% in the uranium spot price since November 2016. We are hopeful this trend will continue as the benefits of clean nuclear energy spurs further global growth in nuclear capacity;
- The Company's cREO™ technology commercialisation program continues to be advanced by exclusive licensee, UK-based IQE Plc;
- The Company's current cash reserves are approximately \$45 million.

1) **SILEX Uranium Enrichment Project Update**

i) The Paducah Opportunity:

Pursuant to the signing of the agreement between GLE and the US DOE in November 2016, the Paducah commercial plant opportunity is viewed as an ideal path to market for the SILEX technology. The opportunity would allow for the initial commercial deployment of the technology on a smaller scale and at a lower cost.

The opportunity would involve construction of GLE's proposed 'Paducah Laser Enrichment Facility' (PLEF) utilising the SILEX technology to reprocess ~300,000 metric tons of high assay tails inventories owned by the DOE.

The tails re-enrichment would occur over a period of 40 years or more, resulting in the production of natural grade uranium which could then be sold into the expanding global uranium market. At a nominal production rate of around 2,000 metric tons of natural uranium hexafluoride (UF₆) per year (subject to applicable regulations), this project would rank as a large 'Tier 1' uranium mine by today's standards.

ii) GLE Restructure:

The Company's primary focus during the review period was on the continued development and commercialisation of our core asset – the SILEX technology, and the restructure of our Licensee GE-Hitachi Global Laser Enrichment LLC (GLE). GE-Hitachi Nuclear Energy (GEH) announced in April 2016 that they are looking to exit GLE, due to changes in business priorities and the continuing difficult conditions being experienced in the nuclear fuel markets. On 29 April 2016, Silex signed a term sheet with GEH securing an exclusive option to acquire GEH's 76% interest in GLE, and the right to assign in part or in whole the acquisition terms to third parties.

Silex and GEH agreed to extend the term sheet through to 31 March 2017 to allow the parties additional time to work towards a mutually acceptable restructure of GLE. Under the term sheet and extension, Silex agreed to reimburse GEH its pro-rata share of funding for the Wilmington operation for CY2016 and Q1, CY2017. This is in addition to Silex funding the development of commercial-scale laser systems at its Lucas Heights facility in Sydney. GLE shareholder, Cameco, 24% owner of GLE, remains supportive of Silex's efforts to restructure GLE.

Silex has continued to lead the search for new investors in GLE who are capable of supporting GLE's transition to market with the commercialisation of the SILEX technology. Due diligence activities continue with a number of interested parties.

iii) **Project Update:**

The technology engineering and economic validation ('Phase II') program has continued to achieve steady progress during the review period. The GLE team in Wilmington, North Carolina is focussed on scaling up separator and gas handling equipment in the Test Loop facility, whilst the Silex team in Sydney continues to make good progress with the scaling up of the laser systems to commercial prototypes.

Silex remains firmly committed to providing ongoing support to the Phase II program activities at both sites whilst undertaking the search for new investors. Subject to successfully completing the GLE restructure, the intention is for the commercialisation program to be ramped up again in the near future, in anticipation of a recovery in market conditions.

2) Translucent – cREO™ Technology

Silex subsidiary Translucent Inc developed a novel set of semiconductor materials known as 'Rare Earth Oxides' (cREO™) for application to the manufacturing of next generation devices in the semiconductor, digital communications and power electronics industries. An exclusive License and Assignment Agreement was signed with UK-based IQE Plc (LON:IQE) on 15 September 2015. IQE is the global leader in the design and manufacture of advanced semiconductor wafer products. A license payment of ~US\$1.4 million was paid to Translucent in IQE shares in March 2016, which with the increase in IQE's share price since, are now worth ~US\$3 million.

The cREO™ technology was transferred in late 2015 to IQE's Greensboro, North Carolina manufacturing facility for the completion of product development and commercialisation activities during a 30-month option period ending in March 2018. Should IQE elect to exercise the right to purchase the technology within this period, payment of US\$5 million will be made. The potential commercial applications that IQE have identified for the technology may result in an attractive perpetual royalty stream of between 3% and 6% of revenues generated by IQE from use of the cREO™ technology.

IQE continue to produce cREO™ templates on silicon wafers for testing in various commercial applications using two of Translucent's production reactors. These production reactors continue to produce prototype templates for trialling within the IQE Group and select commercial partners, with initial focus on wireless communications devices and power electronics devices.

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

Forward Looking Statements and Business Risks:

Silex Systems 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, licensed exclusively to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA, is currently in the engineering development stage and plans for commercial deployment remain subject to engineering and market risks. Silex also has an interest in a unique semiconductor technology known as 'cREO™' through its ownership of subsidiary Translucent Inc. The cREO™ technology is exclusively licensed to 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.

Some risk factors that could affect future results and commercial prospects include, but are not limited to: the outcome of the GLE restructure currently underway; results from the SILEX uranium enrichment engineering development program being conducted jointly by the Company and GLE; the demand for natural uranium and enriched uranium; the time taken to develop the SILEX technology; results from IQE's commercialisation program and the demand for cREO™ products, the potential development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property; the potential impact of government regulations or policies in the USA, Australia or elsewhere; and the outcomes of various commercialisation strategies undertaken by the Company and/or its Licensees GLE and IQE.