

The US Department of Energy and GLE (Licensee for the SILEX Technology) reach agreement for the sale and purchase of depleted uranium hexafluoride

Opens pathway for the first commercial SILEX laser enrichment plant in Paducah, Kentucky

11 November 2016

Highlights:

- An agreement between the US Department of Energy (DOE) and Global Laser Enrichment (GLE) – licensee of the SILEX technology - has been signed for the sale and purchase of depleted uranium hexafluoride (DUF₆);
- DOE approval provides for the sale and purchase of approximately 300,000 metric tons uranium (MTU) of DOE-owned high assay tails inventories for re-enrichment with the SILEX technology to produce natural grade uranium;
- This pivotal event in the commercialisation of the SILEX technology paves the way for the potential construction of the first laser enrichment facility in Paducah, Kentucky;
- The restructure of GLE, being led by Silex, continues to progress positively with a number of potential investors currently undertaking due diligence activities.

Silex Systems Limited (ASX: SLX) (OTCQX: SILXY) (Silex) announced today that an agreement has been signed between the US Department of Energy (DOE) and the exclusive licensee for the SILEX laser-based enrichment technology, GE-Hitachi Global Laser Enrichment LLC (GLE). The agreement, which facilitates the sale of approximately 300,000 MTU of 'high assay' DUF₆ to GLE, follows the DOE's selection in 2013 of GLE's proposal to construct a SILEX laser enrichment facility in Paducah, Kentucky, to re-enrich the tails inventories.

“The finalisation of the agreement with the DOE is a pivotal step in the path to commercialisation for our unique third generation SILEX laser enrichment technology. We wish to thank federal, state and local partners, including the DOE, the state of Kentucky and the city of Paducah for supporting this opportunity”, Dr Michael Goldsworthy, Silex CEO said today.

“We look forward to working with the many stakeholders involved to make this opportunity become a commercial reality over the next few years. In particular, we are enthusiastic about engaging with the local Paducah and Kentucky workforces to bring our cutting edge laser enrichment technology to the traditional heartland of the US enrichment industry, and helping to restore US leadership in nuclear technology”.

Subject to timely completion of the technology commercialisation program, prevailing market conditions and receipt of required regulatory approvals, realization of GLE’s proposed Paducah Laser Enrichment Facility (PLEF) would see the construction and operation of the world’s first commercial laser enrichment facility, with the anticipated timing for the construction of the PLEF in the early 2020’s. GLE would finance, construct, own and operate the PLEF adjacent to the existing DOE site. Silex and GLE are also investigating the possibility of utilising a US government loan guarantee facility to support the financing of the project. The PLEF would become a commercial uranium enrichment production facility under a US Nuclear Regulatory Commission (NRC) license.

Re-enrichment of the 300,000 tons of high assay tails inventories at PLEF would occur over a period of at least 40 years, producing in the order of 100,000 tons of natural grade uranium, with the balance (low assay tails) being returned to the DOE for disposition. The natural grade uranium produced at the PLEF would be sold into the expanding global uranium market, and depending on the production rate, would be equivalent to one of the world’s largest uranium mines.

The PLEF production rate and subsequent sale of uranium into the market is likely to be regulated by the US government at around 2,000 metric tons of uranium per year (equivalent to a mine producing around 5 million pounds of uranium oxide), equating to approximately US\$200 million in sales of uranium per year at today’s low uranium term prices.

Given the current state of the enrichment market, the PLEF opportunity provides an alternative path to market for the SILEX laser enrichment technology, and establishes a foundation for further expansion by GLE into the enrichment market when new capacity is needed to supply future increasing demand. As previously disclosed, in 2012 GLE obtained a combined construction and operating license from the US NRC for an enrichment plant of up to 6 million separative work units (SWU – the unit for enrichment) planned for Wilmington, North Carolina. The current annual demand for enrichment is around 50 million SWU, equivalent to approximately US\$3 billion at today’s current low SWU term prices.

The US DOE has made a parallel announcement regarding the agreement. The DOE announcement, including comments by Secretary of Energy Dr Ernest Moniz, can be found on the home page of the DOE website (energy.gov) under the ‘News’ section.

GLE Restructure Update

On 29 April 2016, Silex signed a term sheet with GE-Hitachi Nuclear Energy (GEH) securing an exclusive option to acquire GEH's 76% interest in GLE, following GEH's disclosure that they are looking to exit GLE. The term sheet also provides Silex the right to assign in part or in whole the acquisition terms to third parties.

Accordingly, Silex has taken the lead in the search for new investors for GLE to support the completion of the commercialisation, and transition to market, of the SILEX technology. Discussions continue with several potential strategic investors, including a number of parties currently engaged in due diligence activities.

In addition to leading the efforts to restructure GLE, the primary focus of Silex remains on supporting the continued development and commercialisation of the SILEX technology at both the Wilmington, North Carolina and Sydney, Australia sites, and on maintaining operations at the GLE Test Loop facility with the talented and dedicated engineering team, through the GLE restructure.

Further information on the Company's activities can be found on the Silex website: www.silex.com.au or by calling +61 2 9704 8888.

Forward Looking Statements and Business Risks:

Silex Systems is a research and development Company whose primary asset is the SILEX laser uranium enrichment technology, originally developed at the Company's technology facility in Sydney, Australia. The SILEX technology, licensed exclusively to GE-Hitachi Global Laser Enrichment LLC (GLE) in the USA, is currently in the engineering development stage and plans for commercial deployment remain distant and high risk.

The commercial potential of the SILEX technology is currently unknown. Accordingly, the statements in this announcement regarding the future of the SILEX technology and any associated commercial prospects are forward looking and actual results could be materially different from those expressed or implied by such forward looking statements as a result of various risk factors.

Some risk factors that could affect future results and commercial prospects include, but are not limited to: the outcome of the GLE restructure which the Company is leading, results from the SILEX uranium enrichment engineering development program being conducted jointly by the Company and GLE; the demand for natural uranium and enriched uranium; the time taken to develop the SILEX technology; the potential development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property; the potential impact of government regulations or policies in the USA, Australia or elsewhere; and the outcomes of various commercialisation strategies undertaken by the Company and/or its Licensee GLE.