Investor Presentation

26 July 2023

Silex Systems Limited (Silex) (ASX: SLX) (OTCQX: SILXY) is providing the attached presentation to support upcoming Investor Relations activities, including a presentation by Dr Michael Goldsworthy, Silex CEO to Canaccord today. Dr Goldsworthy will be accompanied today by Jonathan Hinze, President, UxC, one of the nuclear industry's leading market research and analysis companies.

The presentation provides highlights associated with the SILEX laser-based uranium enrichment technology currently being commercialised for uranium enrichment, in conjunction with exclusive licensee, Global Laser Enrichment LLC (GLE).

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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Silex Systems Limited

Investor Presentation

(ASX: SLX) (OTCQX: SILXY)

Dr Michael Goldsworthy
CEO/Managing Director

26 July 2023

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 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 nuclear fuel market conditions 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 '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 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 Company's 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 Presentation regarding the future of the Company's technologies 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 current economic conditions and the significant volatility and uncertainty associated with climate change, geopolitical and other 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 Presentation 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 Company's management believes that there are reasonable grounds to make such statements as at the date of this Presentation. 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 US 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 Presentation 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 Presentation 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; geopolitical risks, in particular relating to Russia's invasion of Ukraine and tensions between China and Taiwan which may impact global supply chains among other risks; uncertainties related to the effects of climate change and mitigation efforts; the results of the GLE/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 outcome of the Medical Isotope Separation Technology 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.

Our Mission: to commercialise the unique SILEX laser enrichment technology for application to:

92
U
Uranium
238.03

Uranium production and enrichment
(nuclear power)

14
Si
Silicon
28.0855

Silicon enrichment
(silicon quantum computing)

Other potential markets
(e.g. medical isotopes)

Our strategy is focused on extracting maximum value from our core SILEX technology and expertise

Investment Focus – Strong ESG Credentials

Investment in three key growth industries with strong ESG credentials:

1) Nuclear Power for Clean Energy – potential to support Net-Zero 2050 targets with carbon-free electricity production
2) Next Generation Quantum Computing – expected to help solve global social and environmental issues
3) Advanced Nuclear Medicine Isotopes – potential to support front line cancer diagnostics and treatments

The SILEX technology offers investors potential exposure to several growth markets:

Uranium and nuclear fuel (via 51% ownership of GLE):

- Fueling carbon-free electricity generation for the world's emergent clean energy needs
- Potential production of nuclear fuel in the form of natural UF_6 and enriched UF_6 (as LEU, LEU+ and HALEU)

Zero-Spin Silicon (via 100% owned internal development project):

- Potential production of Zero-Spin Silicon (ZS-Si) – key enabling material for silicon quantum computing
- Quantum computing – a strategic technology – will drive new frontiers in AI, medicine, cybersecurity etc

Medical Isotopes (via 100% owned internal development project):

- Enriched Ytterbium (Yb-176) can potentially provide a new low-cost path to production of Lutetium-177 to diagnose and treat many metastatic cancers – could revolutionise nuclear medicine

Focus on Commercialisation

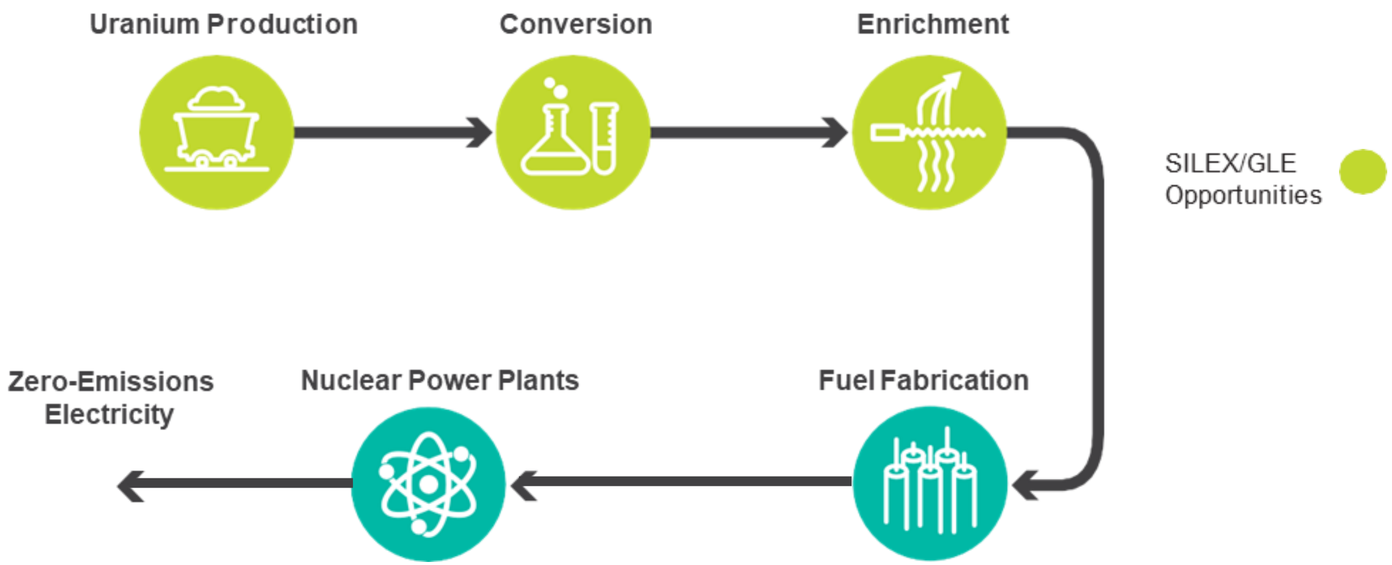
Uranium production and enrichment
(nuclear power)

- SILEX uranium technology licencee Global Laser Enrichment (GLE) is actively progressing towards commercialisation
- US-based GLE under JV ownership since 2021: 51% by Silex and 49% by Cameco Corporation (Cameco)
- Cameco is one of the world's leading uranium producers and nuclear fuel suppliers
- GLE has unique potential to address the '*Triple Opportunity*' emerging in the global nuclear fuel supply chain with the potential production of nuclear fuel in the form of:

1. *Natural UF_6*
2. *Low Enriched Uranium (LEU, LEU+)*
3. *High Assay LEU (HALEU)*

Nuclear Fuel Supply and Emerging Threats

The Nuclear Fuel Supply Chain



Emerging Threats to the Global Nuclear Fuel Supply Chain:

- Supply chain risks exposed by over-dependence on Russian-sourced nuclear fuel
- Western supply – curtailments and under-investment in resources and production capability
- Conversion services – only 3 Western suppliers (Cameco, Orano, Converdyn) excluding Russia
- Enrichment services – only 2 Western suppliers (Urenco, Orano) excluding Russia
- HALEU fuel for SMRs – no Western-based suppliers – developers were relying on Russian HALEU

US and EU Nuclear Fuel Requirements Supplied by Russia

	Russian Share of Global Production Capacity[1]	EU Nuclear Fuel Supplied by Russia[2]	US Nuclear Fuel Supplied by Russia[1,3]
Uranium (U_3O_8)	~14%	~20%	~14%
Conversion	~27%	~25%	~18%
Enrichment (SWU)	~45%	~31%	~24%

1. WNA and UxC, various sources 2023
2. Euratom Supply Agency Annual Report 2021
3. EIA, 2022 Uranium Marketing Annual Report, June 2023

- Major concerns regarding Western reliance on Russia for supply of nuclear fuel
- US is the largest market for nuclear fuel with ~25% of world's nuclear reactor fleet
- Open market^ currently accounts for ~65% of global enriched uranium demand

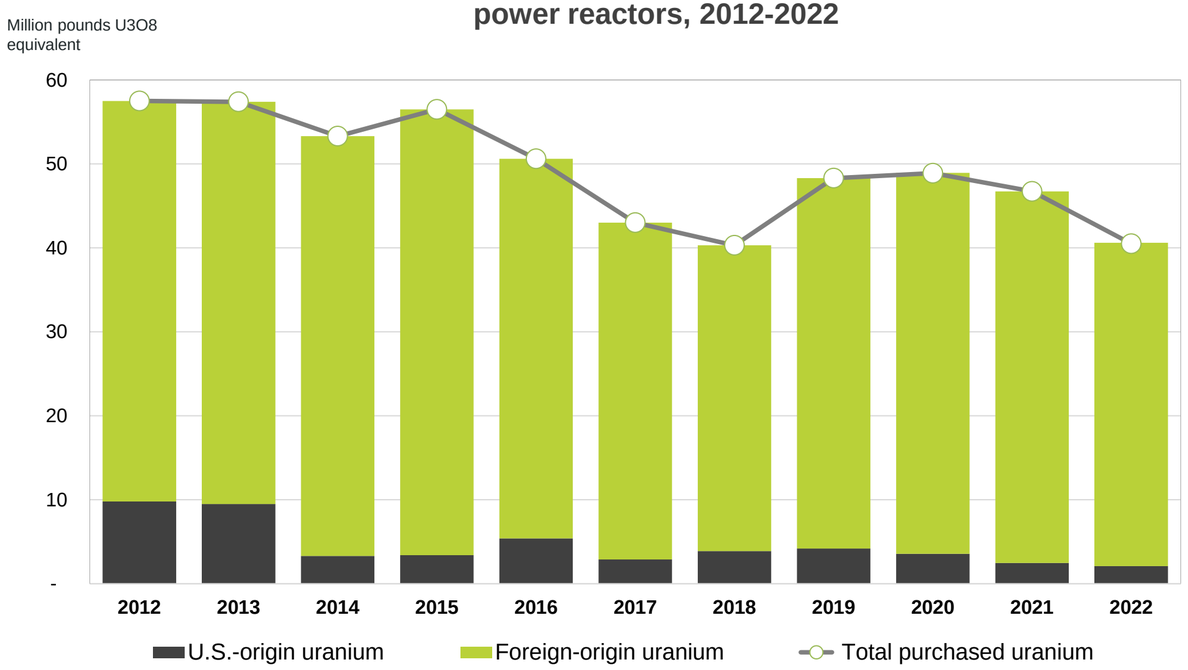
^Open market consists of North America, Europe, Northeast Asia, and various other parts of the world

US Uranium and Enrichment Vulnerability

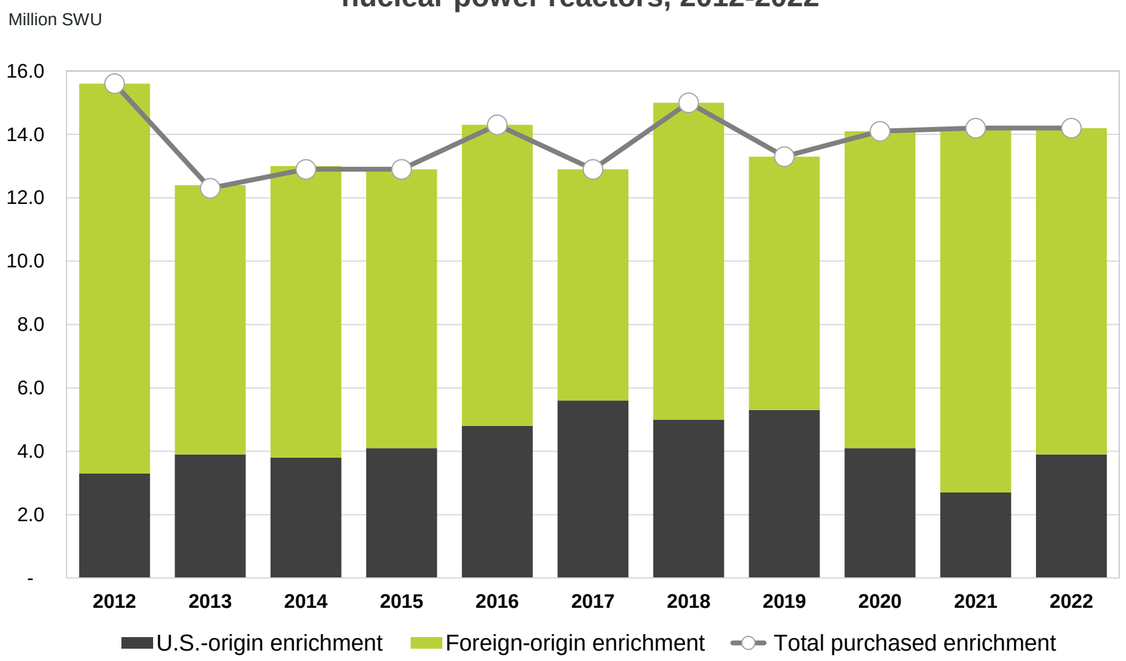
US currently imports the vast majority of its nuclear fuel:

- 95% of its uranium requirements (including ~14% from Russia)
- 100% of its conversion requirements (including ~18% from Russia)
- 70% of its enriched uranium requirements (including ~24% from Russia)

Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 2012-2022

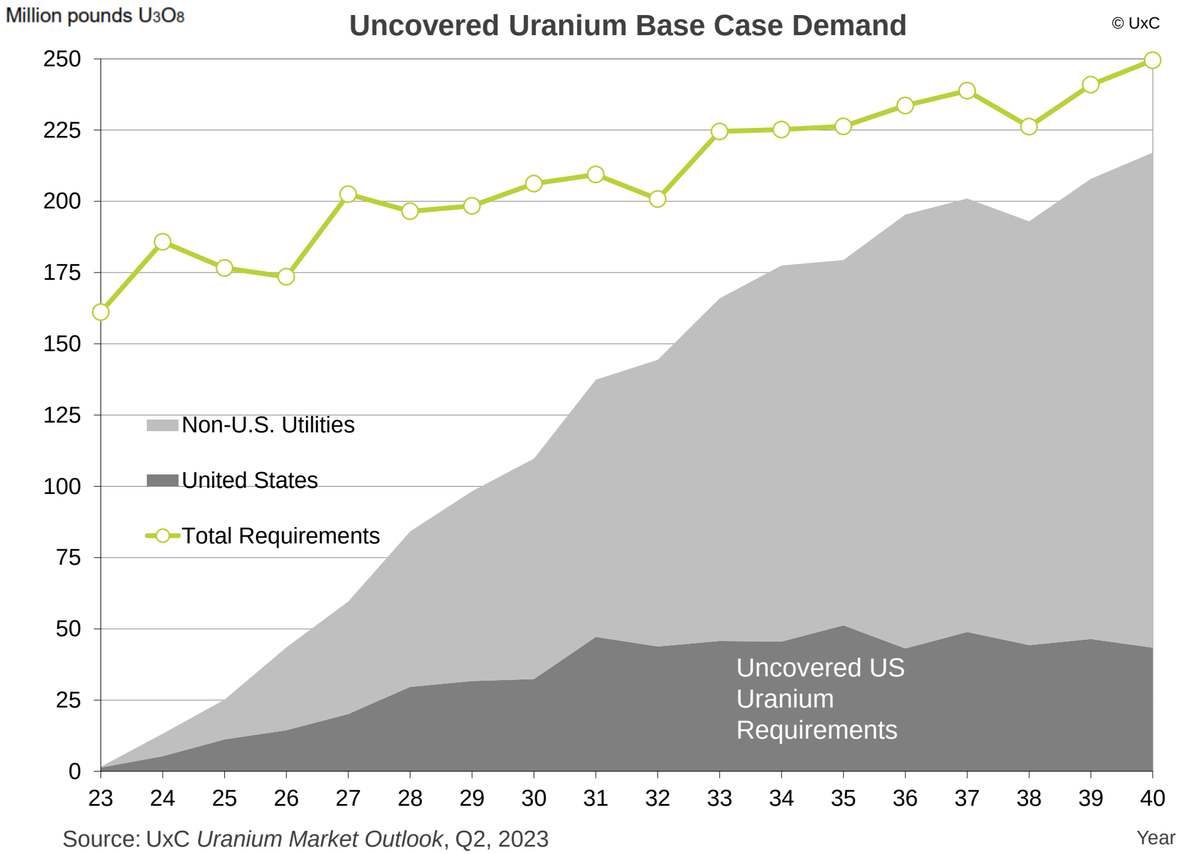


Enrichment purchased by owners and operators of U.S. civilian nuclear power reactors, 2012-2022

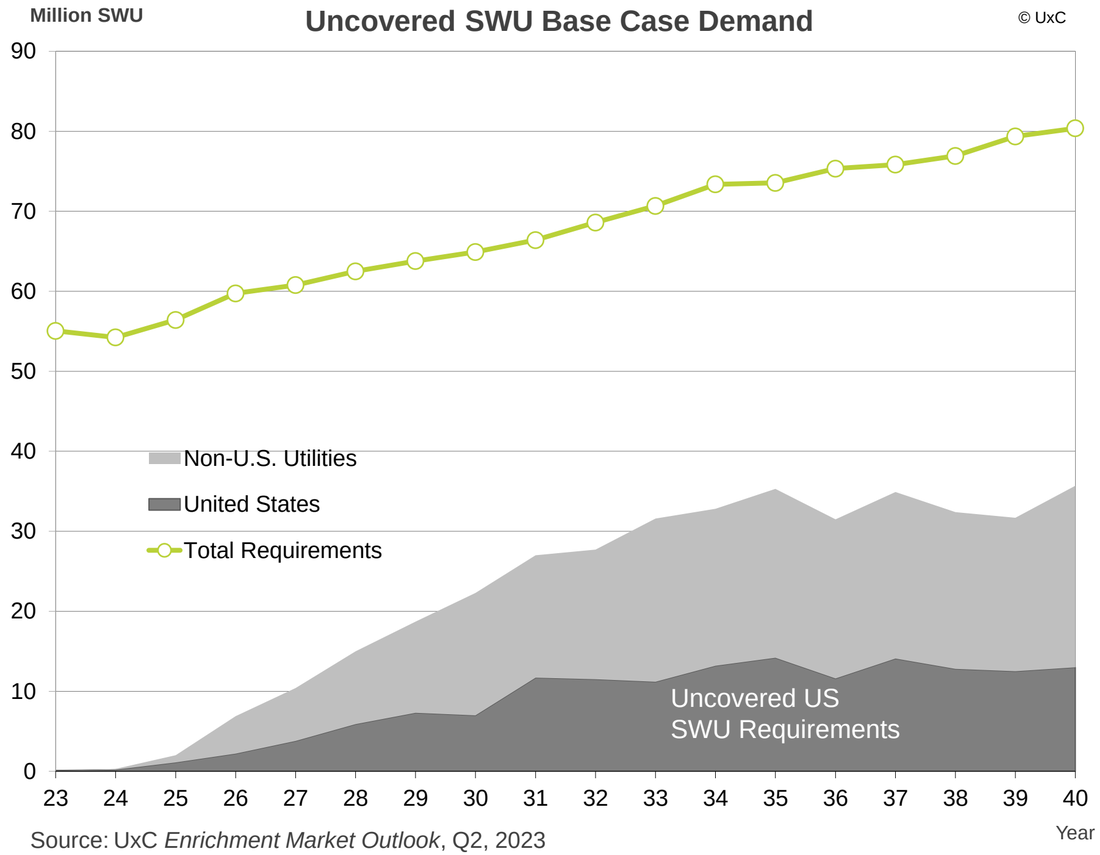


Source: US EIA Report – 2022 *Uranium Marketing Annual Report*, June 2023

Emerging Nuclear Fuel Supply Opportunities for GLE



Source: UxC *Uranium Market Outlook*, Q2, 2023

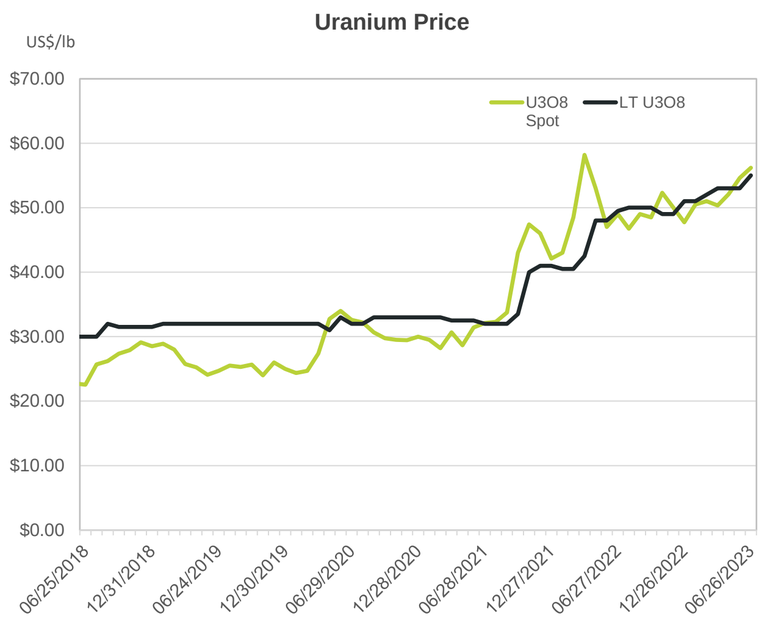


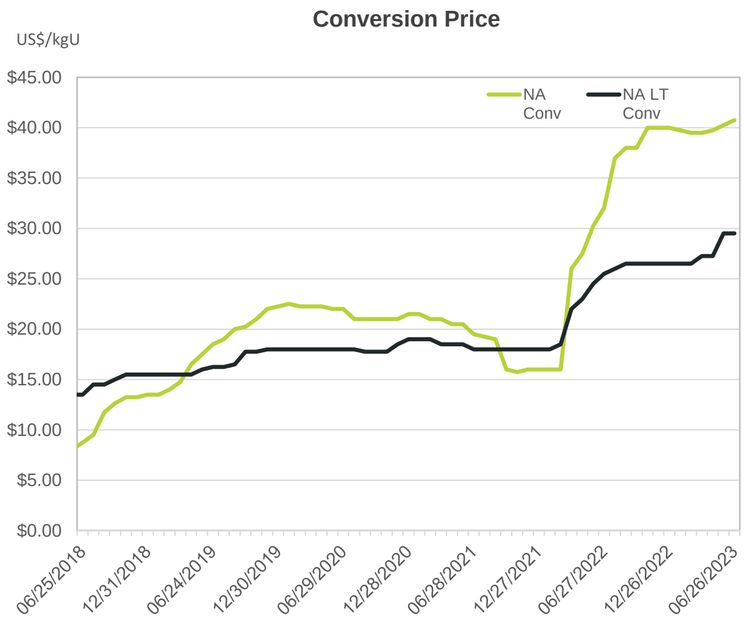
Source: UxC *Enrichment Market Outlook*, Q2, 2023

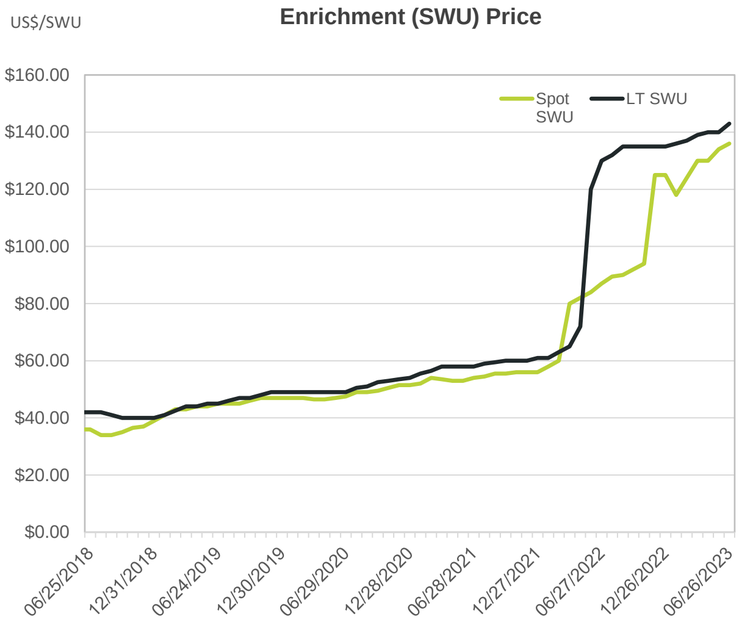
- Forecast uncovered ***US Uranium demand*** from 2027/28 is in excess of ~25 million lbs
- Forecast uncovered ***US SWU demand*** from 2027/28 is in excess of 5 million SWU

Significant nuclear fuel opportunities for GLE extend from the mid-2020s

Recent Nuclear Fuel Market Price Trends







Source: UxC

- Global nuclear fuel markets are pricing in the impact of a bifurcating market precipitated by looming Russian fuel sanctions
- According to UxC, Uranium spot price has increased by ~140% from ~US$23/lb (2018) to ~US$56/lb (June 2023)
- Conversion term prices have increased ~120% over the same period to ~US$30/kg
- Enrichment term prices have increased ~260% over the same period to ~US$146/SWU

Acceleration of GLE's CY2023 Activities for SILEX technology

GLE has unique potential to address the 'Triple Opportunity' emerging in the global nuclear fuel supply chain:

- GLE joint venture owners Silex (51%) and Cameco (49%) have agreed to a plan and budget for CY2023 that accelerates activities in the commercial-scale pilot demonstration project for the SILEX uranium enrichment technology
- The CY2023 plan and budget involves bringing forward activities, approximately doubling project expenditures compared to CY2022 – creating the potential opportunity to complete the commercial-scale pilot demonstration project as early as mid-2024 (previously c.2025)[1]
- Accelerated demonstration of the SILEX technology at commercial pilot scale preserves the option of commencing commercial operations at the planned Paducah Laser Enrichment Facility (PLEF) as early as 2027/28 (up to three years earlier than originally planned)[2]

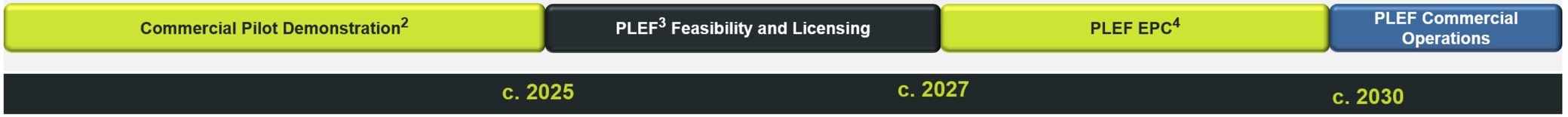
Significant Support Emerging from the US Government and Industry:

- US Government passed 'Inflation Reduction Act' in August 2022 – includes US$700 million support for the HALEU[3] Availability Program – draft Request for Proposal (RFP) response to request for comments submitted 6 July 2023
- New 'Nuclear Fuel Security Act' before Congress could provide additional funding support for LEU / HALEU production
- Other draft Bills that may result in the ban of Russian imports of nuclear fuel to the US – progressing through Congress
- GLE signed LOIs[4] with US utilities Constellation Energy Generation, Duke Energy and Dominion Energy to support GLE's commercialisation

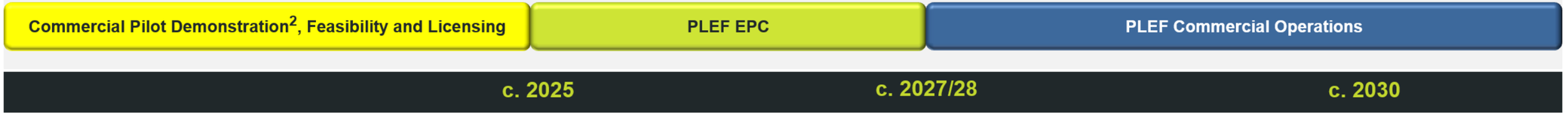
1. Acceleration of the plan beyond CY2023 remains conditional on availability of government and industry support, geopolitical and market factors
2. Subject to successful pilot demonstration
3. High Assay Low Enriched Uranium
4. Letter of Intent

GLE's Potential Timelines for Commercialisation of SILEX technology[1]

Baseline - GLE Commercialisation Timeline:



Potential Acceleration - GLE Commercialisation Timeline[5]:



Up to 3 years earlier than originally planned

1. Timelines subject to technology demonstration outcomes, market conditions, licensing, commercial support and other factors
2. Includes achievement of Technology Readiness Level 6 (TRL-6) as defined by DOE Technology Readiness Assessment Guide (G 413.3-4A)
3. PLEF: Paducah Laser Enrichment Facility
4. Engineering, Procurement and Construction (EPC) of commercial plant
5. Potential acceleration remains subject to due diligence assessment and may vary according to differing scenarios

GLE's Multi-Purpose PLEF Production Plant Opportunity

The PLEF Triple Opportunity

Paducah Laser Enrichment Facility (PLEF) commercial project to deploy the SILEX technology in the US:

- ***PLEF UF_6 Production:*** Production of up to 5 million pounds natural grade uranium (as UF_6) annually for up to 30 years - underpinned by GLE's 2016 agreement with US DOE to purchase over 200,000 metric tons of legacy tails inventories
- ***PLEF LEU Production:*** Add-on opportunity to enrich PLEF output to produce Low Enriched Uranium (LEU/LEU+) for nuclear reactor fuel
- ***PLEF HALEU Production:*** Additional opportunity to enrich High Assay LEU (HALEU) for next generation Small Modular Reactors (SMRs)

PLEF UF_6

Natural Grade Uranium (as UF_6)

via enrichment of DOE inventories of depleted tails to produce natural UF_6 with U^{235} assay ~0.7%

PLEF LEU

Low Enriched Uranium (LEU)

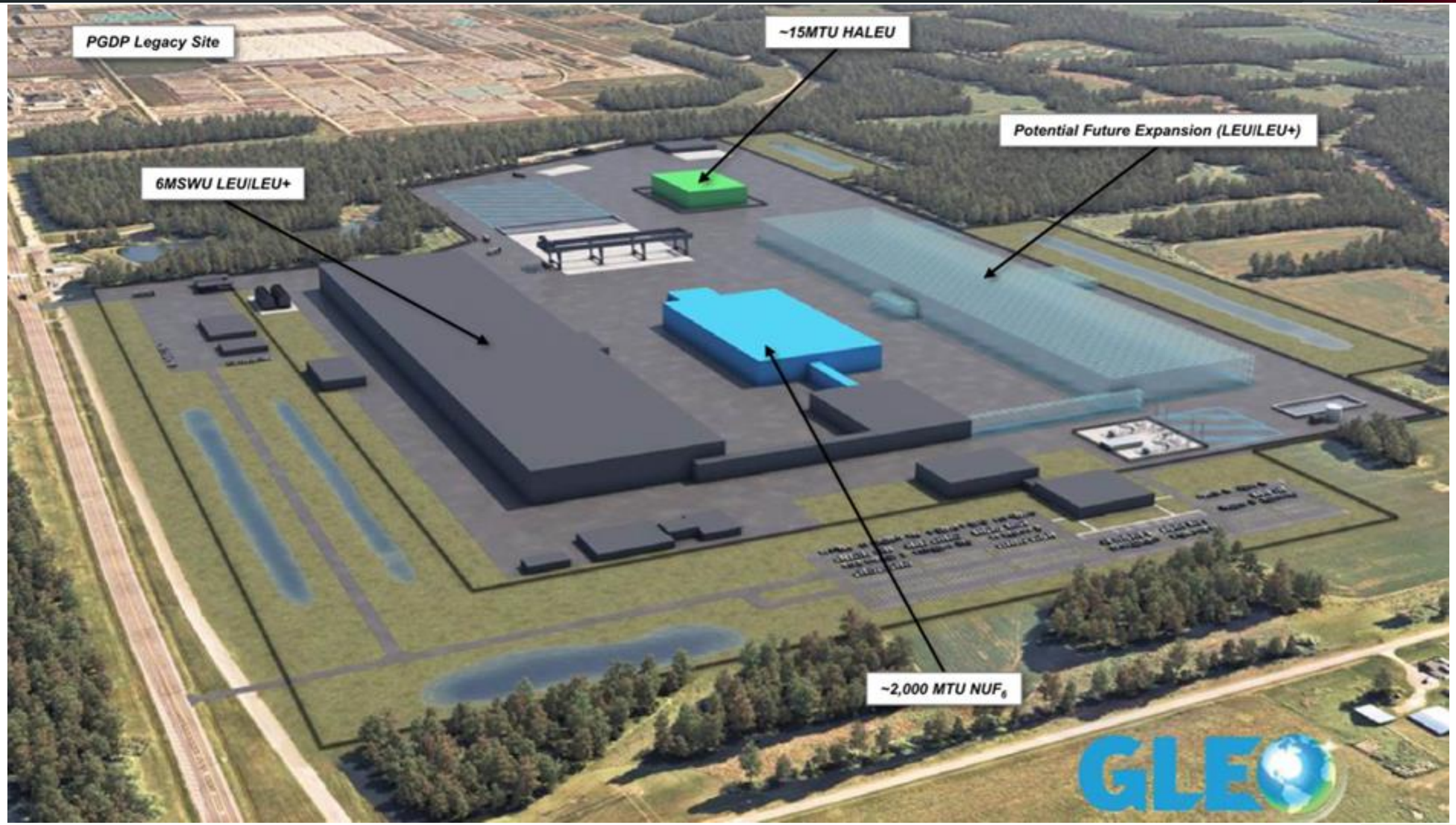
for conventional nuclear power reactors
LEU includes U^{235} assays of 3% to 5%
LEU+ includes U^{235} assays of 5% to 10%

PLEF HALEU

High Assay LEU (HALEU)

fuel for next generation advanced SMRs currently under development
includes U^{235} assays up to 20%

GLE’s Multi-Purpose PLEF Production Plant Opportunity



Source: GLE, Multi-purpose PLEF (indicative)

PLEF UF_6 Production Opportunity
(Natural UF_6 production from tails)

Target Commercial Operation Date

Baseline: c. 2030

(with potential acceleration by up to 3 years)

Akin to a 'Tier 1' Uranium Resource*

Based on low cost and longevity of production

(Silex estimate of all-in cost currently < US$30/lb)

Equivalent U_3O_8 Production

Up to 5 million lbs p.a. for approximately 30 years

Potential capture of Conversion Value

Feed and Product is UF_6 (current conversion value ~US$30/kg)

Potential to Enrich Further

From natural grade (0.7%)
to LEU (up to 5%)
to LEU+ (up to 10%)
& HALEU (up to 19.9%)

* All production estimates are based on preliminary modelling by Silex of project economics and longevity. Actual production output will depend on prevailing uranium market prices and other factors.

GLE Value Proposition for Silex*

1) GLE Equity – Minimum 25%:

- Currently 51% - potentially 25% post-Cameco Option, with payment for 26% at fair market value
- Significant equity stake in GLE as a potential major nuclear fuel supplier
- Attractive business case with Triple Opportunity and very high entry barriers

2) SILEX Technology Licence and Perpetual Royalty:

- Technology classified by Australian and US Governments with no patent disclosures permitted
- Technology kept as Trade Secret under strictest security mandates → no IP sunset
- Perpetual SILEX royalty of 7% to 12% on GLE's enrichment SWU revenues could potentially reach, for example, ~US$80m per yr for 8 MSWU PLEF operations (at 7% royalty rate and current SWU price)

***** GLE's progress to commercialisation is dependent on several factors, including, but not limited to: successful completion of the commercial-scale pilot demonstration program; availability of government and industry support; timely licensing activities; securing of PLEF site; confirmation of PLEF economic feasibility; and supportive market factors

Significant Additional Opportunities

Silicon enrichment
(silicon quantum computing)

- SILEX technology proven capable of producing highly enriched silicon in the form of ZS-Si (December 2022)
- ZS-Si project transitioning from engineering demonstration to initial commercial production

Zero-Spin Silicon (ZS-Si) Commercialisation Project:

- Initial ZS-Si project achieved target milestones, including 99.995% pure enriched Si-28 with the pilot demonstration facility
- Production scalability path identified – current focus of transition to initial commercial production activities
- New project focuses on initial commercial production and product conversion capability for solid ZS-Si and gaseous ZS-Si silane required by various potential customers

Other potential markets
(e.g. medical isotopes)

- Newly commenced Medical Isotope Separation Technology project aiming to develop and demonstrate technology for enriched Ytterbium (Yb-176) – a key enabling material for revolutionary nuclear medicine cancer treatment

Medical Isotope Separation Technology (MIST) Project:

- New 3-year MIST project commenced - aims to develop SILEX technology to enrich Yb-176 to high purity (~99% +)
- This project provides further diversification and leverages the business case for the SILEX technology across multiple markets

SILEX Technology Summary

- GLE's path to market underpinned by the PLEF UF_6 project for cost effective production of natural uranium (in the form of UF_6) and significant value of the contained conversion component
- Acceleration of CY2023 activities in the pilot demonstration project creates opportunity for completion by mid-2024 and if successful, preserves option to commence commercial PLEF operations up to 3 years earlier than originally planned
- *'Triple Opportunity'* involves adding SILEX production capacity to produce LEU, LEU+ and HALEU nuclear fuels, with the PLEF potentially a multi-purpose nuclear fuel facility, helping to alleviate dependence on imported Russian fuel
- Long-term fundamentals for global growth in nuclear power strengthening, with climate change mitigation measures and emerging global energy supply disruptions energising Western nuclear fuel markets
- SILEX silicon enrichment project successfully demonstrated production of ZS-Si in support of global efforts to commercialise silicon quantum computing – currently transitioning towards initial commercial production
- Silex assessing other applications of the SILEX technology in the field of medical radioisotopes, initially for enrichment of Yb-176 - used for production of Lu-177 - a revolutionary nuclear medicine cancer treatment

As at 30 June 2023, the Company has cash and term deposit holdings of ~$138m and no debt

Thank you