# GLE Submits Response to US DOE Request for Information on HALEU Availability Program

## 15 February 2022

Silex Systems Limited (Silex) (ASX: SLX; OTCQX: SILXY) announced today the submission of a written response by Global Laser Enrichment (GLE) to the US Department of Energy (DOE) regarding its Request for Information (RFI) for the proposed HALEU Availability Program.

GLE is the exclusive licensee of the SILEX technology for uranium enrichment, which is in principle capable of producing different grades of nuclear fuels, including High Assay Low Enriched Uranium (HALEU) required for next-generation advanced and small modular reactors. GLE is a 51% / 49% jointly-controlled, joint venture between Silex and global uranium and nuclear fuel provider Cameco Corporation.

The RFI for the HALEU Availability Program was posted in the Federal Register in December 2021, in response to growing concerns regarding the HALEU fuel supply chain needed to support the development and commercial deployment of advanced reactors in the US and around the world. There is currently no source of readily available HALEU fuel, apart from limited supplies from Russia. The HALEU RFI specifically addresses the lack of US domestic HALEU production capacity, which is regarded as an obstacle to the development and deployment of advanced reactors for commercial applications in the US.

The information gathered in response to the RFI will be considered by the DOE in planning for the HALEU Availability Program, which may then lead to the issuance of a Request for Proposals (RFP). Under the Energy Act of 2020, the DOE is directed to establish a HALEU consortium to partner the DOE to support the availability of HALEU for commercial use.

The ability of the SILEX technology to efficiently address various grades of enriched nuclear fuel in small to large quantities is a key differentiator between the third generation SILEX laser-based uranium enrichment technology and competing second generation centrifuge technology. LEU is uranium enriched up to 5% (in the uranium-235 isotope). LEU+, with enriched uranium between 5% and 10%, is a newer grade of fuel currently being considered by various nuclear utilities around the world for improved economic performance of conventional nuclear power reactors. HALEU is an entirely new grade of fuel with enrichment up to 20%, being developed for next-generation advanced and small modular reactors which are expected to enter the market commercially from the early 2030's.



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Through its exclusive license of the SILEX uranium enrichment technology, GLE intends to assess the business case for all of these potential applications, in addition to the Paducah tails enrichment opportunity which would produce natural grade uranium from depleted tails inventories under a 2016 agreement between GLE and the US DOE.

***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 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 development program 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 subject to various risks. The commercial 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 100% 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 SILEX technology as applied to uranium enrichment and Zero-Spin Silicon production, 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 are strongly cautioned not to place reliance on any forward-looking statements, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by COVID-19 and other economic risk factors, 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 trends, government policies and any new or unforeseen circumstances. The statements expressed herein do not necessarily reflect the views of the Company's various commercialisation partners and stakeholders. The Company's management believes that there are reasonable grounds to make such statements. Actual operations, results, performance, targets or achievement may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based.

Except as required by law or regulation (including the ASX Listing Rules and OTCQX Rules for U.S. Companies), Silex does not intend, and is not obligated, to update the forward-looking statements and Silex disclaims any obligation or undertaking to update forward-looking statements in this Announcement to reflect any changes in expectations.

No representation, warranty or assurance (express or implied) is given or made in relation to any forward-looking statement by any person (including the Company or any of its advisers). In particular, no representation, warranty or assurance (express or implied) is given that the occurrence of the events expressed or implied in any forward-looking statements in this Announcement will actually occur.

**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 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; decisions made or actions taken by the Company's commercialisation partners that could adversely affect the technology development programs; and the outcomes of various strategies and projects undertaken by the Company.