GLE Submits Full US NRC Licence Application for the Planned Paducah Laser Enrichment Facility

2 July 2025

Silex Systems Limited (**Silex**) (**ASX:SLX; OTCQX:SILXY**) is pleased to announce that Global Laser Enrichment (**GLE**), the exclusive licensee of the SILEX uranium enrichment technology, has submitted its Safety Analysis Report (**SAR**) to the US Nuclear Regulatory Commission (**NRC**), marking a significant milestone for the Paducah Laser Enrichment Facility (**PLEF**), planned to be established in Paducah, Western Kentucky. This follows GLE's December 2024 submission of the Environmental Report, now completing GLE's full licence application for NRC review.

The SAR provides a comprehensive evaluation of the PLEF's safety measures, operational protocols, and risk mitigation strategies, ensuring compliance with the NRC's stringent regulatory standards for nuclear safety and security. GLE is seeking a licence for the PLEF to re-enrich depleted uranium tails from legacy Department of Energy (**DOE**) gaseous diffusion plant operations to provide a new source of domestic uranium, conversion, and enrichment production. GLE remains on track to begin re-enriching the DOE's Paducah inventory of depleted uranium tails no later than 2030.

From Left to Right: **Stephen Long** (GLE: Chief Executive Officer), **Scott Steuer** (GLE: Project Director), **Jesus Diaz-Quiroz** (GLE: ISA Manager), **Nima Ashkeboussi** (GLE: VP Government Relations and Communications), **Timothy Knowles** (GLE: Licensing & Regulatory Affairs Manager), **Matt Bartlett** (NRC: Sr. Project Manager, Fuel Cycle Licensing Branch), **Samantha Lav** (NRC: Chief, Fuel Cycle Licensing Branch), **Robert Sun** (NRC: Environmental Project Management Branch 2), **Shana Helton** (NRC: Director, Division of Fuel Management), **Andrea Kock** (NRC: Acting Officer Director, Nuclear Material Safety and Safeguards), and **Kimyata Morgan-Butler** (NRC: Acting Director, Division of Rulemaking, Environmental and Financial Support)

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Michael Goldsworthy, Silex's CEO/Managing Director said:

"GLE's submittal of its Safety Analysis Report represents a major milestone in the commercialisation of the SILEX technology, which will culminate in the establishment of the planned PLEF. We commend the GLE team for their excellent efforts in the submission of the full licence application ahead of the original schedule, and look forward to an expeditious review by the NRC."

GLE is the first in line with the NRC to seek a licence for a new uranium enrichment facility in the US. The PLEF licensing effort builds upon GLE's 2012 NRC approved licence for a commercial-scale laser enrichment facility in Wilmington, NC, which did not proceed due to poor market conditions at the time. GLE anticipates an accelerated licensing timeline for the PLEF given the NRC's prior approval and GLE's well-characterised site. In 2024, GLE acquired ~665 acres adjacent to the former Paducah Gaseous Diffusion Plant for construction of the planned PLEF. The PLEF is the only potential single-site solution for US-based uranium, conversion, and enrichment production.

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:

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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** 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 TRL-6 pilot demonstration program, nuclear fuel market conditions, industry and government support, project feasibility and commercial plant licensing, and therefore remains subject to associated risks.

Silex is also at various stages of development of additional commercial applications of the SILEX technology, including the production of 'Quantum Silicon' for the emerging technology of silicon-based quantum computing. The 'Quantum Silicon' project remains dependent on the outcomes of the project, as well as the successful development of silicon quantum computing technology by third parties, and is therefore subject to various risks. Silex is also conducting early-stage research activities in its Medical Isotope Separation Technology (**MIST**) Project, which is also subject to various risks and outcomes. The commercial future of the SILEX technology in application to uranium, silicon, medical and other isotopes is therefore 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, Quantum Silicon production, medical and other isotope separation projects, and any associated commercial prospects, including TRL-6 achievement 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.

Risk Factors

Risk factors that could affect 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; geopolitical risks, in particular relating to Russia's invasion of Ukraine and tensions between China and Taiwan, which may affect global supply chains; uncertainties related to the effects of climate change and mitigation efforts; the results of the GLE/SILEX uranium enrichment pilot demonstration (**TRL-6**) program; the market demand for natural uranium and enriched uranium; the outcome of the project for the production of Quantum Silicon for the emerging technology of silicon-based quantum computing; the outcome of the MIST program; 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 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; and the outcomes of various strategies and projects undertaken by the Company.