



PALADIN ENERGY LTD

DECEMBER 2018 HALF YEAR RESULTS

ASX: PDN

DISCLAIMER AND NOTES

JORC AND NI 43-101 MINERAL RESOURCES AND ORE RESERVES

This presentation includes certain statements that may be deemed “forward-looking statements”. All statements in this presentation, other than statements of historical facts, that address future production, reserve or resource potential, exploration drilling, exploitation activities and events or developments that Paladin Energy Ltd (the “Company”) expects to occur, are forward-looking statements.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward looking statements include market prices, exploitation and exploration successes, and continued availability of capital and financing and general economic, market or business conditions.

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In the following presentation, for those deposits that are reported as conforming to the Joint Ore Reserves Committee (JORC) 2004 or 2012 code, the terms Inferred Mineral Resources, Indicated Mineral Resources, Measured Mineral Resources, Ore Reserves, Proved Ore Reserves, Probable Ore Reserves and Competent Person are equivalent to the terms Inferred Mineral Resources, Indicated Mineral Resources, Measured Mineral Resources, Mineral Reserves, Proven Mineral Reserves, Probable Mineral Reserves and Qualified Person, respectively, used in Canadian National Instrument 43-101 (NI 43-101).

The technical information in this is extracted from the report entitled Paladin Energy Ltd 2018 Annual Report released on 28 August 2018 and is available to view on www.paladinenergy.com.au. The company confirms that it is not aware of any new information or data that materially affect the information included in the original announcement and, in the case of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not materially modified from the original market announcement.

Some of the information in this presentation, in relation to the mineral resources and ore reserves for all deposits except Langer Heinrich, Michelin, Jacques Lake and Manyingee was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with JORC Code 2012 on the basis that the information that the estimates are derived from has not materially changed since it was last reported.



CORPORATE SNAPSHOT

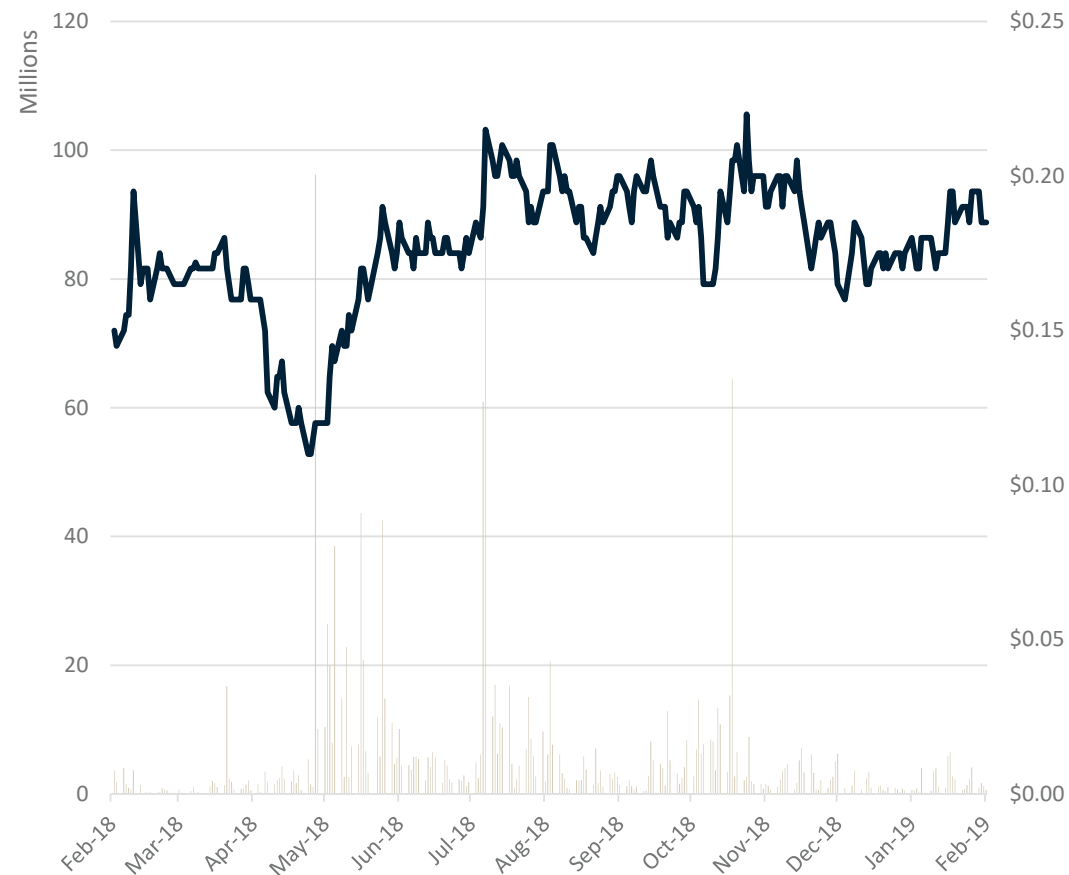
CAPITAL STRUCTURE *As at 22/02/2019*

Shares on issue	1,752M
Share price A\$	19.0c
Market capitalisation A\$	332.8M
Market capitalisation US\$ ¹	236.3M
Cash US\$ ²	33.0M
Debt US\$ ²	125.9M
Enterprise value US\$	329.2M

SUBSTANTIAL SHAREHOLDERS *As at 31/01/2019*

Tembo	12.76%
Paradice Investment Management	9.55%
Value Partners	9.14%
HOPU	6.87%
China Investment Corporation	5.49%
BlueBay Asset Management	5.40%

SHARE PRICE SINCE RE-STRUCTURE



¹ AUD/USD exchange rate 0.71

² As at 31 December 2018



DECEMBER 2018 HALF YEAR RESULTS UPDATE

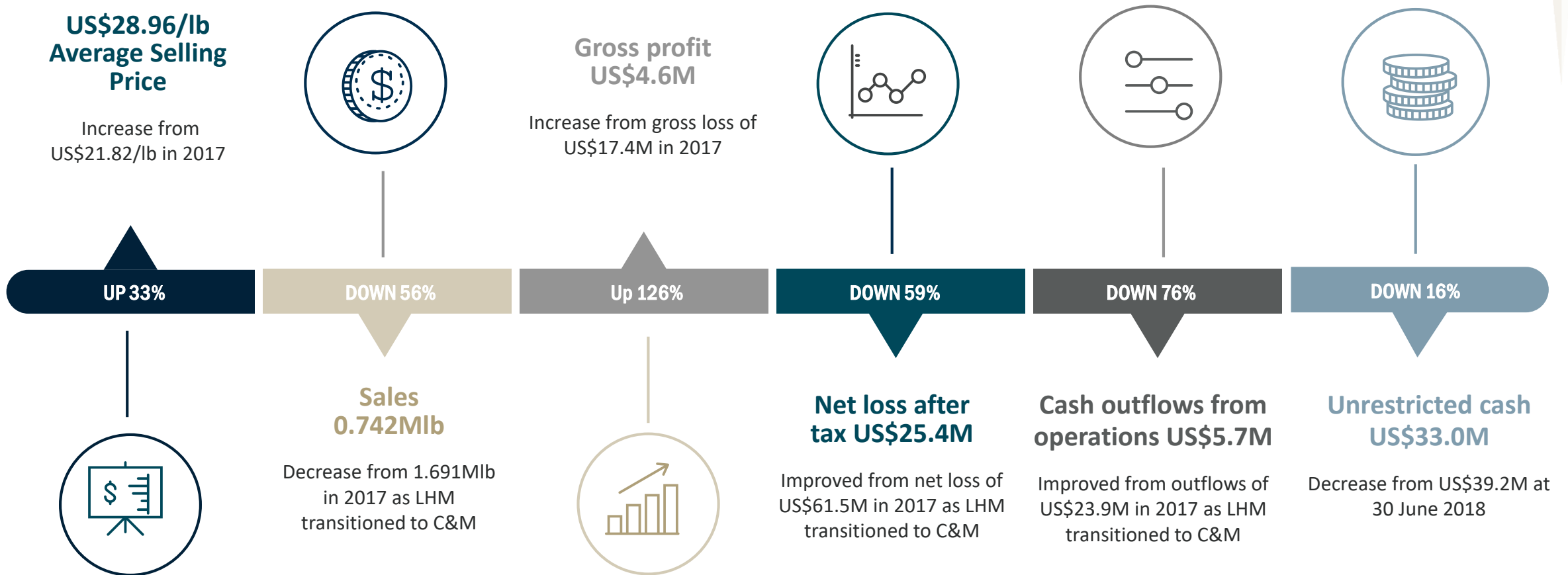
FINANCIALS



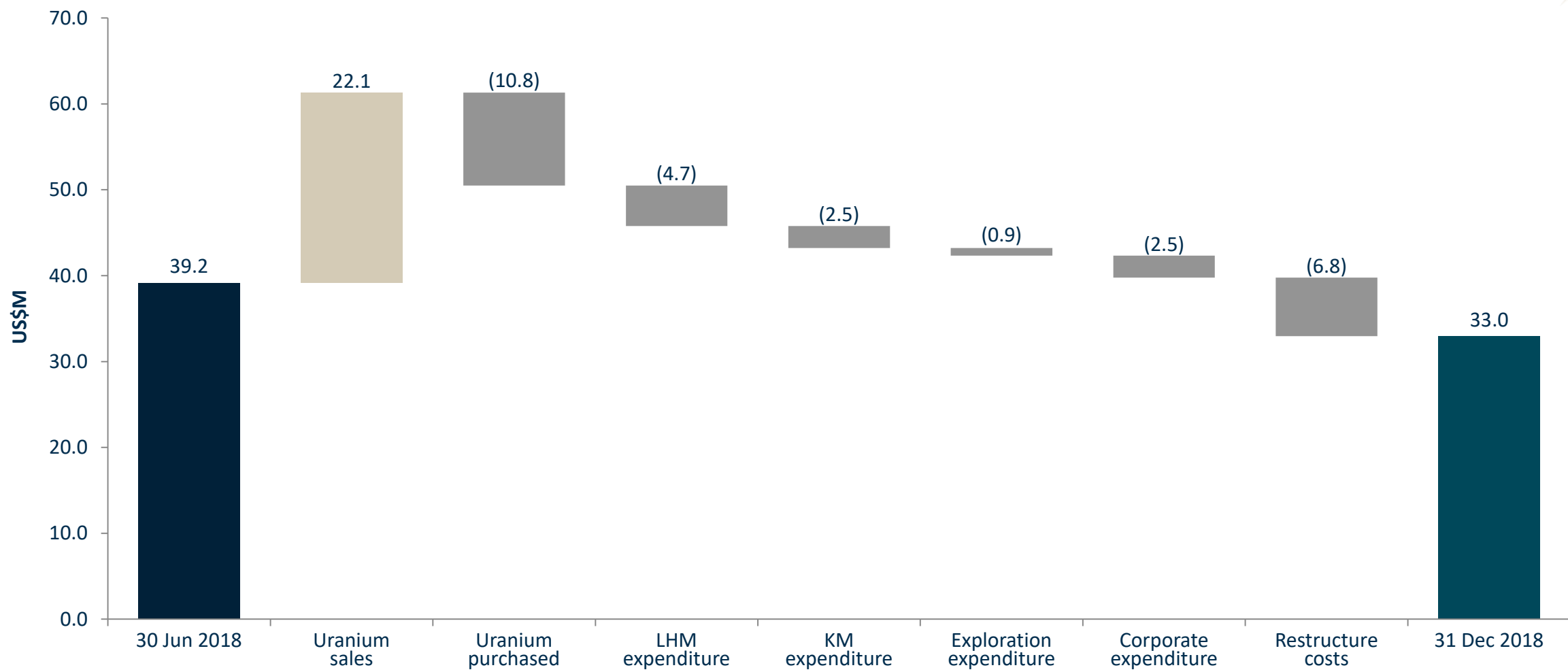
Long-term value creation

DECEMBER 2018 HALF YEAR HIGHLIGHTS

REFERENCES BELOW TO 2017 ARE TO THE EQUIVALENT HALF YEAR ENDED 31 DECEMBER 2017



DECEMBER 2018 HALF YEAR CASHFLOW (UNRESTRICTED)



Group cash balance excludes restricted cash of approximately US\$11M, mainly relating to guarantees for environmental rehabilitation obligations at KM and LHM.



DECEMBER 2018 HALF YEAR RESULTS UPDATE

CONCEPT STUDY



Focus on optimising and restarting LHM

WE ARE PLANNING FOR A RAPID, RELIABLE RESTART

OPERATIONAL REVIEW OF LANGER HEINRICH MINE (LHM)



CONCEPT STUDY COMPLETED TO OPTIMISE RESTART:

Verifying Care & Maintenance (C&M) practices to ensure asset is preserved for low-cost restart

Learning from ten years of operation to ensure restart is safe, predictable and successful

Defining further potential improvements to enhance value.
US\$6.00/lb cost reduction and saleable vanadium product

Prefeasibility study for **rapid, low-risk restart** to be completed Q1 FY20

Prefeasibility study for **optimised plant and extraction process** to be completed Q3 FY20

Note: Concept Study results are $\pm 30\%$.



ADDING VALUE THROUGH A RIGOROUS STUDY METHODOLOGY

Improve definition of restart scope – repair, improve processing facility and Process debottlenecking study

Mineral Resource definition – drilling to build vanadium geology model, drill to Basement under TSF1, Mine as-built surveys and assays. Potential to increase High/Medium Grade Resources

Statutory rights and obligations review – to ensure low-risk restart and closure planning

**US\$6.2M
Prefeasibility Study
commencing March
2019. Full
optimisation in
Q3FY20**

Process testwork for improvements – potential for vanadium (~1.3Mlb pa). Also investigating membrane technology for uranium recovery, reducing reagent costs (through caustic regeneration, water recycling, carbonate/bi-carbonate recovery) and increased ore beneficiation to improve Low-Grade Ore economics

Improve Geo-Met model – increase predictive power of model to make better planning and operational decisions for beneficiation, leaching and contaminants

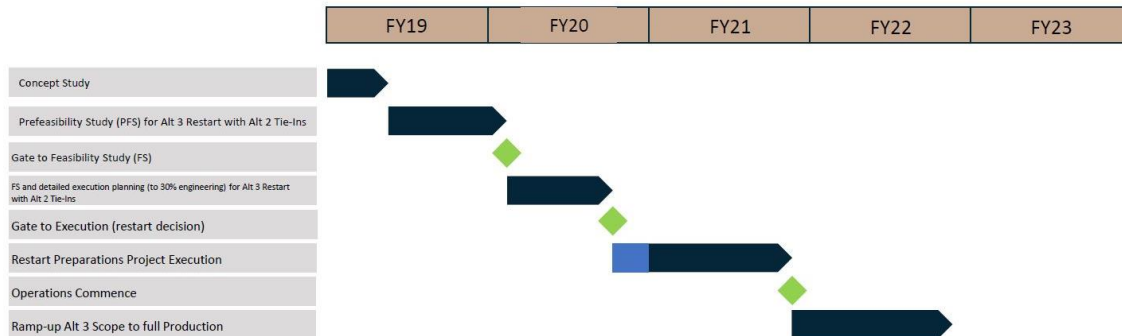
Recruited expert study and restart team – balanced between Site and major project experience



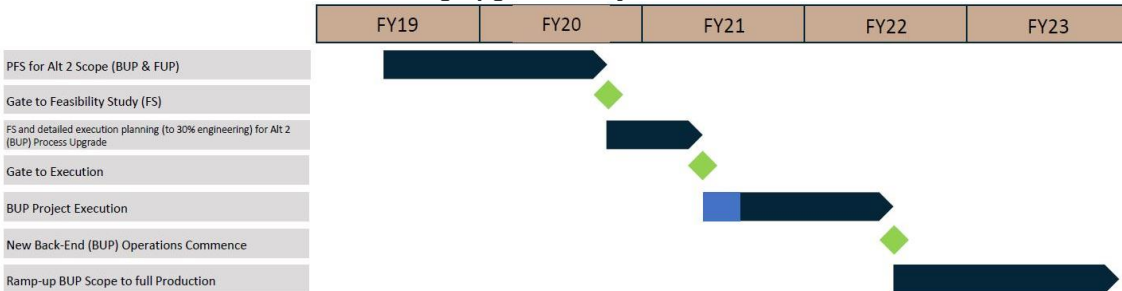
BE READY! BUT CONTINUE TO OPTIMISE



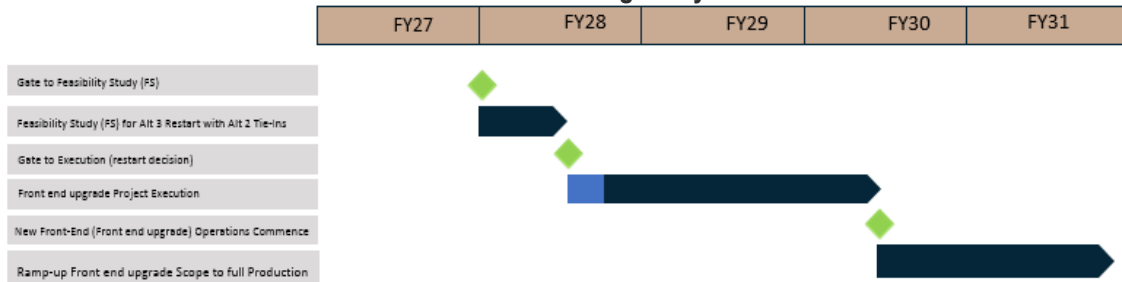
Rapid Restart Study



Processing Upgrade Study



Low Grade Ore Processing Study



RAPID RESTART STUDY:

- 6-9 month Prefeasibility Study focused on optimising the current facility
- 6-9 month Feasibility Study to enable LHM Restart to be triggered from June 2020

PROCESSING UPGRADE STUDY:

- 12-15 month Prefeasibility Study to select process flow sheet changes:
 - **Back End Upgrade** - to reduce reagent costs and recover vanadium
 - **Front End Upgrade** - selectively upgrading low-grade ore to deliver higher leach feed grades and maintain current levels of uranium production
 - Water recovery from tailings and Pressure leach
- 6-9 month Feasibility Study to plan implementation. Execution most likely after plant restarted (FY22 or later)

LOW GRADE ORE PROCESING STUDY:

- Feasibility deferred until required end FY27



WE HAVE VERIFIED OUR RESTART AND LOM IMPROVEMENT CAPITAL



Relatively low initial capital requirements of circa US\$100M
(excludes C&M and study costs)

Post production plant optimisation capital requirements
(funded from operating cash flows)

Relatively low initial capital requirements of circa US\$100M (excludes C&M and study costs)				Post production plant optimisation capital requirements (funded from operating cash flows)	
Plant repair and improvement US\$24M	Working capital US\$50M (includes: first fill of reagents, recommissioning and remobilisation costs)	Pre-start tailings facility construction US\$4M	Back-End Upgrade Project execution US\$22M (Initial Capex spend for US\$43M project)	Back-End Upgrade Project completion US\$21M (Balance of project Capex)	Front End Upgrade Project in FY28-30 US\$60M

Note: BUP total Capex is US\$43m, of which US\$22m is incurred in FY21 and the remaining US\$21m is incurred in FY22.



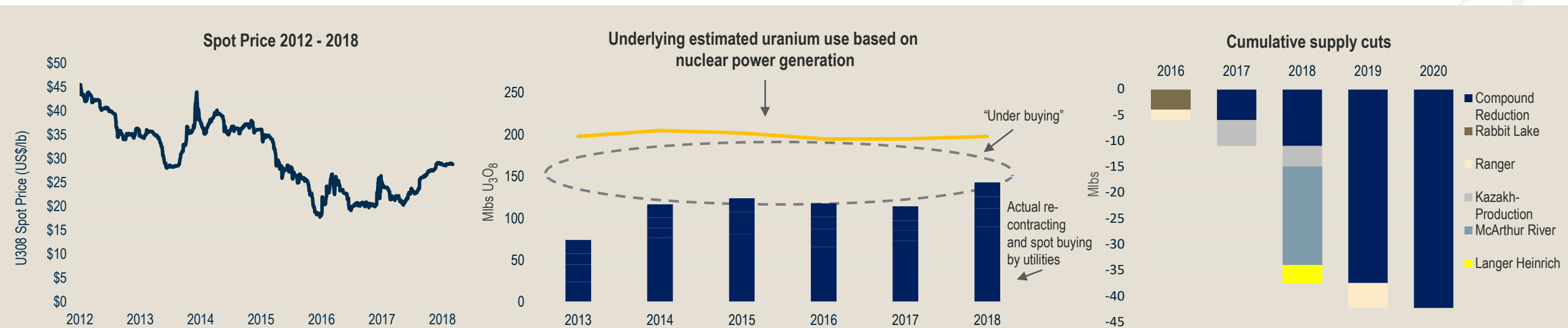
STRONG DEMAND IN THE

URANIUM MARKET



A solid long-term outlook

THE URANIUM STORY IS COMPELLING



Source:
- UxC, TradeTech and Paladin Research

Spot uranium prices recovering from a 13-year low

Growth in China, India and elsewhere means the nuclear power industry is consuming more uranium than pre-Fukushima

Utilities have been "under buying" at an average rate of 80Mlbs less per year than consumption

Running down stockpiles and contract positions put in place pre-Fukushima when European and U.S. utilities worried about market tightness due to rapid China growth

Mined supply is being rapidly cut back



GREEN SHOOTS ARE STILL VISIBLE

- IPCC REPORT – Global warming increase by 1.5°C by 2030
 - China - Plans to have 56 reactors operating by 2020 and 180 reactors, or 220% increase, by 2030 to reduce its reliance on coal
 - India following suit with 21 reactors into operation by 2031
 - 17 new reactors in Saudi Arabia announced in 2018
- Demonstrated willingness of supply to self correct
- Lack of exploration and near term options
- Kazakhstan 38% of world production
 - Reduce growth plans 20% next 3 years, 15% IPO, Align with global marketing practices
- The level of reactor fuel requirements covered under contract is decreasing – not sustainable
- EV MARKET - Forecasts shows sales of EVs increasing from a record 1.1 million worldwide in 2017, to 11 million in 2025, surging to 30 million in 2030

Source:

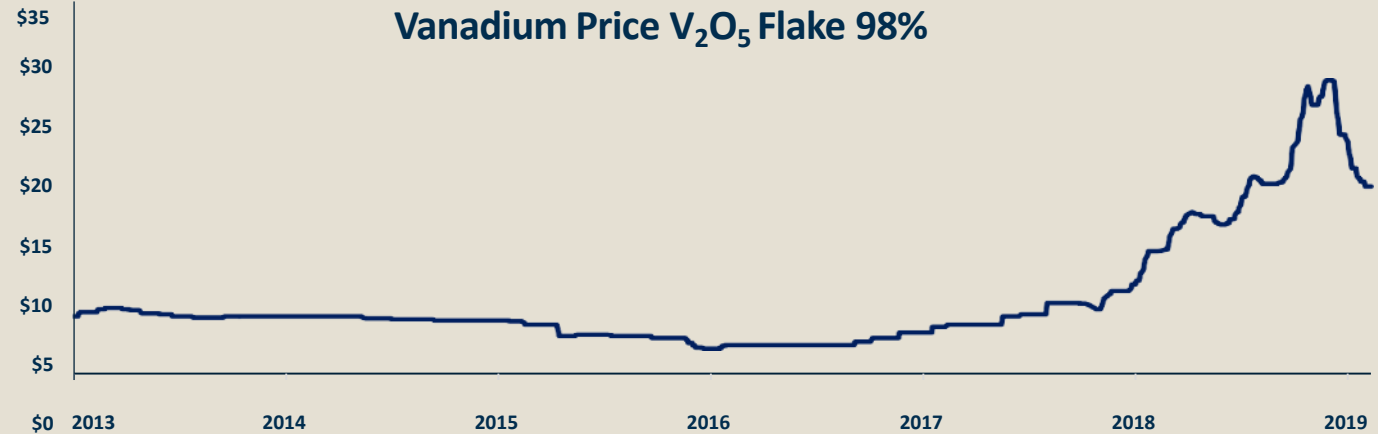
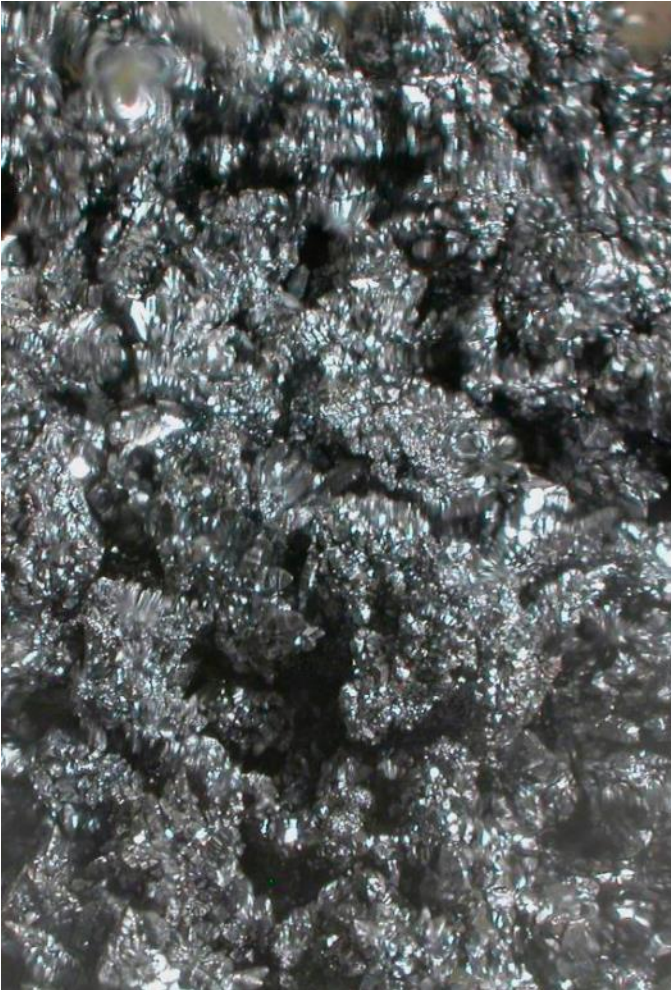
- ©Climate Council of Australia Limited
- BloombergNEF



**THE GOOD, THE
BAD AND THE UGLY:
LIMITING TEMPERATURE
RISE TO 1.5°C**



VANADIUM - A NEW OPPORTUNITY FOR LANGER HEINRICH



- Opportunity to produce Vanadium at LHM
- Estimated production circa 1.3Mlbs pa
- Long term price of US\$8.50/lb
- Significant price increase due to Chinese rebar specification changes and use in redox flow batteries, specialty metals and chemicals
- Future demand is expected to rise due to supply constraints

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