

Global Laser Enrichment Commercialization Update

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GLE History & Key Milestones

- 2000 USA and Australia sign Agreement for Cooperation (i.e., “123 agreement”) for the SILEX technology. Technology becomes officially classified shortly thereafter
- 2007 GE and GE-Hitachi Nuclear Energy form subsidiary GLE (exclusive licensee of SILEX technology) to develop uranium enrichment capability; Cameco acquires 24% equity interest in GLE (2008)
- 2012 GLE receives first and only US NRC license for construction and operation of commercial scale laser enrichment facility (SNM-2019)
- 2013 GLE completes “Phase 1” (technology validation at prototype scale) of its multi-phase technology development and commercialization plan
- 2016 GLE secures landmark agreement to re-enrich over 200,000 tons of DOE DUF₆ inventories
- 2019 Silex Systems and Cameco execute binding purchase agreement to acquire 76% interest in GLE from GE/GEH
- 2021 Transaction receives USG approval; Silex and Cameco acquire 51% and 49% interests in GLE, respectively

Significant US investment in GLE



Commercial Pathways & Guiding Principles



➤ Commercial pathways - three primary areas of focus

- Enriching DOE tails to produce uranium ($\text{DUF}_6 \rightarrow \text{NUF}_6$)
- Potential to address higher enrichment needs (HALEU)
- Mature into a commercial SWU supplier (LEU)

GLE will be innovative, agile and creative



Commercial Pathways & Guiding Principles



➤ Core Corporate Principles

- Proactive nuclear safety culture and governance
- Strong relationship with NRC and focus on regulatory compliance
- Disciplined technology development process
- Market-driven commercialization priorities and planning
- Core focus on Paducah commercial project opportunity
- Positioning for emerging opportunities (e.g. HALEU)

GLE's growth will be disciplined and paced by market needs



Reasons for Optimism & Positioned for Growth

- Exclusive licensee of the SILEX technology that could fill a critical supply-chain gap
 - Uniquely positioned as world's only 3rd Generation laser enrichment technology
 - Potentially significant technology advantages over existing centrifuge production
- Over a decade of successful development progress in the US
- New JV owners ramping-up technology commercialization activities
- New executive team in place and building business momentum
- Core business case underpinned by DUF₆ agreement with the DOE
- Flexibility to leverage into emerging opportunities (e.g. HALEU)
- Supporting the re-emergence of US nuclear leadership globally
- Strong focus on ESG (legacy waste cleanup; support for clean nuclear power)

GLE is poised to make significant progress over the coming years



Development Timelines



Evolution of Enrichment Technology



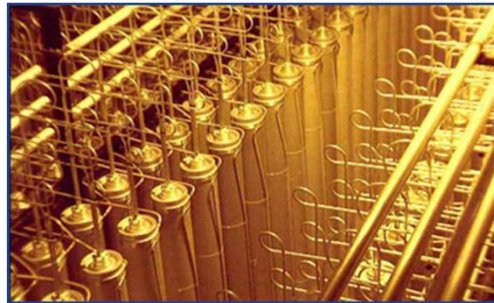
1950's



Gaseous Diffusion

- 1st generation technology
- Separation factors (β) ~ 1.004
- Obsolete

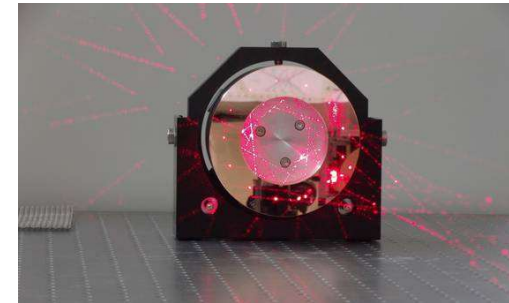
1980's



Gas Centrifuge

- 2nd generation technology
- Separation factors (β) ~ 1.250
- 100% of current production

2000's



GLE/SILEX

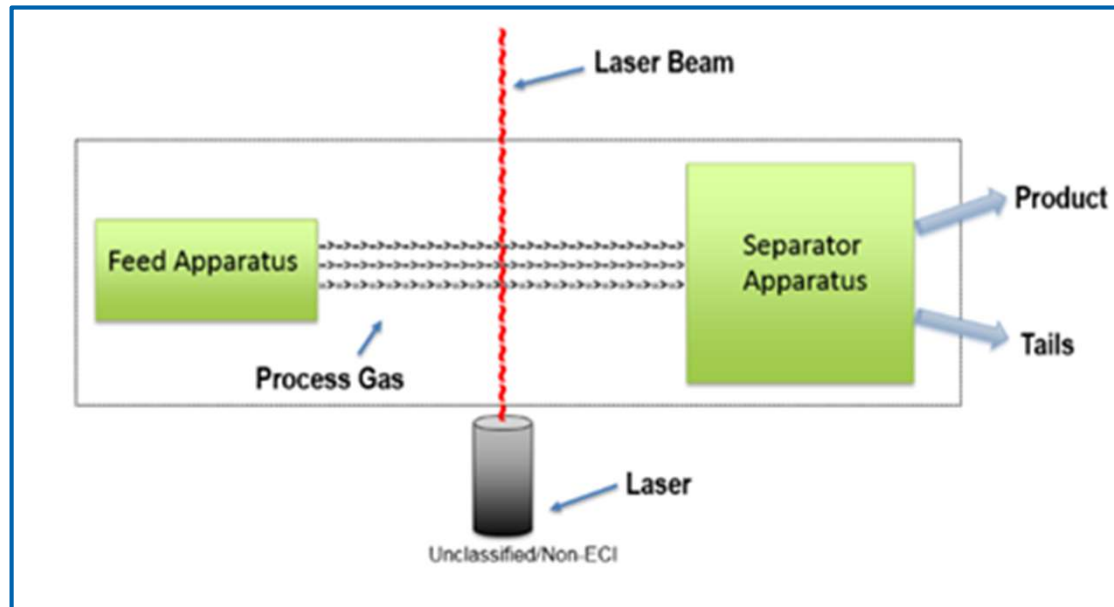
- 3rd generation technology
- Separation factors (β) ~ 2-20*
- Future of uranium enrichment

* classified

SILEX process → much higher separation efficiency vs. centrifuge technology



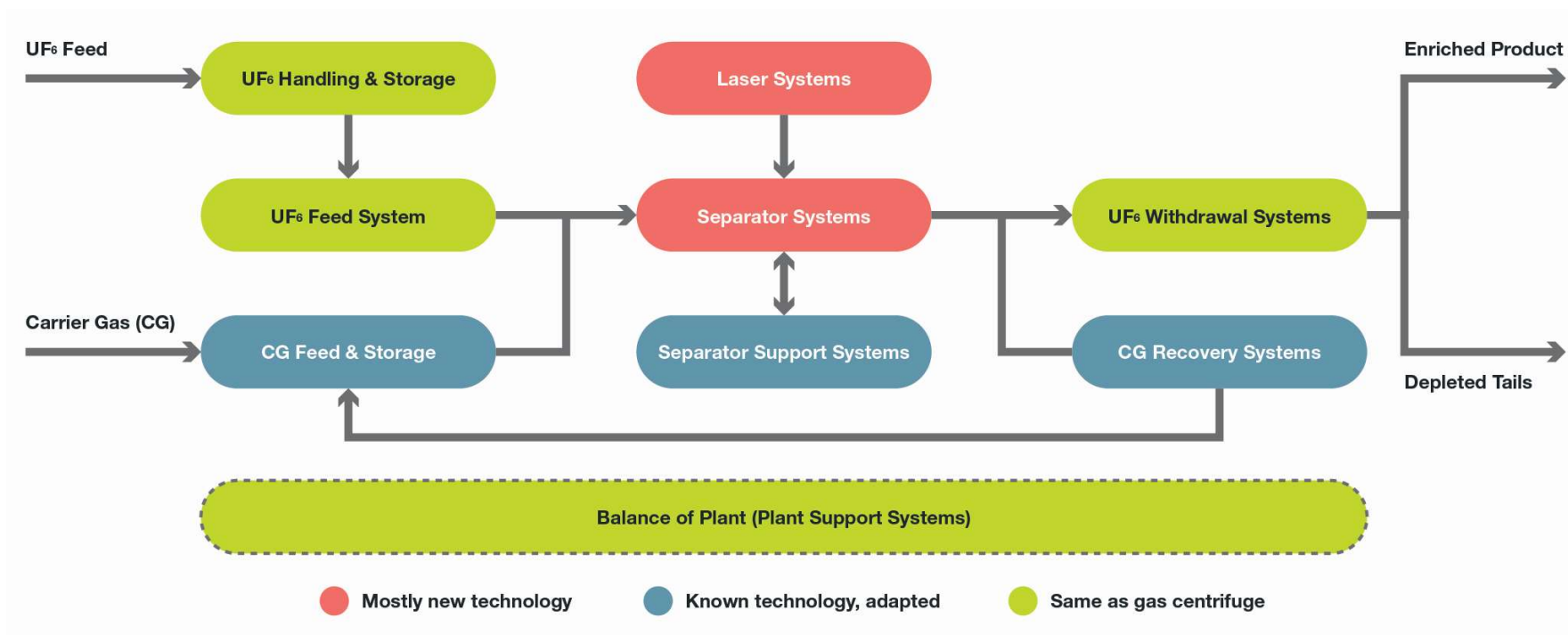
SILEX Process Overview



- Unique third generation (laser-based) enrichment technology
- Highly selective lasers to excite UF_6 and efficiently separate U^{235}
- Anticipated to be significantly more efficient than centrifuge technology

UF_6 throughout feed, separation and withdrawal processes

Compatibility with Existing Fuel Cycle



Commercial scale production will be compatible with existing fuel cycle infrastructure



SILEX Technology Advantages



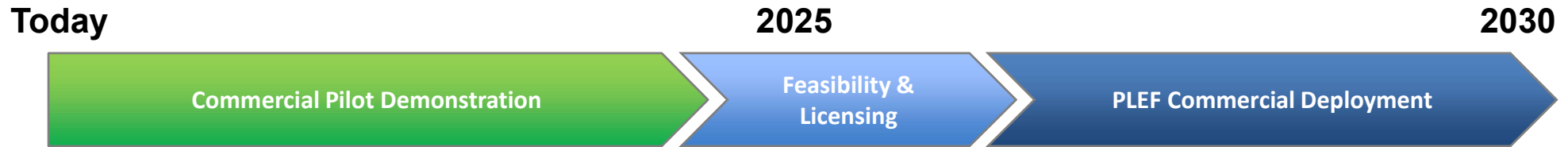
- **Highly selective and efficient** – ability to fine-tune the process to excite and separate U^{235} with higher efficiency compared to centrifuge technology
- **Modularity/flexibility** – greater flexibility to produce wide range of fuels for next generation SMR's (HALEU) as well as installed base (LEU)
- **Lower capital costs** – laser enrichment capacity is expected to be deployed at lower cost per SWU than gas centrifuge technology
- **Bolster U.S. competitive position** – potential to leapfrog centrifuge technology and support re-emergence of US advanced nuclear technology leadership

GLE is uniquely positioned to meet the needs of the next-generation nuclear industry



Commercialization Timeline*

* Subject to technology development program outcomes, market conditions, and other factors



Near-term focus (2022+)

- Ramping up operations under new JV ownership
- Development and demonstration of production-scale separator and process systems
- Fabrication and testing of production-scale laser and optical systems
- Assessment of full-scale plant designs and preliminary economics
- Monitoring opportunities to potentially de-risk future investment decisions

Market-driven approach to technology scale-up and commercialization



Commercial Pathways

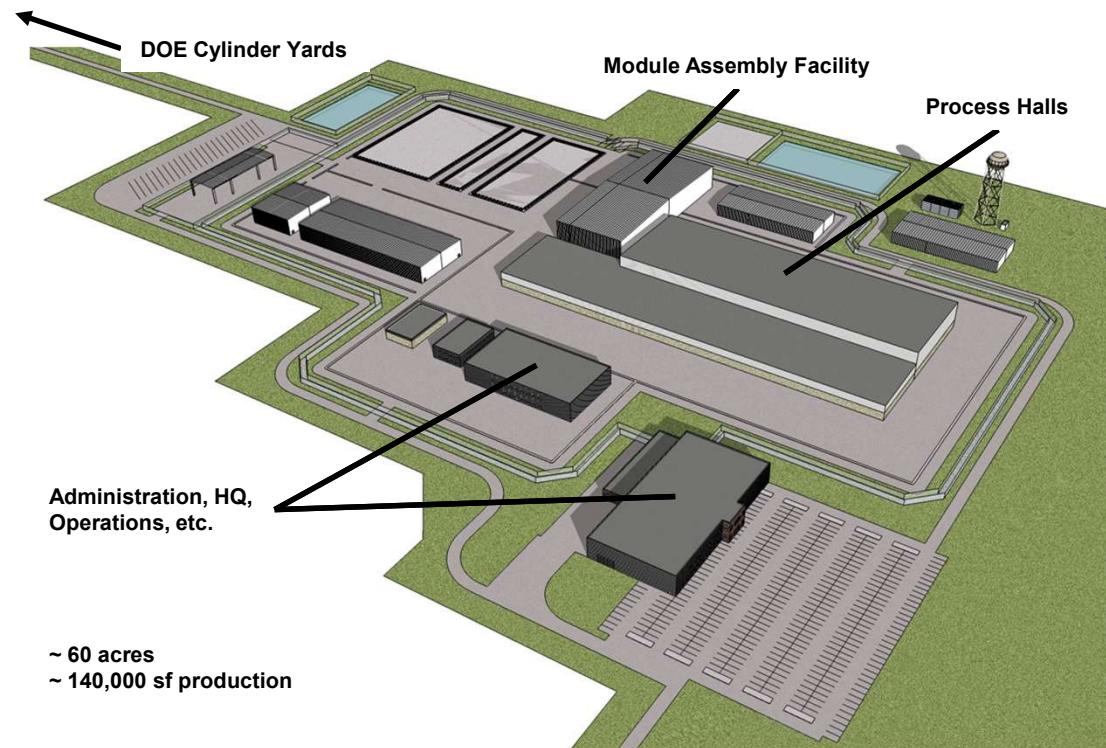
Paducah Laser Enrichment Facility (PLEF)

- Potential to produce ~5MM lbs uranium annually
- Estimated to operate for around 30 years
- Reduces DOE disposal obligations by 25+%
- Target COD market paced

Higher enrichment opportunities

- Potential to complement PLEF uranium production with LEU, HALEU production
- HALEU would involve less capital to deploy meaningful capacity
- Deploy separately or add-on to PLEF
- Partnership opportunities with SMR/AMR vendors

Paducah Laser Enrichment Facility Conceptual



Multiple, risk-informed pathways to meet anticipated market demands

Thank you

