



Kayelekera

**Proven** Uranium Producer

**121 MINING AFRICA CONFERENCE - FEBRUARY 2021**

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For information relating to the Restart Scoping Study in this document, refer to ASX announcement dated 20 October 2020. The Company confirms that In relation to the Restart Scoping Study announced on 20 October 2020, it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions underpinning the forecast financial information included in that announcement continue to apply and have not materially changed.

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# Lotus Resources – Why invest?

- Lotus Resources is a low capital cost and proven option in the uranium sector through its ownership of the Kayelekera Project in Malawi
  - US\$200m spent on infrastructure at Kayelekera
  - 11Mlbs of historical uranium production
  - 37.5Mlb existing resource with limited exploration during the past 20 years<sup>1</sup>
- Positive Scoping Study confirmed Kayelekera as a low capital cost (US\$50m), long-life operation (14yrs) with additional upside identified<sup>2</sup>
- Discussions underway with multiple, major nuclear utilities globally
  - 100% of historical production accepted by conversion facilities in the U.S., Canada and France
- Significant exploration upside – limited exploration during the past 20 years
  - Multiple near-mine exploration target areas under review
  - Milenje Hills high-grade Rare Earth Oxides (REO) discovery
- Board and management team with 40 years in uranium marketing and mining and 60 years in African mining project development and financing experience
- Uranium market poised for a significant re-rating due to impending supply and demand imbalance caused by sustained low pricing for the past decade
- Significant valuation discount compared to peers

1 – ASX Announcement 26<sup>th</sup> March 2020; 2 – ASX Announcement – 20<sup>th</sup> October 2020

## CAPITAL STRUCTURE

808.9m

SHARES ON ISSUE

\$120m

MARKET CAP

At \$0.15 / share

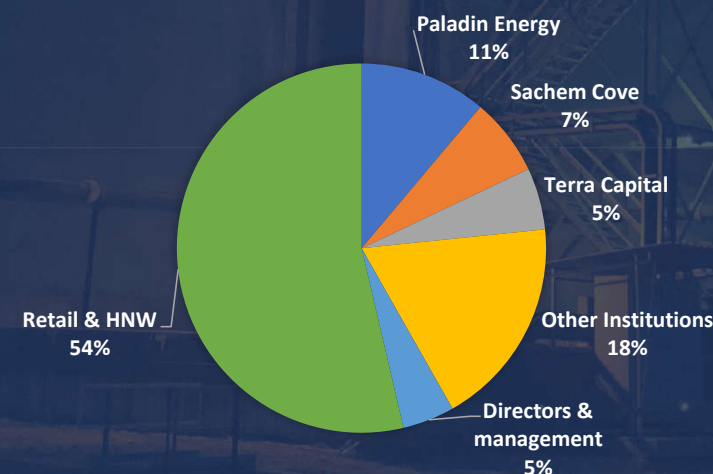
\$6.6m / \$19.6m

CASH AT DEC 2020  
Unrestricted / Restricted

113.8m

OPTIONS

## OWNERSHIP STRUCTURE



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# Kayelekera is a Proven Uranium Producer



**1.4Mtpa processing facility**  
US\$200m spent on infrastructure

**Proven production**  
11Mlbs of production over 5 years

**Significant Resource**  
37.5Mlb Resource <sup>1</sup>  
~83% M&I

**Permitted for production**  
with strong government support

**Low C&M costs**  
US\$1.2M pa <sup>2</sup>  
guidance to minimise cash outflow

1 – ASX Announcement 26<sup>th</sup> March 2020; 2 – ASX Announcement – 9 July 2020 (Care and maintenance operating cost guidance at the Kayelekera Uranium Project reduced by 75% to an annualised operating cost of US\$1.2M from the original 2019 budget estimate of c.US\$5M).



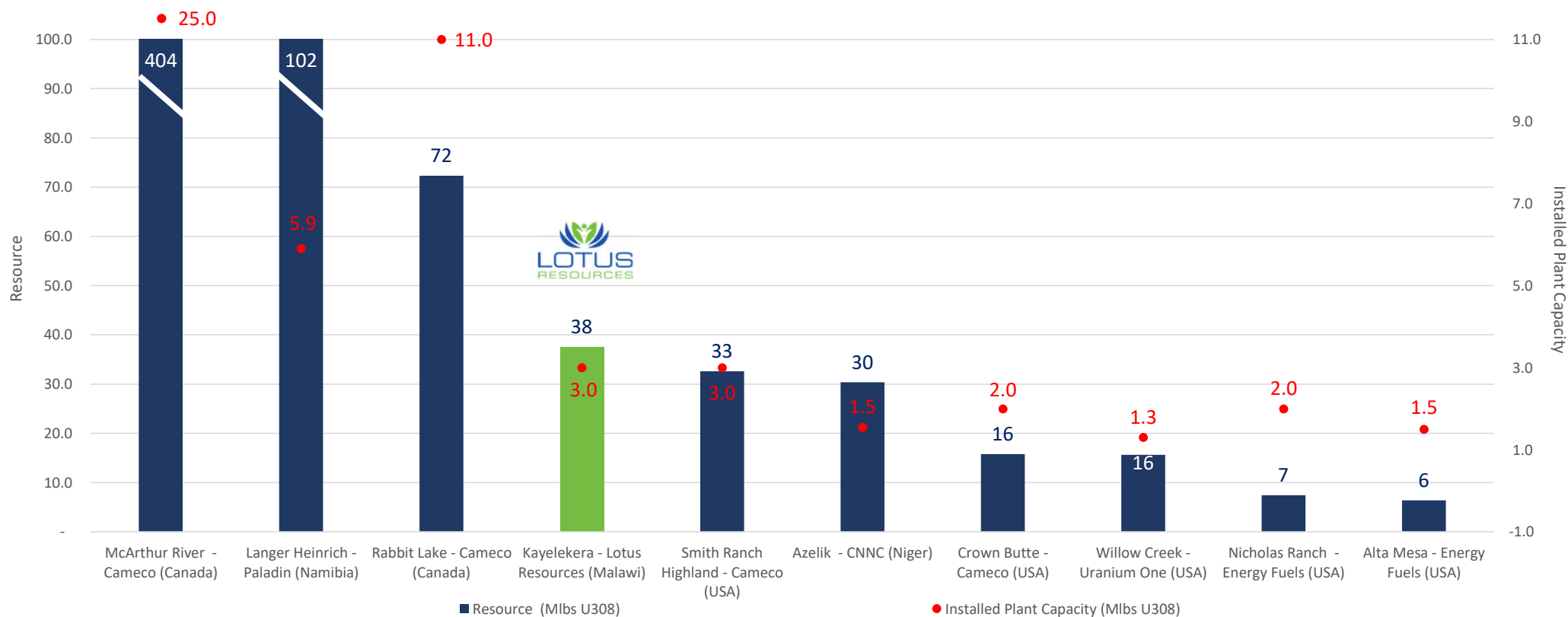
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# Established and Proven Producers First to Respond

Top 10 brownfield C&M assets that achieved commercial production



Further details are provided in the Appendix 2



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# Scoping Study Confirms Low Initial Capital & Rapid Start Up Potential

- Scoping Study<sup>1</sup> confirms Kayelekera can be among the first uranium projects to recommence production
- Low total initial capital cost of US\$50M, due to existing infrastructure
  - 1.4Mtpa processing facility, onsite acid plant and accommodation camp.
  - Initial capital intensity of US\$21/lb production - one of the lowest in the industry.
- Two production scenarios initially considered:
  - Scenario 1: 8-year life of mine, producing 16.4Mlbs  $U_3O_8$  (~900ppm  $U_3O_8$ ).
  - Scenario 2: 14 years life of mine, producing 23.8Mlbs  $U_3O_8$  with treatment of stockpiles from year 8 (average head grade ~680ppm  $U_3O_8$ ).
- C1 cash costs of US\$33/lb  $U_3O_8$  with average production of 2.4Mlbs  $U_3O_8$  per annum, and multiple opportunities identified to further reduce these costs, including:
  - Upgrading of feed materials (higher  $U_3O_8$  grades and lower acid consumption)
  - Improved options around power supply
  - Acid recovery rationalisation
  - Optimised tailings disposal options
- Following the positive outcomes of the Scoping Study work has now commenced on technical improvements leading to a Feasibility Study

1. LOT ASX announcement – 20<sup>th</sup> October 2020



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# Near mine and greenfield exploration potential

+20 years of limited exploration presents long term upside with additional Rare Earth potential

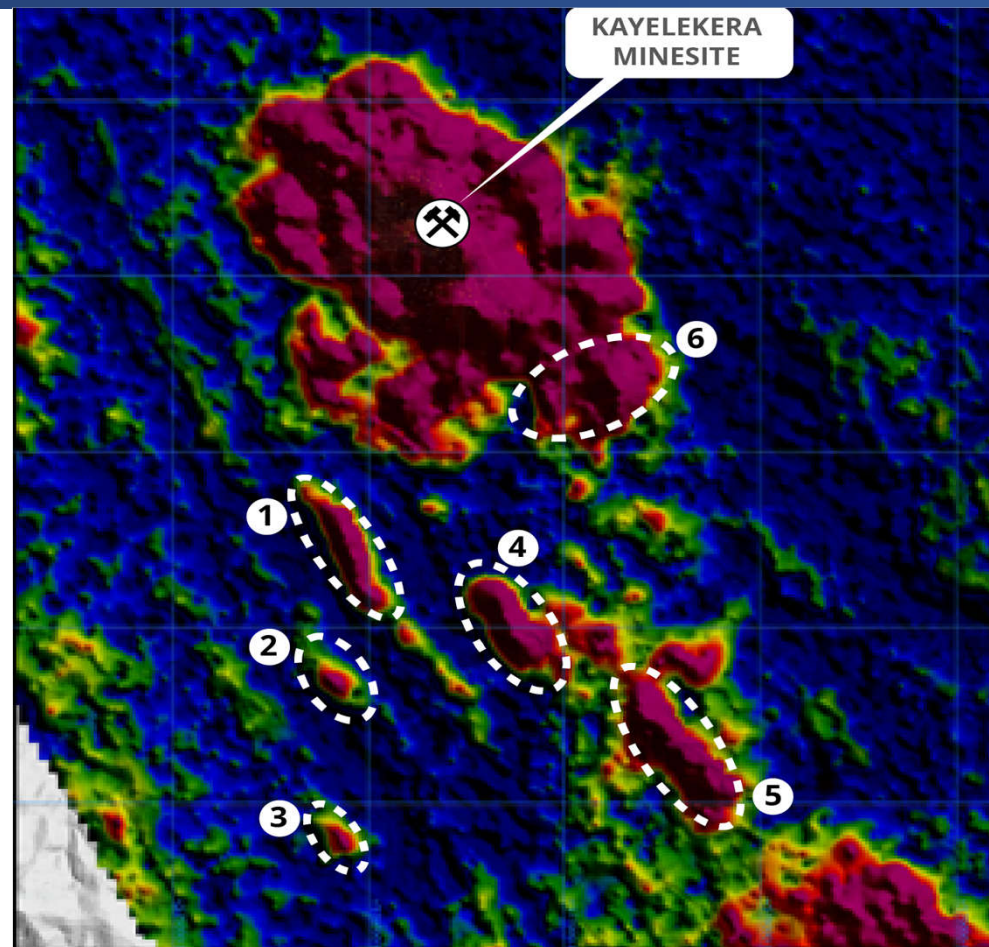
- Kayelekera total endowment of 50Mlbs including current resource (37.5Mlbs)<sup>1</sup> and historical production (11Mlbs)
  - Significant greenfield opportunities (5 exploration licences over 675km<sup>2</sup>)

## **Brownfield targets<sup>2</sup>**

- Kayelekera South – six anomalous radiometric targets within 3km of the mine site with no historical drilling
- Mpata – cluster of radiometric anomalies defined outside of mining licence area but within 10 km of the mine site
  - Limited historical drilling in the area encountered +250 ppm eU<sub>3</sub>O<sub>8</sub>

## **Milenje Hills high-grade Rare Earth Oxides (REO)<sup>3</sup>**

- Geophysics, mapping and trenching identified and discovered high-grade REO material of up to 16% (Av. 8%) and 3.4% (Av. 1.6%) CREO
- Highly desirable assemblage - Neodymium and Praseodymium oxides represent on average ~20% of the TREO
  - Neodymium (Nd), Europium (Eu), Terbium (Tb), Dysprosium (Dy), Yttrium (Y), and Praseodymium (Pr) have seen price increases since last year
- Additional low-cost work to determine the potential of this discovery, prior to assessing the optimal path forward to crystallise value



1 – ASX Announcement 26 March 2020; 2 – ASX Announcement – 16 December 2020; 3 – ASX Announcement – 1 February 2021



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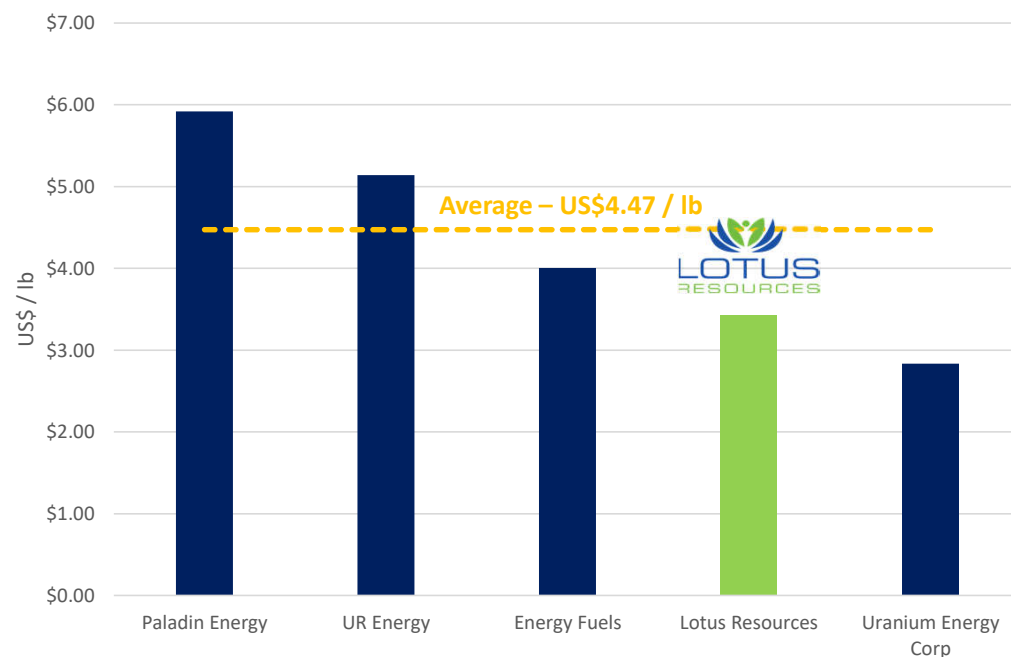
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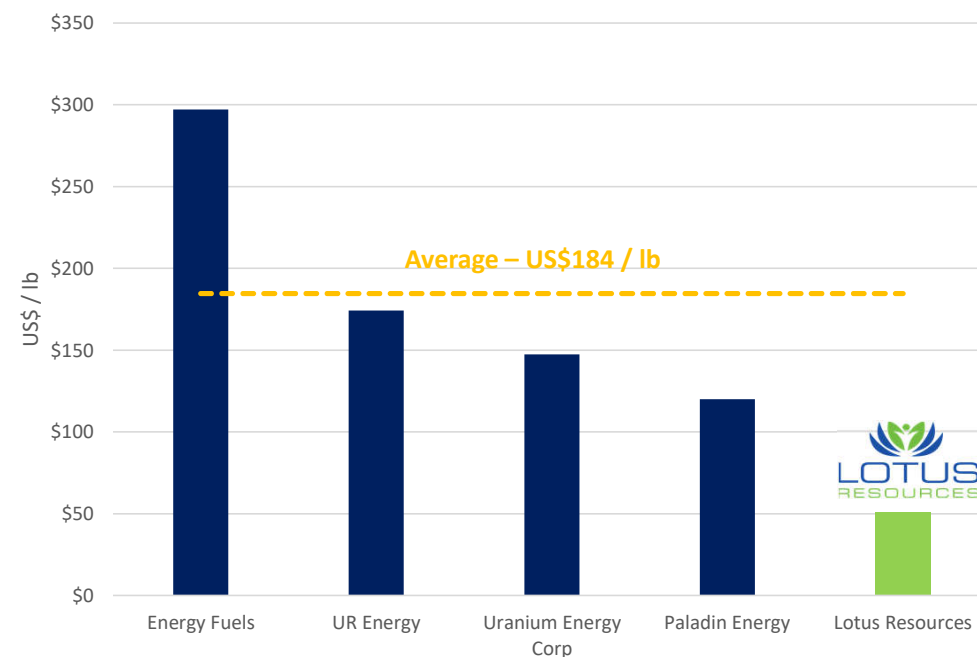
# Attractive Upside Valuation Compared to Peers

Peer group comprises brownfield assets that achieved commercial production

EV / Att. Resource<sup>1</sup>



EV / Att. Forecasted production<sup>1</sup>



1 - Further details are provided in Appendix 3



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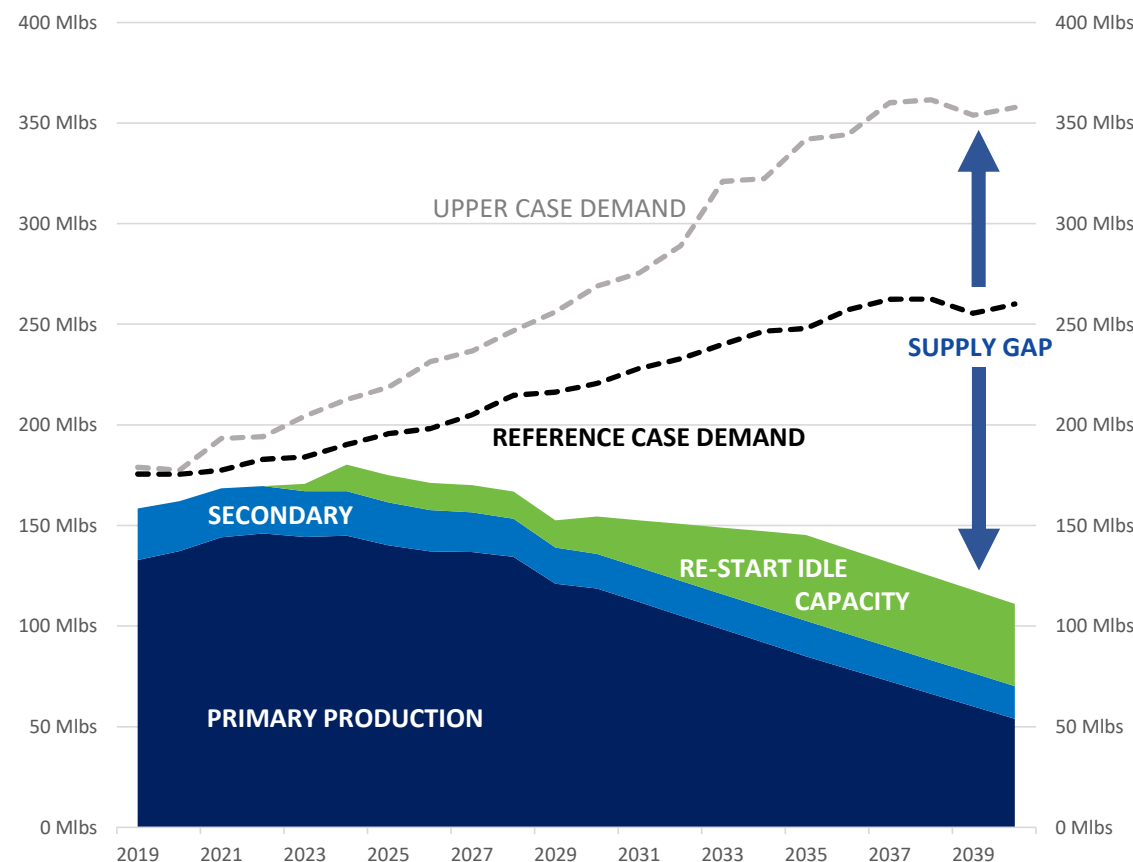
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# Uranium Positioned for Significant Re-rating

- A decade of low uranium prices has resulted in no new developments, discoveries and minimal exploration
- Supply and demand fundamentals have significantly tightened with an estimated 30 – 60Mlbs  $U_3O_8$  per annum shortfall expected by 2024 to 2028
- COVID 19 – Affected the uranium industry arguably more than any other with significant positive outcomes
  - ~40Mlbs of lost production in 2020 with similar losses expected through 2021
  - One of the best performing commodities in 2020 – 30% increase in spot price
  - Brought forward the impending supply deficit
- Stand off between producers and utilities
  - Higher price required to re-start idle assets and advance new developments
  - No substitute for end users; commercial inventories depleting
  - Utilities buying focused on ensuring long term guarantee of supply resulted in price increase during the last LT procurement cycle
  - The worlds second largest producer, CAMECO, is one of the largest buyers on spot market (26.2Mlb  $U_3O_8$  acquired during first 9 month of 2020)
  - Mayors are preserving long-term value by leaving uranium in the ground and buying uranium on the spot market until pricing increases



Source: WNA, Nuclear Fuel Report, September 2029; Note: Excludes production cuts through 2020

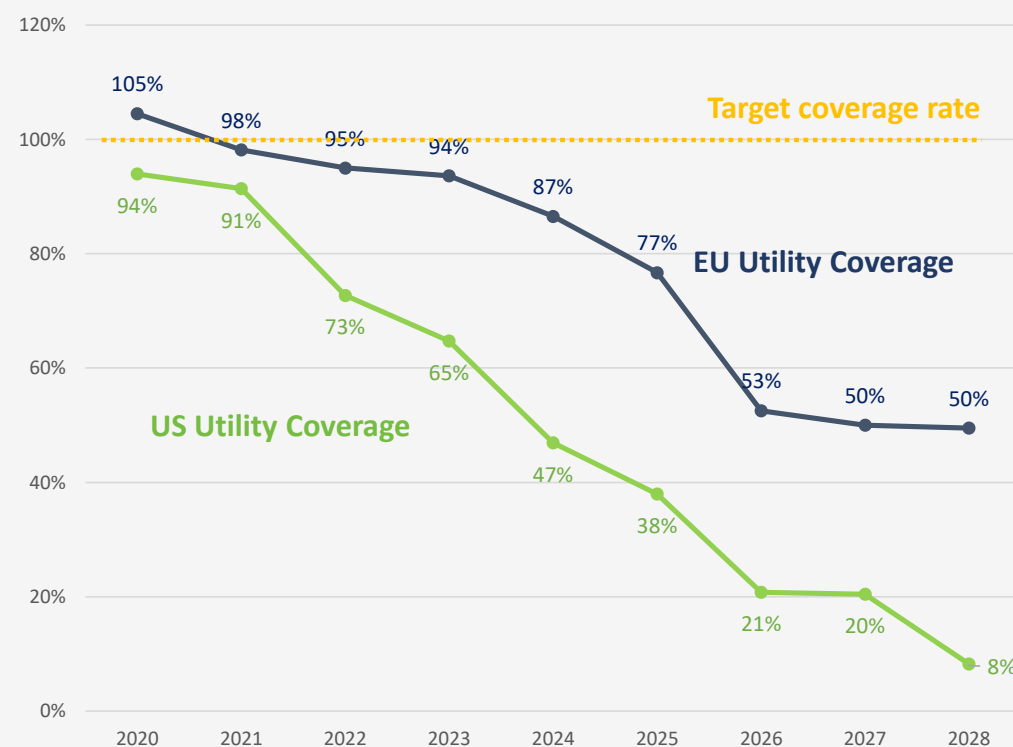


# Long-Term Contracting Cycle is Imminent

- Nuclear utilities cover their fueling needs through long-term contracts, which generally range between three to ten years
  - Typically, no more than 10% are bought on spot
- Decreasing utility contract coverage rates are observed by the market across North America, Asia and Europe
- Further to decreasing contract coverage rates, the market expectation for the next long-term procurement cycle by utilities is based on industry specific fundamentals:
  - Utilities need to ensure adequate long-term supply security to effectively generate electricity;
  - Nuclear fuel production and delivery cycle requires a minimum of 18-24 months; and
  - Most utility nuclear fuel inventories serve as a fuel bank for strategic purposes.
- Lotus has commenced discussions with major utilities globally regarding long-term base loading contracting<sup>1</sup>

Source: 1 - LOT ASX announcement – 25 August 2020

## UTILITIES FACING RAPID PURCHASING



Source: US Energy Information Administration, EurAtom



# Significant Price Increase Required to Meet Growing Demand

2024

ST Demand

190Mlb

Mine Supply

160Mlb

**Annual Deficit**  
**30Mlbs U<sub>3</sub>O<sub>8</sub>**

2028

LT Demand

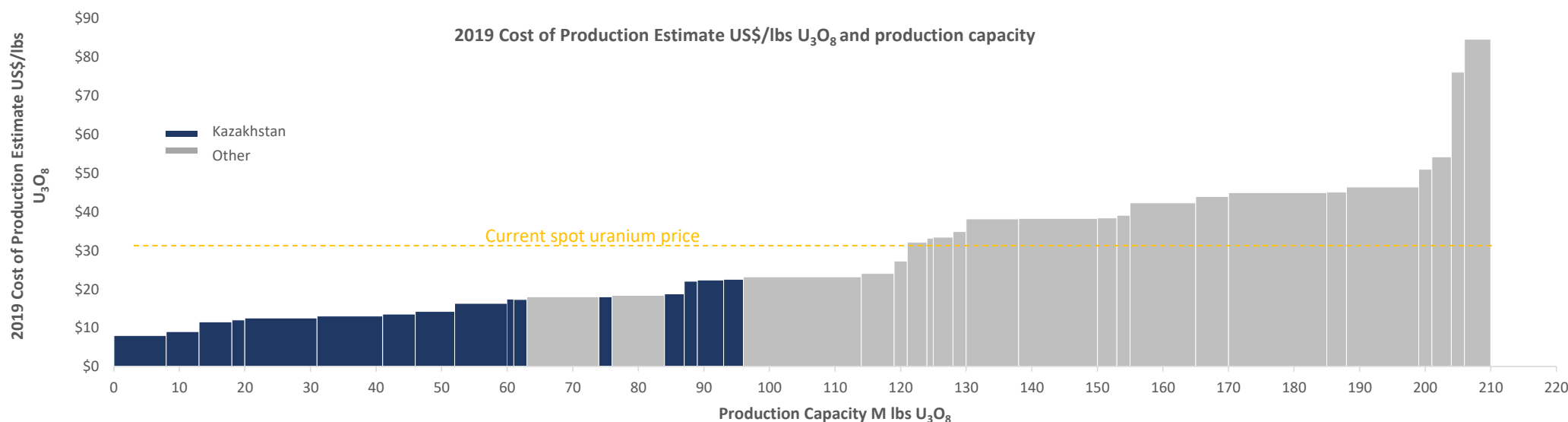
210Mlb

Mine Supply

150Mlb

**Annual Deficit**  
**60Mlbs U<sub>3</sub>O<sub>8</sub>**

Source: WNA, The Nuclear Fuel Report, September 2019; Note: Values based on the reference case rounded to the nearest 10Mlbs U<sub>3</sub>O<sub>8</sub>



Source: UxC

Note: (1) Installed uranium production capacity represents operating and idle production capacity installed for producing projects as of August 2019; (2) Cost of production comprises operating and capital costs. Operating costs are made up of mining costs, hauling, milling, production/property taxes, environmental costs, and royalty severance tax. Capital costs are made up of acquisition cost/exploration costs, mine development costs, environmental/infrastructure costs, and general and administrative costs.



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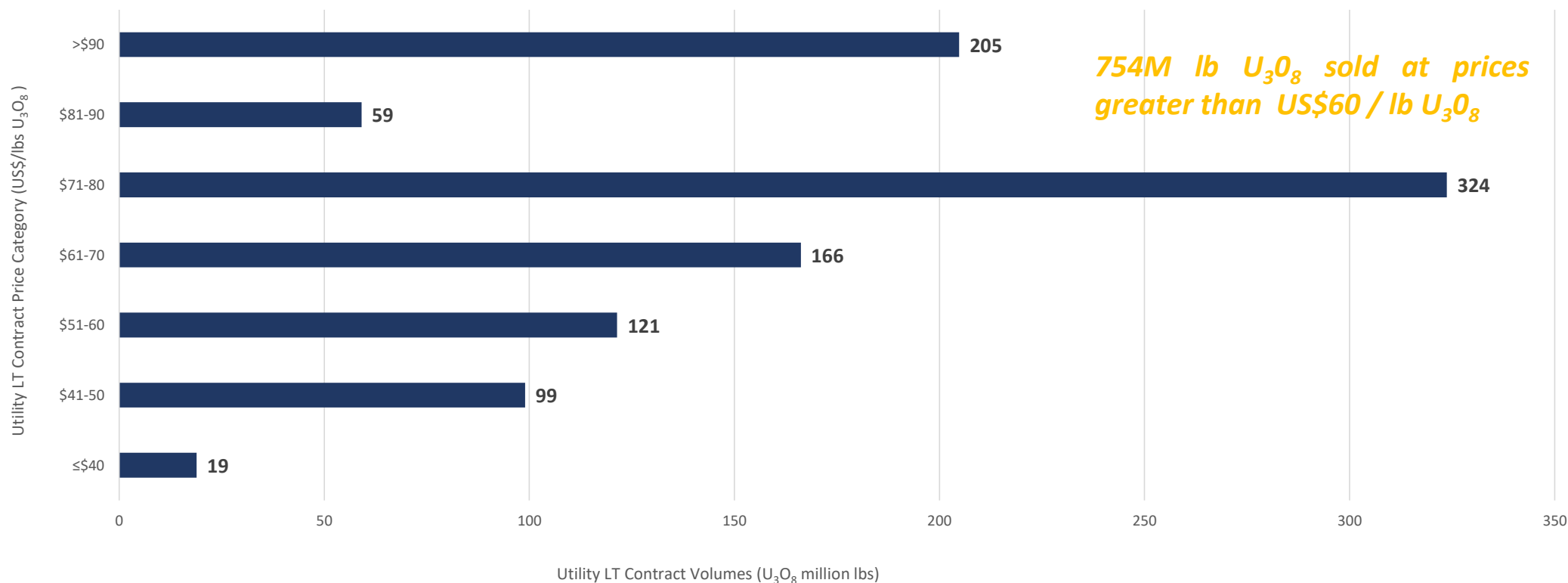
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# Favorable Long-Term Pricing During the Last Deficit Market

UTILITY LONG TERM CONTRACTING VOLUME AND PRICING (2006 – 2010)



Source: UxC, Aggregate utility long-term contracting volume and price for uranium in a 5-year period from 2006 to 2010



# Lotus Well Positioned for the Next Uranium Cycle

## **Significant existing infrastructure**

Low capex to recommence production

## **Proven production**

11Mlb of historical supply with sales to major utilities

## **Board & Management team**

Extensive African and uranium experience

## **Valuation Upside**

Significant valuation discount compared to peers

**STRONG PERFORMANCE THROUGH 2021 AND BEYOND**

**Scoping Study  
Completed**

**Engineering &  
Design Study**

**Uranium exploration  
& resource expansion**

**Baseload contact  
efforts**



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# Appendix 1 – Experienced Board and Management Team

Production, offtake, redevelopment and financing experience in uranium industry



**Eduard Smirnov**  
Managing Director

Eduard has significant international executive experience in the mining and metals sectors developed through his over 15-year career in the resources and financial industries. Eduard served as Uranium One's Chief Executive Officer from 2016 to 2019, responsible for uranium production, development and exploration in eight countries around the world and for the growth and management of the global utility order book.



**John Sibley**  
Non-Executive Chairman

John is a corporate director with extensive public and private company board and executive management experience in international mining and resource development, with a focus on corporate finance, M&A and governance. From 2005-2015, John served as EVP of Uranium One Inc. where he played a central role in the company's development into one of the world's leading uranium producers.



**Grant Davey**  
Non-Executive Director

Grant is an entrepreneur with 30 years of senior management and operational experience in the development, construction and operation of precious metals, base metals, uranium and bulk commodities throughout the world.



**Stuart McKenzie**  
Non-Executive Director

Stuart is a senior executive with extensive experience in the resources industry and financial markets.

He has over 30 years experience with 15 years experience working directly with resource companies in Africa.



**Keith Bowes**  
Head of Technical Committee

Keith is a highly regarded mining executive with over 25 years of experience working on project development and operations.

Keith project managed the Boss Resources' redevelopment program for the Honeymoon Uranium Mine including all study phases and technical trials of the new processing technology.





# Appendix 2 – Brownfield Uranium Assets

## Top 10 brownfield C&M assets that achieved commercial production

|                                         |                                                 |                                                           |                                               |                                                     |                                |                   |                   |                      |                   |                                |
|-----------------------------------------|-------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------|--------------------------------|-------------------|-------------------|----------------------|-------------------|--------------------------------|
| Project Name                            | Kayelekera                                      | Langer Heinrich                                           | Alta Mesa Project                             | Azelik Project                                      | Nicholas Ranch Project         | Rabbit Lake       | McArthur River    | Smith Ranch Highland | Crown Butte       | Willow Creek                   |
| Country                                 | Malawi                                          | Namibia                                                   | USA                                           | Niger                                               | USA                            | Canada            | Canada            | USA                  | USA               | USA                            |
| Major Owner                             | Lotus Resources                                 | Paladin Resources                                         | Energy Fuels                                  | CNNC                                                | Energy Fuels                   | Cameco            | Cameco            | Cameco               | Cameco            | Uranium One                    |
| Resource - Total (m lbs)                | 37.5                                            | 119.7                                                     | 6.4                                           | 30.4                                                | 7.4                            | 72.3              | 404.1             | 32.6                 | 15.8              | 15.6                           |
| Current capacity of processing facility | 3.0                                             | 5.9                                                       | 1.5                                           | 1.5                                                 | 2.0                            | 11.0              | 25.0              | 3.0                  | 2.0               | 1.3                            |
| Source:                                 | Kayelekera Updated Mineral Resource, March 2020 | Langer Heinrich Mine Restart Plan Presentation, June 2020 | Energy Fuels Annual information form & 43-101 | NEA: Uranium 2018: Resources, Production and Demand | Energy Fuels AIF 2019 & 43-101 | Cameco AIF - 2019 | Cameco AIF - 2019 | Cameco AIF - 2019    | Cameco AIF - 2019 | Uranium One Annual Report 2019 |



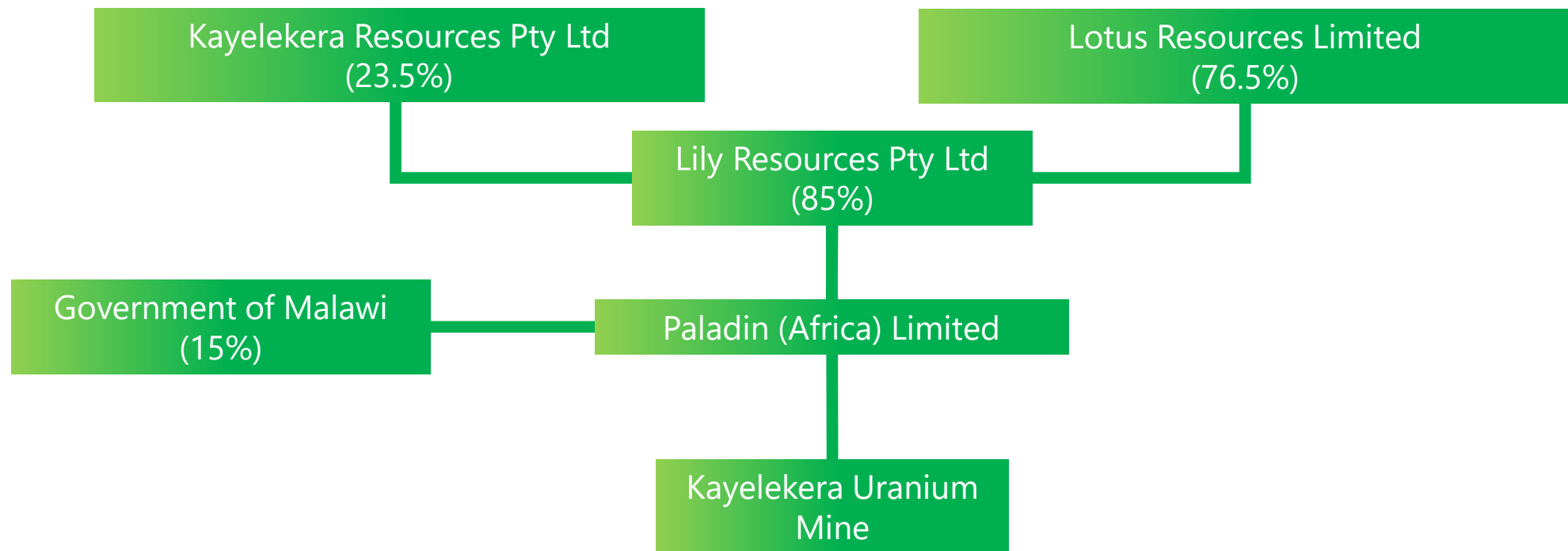
# Appendix 3 – Valuation Peer Comparison

Peer group comprises brownfield assets that achieved commercial production

| Company                                     | Lotus Resources                                                               | Paladin Energy                                            | UR Energy                              | Energy Fuels                           | Uranium Energy Corp                   |
|---------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------|
| Ticker                                      | LOT                                                                           | PDN                                                       | URE                                    | EFR                                    | UEC                                   |
| Exchange                                    | ASX                                                                           | ASX                                                       | TSX                                    | TSX                                    | NYSE                                  |
| EV (US\$ m)                                 | \$84                                                                          | \$531                                                     | \$139                                  | \$505                                  | \$295                                 |
| Project Name                                | Kayelekera                                                                    | Langer Heinrich                                           | Lost Creek                             | White Mesa / Nichols Ranch             | Hub & Spoke - Texas ISR & Wyoming ISR |
| Country                                     | Malawi                                                                        | Namibia                                                   | USA                                    | USA                                    | USA                                   |
| Ownership                                   | 65%                                                                           | 75%                                                       | 100%                                   | 100%                                   | 100%                                  |
| Resource - Total (m lbs)                    | 37.50                                                                         | 119.70                                                    | 27.10                                  | 126.14                                 | 103.89                                |
| Grade (ppm)                                 | 630                                                                           | 445                                                       | 401                                    | 1690                                   | 547                                   |
| % of Resource M&I                           | 83%                                                                           | 95%                                                       | 76%                                    | 61%                                    | 56%                                   |
| EV/ Att. Resource (US\$ / lb)               | \$3.40                                                                        | \$5.92                                                    | \$5.14                                 | \$4.00                                 | \$2.84                                |
| Stage of Development                        | C&M                                                                           | C&M                                                       | C&M                                    | C&M                                    | C&M                                   |
| Type of deposit (OP / UG / ISR)             | OP                                                                            | OP                                                        | ISR                                    | OP/ISR                                 | ISR                                   |
| Forecasted production (Mt pa)               | 2.5                                                                           | 5.9                                                       | 0.8                                    | 1.7                                    | 2.0                                   |
| EV / Att. Forecasted production (US\$ / lb) | \$51                                                                          | \$184                                                     | \$120                                  | \$298                                  | \$147                                 |
| Source:                                     | Kayelekera Updated Mineral Resource, March 2020 / Re-start Study October 2020 | Langer Heinrich Mine Restart Plan Presentation, June 2020 | Annual information form / Presentation | Annual information form / Presentation | Annual information form & 43-101      |



## Appendix 4 – Kayelekera Ownership Structure



Note: Kayelekera Resources Pty Ltd is a third-party financial investor. Lotus Resource and Kayelekera Resources entered into a shareholder's agreement in June 2019 that governs the rights and responsibilities of both shareholders. The key terms of the agreement are publicly disclosed in the Lotus Resources 2020 Annual Report issued on 1 October 2020.





# Appendix 5 – Kayelekera Project Development Milestones

**1982** The Central Electricity Generating Board of Great Britain discovered the Kayelekera sandstone uranium deposit

**1992** The project was abandoned due largely to the poor uranium outlook, as well as privatization of CEBG and resultant pressure to return to its core business

**1998** Paladin Energy acquired a 90% interest in Kayelekera through a joint venture with Balmain Resources Pty Ltd

**2005** Paladin acquired the remaining 10% interest in Kayelekera held by Balmain

**2005** Paladin announced the go-ahead of a Bankable Feasibility Study as a result of improved economics shown by the pre-feasibility work

**2007** Development Agreement with the Malawi Government, BFS and EIA, the Mining License was granted for a period of 15 years

**2008** Open-pit mining commenced in June 2008 to develop initial stockpiles

**2009** Commissioning began in January 2009, with first production achieved in April 2009

**2010** Kayelekera continued to ramp-up its production volumes and commercial production was declared from 1 July 2010

**2012** Paladin began a programme of plant upgrades towards a 3.3Mlb pa capacity with production optimization a key focus

**2013** The plant achieved record annual production totaling 2.963Mlb for FY2013

**2014** Kayelekera placed into care and maintenance in February 2014 due to low uranium prices

**2019** Lotus Resources (then Hylea Metals) agrees to acquire 65% of Kayelekera from Paladin Energy

**2020** Lotus completes the acquisition of Kayelekera from Paladin



# Appendix 6 – Kayelekera Mineral Resource <sup>1</sup>

| Category                              | Mt          | Grade<br>(U <sub>3</sub> O <sub>8</sub> ppm) | U <sub>3</sub> O <sub>8</sub><br>(M lbs) |
|---------------------------------------|-------------|----------------------------------------------|------------------------------------------|
| Measured                              | 0.7         | 1,010                                        | 1.5                                      |
| Measured – RoM Stockpile <sup>2</sup> | 1.6         | 760                                          | 2.6                                      |
| Indicated                             | 18.7        | 660                                          | 27.1                                     |
| Inferred                              | 3.7         | 590                                          | 4.8                                      |
| <b>Total</b>                          | <b>24.6</b> | <b>660</b>                                   | <b>36.0</b>                              |
| Inferred – LG Stockpiles <sup>3</sup> | 2.4         | 290                                          | 1.5                                      |
| Total All Materials                   | 27.1        | 630                                          | 37.5                                     |

1 - ASX announcement 26<sup>th</sup> March 2020.

2 - RoM stockpile has been mined and is located near the mill facility.

3 - Medium-grade stockpiles have been mined and placed on the medium-grade stockpile and are considered potentially feasible for blending or beneficiation, with studies planned to further assess this optionality.

