

Silex Systems - Operational Update

21 August 2018

Key points:

- Despite concerted efforts over the last two years to restructure the exclusive Licensee of the SILEX laser-based uranium enrichment technology - GE-Hitachi Global Laser Enrichment LLC (GLE) - Silex announced on 12 June 2018 that it had terminated the Term Sheet with GE-Hitachi Nuclear Energy (GEH) with regard to Silex potentially acquiring GEH's 76% interest in GLE;
- The assessment of various options to preserve value created in GLE over the last decade, including the Test Loop demonstration facility and associated IP based in Wilmington, North Carolina, continue to be explored in conjunction with GLE's shareholders GEH and Cameco, together with the governments of Australia and the US;
- Discussions to date with regard to preservation of the SILEX technology in the US have been positive, with key stakeholders sharing a willingness to explore available options. However, in view of the depressed state of the global nuclear fuel markets, any preservation plan will necessarily involve either a significant reduction in US-based activities, or a cessation of all US-based activities and repatriation of the SILEX technology to Australia;
- The Company is also reducing the scale of its technology development activities at its Lucas Heights facility and reducing operational cash burn in FY2019. A number of staff have recently been made redundant and the Company will consolidate its operations with the relocation of the small corporate office from Sydney city to the Lucas Heights facility in October 2018;
- IQE Plc (AIM: IQE) elected to purchase Silex's wholly-owned subsidiary Translucent Inc's cREO™ technology in March 2018 and as a result a payment of US\$5 million is due to be paid in October 2018 (in either cash or IQE stock). A perpetual royalty of between 3% and 6% will be payable to Translucent on the sale of any IQE products that utilise the cREO™ technology, with minimum annual royalties starting at US\$400,000 due to commence being paid in FY2020;

- The commercialisation program for the cREO™ technology continues to be advanced with several product development and commercialisation milestones met and further enhancement of the cREO™ IP portfolio achieved during the past year;
- The Company's balance sheet as at 30 June 2018 remains in a strong position with net assets of \$47 million, including \$32 million in cash, IQE shares of \$9 million and a \$7 million receivable from IQE.

SILEX Technology Update

The overarching factor which contributed to the abovementioned decision to withdraw from the restructure of exclusive Licensee GLE, is the current negative state of the global nuclear fuel markets, which have deteriorated steadily since the Fukushima event in 2011. In addition to the continued disruption to the Japanese nuclear industry, with only 9 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.

Notwithstanding this, the Company continues to promote the merits of our core asset – the SILEX uranium enrichment technology, and is hopeful of maintaining a position in the US in order to be able to ramp-up the development program again and participate in the forecasted recovery of the global nuclear fuel market in the years ahead. Accordingly, the focus of our strategy going forward will involve:

- Preserving value and optionality for the future commercialisation of the SILEX technology;
- Maintaining our profile in the US, which remains the best target market for eventual deployment of the SILEX technology;
- Retaining our core expertise in the SILEX laser technology at a reduced level; and
- Focusing on effective cost management to ensure the most efficient use of cash reserves.

Numerous challenges and risks continue to be faced by the Company as we look to implement this revised strategy. In view of the depressed state of the nuclear fuel markets, any preservation plan will necessarily involve either a significant reduction in US-based activities, or a cessation of all US-based activities and repatriation of the SILEX technology to Australia. Until the future of the technology in the US is resolved, we anticipate that the SILEX Amended and Restated Technology Commercialisation and License Agreement signed in 2013 between GLE and Silex, and the agreement signed in 2016 between the US Department of Energy and GLE for the Paducah opportunity, will both remain in force.

Additionally, the scale of the laser technology development program continuing at the Company's Lucas Heights facility is being reduced, with a focus on preservation of our core expertise within the highly skilled technology team, in order to support future completion of the engineering scale-up and economic validation program for the SILEX technology.

Silex Restructuring Activities

Following the announcement regarding the Company's termination of the Term Sheet with GEH on 12 June 2018, a number of operational decisions have been made to rationalise activities and reduce anticipated operational cash burn from FY2019 onwards.

Actions taken to date include a headcount reduction at our Lucas Heights facility, and the planned consolidation of our operations with the relocation of our small corporate office to the Lucas Heights facility in October 2018. Further possible restructuring actions are currently under consideration.

Translucent – cREO™ Technology

A positive outcome was achieved during the year with respect to Silex subsidiary Translucent Inc's semiconductor material technology known as 'crystalline Rare Earth Oxides' (cREO™). In March 2018, the global leader in the design and manufacture of advanced semiconductor wafer products, IQE Plc (AIM: IQE) elected to purchase, the cREO™ technology. The election was made in accordance with the 2015 License and Assignment Agreement between Translucent and IQE and as a result, a payment of US\$5 million is due to be paid in October 2018 (in either cash or IQE stock). In addition, a perpetual royalty of between 3% and 6% will be payable to Translucent on the sale of any IQE products that utilise the cREO™ technology, with minimum annual royalties starting at US\$400,000 due to commence being paid in FY2020.

The cREO™ technology was successfully transferred in late 2015 to IQE's Greensboro, North Carolina manufacturing facility for the completion of product development and commercialisation activities. IQE have reported very good progress with the development and demonstration of the cREO™ technology for the integration of advanced high-performance compound semiconductor materials on silicon wafers. Product trials and preliminary qualification activities within the IQE group and with select commercial partners continue. In addition, IQE continue to expand the intellectual property portfolio acquired from Translucent for the cREO™ technology, with the filing of numerous patents providing protection in additional applications. This will help strengthen IQE's competitive advantage as it takes the cREO™ technology to market.

IQE's initial product development and commercialisation focus for the cREO™ technology has been on applications for wireless communications devices (principally targeting next generation smart phones) and power electronics devices (for example, as commonly found in today's solar inverters and electric vehicles). IQE regards the cREO™ technology as an enabling technology that would allow IQE to make a step change for the integration of various compound semiconductor devices with large scale silicon wafer production techniques. This has the potential to significantly lower the cost of production of next generation devices such as wireless chips.

IQE is committed to the potential of the cREO™ technology and continue to spend significant amounts on the development of cREO™ and other complementary materials technologies. Whilst the timelines to commercialisation are uncertain and subject to change, IQE believes that an optimal route to cREO™ commercialisation should occur within a 2 to 3-year timeframe.

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 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 Company's 12 June 2018 announcement to withdraw from the GLE restructure, 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; 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.