



Silex
Systems Limited

GLE Executes Option Agreement to Acquire Land for Planned Paducah Laser Enrichment Facility

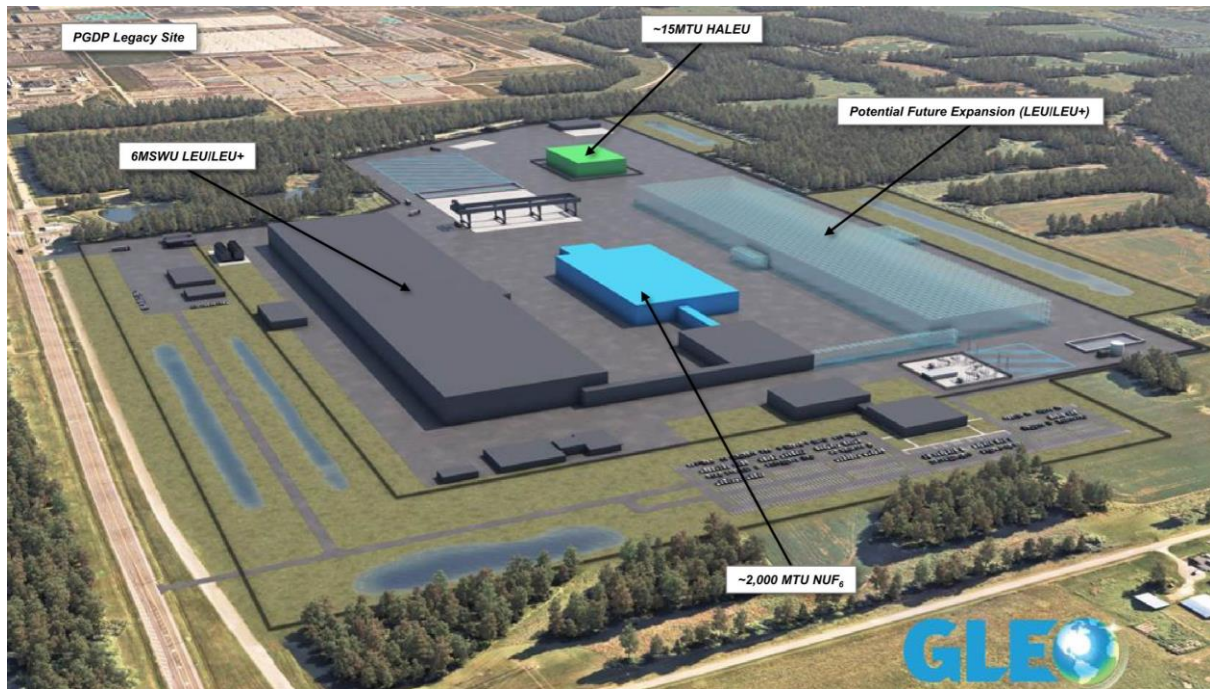
4 June 2024

Silex Systems Limited (Silex, the Company) (ASX: SLX; OTCQX: SILXY) is pleased to advise that Global Laser Enrichment LLC (GLE), the exclusive licensee of the third-generation laser-based SILEX uranium enrichment technology, has entered into a set of agreements that provides it with an option to purchase a land parcel for the planned Paducah Laser Enrichment Facility (PLEF), in Kentucky. The option expires in late 2024, at which time it is anticipated that several pre-conditions will have been met in order to proceed with the purchase of the land.

The land is strategically located adjacent to the U.S. Department of Energy's (DOE) former first-generation Paducah Gaseous Diffusion Plant (PGDP) which was shut down in 2013 after decades of operations. As a result of these operations, significant quantities of legacy depleted tails inventories were generated and remain in storage at the PGDP site (refer to conceptual picture following). GLE's PLEF project opportunities are underpinned by the 2016 agreement between GLE and the DOE, which provides for the acquisition of over 200,000 metric tonnes of depleted tails. GLE plans to use this material as feedstock for the production of natural grade uranium hexafluoride (UF₆) over three decades, at an expected production rate equivalent to a uranium mine with an annual output of up to 5 million pounds of uranium oxide, which would rank in the top 10 of today's uranium mines by production volume.

Subject to the successful completion of the TRL-6 pilot demonstration project, industry and government support, a feasibility assessment for the PLEF, suitable market conditions, and other factors, the SILEX technology could enable GLE to develop the planned PLEF project and become a key supplier of natural UF₆, low-enriched uranium (LEU), and high-assay LEU (HALEU).

The terms of the option agreement and potential land purchase are confidential. However, the agreed purchase price is in line with comparable sites in Western Kentucky and is included in the previously disclosed CY2024 budget for GLE (refer ASX announcement 19 February 2024). Silex's 51% contribution to the purchase price is not material to the Company.



Source: GLE | Planned PLEF site adjacent to PGDP – under option (conceptual)

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 technology commercialisation 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 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 research activities in its Medical Isotope Separation Technology (MIST) Project, which is early-stage and subject to numerous risks. 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.

Additionally, Silex has an interest in a unique semiconductor technology known as 'cREO®' through its 100% ownership of subsidiary Translucent Inc. The cREO® technology developed by Translucent has been acquired by IQE Plc based in the UK. IQE has paused the development of the cREO® technology until a commercial opportunity arises. The future of IQE's development program for cREO® is very uncertain and remains subject to various technology and market risks.

Forward Looking Statements

The commercial potential of the abovementioned 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 as applied to uranium enrichment, Quantum Silicon production, medical and other isotope separation projects, 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 (including project outcomes), changes in industry trends, government policies 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 and social uncertainty, including in relation to global economic stresses such as interest rates and inflation; geopolitical risks, in particular relating to Russia's invasion of Ukraine and tensions between China and Taiwan which may impact 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 USA, Australia or elsewhere; whether IQE's commercialisation program for cREO® is resumed, the results from the program and the market opportunities for cREO® products; 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.