



Silex
Systems Limited

GLE and US Department of Energy sign amendment to Sales Agreement for depleted UF₆ inventories

5 June 2020

Key Points:

- *Amendment to the GLE-DOE Sales Agreement executed, bringing the agreement into alignment with current nuclear fuel market conditions*
- *The Sales Agreement provides GLE access to large stockpiles of depleted UF₆ tails owned by the DOE, underpinning the Paducah Project opportunity*
- *Preliminary economic analysis of the Paducah Project indicates that it would rank as a large 'Tier 1' uranium mine by today's standards with respect to the long-life and low cost of production.*
- *An agreement executed in December 2019 for the restructure of GLE will result in Silex owning 51% of GLE and Cameco Corp 49% - subject to US Government approval*
- *US Government approval is anticipated to be completed by the end of CY2020*

Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) is pleased to announce the execution of an amendment to the 2016 Sales Agreement between Global Laser Enrichment (GLE) and the US Department of Energy (DOE) involving changes to certain provisions and timelines which re-align the agreement to current market conditions. The execution of the amendment is one of the key conditions to proceeding to closing of the recently announced agreement between Silex, Cameco Corporation (Cameco) and GE-Hitachi Nuclear Energy (GEH) for the restructure of GLE, the exclusive licensee of the SILEX laser uranium enrichment technology.

The Paducah Project Opportunity:

The availability of the DOE's depleted UF₆ inventories is critical to the Paducah commercial project opportunity, which 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, representing a lower risk path to market for the Company and all stakeholders.

The opportunity would involve construction of GLE’s proposed ‘Paducah Laser Enrichment Facility’ (PLEF) utilising the SILEX technology to re-enrich large stockpiles of depleted tails inventories owned by the DOE. The original agreement between GLE and the DOE providing for the sale of the tails inventories was signed in 2016, at which time a recovery in the uranium market was expected to begin. The amendment ensures the agreement between the DOE and GLE remains in effect through to the anticipated recovery in the nuclear fuel markets, allowing GLE sufficient time to complete its project plan for the PLEF. Subject to completion of the technology commercialisation project, regulatory approvals and prevailing market conditions, it is anticipated the PLEF will commence commercial operations in the late 2020’s.

The tails re-enrichment project at the PLEF would continue over several decades, resulting in the production of natural grade uranium which could then be sold into the expanding global uranium market at a production rate of around 2,000 metric tons of natural uranium in the form of uranium hexafluoride (UF₆) per year. This is equivalent to a uranium mine producing an annual output of around 5.2 million pounds of uranium oxide, which would rank in the top ten of today’s uranium mines by production volume. In addition to uranium output, the PLEF will produce the added value of having already been converted into UF₆. The market value of conversion has increased over recent months with the spot price currently around US\$22 per kg of UF₆ produced. The uranium price has also improved recently and is currently around US\$34 per pound (UxC Nuclear Fuel Price Indicators, 1 June 2020). Preliminary economic analysis of the project indicates that it would rank as a large ‘Tier 1’ uranium mine by today’s standards with respect to the long-life and low cost of production.

In terms of the four steps of the nuclear fuel cycle shown in Figure 1 below, the PLEF project provides GLE with the opportunity to become a key global-scale supplier in the first three steps:

1. Uranium producer;
2. Conversion supplier; and
3. Enrichment supplier.

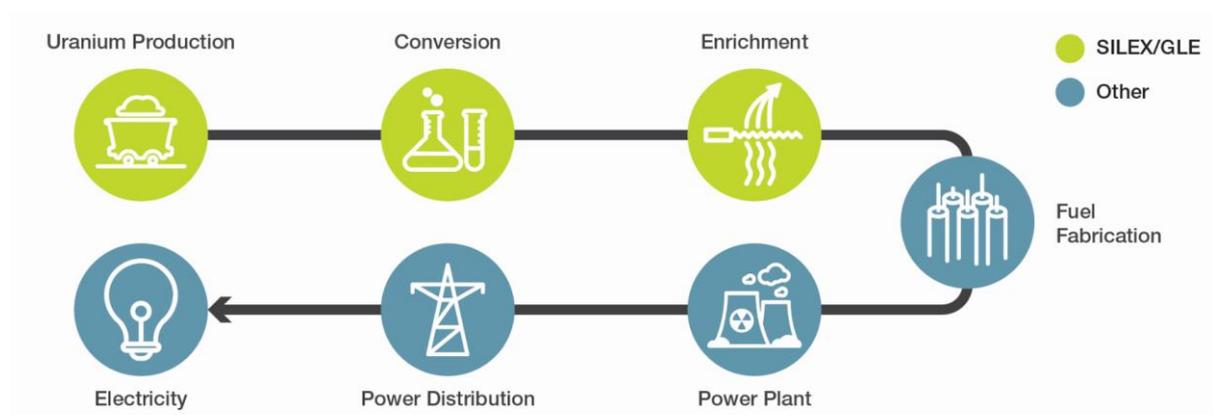


FIGURE 1: Nuclear Fuel Cycle

The GLE Restructure:

On 16 December 2019, Silex announced it had executed a binding Membership Interest Purchase Agreement (MIPA) between Silex, Cameco and GEH for the joint purchase of GEH's 76% interest in GLE. Closing of the Agreement, which remains subject to US Government approval and other factors, would result in Silex acquiring a 51% interest in GLE and Cameco increasing its interest from 24% to 49%.

The initial application for US Government approval of the transaction was submitted to the US Nuclear Regulatory Commission (NRC) in mid-February. The NRC recently advised GLE of the completion of its acceptance for review of GLE's application for approval of the GLE restructure. The US Government approval process is a multi-staged, multi-US Government agency process and involves several significant filings. US Government approval for the GLE restructure is anticipated to be received by the end of CY2020.

Authorised for release by the Silex Board of Directors.

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

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E investor.relations@silex.com.au***Forward Looking Statements and Business Risks:***

Silex Systems Limited (Silex) is a research and development company whose primary asset is the SILEX laser enrichment technology, originally developed at the Company's technology facility in Sydney, Australia. The SILEX technology was licensed exclusively in 2006 to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA for application to uranium enrichment. GLE has been undergoing a restructure for a number of years after GE-Hitachi disclosed it was seeking to exit the venture. In view of the time the GLE restructure has taken to date and the dependency of the Closing of the restructure on obtaining US Government approvals, combined with the continuing depressed nuclear fuel market conditions, plans for commercial deployment of the SILEX technology have been significantly delayed, and remain at risk.

Silex is also in the early stages of pursuing additional commercial applications of the SILEX technology, including the production of 'Zero-Spin Silicon' for the emerging technology of silicon-based quantum computing. The 'Zero-Spin Silicon' project remains dependent on the outcomes of the project and the viability of silicon quantum computing and is therefore at risk. The future of the SILEX technology is therefore highly uncertain and any plans for commercial deployment are speculative.

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 is also highly uncertain and remains subject to various technology and market risks.

The commercial potential of these 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 outcome of the GLE restructure including obtaining US Government approvals; the results of the SILEX uranium enrichment engineering development program; the market demand for natural uranium and enriched uranium; the outcome of the project for the production of 'Zero-Spin Silicon' for the emerging technology of silicon-based quantum computing; the potential development of, or competition from alternative 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 and projects undertaken by the Company.