Investor Presentation

1 July 2024

Silex Systems Limited (Silex) (ASX: SLX; OTCQX: SILXY) is providing the attached presentation to support upcoming Investor Relations activities. The presentation highlights recent developments with regard to recent U.S. Government funding programs and provides an update on progress in the SILEX Technology Pilot Demonstration Project.

Michael Goldsworthy, Silex's CEO/Managing Director said:
"Silex supports the many recent bipartisan initiatives that advance the U.S. nuclear fuel industry, including appropriations of US$2.7 billion under the Nuclear Fuel Security Act (NFSA) and US$700m under the Inflation Reduction Act. In response to the NFSA, the DOE has now released an LEU Enrichment Acquisition Request for Proposals (RFP) to establish a robust supply chain for low enriched uranium (LEU). Global Laser Enrichment (GLE), the exclusive licensee of the SILEX uranium enrichment technology, has the potential to supply critically needed new U.S. enrichment capacity to produce natural uranium (including conversion) from legacy depleted tails inventories, and LEU. GLE is currently evaluating the RFP and subject to that review, intends to participate in the bidding process to support the commercial deployment of next-generation SILEX technology at its planned Paducah Laser Enrichment Facility (PLEF) in Western Kentucky."

"Meanwhile, significant progress continues to be made in the pilot demonstration project at GLE's Test Loop facility, with the aim of completing the TRL-6 demonstration program (including an assessment by an independent engineering contractor) later this year. 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 become a key supplier of natural UF_6, LEU, and HALEU," he added.

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

Julie Russell
CFO/Company Secretary

1 July 2024

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 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 Presentation 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 Presentation 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 Presentation. 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.

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 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.

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)

Medical isotope enrichment
(new cancer therapies)

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

Highlights and Recent Developments

Global Laser Enrichment (GLE) / SILEX Uranium Enrichment Technology Project:

- Through commercialisation of the SILEX technology, GLE is positioning to leverage the '***Triple Opportunity***' that has emerged in the global nuclear fuel market as a result of energy decarbonisation targets and geopolitical disruptions
- GLE's owners (Silex and Cameco) continue to support accelerated activities in GLE's CY2024 plan and budget for the SILEX uranium enrichment technology pilot demonstration project – aiming for completion in CY2024 (previously end of CY2025)
- Construction and fit-out of a new facility leased by GLE in Wilmington is complete and is now operational – provides significant additional space for planned growth in GLE's engineering, in-house manufacturing, and commercial activities
- In April 2024, the US Senate passed the *Prohibiting Russian Uranium Imports Act*, effective 90 days after Presidential signature on 13 May 2024
- Prohibition Act triggered US$2.7bn in funding to support new nuclear fuel production capacity, with the DOE releasing the LEU Enrichment Acquisition Request for Proposals (LEU RFP) on 27 June 2024
- GLE is currently evaluating the LEU RFP and intends to participate in this opportunity, subject to related terms and conditions
- In June 2024, GLE entered into a set of agreements that provides an option to purchase land for the planned Paducah Laser Enrichment Facility (PLEF)

Quantum Silicon Project and Medical Isotope Project:

- The Quantum Silicon (Q-Si) commercial production project is progressing at Silex's Lucas Heights facility, with ~$5m in funding support from the Federal Government's Defence Trailblazer Program, and expanded commercial arrangements with offtake partner, Silicon Quantum Computing (SQC)
- The Medical Isotope Separation Technology (MIST) project continues to advance at Lucas Heights – focused on developing a process to produce enriched Ytterbium (Yb-176), the key precursor required for Lutetium (Lu-177) production – a breakthrough therapy for advanced cancers

Primary Focus on GLE Commercialisation

Uranium production and enrichment
(nuclear power)

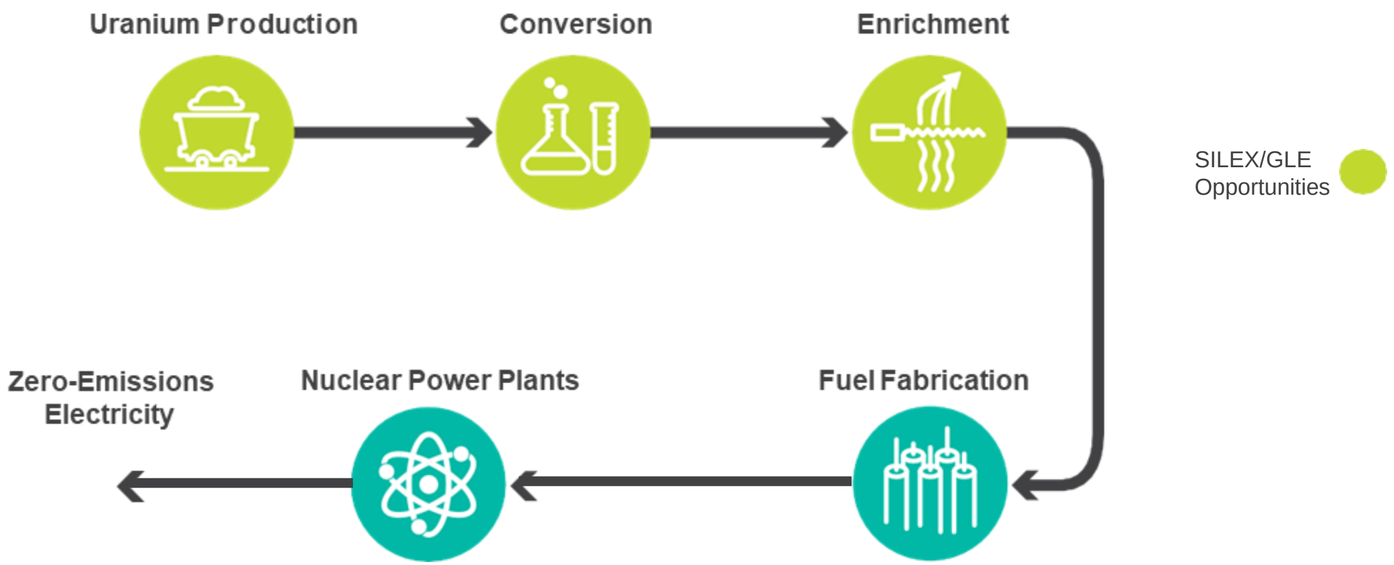
- SILEX uranium technology licensee Global Laser Enrichment (GLE) is progressing towards commercialisation
- US-based GLE under JV ownership since 2021: 51% by Silex and 49% by Cameco Corporation (Cameco)
- Cameco is one of the world's leading uranium producers and nuclear fuel suppliers
- GLE has unique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

1. ***Natural UF_6 production*** *- from DOE* tails inventories (support the rising demand for uranium and conversion)*
2. ***LEU production*** *- fuel for existing reactor fleet (help mitigate supply risks for enriched uranium fuel)*
3. ***HALEU production*** *- fuel for next generation reactors, including Small Modular Reactors (SMRs) (help establish HALEU capability in the US)*

* DOE: US Department of Energy

Nuclear Fuel Supply and Current Issues

The Nuclear Fuel Supply Chain



Issues facing the Global Nuclear Fuel Supply Chain:

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

US and EU Nuclear Fuel Requirements Supplied by Russia

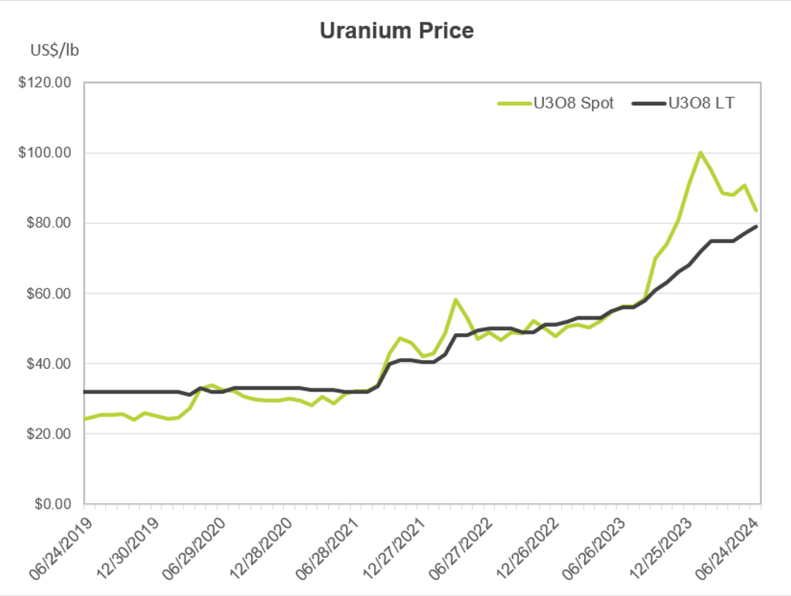
	Russian Share of Global Production Capacity[1]	EU Nuclear Fuel Supplied by Russia[2]	US Nuclear Fuel Supplied by Russia[1,3]
Uranium (U_3O_8)	~14%	~17%	~12%
Conversion	~22%	~22%	~18%
Enrichment (SWU)	~44%	~30%	~27%

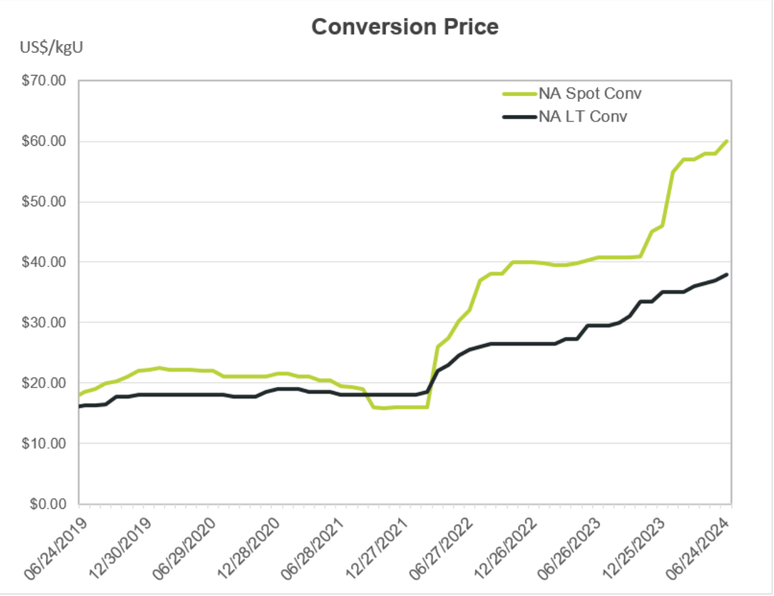
- Major concerns regarding Western reliance on Russia for the supply of nuclear fuel
- US is the largest market for nuclear fuel, with ~25% of worldwide generation of nuclear power
- US currently imports ~95% of its uranium requirements and ~70% of its enriched uranium requirements[3]
- Open market^ currently accounts for ~65% of global enriched uranium fuel demand

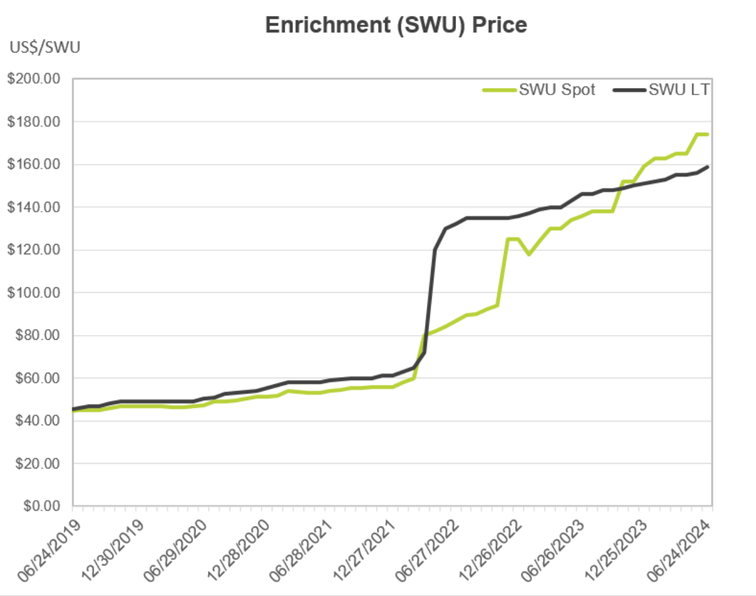
^Open market consists of North America, Europe, Northeast Asia, and various other parts of the world

1. UxC, various sources 2024
2. Euratom Supply Agency Annual Report 2022, published January 2024
3. EIA, 2023 Uranium Marketing Annual Report, June 2024

Favourable Nuclear Fuel Market Price Trends







Source: UxC

- Global nuclear fuel markets reflect a bifurcating market in response to Russia's invasion of Ukraine and nuclear fuel sanctions
- Uranium term prices reflect significant increase in term contracting as a result of supply-demand concerns
- Conversion term prices have steadily increased since the Russian invasion of Ukraine in February 2022
- Enrichment term prices have increased ~140% since February 2022, reflecting the forecast global enrichment shortfall without Russian supply

Acceleration of GLE's Activities for the SILEX technology

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

- GLE joint venture owners, Silex and Cameco, approved a plan and budget for GLE in CY2024 that continues to support the acceleration of activities in the technology demonstration project for the SILEX uranium enrichment technology[1]
- Successful demonstration of the SILEX technology with the pilot facility during CY2024 preserves the option of commencing commercial operations at the planned Paducah Laser Enrichment Facility (PLEF) as early as 2028[2]
- GLE's CY2024 plan also progresses other key commercialisation activities, including Paducah, KY site acquisition, NRC license application for the PLEF, and completion of the new GLE corporate and manufacturing facility in Wilmington, NC

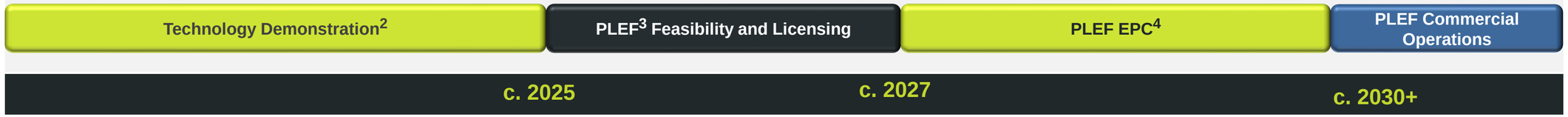
Potential support emerging from the US Government and Industry:

- US Government passed the *Inflation Reduction Act* in August 2022 – US$700m in support for the DOE's HALEU[3] Availability Program, including US$100m funding support for novel nuclear fuel technologies
- *Prohibiting Russian Uranium Imports Act* became law in May 2024 – takes effect mid-August (with waivers available to eligible entities)
- *Nuclear Fuel Security Act (NFSA)* passed by Congress in December 2023 – provides additional US$2.7bn for new nuclear fuel capacity
- In accordance with NFSA, DOE released the LEU RFP on 27 June 2024 – GLE is currently evaluating the RFP
- GLE signed LOIs[4] with 4 US utilities: Constellation Energy Generation, Duke Energy, Dominion Energy and 4th (name withheld) to support GLE's commercialisation

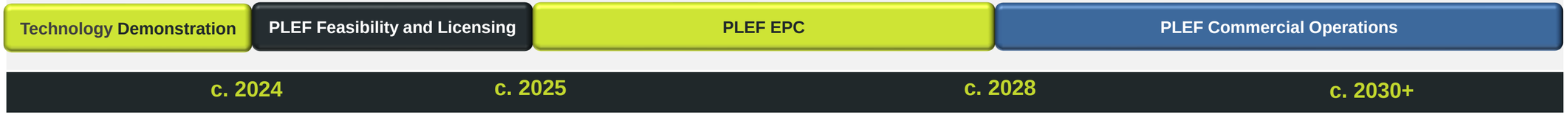
1. Continued acceleration of GLE's commercialisation plans remains conditional on availability of industry and government support, and geopolitical and market factors
2. Timelines subject to technology demonstration outcomes, suitable market conditions, PLEF feasibility assessment, licensing, commercial support and other factors
3. High Assay Low Enriched Uranium
4. Letter of Intent

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

Baseline - GLE Commercialisation Timeline:



Accelerated - GLE Commercialisation Timeline[5]:



2 to 3 years earlier than originally planned

1. Timelines subject to technology demonstration outcomes, market conditions, licensing, commercial support, PLEF feasibility assessment 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. Continued acceleration remains subject to due diligence assessment and may vary according to differing scenarios

Status of Technology Pilot Demonstration Project[1]

Pilot Laser Systems:

- Two full-scale pilot laser system modules (designed and built by Silex) installed and commissioned in GLE's Test Loop facility in Wilmington
- Currently being integrated within the pilot enrichment facility in preparation for TRL-6 enrichment testing

Separator and UF_6 Gas Handling Systems (GHS):

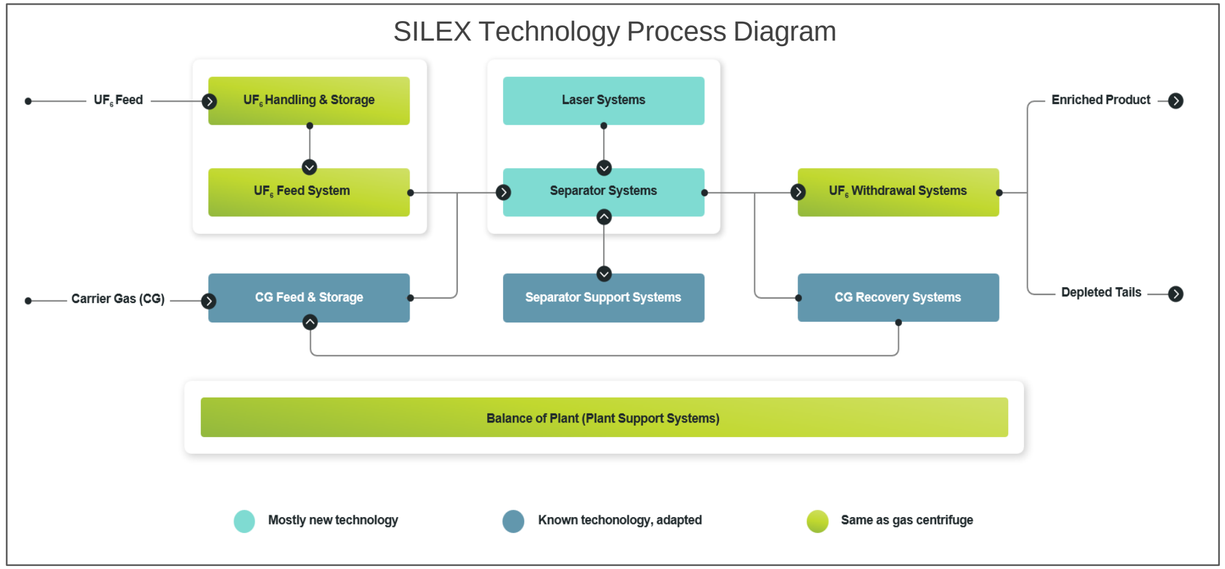
- Construction of pilot separator and GHS has been completed with commissioning activities underway

Integrated TRL-6 Enrichment Demonstration Facility:

- Nuclear Regulatory Commission (NRC) completed inspection of GLE's Test Loop facility and operations in March 2024
- UF_6 feed material to be loaded into the Test Loop upon completion of commissioning activities

TRL-6 Pilot Demonstration Project:

- Significant progress continues to be made in the pilot demonstration project with enrichment testing expected to commence shortly
- GLE anticipates completing the TRL-6 technology demonstration during CY2024, including completion of an independent assessment and submission of a report to GLE's owners, Silex and Cameco



1. All scheduling is tentative and depends on progress and delays - subject to change at any time

GLE's PLEF Production Plant Opportunity

The PLEF Triple Opportunity

Paducah Laser Enrichment Facility – an opportunity to deploy the SILEX technology in the US:

- ***PLEF UF_6 Production:*** Production of up to 5 million pounds (equivalent) natural grade uranium (as UF_6) annually for up to 30 years – underpinned by GLE's 2016 agreement with US DOE to acquire over 200,000 tonnes of legacy tails inventories
- ***PLEF LEU Production:*** Add-on opportunity to enrich PLEF output to produce LEU/LEU+ for nuclear reactor fuel
- ***PLEF HALEU Production:*** Additional opportunity to enrich HALEU for next generation advanced reactors, including 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)

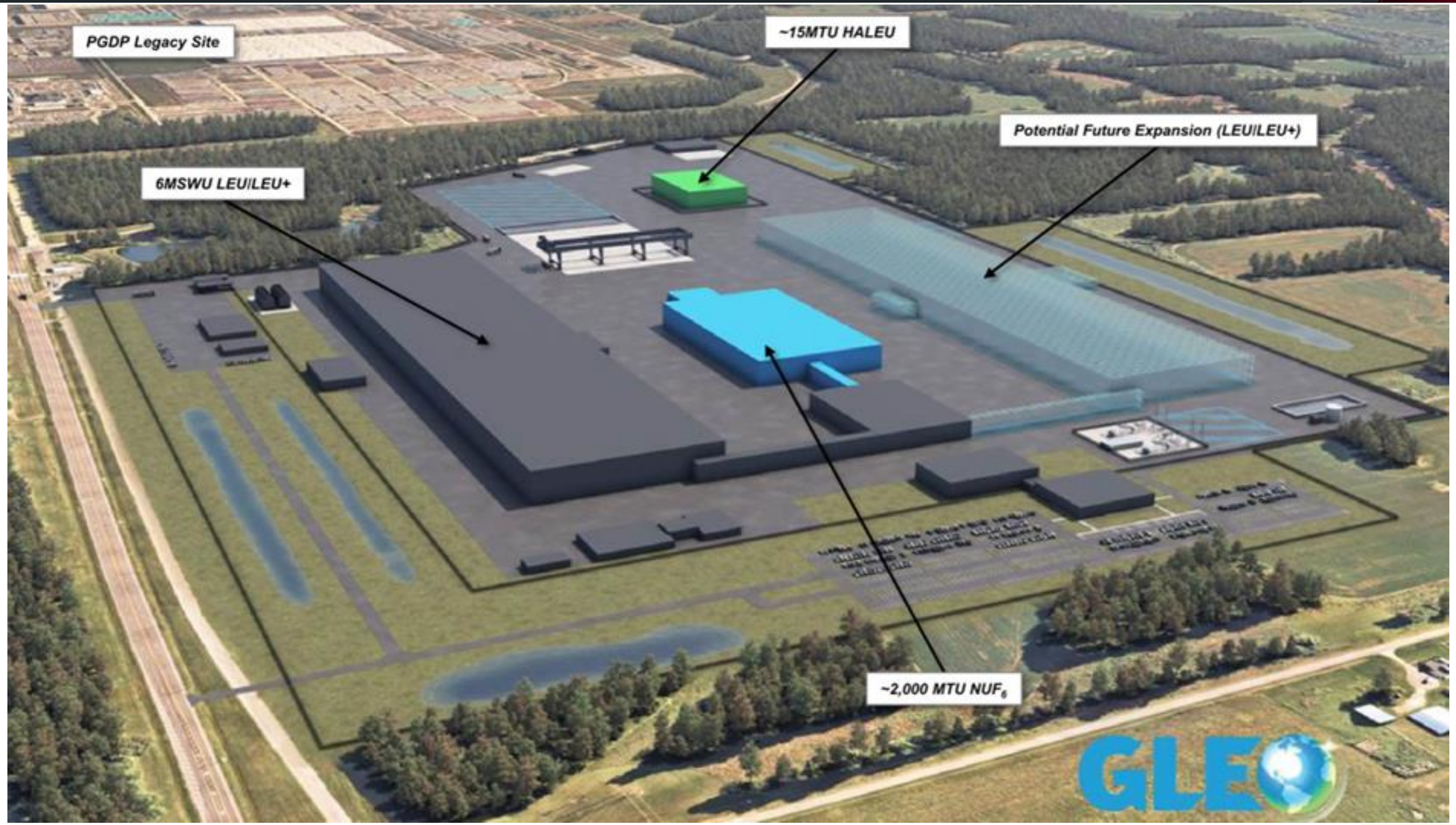
for conventional nuclear power reactors
LEU includes U^{235} assays of 3% to 5%
LEU+ includes U^{235} assays of 5% to 10%

PLEF HALEU

High Assay LEU (HALEU)

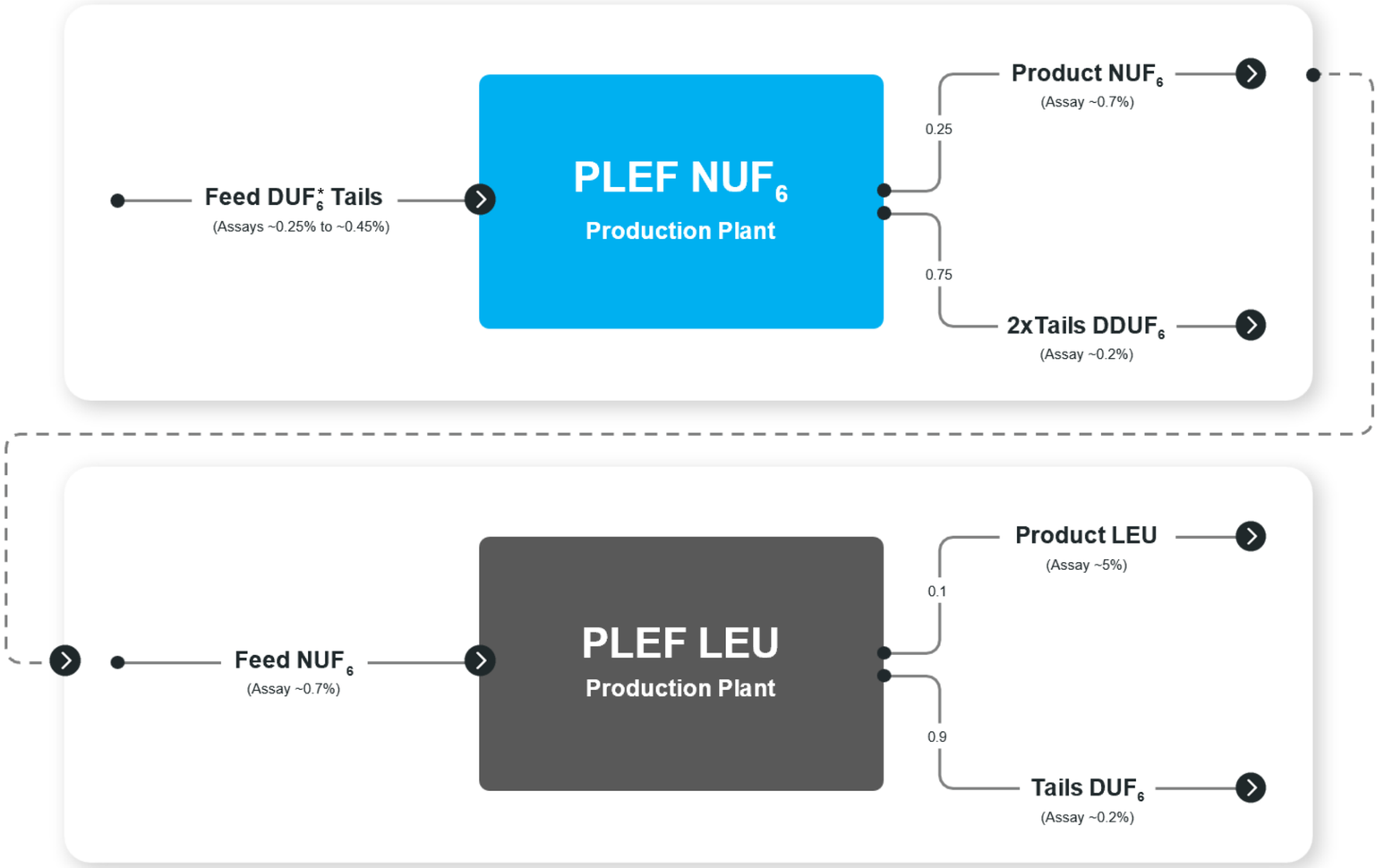
fuel for next generation advanced reactors, including SMRs
includes U^{235} assays up to 20%

GLE’s PLEF Multi-purpose Production Plant Opportunity



Source: GLE, Multi-purpose PLEF (conceptual)

GLE's PLEF Production Plant Opportunities



GLE PLEF Process Streams – NUF_6 and LEU Production

* DUF_6: Depleted UF_6

PLEF UF_6 Production Opportunity
(Natural UF_6 production from tails)

Potential Accelerated Commercial Operation Date^

As early as 2028

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 (~150m lb contained resource)

Potential capture of Conversion Value

Feed and Product is UF_6 (current term conversion value ~US$38/kg)

Potential to Enrich Further

From natural grade (0.7%):
to LEU (up to 5%)
to LEU+ (up to 10%)
to HALEU (up to 20%)

^ Continued acceleration remains subject to due diligence assessment and may vary according to differing scenarios
* 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%:

- Silex currently holds 51% – Cameco has a call Option to acquire an additional 26% at fair market value
- Option window opened 1 February 2023 – closes 30 months after successful TRL-6 demonstration
- Either way, Silex has a significant equity stake in GLE as a potential nuclear fuel supplier
- Attractive business case with Triple Opportunity and very high entry barriers

2) SILEX Technology License 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 sunset on IP
- Perpetual SILEX royalty of 7% to 12% on GLE's enrichment SWU revenues could potentially reach, for example, ~US$80m p.a. 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 technology demonstration program; availability of industry and government support; timely licensing activities; securing of PLEF site; PLEF feasibility assessment; and supportive market factors

Significant Additional Opportunities

14
Si
Silicon
28.0855

Silicon enrichment
(silicon quantum computing)

- SILEX technology proven capable of producing highly enriched silicon in the form of Zero-Spin Silicon (ZS-Si)
- Initial ZS-Si project (completed FY2023) achieved target milestones, including ~99.998% enriched Si-28 with the pilot demonstration facility

Quantum Silicon (Q-Si) Production Project:

- Quantum Silicon Production Project focuses on transition from engineering demonstration to initial commercial production
- 3.5-year project announced in August 2023 being undertaken with SQC and UNSW
- Project supported by $5.1m of Federal Government funding with SQC expanding its commercial arrangements with Silex in January 2024
- Project aim is to build and operate the first commercial production module and develop product conversion capability for Q-Si in solid and gaseous forms required by various potential customers

Medical isotope enrichment
(new targeted beta cancer therapies)

- Medical isotope project aiming to develop a process to enrich Ytterbium-176 (Yb-176) for production of Lutetium-177 (Lu-177)
- Lu-177 radioisotope represents a breakthrough development for the diagnosis and treatment of aggressive metastatic cancers

Medical Isotope Separation Technology (MIST) Project:

- 3-year MIST project commenced in February 2023 – aims to develop SILEX technology to enrich Yb-176 to high purity (~99%)
- In December 2023, Stage 1 of the Project – proof-of-concept was successfully completed
- Stage 2 is underway and aims to validate the process at prototype scale, including the first level of scale-up
- The MIST project provides further diversification and leverages the business case for the SILEX technology across multiple markets

Summary

- GLE's path to market is underpinned by the PLEF UF_6 project for cost effective production of natural uranium (in the form of UF_6) and significant value of conversion contained in GLE's feed inventories
- Acceleration of the technology pilot demonstration project continuing in CY2024, which, if successfully completed, preserves the option to commence PLEF commercial operations as early as 2028
- The *'Triple Opportunity'* includes potential to add SILEX production capacity to produce LEU, LEU+ and HALEU nuclear fuels with the PLEF multi-purpose production plant, helping to alleviate dependence on Russian-sourced fuel
- Silex represents unique leverage into the nuclear fuel supply chain, with significant potential shareholder value through equity ownership in GLE (currently 51%) in addition to valuable perpetual royalty flows under the SILEX uranium technology license
- SILEX Quantum Silicon Production project launched in August 2023 to construct the first Q-Si commercial production module and establish a sovereign capability and secure supply chain in support of the emerging global silicon quantum computing industry
- Silex is 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 breakthrough in nuclear medicine cancer treatment

Thank you