# Silex Completes Acquisition of GLE

## 1 February 2021

**Highlights:**

- **Silex and Cameco Corporation have completed the restructure of SILEX technology licensee Global Laser Enrichment LLC (GLE) resulting in Silex acquiring a 51% majority interest in GLE, and Cameco increasing its interest from 24% to 49%;**
- **The path to market for GLE and the SILEX technology involves the establishment of the proposed Paducah Laser Enrichment Facility (PLEF), underpinned by the existing agreement between GLE and the US Department of Energy for the purchase of significant stockpiles of depleted uranium tails;**
- **Preliminary analysis by Silex of the PLEF project, which could potentially produce over 5 million pounds of natural grade uranium per year for several decades, indicates it could rank as a 'Tier 1' uranium resource based on estimates of the long-life and low cost of production;**
- **GLE will continue to assess other commercial opportunities, including additional capacity at the Paducah plant to produce low enriched uranium (LEU) for conventional nuclear plants and high assay fuel (HALEU) for next generation small modular reactors (SMRs); and**
- **GLE and Silex will continue to focus on the SILEX uranium enrichment technology demonstration project, with completion of a full-scale pilot plant program anticipated by the mid 2020's.**

Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) is pleased to announce the successful closure of the Membership Interest Purchase Agreement (MIPA) that was executed in December 2019 between Silex, Cameco Corporation (Cameco) and GE-Hitachi Nuclear Energy (GEH), for the joint acquisition of GE-Hitachi's 76% equity interest in GLE by Silex and Cameco. Silex now owns 51% of GLE and Cameco has increased its interest in GLE from 24% to 49%.

On 18 January 2021, Silex announced that the GLE restructure had obtained US Government approval and that the three parties were working to finalise the remaining conditions precedent under the MIPA and other transition arrangements. These conditions and arrangements have now been completed.



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Silex CEO and Managing Director, Dr Michael Goldsworthy, said: “The completion of this acquisition represents a significant achievement for Silex, giving us greater control over the commercialisation of the SILEX laser enrichment technology.

“This new ownership structure, together with the recently announced US Government approval, represents the start of an important new era for GLE and the SILEX technology, at a time when nuclear power is coming back into focus as a key source of zero-emissions base load electricity in an emissions constrained world.

“Silex will continue to focus on the well-defined commercialisation program which includes commencing the preliminary planning for the establishment of the first commercial plant planned for Paducah, Kentucky,” he added.

The MIPA provides for deferred payment for the acquisition in the form of four annual instalments of US$5 million (shared pro-rata by Silex and Cameco) which will be triggered the first year after GLE generates US$50 million in revenues. Further details regarding the MIPA and restructure can be found in prior releases.

Additionally, as new owners of GLE, Silex and Cameco have executed an amendment to the Amended and Restated Technology Commercialisation and License Agreement (first amended in 2013), in order to align it with the new GLE ownership and updated timelines. Key commercial terms of the technology license, including the royalty payable by GLE to Silex for commercial use of the SILEX technology (at least 7% of revenues in perpetuity) and the commercial milestones payable to Silex (totalling US$20 million) are unchanged.

Silex and Cameco have also executed several additional documents which provide terms for the governance of GLE and an option for Cameco to purchase an additional 26% interest in GLE, potentially taking its interest to 75% and Silex’s interest to 25%. This option can be exercised by Cameco from two years after MIPA closing (i.e. from 31 January 2023) up until the date 30 months after the technology is satisfactorily demonstrated at full commercial pilot scale (anticipated to be in the mid-2020’s). The option transaction will be based on a fair market valuation of GLE.

Following completion of the technology demonstration program, GLE will work towards commercialisation of the SILEX technology at the proposed Paducah Laser Enrichment Facility (PLEF) in Kentucky. The Paducah commercial opportunity is underpinned by the 2016 Sales Agreement between GLE and the US Department of Energy (DOE) which provides for the purchase of hundreds of thousands of tons of depleted $UF_6$ tails inventories owned by the DOE.

Subject to favourable uranium market conditions, the tails material could be enriched over several decades using the SILEX technology at the PLEF, resulting in the production of natural grade uranium which could then be sold into the global uranium market in the form of uranium hexafluoride ($UF_6$). The PLEF project would be 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. Preliminary economic analysis of the Paducah opportunity 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.

GLE will continue to assess several other commercial opportunities during the next few years. This may include additional capacity at the Paducah plant to enrich the natural grade output from the PLEF up to low enriched uranium (LEU) (i.e. from 0.7% U-235 to around 4% enriched) suitable for conventional nuclear power reactors, and for the production of high assay LEU (HALEU) (up to 20% enriched) for use in the emerging small modular reactor market in the future. These opportunities will be dependent on favourable market conditions and other factors at the time.

Cameco is releasing a parallel announcement regarding the GLE restructure which can be found through the Cameco website (cameco.com).

Further details regarding the GLE restructure and the Paducah opportunity have been provided in previous announcements to the ASX and in the Company's recent Annual reports.

***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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## *Forward Looking Statements and Risk Factors:*

**About Silex Systems Limited (ASX: SLX) (OTCQX: SILXY)**

Silex Systems Limited ABN 69 003 372 067 (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 has been under development for uranium enrichment jointly with US-based exclusive licensee Global Laser Enrichment LLC (GLE) for a number of years. Success of the SILEX uranium enrichment technology and the proposed Paducah commercial project remain subject to a number of factors including the satisfactory completion of the engineering scale-up program and uranium market conditions and therefore remains subject to associated risks.

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 uncertain and any plans for commercial deployment are speculative.

Additionally, Silex 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 for 5G mobile handset filter applications. The outcome of IQE's commercialisation program is also uncertain and remains subject to various technology and market risks.

**Forward Looking Statements**

The commercial potential of these technologies is currently unknown. Accordingly, no guarantees as to the future performance of these technologies can be made. The nature of the statements in this Announcement regarding the future of the SILEX technology, the cREO™ technology and any associated commercial prospects are forward-looking and are subject to a number of variables, including but not limited to, unknown risks, contingencies and assumptions which may be beyond the control of Silex, its directors and management. You should not place reliance on any forward-looking statements as actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors. Further, the forward-looking statements contained in this Announcement involve subjective judgement and analysis and are subject to change due to management's analysis of Silex's business, changes in industry patterns, and any new or unforeseen circumstances. The Company's management believes that there are reasonable grounds to make such statements as at the date of this Announcement. Silex does not intend, and is not obligated, to update the forward-looking statements except to the extent required by law or the ASX Listing Rules.

**Risk Factors**

Risk factors that could affect future results and commercial prospects of Silex include, but are not limited to: ongoing economic uncertainty including the impacts of the COVID-19 pandemic; 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.