



Silex Systems Limited

Investor Roadshow & ASX Spotlight Series

Dr Michael Goldsworthy, CEO / Managing Director

February/March 2014



Forward Looking Statements

Silex Systems is a research and development Company whose assets are its proprietary rights in various technologies, including, but not limited to, the SILEX technology, Solar Systems technology and business, Translucent technology and ChronoLogic technology. Several of the Company's technologies are in the development stage and have not been commercially deployed, and therefore are high-risk. Accordingly, the statements in this presentation regarding the future of the Company's technologies and 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: results from the SILEX uranium enrichment commercialisation program; the demand for enriched uranium; the risks associated with the development of Solar Systems technology and related marketing activities; the outcomes of the Company's interests in the development of various semiconductor, photonics, instrumentation and alternative energy technologies; the time taken to develop various technologies; the development of competing technologies; the potential for third party claims against the Company's ownership of Intellectual Property associated with its numerous technologies; the potential impact of government regulations or policies; and the outcomes of various commercialisation strategies undertaken by the Company. Accordingly, the inclusion of forward looking information in this presentation should not be regarded as a representation or warranty with respect to its accuracy or the accuracy of the underlying estimates or assumptions or that Silex will achieve or is likely to achieve any particular results.

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Focus on Clean Energy

Silex Systems is a global clean energy company, focusing on the development and commercialisation of innovative and potentially disruptive energy efficient technologies

Silex Overview

Market Data

Market Cap*	~ \$370 M*
Shares on issue	170.37 M
Listed on ASX with ticker code:	ASX: SLX
Listed on OTCQX with ticker code:	OTCQX: SILXY

* Current as at 19 February 2014

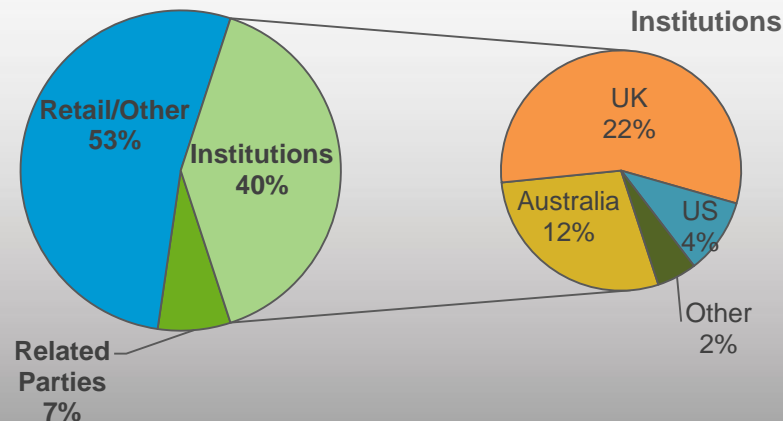
Top Shareholders*

Jardvan P/L (Private)	17.5%
M&G Investment	10.0%
BNY Mellon (Newton)	9.0%
Related Parties	7.3%

* Current as at 31 January 2014

Investors by Type

As at 31 January 2014



Access to Silex Systems via U.S. OTCQX Market



THE BANK OF NEW YORK MELLON

ADR Benefits to U.S. Investors:

- ADRs give direct access to our listed equity capital base allowing participation in cross-border market liquidity
- Company disclosure via OTCQX web site
- ADRs are cost-effective
- ADRs are convenient to transact and own
- Quoted in U.S. dollars
- Settle via standard U.S securities settlement process
- Program is administered by a market leading global depository

Silex Systems Limited ADR trading info:

• Symbol	SILXY
• CUSIP	827046103
• Ratio	1 ADR : 5 ORDs
• Country	Australia
• Effective Date	May 17, 1999
• Underlying SEDOL	6111735
• Underlying ISIN	AU000000SLX4
• Depository	BNY Mellon

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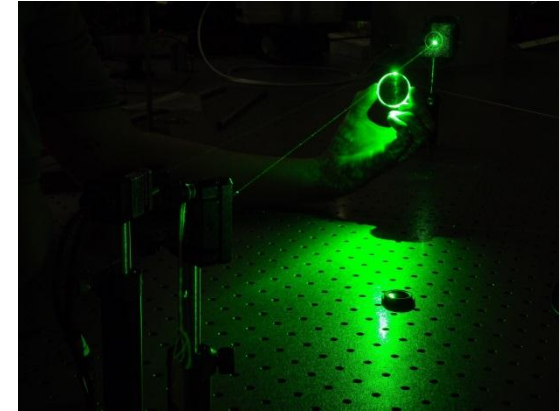
Portfolio of Innovative Technologies

➤ *Our foundation technology:*

- ***The SILEX laser enrichment technology:*** potentially a game changing innovation for the global uranium enrichment industry

➤ *Other technologies in the portfolio:*

- ***Solar Systems:*** unique 'Dense Array' solar technology which combines the world's most efficient solar cells with a dish concentration system for utility-scale power station deployment
- ***Translucent:*** novel semiconductor materials technology for application to power electronics, photonics and solar cells
- ***ChronoLogic:*** unique products and IP for application to the test and measurement instrumentation markets



Why are our technologies important?

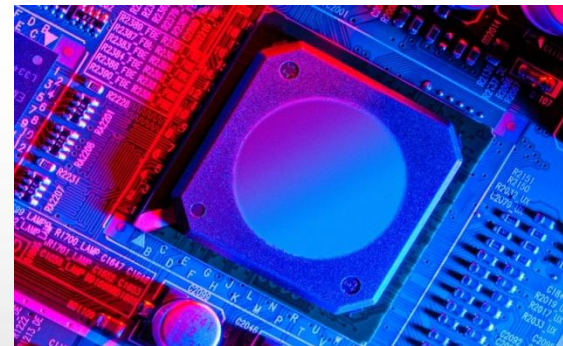
- ✓ Addressing key issues for energy security
- ✓ Clean energy + high efficiency through innovation



Nuclear power – clean, affordable base load electricity

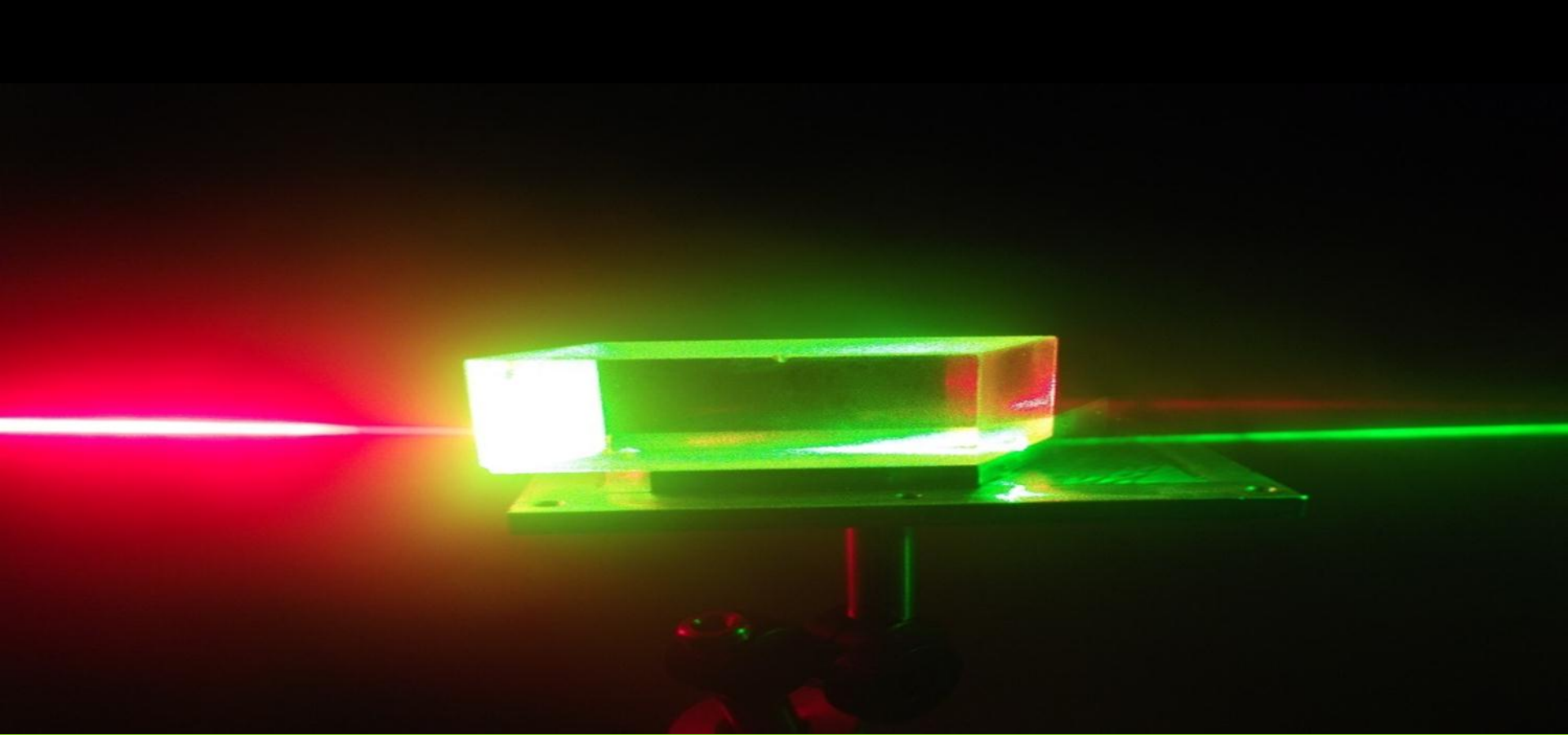


Solar dish technology – world leading efficiency



Advanced high efficiency power electronics

...our commitment to a sustainable future



Section 2

SILEX Laser Uranium Enrichment Technology

Commercialisation and License Agreement

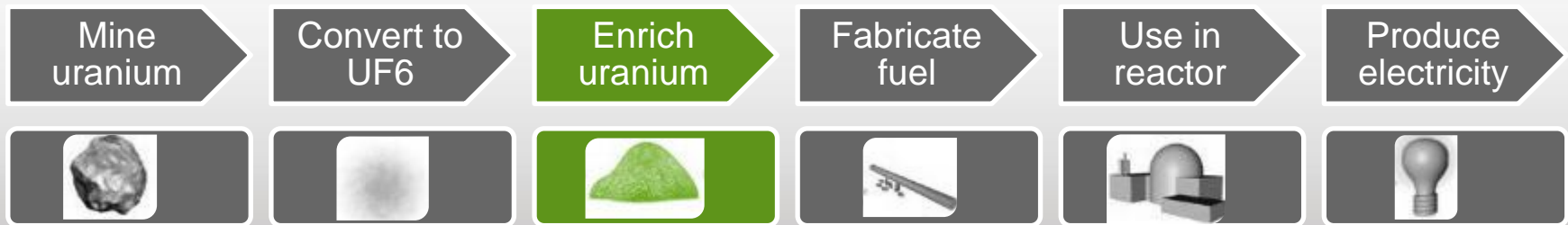
Perpetual Royalty Agreement with Global Laser Enrichment (GLE)

- Exclusive worldwide commercialisation and license agreement for the SILEX Technology – signed in 2006
- GLE funding of commercialisation program and potential future plant construction
- Phase I milestone completed in May 2013 – triggered US\$15 million payment to Silex
- Next milestone payment triggered by start of construction of initial commercial plant: US\$5 million
- Final milestone payment – US Nuclear Regulatory Commission (NRC) verification of construction compliance of initial commercial plant: US\$15 million
- **Perpetual royalty range of 7 - 12% of GLE revenues** (based on calculation of cost per unit production installed)



Advantages of the SILEX Technology

- Enrichment is the most difficult and costly step in making nuclear fuel for power reactors (~35% to 40% of total cost)
- SILEX is a breakthrough in efficiency – most cost effective enrichment method
- Anticipated to have the lowest capital costs of all enrichment technologies
- Smaller footprint than centrifuge and diffusion plants
- The only 3rd generation laser-based enrichment technology in the world
- Classified technology - protected by the strictest security measures



Nuclear Fuel Production

GLE's Phased Approach to Commercialisation

Phase	Objectives	Status
Phase I:	Technology validation - Test Loop facility and NRC commercial plant license approval	Completed
Phase II:	Economic and engineering validation for the initial commercial production plant	Commenced in 2012
Phase III:	Construction of the first full-scale commercial production facility	Yet to commence

GLE's commercial focus

- GLE is targeting a production capacity of up to 6 MSWU's* for the commercial plant planned for Wilmington, NC
- **Paducah, Kentucky – new commercial plant opportunity currently under negotiation**

* A Separative Work Unit (SWU) is the standard commercial unit of enrichment

Recent Highlights

SILEX Laser Enrichment

September 2012: Commercial Plant License

- ✓ US Nuclear Regulatory Commission license approval for first planned commercial plant in Wilmington, North Carolina

May 2013: Technology Validation

- ✓ Phase I Test Loop Milestone successfully completed – triggering US\$15 million milestone payment to Silex Systems from GLE

November 2013: Paducah Opportunity

- ✓ GLE's proposal to establish a laser enrichment facility at Paducah, Kentucky to turn tails inventories into natural uranium selected by the US Department of Energy (DOE) for future operations – negotiations expected to be completed within the next few months

Paducah Enrichment Plant Opportunity Update

US DOE selected GLE's laser enrichment proposal in November 2013

- Closure of existing 1st generation gaseous diffusion plant in May 2013 – led to Department of Energy (DOE) bid process for future operations.
- GLE submitted a proposal to the DOE in August 2013 involving construction of a SILEX-based laser enrichment plant at the Paducah site.
- DOE selected the GLE proposal exclusively in November 2013 for possible future commercial operations at Paducah.
- Negotiations between the DOE and GLE underway.
- Potential for SILEX Technology to enrich high assay tails stockpiles owned by the DOE to produce 'natural' grade uranium for sale into the global uranium market
- Enrichment of DOE tails stockpiles equivalent to one of the largest uranium mines in the world operating for around 40 years.



Paducah Enrichment Plant Site

Nuclear Energy Market Outlook

Global Nuclear Capacity to Increase

- Potential increase in nuclear capacity from 434 plants today to ~ 987 plants over next 2 decades

Key Nuclear Markets – power plants

Country	2014	2030**
TOTAL – all Countries	434	987
US	100	127
China	20	224
India	21	84
Saudi Arabia / UAE	0	16
Japan	48*	63

* All 48 operable reactors currently offline

** Assumes current operable reactors remain in service

Key Statistics

- ✓ 11 percent of global electricity
- ✓ 434 operable reactors
- ✓ 70 new plants under construction
- ✓ 173 plants planned
- ✓ 310 plants proposed

Why Nuclear Power is Essential to Sustainable Growth

Equivalent 1GWe Power Generation Plants

Nuclear



Coal



Gas



Fuel / yr*

~20 tons

~4,000,000 tons

~1,000,000 tons

CO2 Emissions*

0 tons

~6,000,000 tons

~3,000,000 tons

Cost*
(LCOE) / MWh

\$65 ~ \$100

\$65 ~ \$100

\$55 ~ \$100



*Sources: Various third party documents and websites. All figures are approximate for purposes of comparison.

SILEX Technology Royalty Business Model

Our business model for uranium enrichment:

Only 3rd Gen technology

- The only 3rd generation enrichment technology in the world

Cost free commercialisation

- No further development costs or capital investment from Silex

High value perpetual royalty

- Contracted range of royalty rates set into perpetuity

Long term growth story

- Nuclear power capacity set to double over the next two decades



Section 3

Solar Systems: CPV Dish Technology and Utility Scale Projects

Key Highlights HY 2014

Solar Systems CPV Dish Technology

Technology Validation

- ✓ Australia's first grid-connected Concentrating Photovoltaic (CPV) Dish Solar Power Station (1.5MW, 40 dishes) opened in Mildura, Australia (July 2013)
- ✓ The plant is operating and exporting electricity to the grid
- ✓ Operating data from the plant being collected and evaluated to provide information on the plant performance and reliability

Utility-scale Projects

- ✓ Planning and preparatory activities underway for the possible development of utility-scale projects (including potentially a 100MW power station at Mildura)

Key Highlights HY 2014

Solar Systems CPV Dish Technology

Global Market Opportunities

- ✓ Construction of a 1MW (28 dish) power plant at the Nofa Equestrian Resort near Riyadh, Saudi Arabia, is almost complete and commissioning has commenced
- ✓ Business development activities are primarily focused on additional mid-sized project opportunities (10 to 50MW) in Australia, the Middle East and potentially the USA

Commercialisation

- ✓ The performance and data collected from the Mildura 1.5MW demonstration facility will be used to determine the economic viability of the technology
- ✓ Initiatives are underway to reduce the Levelised Cost of Energy (LCOE) produced by the technology via increase in efficiency and reduction of installed cost

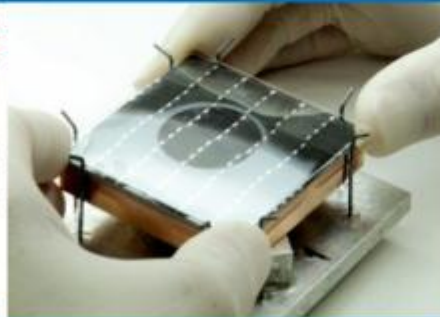
Advantages of Our Solar Technology

- The unique 'Dense Array' Dish Concentrator combines the world's most efficient solar cells (current efficiency >40%, with roadmap to >50%) with low cost balance of system
- Parabolic dishes accurately track the sun to capture sunlight and focus onto the 'Dense Array' converter producing high energy yield all day everyday
- Potential to be a low cost energy producer for utility-scale power stations (10MW or greater capacity) deployed in key markets with high quality solar irradiation
- Current focus on reducing the Levelised Cost Of Energy (LCOE) for electricity produced

Key elements in the Solar Systems Technology



Manufacturing
Melbourne



CPV Module
6cm x 6cm



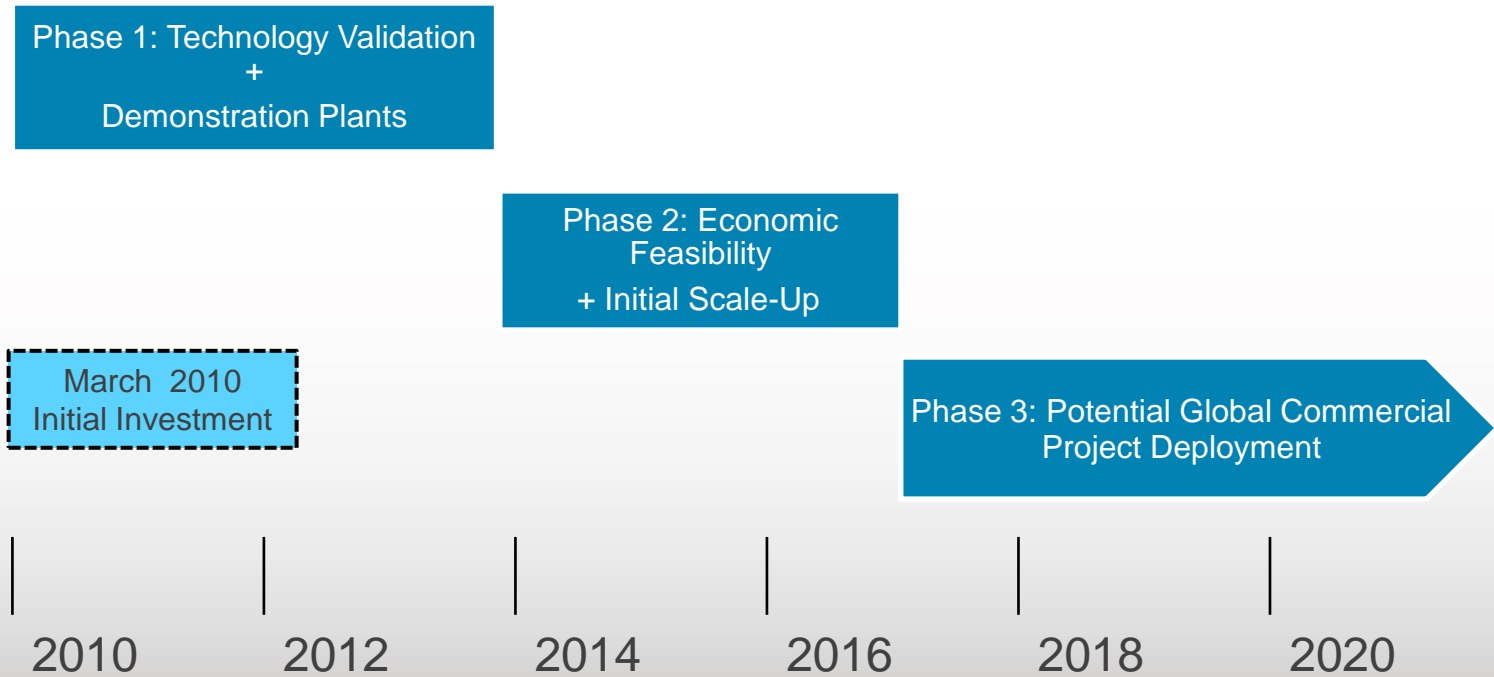
CPV Converter
0.25m²



CS500 Dish
15m Diameter

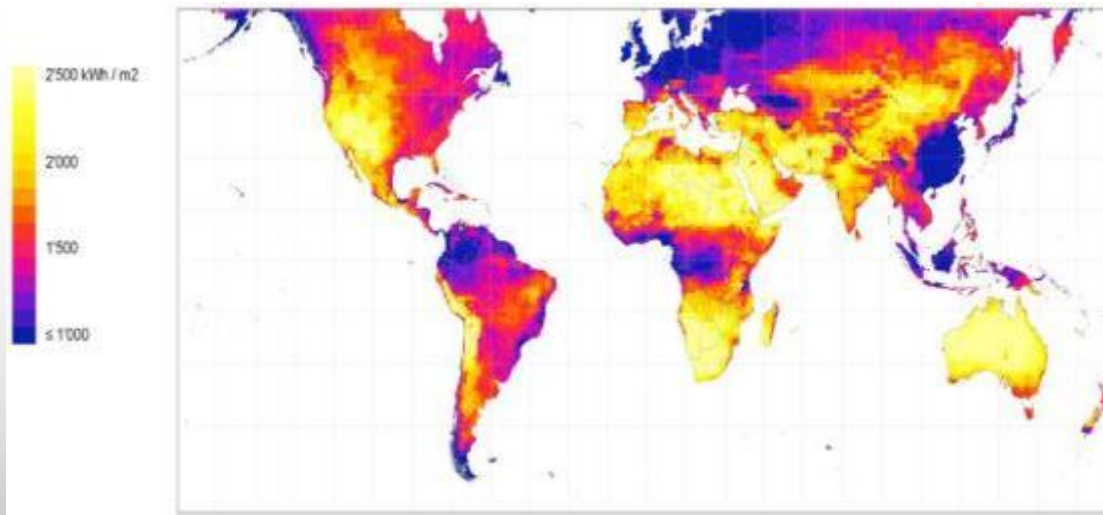
Solar Systems Stage Gated Business Development Strategy

- Phase 1: Technology validation completed in 2013
- Phase 2: Economic feasibility underway 2014 – 2016



Current Development Pipeline

Project	Location	Capacity	Planning	Construction
Mildura (Stage 2)	Victoria, Australia	100 MW	Underway	TBA
QLD	Queensland, Australia	10 to 50 MW	Pre-feasibility	TBA
Nofa	Tibrak, Saudi Arabia	1 MW	Completed	Commissioning underway
Beaumont	California, USA	Up to 1 MW	Pre-feasibility	TBA
	Total	Up to 152 MW		



■ = Highest Direct Normal Irradiance (DNI) of sunlight

Solar Systems key target markets

- Australia
- Middle East
- Southern Europe
- USA
- China
- Sub-continent
- Southern Africa
- Chile

Australian Utility–Scale Power Station Opportunities

Planning and Preparation Activities

- Several mid to large scale projects being considered
- Preliminary discussions (financing, construction, grid connection, transmission and PPA)
- Potential 100MW project at Mildura - subject to successful operation of the 1.5MW facility and satisfaction of all financial prerequisites
- Continued support from ARENA is important (Federal Government review of renewables policy underway)

Mildura 100MW Project Potential Funding

- Federal Government (ARENA) conditional commitment: \$75 million
- Victorian Government conditional commitment: \$35 million
- **Total conditional Government commitments: \$110 million**
- Balance of project costs likely to be raised in Special Purpose Vehicle (i.e. not via Silex capital raising).



Artist impression: Mildura (Stage 2)

Saudi Arabia – a Key Market for Solar Systems CPV

Nofa Resort 1MW Facility – Saudi Arabia

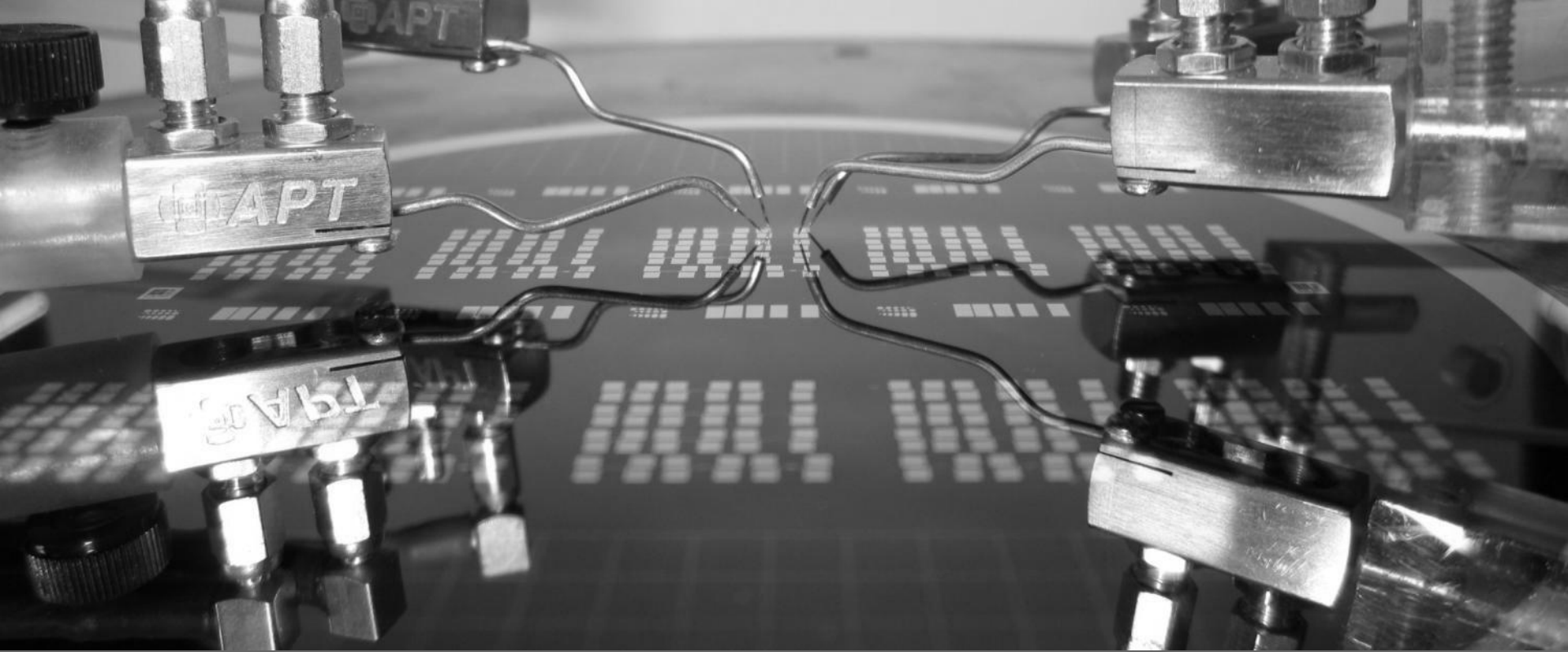


Construction progress as of January 2014

- Construction well advanced for 1MW solar power facility (28 Dish units)
- Commissioning underway – expected completion in Q1 2014

- Saudi Arabian government launching a 40GW solar power program worth US\$109 billion
- Aim to replace domestic oil consumption by 2032 (annual revenue loss ~US\$100 billion)
- Ideal region for Solar Systems' CPV technology – high DNI sunlight factor





Section 4

Translucent Advanced Materials Technology

Initial Applications – Epiwafer Products

- Silicon has reached its performance limits and cannot perform power conversion as efficiently as GaN
- GaN-on-Si is emerging as the future substrate for high efficiency power conversion devices

Epiwafers



GaN-on-Si for power conversion
Ge-on-Si for MJ solar cells for CPV

Future applications

- Photonics & lasers
- LED substrates
- Communications
- RF/Microwave electronics

Power Conversion applications



Electric vehicle power converters



Computer power supplies



Electric lighting power converters (eg: street lights)

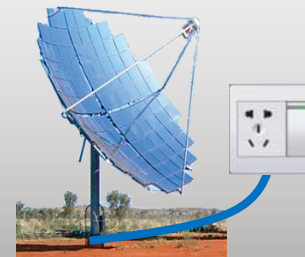


Motor controllers for electrical appliances



Power conversion (e.g. solar inverters)

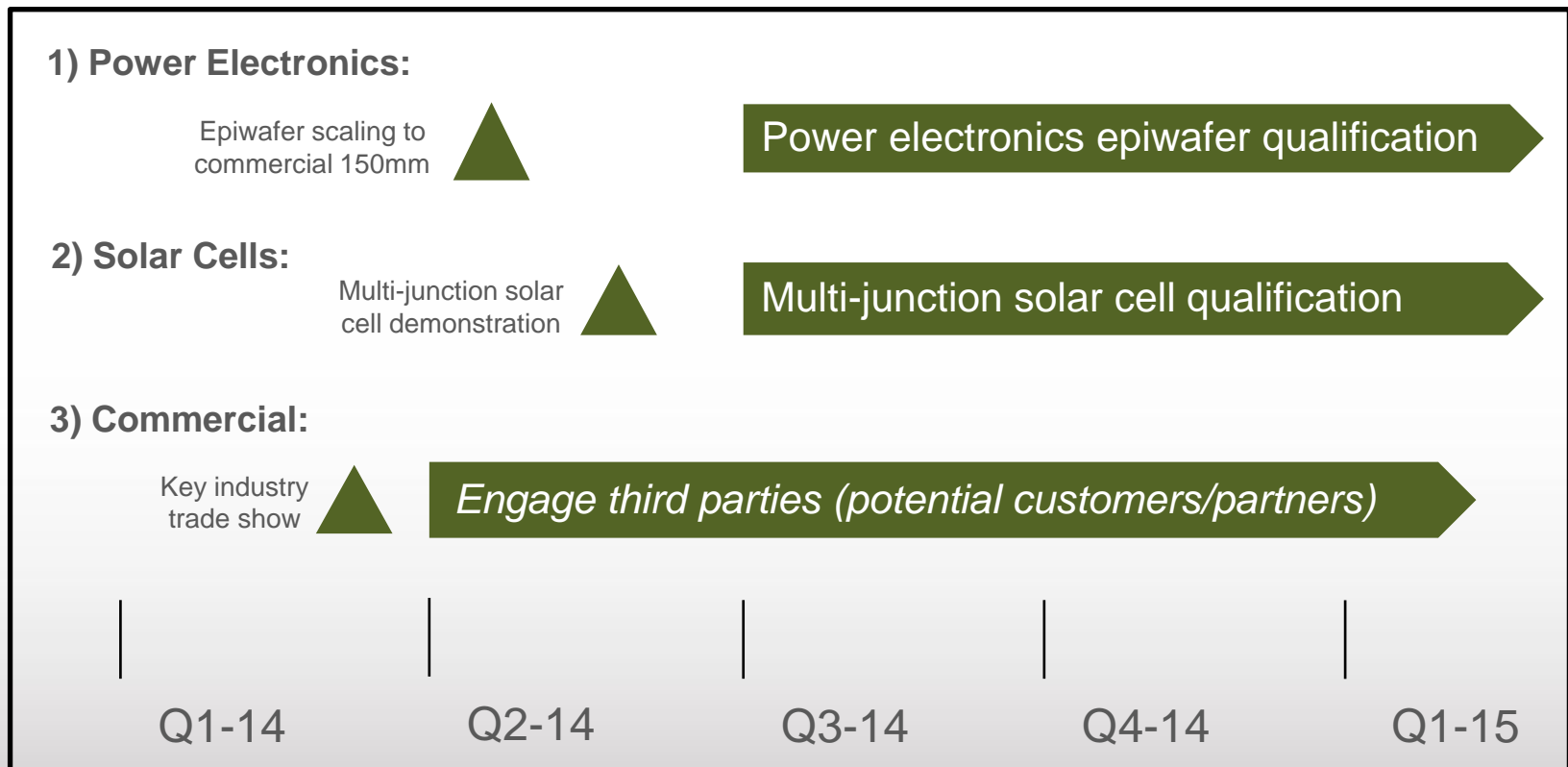
CPV



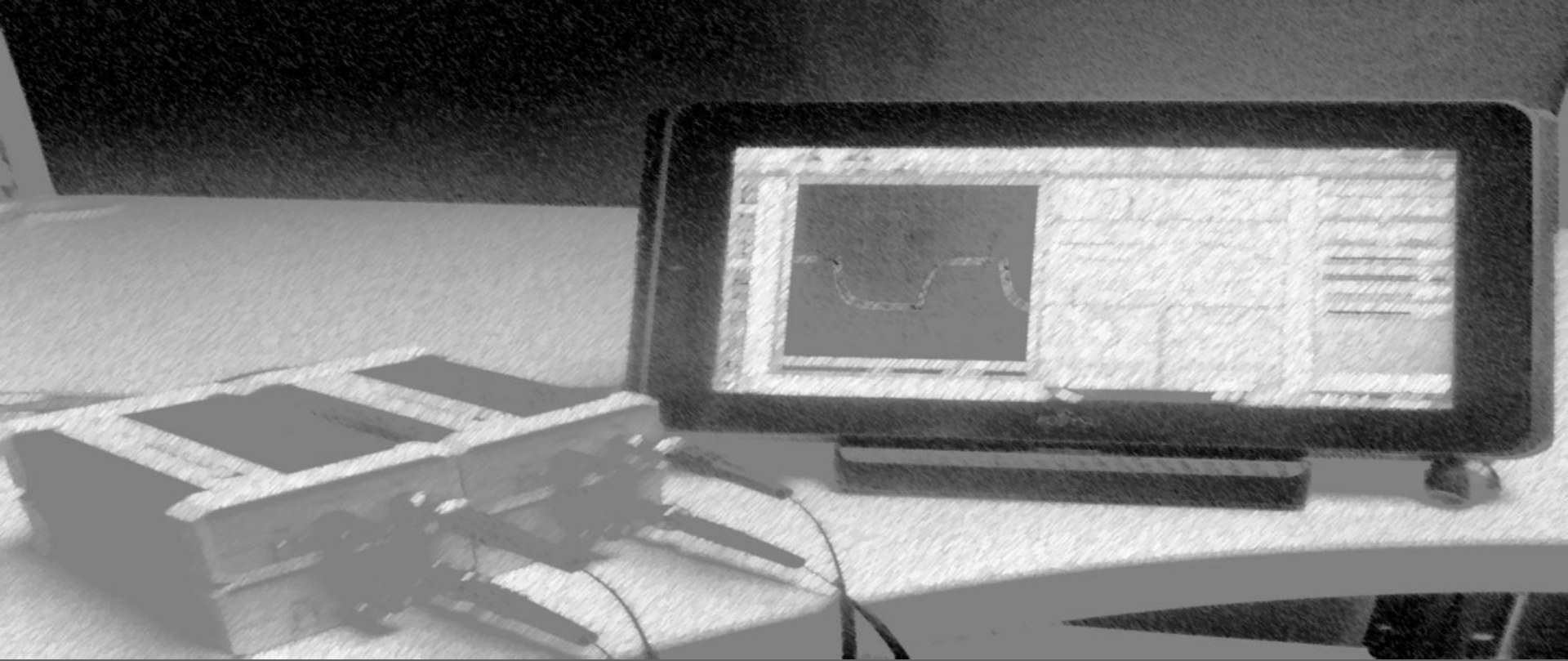
Ultra-high efficiency multi-junction Solar Cells

Key Milestones – Provisional Commercialisation Timeline*

- Fabricating device prototypes H1-2014 to leverage customer engagement H2-2014
- Planned first epiwafer product qualification for power electronics and solar H2-2014



*Timeline subject to changes



Section 5

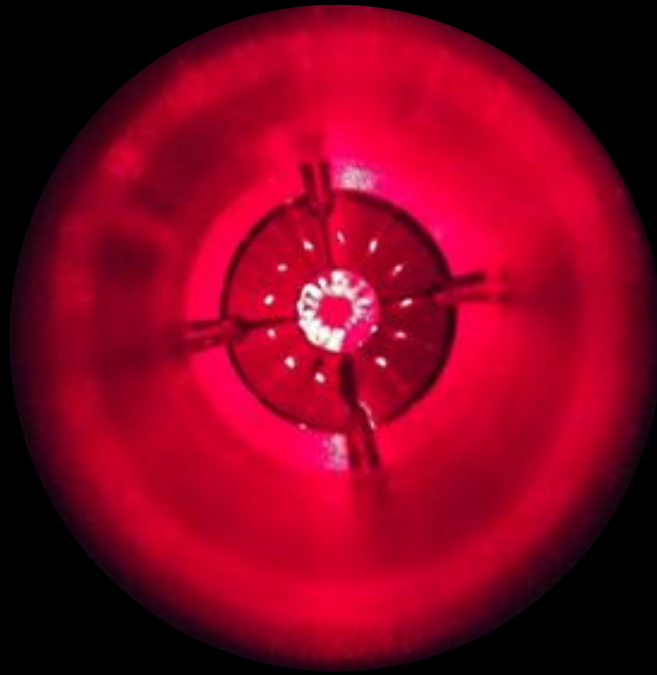
ChronoLogic Instrumentation Technology

Highlights and Commercial Strategy

- Productive outcomes from two trade show exhibitions in Shanghai (November) and Santa Clara – California (January) – with growing industry interest
- Third generation USB-inSync™ technology completed and successfully demonstrated to several key industry players – now ready for productisation
- Discussions with third parties focused on OEM partnerships and future divestment strategies – expect to confirm plans in the next few months

➤ **Management remains committed to achieving a good commercial outcome**





Section 6

Silex Systems Overview

Potential Milestones and Value Drivers for Silex

Timing	Drivers
Short Term	<ul style="list-style-type: none"> ✓ Potential Paducah Opportunity – SILEX laser enrichment technology ✓ Solar Systems utility-scale project plans in Australia ✓ Translucent commercialisation milestones and partnering activities ✓ ChronoLogic OEM partnering and divestment opportunities
Medium Term	<ul style="list-style-type: none"> ✓ Potential GLE initial commercial plant construction ✓ Translucent initial commercial production and divestment opportunities ✓ Solar Systems' partnering options and potential development of utility-scale power station projects
Long Term	<ul style="list-style-type: none"> ✓ Potential growing royalty stream from commercial uranium enrichment ✓ New or expanded opportunities in the clean energy / high tech sectors

NB: All potential value drivers listed above are based on forward-looking forecasts and assumptions which involve various risks and vulnerabilities. Please refer to 'Forward Looking Statements' on slide 2

Silex Core Investment Case

- ✓ Primary asset: the 'SILEX' uranium enrichment technology - the only third generation laser-based enrichment technology in the world
- ✓ SILEX technology is under licence to Global Laser Enrichment (GLE) - a business venture of GE (51%), Hitachi (25%) and Cameco (24%)
- ✓ GLE is funding the uranium enrichment commercialisation program
- ✓ Silex will potentially be entitled to a perpetual royalty (of 7 to 12% - depending on plant capex) on GLE's uranium enrichment revenues
- ✓ Additional portfolio of innovative technologies on the path to commercialisation in solar energy, power electronics, photonics and precision timing instruments
- ✓ Market cap of ~\$370m and sufficiently funded to execute commercial strategies with current cash balance of ~\$66.5m
- ✓ Potential for capital growth as the global nuclear fuel market recovers and grows



Thank you

