

GLO**BAL** **Laser Enrichment**

G4SR-4 Conference

October 6, 2022

Toronto, Ontario



Overview

- Company Background
- GLE's Laser Technology Advantages
- Commercialization Pathways and Timelines
- Essentials for Acceleration



GLE History & Key Milestones

- | | |
|---------------|--|
| 2007 → | GE and GE-Hitachi Nuclear Energy (GEH) form subsidiary GLE (exclusive licensee of SILEX technology) to develop uranium enrichment services 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 planned for Wilmington, NC (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 significant stockpiles of DOE DUF ₆ inventories |
| 2019 → | Silex Systems and Cameco execute binding purchase agreement to acquire GE/GEH 76% interest in GLE |
| 2021 → | Transaction receives USG approval; Silex Systems and Cameco acquire 51% and 49% interests in GLE, respectively |
| 2022 → | First full year with new executive management team and restructured ownership |





Evolution of Enrichment Technology

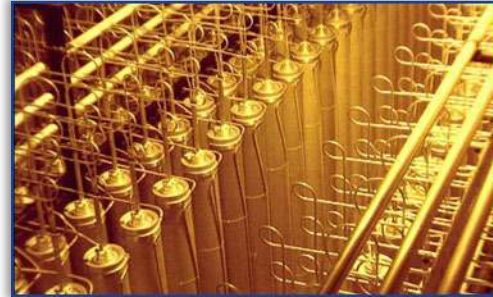
1950's



Gaseous Diffusion

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

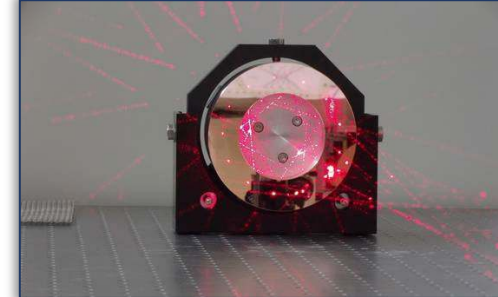
1980's



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 efficiencies vs. centrifuge technology



GLE's Laser Technology Advantages

- **Highly selective and efficient** – ability to fine-tune the process to excite and separate $^{235}\text{UF}_6$ with higher efficiency and throughput compared to centrifuge technology
- **Modularity/flexibility** – market compatibility with greater flexibility to produce wide range of fuels for both the existing fleet and next generation reactor designs
- **Lower capital costs** – installation of laser enrichment capacity is expected to be deployed at lower cost (per unit capacity) than existing gas centrifuge technology
- **Compatible with existing fuel cycle** – balance of plant is consistent with current enrichment facilities
- **Technology & supply diversity** – introduce an advanced nuclear technology in North American to reduce reliance on Russian supply



Commercialization Pathways

- **Considering an accelerated deployment schedule and pivoting to a multi-product approach**
 - Address post-Rosatom supply concerns of US utilities, USG and SMR/AR vendors
- **Potential to leverage existing agreement with DOE for tails enrichment**
 - Unlock the uranium, conversion and LEU potential of the PLEF agreement
- **Engaging in legislative initiatives to gain government support**
 - Continue to highlight laser enrichment's advantages with key USG stakeholders
- **Expanding domestic and international relationships**
 - Building commercial frameworks to drive commercialization decisions

Commercial acceleration requires technology advancement and scale-up

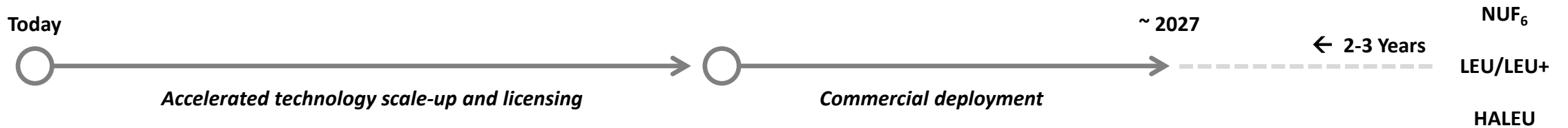


Commercialization Timelines

Baseline – market-driven pace, minimized risk



Potential acceleration - aggressive plan underpinned by key market drivers



Accelerating technology scale-up and commercialization will be driven by market and other factors



Essentials for Acceleration

The following factors will drive potential acceleration of GLE's commercialization:

- Long-term clarity regarding the restriction of Russian nuclear fuel supply
- Government programs and policies that encourage investment in the nuclear fuel cycle
- Line of sight to enhanced US DOE partnership
- Timely and efficient regulatory licensing and approval processes
- Appropriate market signals and commercial support

GLOBAL



Laser Enrichment

Thank you

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