GLE Achieves TRL-6 for the SILEX Laser Uranium Enrichment Technology

23 October 2025

Silex Systems Limited (**Silex** or the **Company**) (**ASX: SLX; OTCQX: SILXY**) is pleased to announce the conclusion of an independent, third-party validation of the SILEX laser-based uranium enrichment technology conducted by a leading Fortune 1000 technology provider in the national defence and global infrastructure markets. The independent review confirms that Global Laser Enrichment (**GLE**), the exclusive licensee of the SILEX uranium enrichment technology, has achieved TRL-6[1], following the completion of its large-scale enrichment demonstration program and endorses GLE's plans to proceed to detailed design with confidence.

GLE is the first company in the world to have demonstrated large-scale, third-generation laser-based enrichment technology under relevant operational conditions, that is, at TRL-6. The determination of the achievement of TRL-6 by the independent assessor follows an extensive testing program within GLE's fully integrated Test Loop enrichment facility in Wilmington, NC over six months.

Michael Goldsworthy, Silex's CEO/Managing Director said:
"We are thrilled to receive the independent assessment and validation that the SILEX laser-based uranium enrichment technology has achieved TRL-6, marking a major de-risking milestone in the commercialisation program for the SILEX technology. We are immensely proud of GLE, the only company in the world to have demonstrated large-scale, third-generation laser-based enrichment technology at TRL-6 status.

We thank the GLE and Silex teams, and our joint venture partner Cameco, for the significant efforts that have gone into achieving this seminal milestone. At a personal level, I am incredibly proud of what the Silex and GLE teams have achieved and look forward to continuing our efforts toward commercial deployment."

With TRL-6 validation in hand, GLE will now turn its attention to full-scale detailed design and disciplined deployment of the Paducah Laser Enrichment Facility (**PLEF**) in Paducah, Kentucky. Activities over the next year include a focus on preliminary deployment activities, including manufacturing readiness (MRL[2]) and establishing a US domestic manufacturing base and supply chain to support deployment of the SILEX technology for US domestic enrichment capacity.

[1] Technology Readiness Level 6 (TRL-6), as defined by DOE Technology Readiness Assessment Guide (G 413.3-4A)
[2] MRL: Manufacturing Readiness Level (DOD Guide at dodmrl.com/MRL_Definitions_2010.pdf)

GLE's commercialisation program is backed by over US$550 million in privately funded engineering, design, manufacturing, and licensing activities across North Carolina and Kentucky. GLE's planned PLEF in Kentucky, is the only new enrichment facility currently under licence application review by the Nuclear Regulatory Commission (**NRC**). The PLEF, if commissioned, is expected to re-enrich over 200,000 metric tonnes of high-assay depleted uranium tails acquired from the US Department of Energy and produce up to 6 million separative work units (**SWU**) of LEU annually, delivering a unique single-site solution for domestic US production of uranium, conversion and enrichment.

Subject to various factors, including industry and government support, a feasibility assessment for the PLEF, and supportive market conditions, the SILEX uranium enrichment technology could become a major contributor to nuclear fuel production for the world's current and future nuclear reactor fleet, through the production of uranium in several different forms, including natural grade uranium as UF_6, low enriched uranium (**LEU**) and LEU+, and high-assay LEU (**HALEU**) for next-generation advanced reactors, including small modular reactors.

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:

Michael Goldsworthy
CEO/Managing Director
T +61 2 9704 8888
E investor.relations@silex.com.au

Julie Russell
CFO/Company Secretary
T +61 2 9704 8888
E investor.relations@silex.com.au

Important Information:

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

Silex Systems Limited ABN 69 003 372 067 (**Silex** or **Company**) is a technology commercialisation company, the primary asset of which is the SILEX laser enrichment technology (**SILEX 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 development program and the proposed Paducah commercial project remain subject to a number of factors, including the satisfactory completion of the SILEX technology maturation program, nuclear fuel market conditions, industry and government support, project feasibility, and commercial plant licensing, and, therefore, remains subject to associated risks.

Silex also is at various stages of development of additional commercial applications of the SILEX technology, including the production of 'Quantum Silicon' (**Q-Si**) for the emerging technology of silicon-based quantum computing. The Q-Si Project remains dependent on the outcomes of the Project, as well as the successful development of silicon-based quantum computing technology by third parties, and is, therefore, subject to various risks. Silex also is conducting early-stage research activities in its Medical Isotope Separation Technology (**MIST**) Project, which also is subject to various risks and outcomes. The commercial future of the SILEX technology in application to uranium, silicon, medical, and other isotopes therefore is uncertain, and any plans for commercial deployment are speculative.

Forward Looking Statements

The commercial potential of the abovementioned technologies and activities 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 as applied to uranium enrichment, Q-Si production, medical and other isotope separation projects, and any associated commercial prospects, including technology maturation activities and other commercialisation milestones at GLE, are forward-looking and are subject to a number of variables, including, but not limited to, known and unknown risks, contingencies, and assumptions that 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 disclosure involve subjective judgement and analysis and, accordingly, are subject to: change at any time due to variations in the outlook for, and management of, Silex's business activities (including project outcomes); changes in industry trends and government policies; and new or unforeseen circumstances. The Company's management believes that there are reasonable grounds to make such statements as at the date of this disclosure. 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. None of Silex, its related companies, or any of their respective officers, directors, employees, affiliates, partners, representatives, consultants, agents, or advisers makes any representation or warranty as to the accuracy of any forward-looking statements contained in this Announcement.

Not Advice

Information in this Announcement, including forecast financial information, should not be considered as investment, legal, tax, or other advice. You should make your own assessment and seek independent professional advice in connection with any investment decision.

Risk Factors

Risk factors that could affect the future results and commercial prospects of Silex include, but are not limited to: ongoing economic and social uncertainty, including in relation to global economic stresses, such as interest rates; inflation; tariffs (including tariffs imposed by the United States); geopolitical risks, in particular, those relating to Russia's invasion of Ukraine and tensions between China and Taiwan, which may affect global supply chains and capital markets; uncertainties related to the effects of climate change and mitigation efforts; the results of the GLE/SILEX uranium enrichment technology maturation program; the market demand for natural uranium and enriched uranium; the outcome of the Q-Si Project for the production of enriched silicon for the emerging silicon-based quantum computing industry; the outcome of the MIST Project; the potential development of, or competition from, alternative technologies; the regulatory changes and evolving eligibility criteria under the US *Inflation Reduction Act* (2022) and the *Nuclear Fuel Security Act* (2023) 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 US, Australia, or elsewhere; actions taken by the Company's commercialisation partners and other stakeholders that could adversely affect the technology development programs and commercialisation strategies of Silex; and the outcomes of various strategies and projects undertaken by the Company.