



**PEAK
RESOURCES**
ENABLING LOW CARBON TECHNOLOGIES

Investor Presentation

October 2020



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Compliance Statement

Information relating to financial forecasts, production targets, infrastructure, project execution, cost estimating, metallurgical test work, exploration results, Mineral Resource estimates and Ore Reserve estimates is extracted from the report entitled “Lower price deck delivers similar BFS results for Ngualla” created on the 12th of October 2017 and is available to view on <http://www.peakresources.com.au/asx-announcements/>. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates 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 been materially modified from the original market announcement.

Peak provides excellent leverage to the improving NdPr market outlook



World class asset	<ul style="list-style-type: none">• Unique weathered bastnaesite geology driving low reagent consumption and best in class opex positioning• 26-year mine life at 1st quartile operating costs (inline with China)
Completed BFS	<ul style="list-style-type: none">• Robust project economics highlighted by a US\$612m¹ NPV post-tax and royalties• US\$32.24/kg NdPr Opex intensity – one of the lowest globally
Proposed Teesside Refinery	<ul style="list-style-type: none">• International location study evaluating 26 countries identifying Teesside, UK to deliver opex and capex savings• Fully integrated and permitted producer of NdPr Oxide that is well located to access critical European markets
Pilot Plant	<ul style="list-style-type: none">• High-grade (45%) REO concentrate enabling downstream processing in the UK and worldwide• Full scale pilot plant complete included concentrate and refining down to final oxide products
Market	<ul style="list-style-type: none">• NdPr demand growth of 8.1% CAGR (2020 – 2025), adding over 40% demand in the space of five years• NdPr price outlook continues to improve, driven by EV technologies and wind energy technologies

⁽¹⁾See ASX Announcement [BFS Update - Lower price deck delivers similar BFS results for Ngualla](#) as of October 2017



Peak has realigned its corporate strategy to focus on securing its SML in Tanzania



Capital Structure

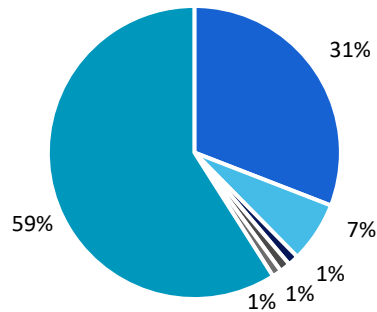
Shares	M	1,411
Share Price ¹	A\$	0.035
52 Week Range	A\$	0.015 – 0.061
Market Capitalisation ¹	A\$M	50.79
Cash ²	A\$M	2.55
Debt ²	A\$M	0.00

Share Price



Shareholder Snapshot³

- Appian
- IFC
- Ludowici
- Sambold
- CRX
- Other



Board and Management

Tony Pearson	Interim Chairman
Jonathan Murray	Non-Executive Director
Graeme Scott	CFO / Company Secretary

Peak now benefits from greater alignment between

✓ *Management* ✓ *The Board* ✓ *Shareholders*

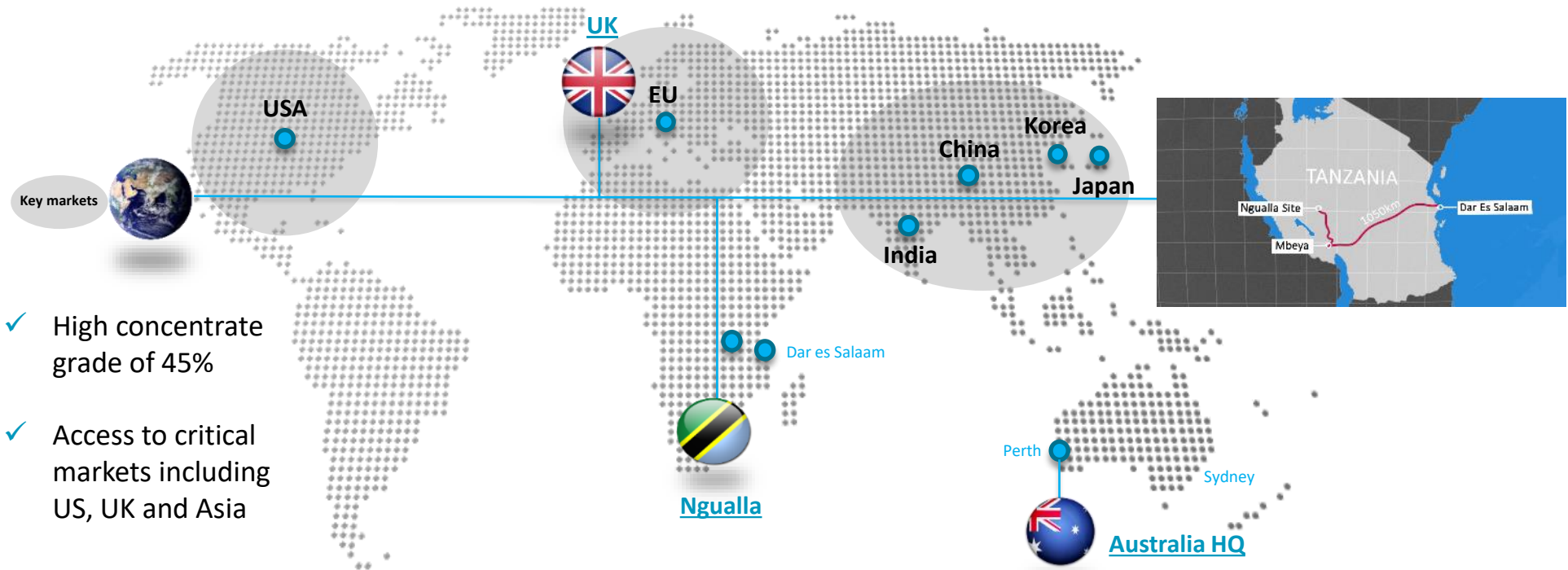
¹ ASX figures as of October 13 2020; ² As of 30 June 2020. Debt excludes \$5.86m royalty liability. ³ Shareholder snapshot only shows substantial holders

Peak to become one of the world's lowest cost, fully integrated rare earth producers



UK Tees Valley Refinery strategically placed in the EU with top logistics infrastructure, skilled labour and sustainable waste management facilities

- Annual Production: 9,290tpa of oxide equivalent producing 2,810tpa NdPr oxide



- ✓ High concentrate grade of 45%
- ✓ Access to critical markets including US, UK and Asia

Tanzania Ngualla Project, one of the largest and highest grade undeveloped NdPr deposits worldwide

- High-grade of 4.80% REO Reserves and long mine life of 26 years

*See ASX Announcement "Higher grade Resource for Ngualla nearly 1 million" and ASX Announcement "Ngualla Rare Earth Project - Updated Ore Reserve" as of 12 April 2017 and : "BFS positions Ngualla one of worlds lowest cost RE Projects" as of 12 April 2017 and: "BFS Update - Lower price deck delivers similar BFS results for Ngualla" as of October 2017



Demand forecasted to increase more than 40% by 2025, driven by significant growth in EV sales and increasing demand for wind turbines



The coming rare earth market window

COVID-19 stimulus to accelerate green and infra linked demand

- +US\$9tn in global stimulus, with a primary focus on green-energy

Structural shift to EV's = increased NdPr demand

- EVs to multiply by 3.71x to 23M vehicles by 2025

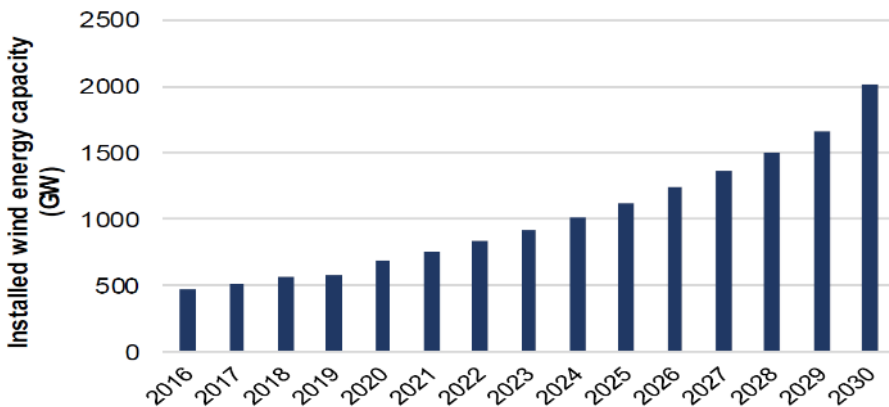
Clean energy revolution = increased NdPr demand

- Wind turbine usage is one of the fastest growing forms of green energy, forecast to increase by +250% to 2,000 GW by 2030

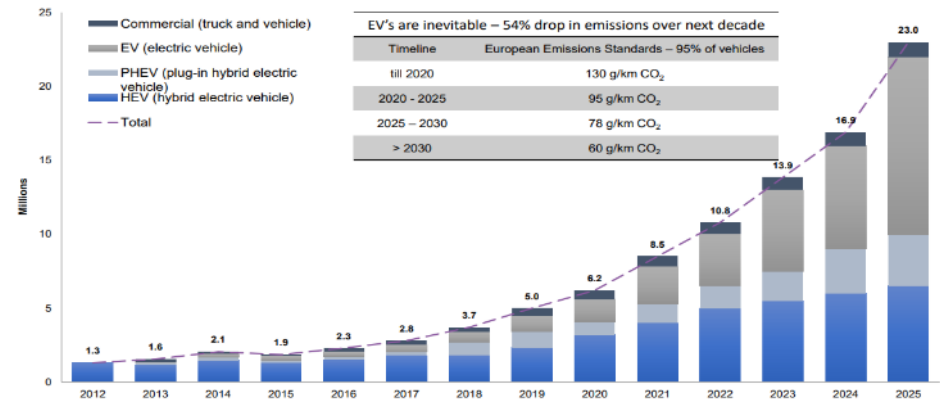
Strong demand growth expected to be sustained to 2030

- 8.1% CAGR (20-25) adding over 40% demand over 5 years

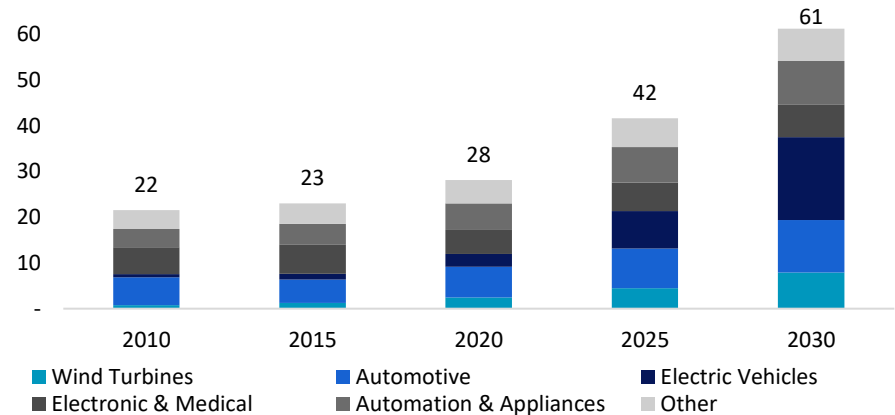
Significant growth in renewable energy (wind energy, installed GW)



Shift to EVs to drive significant demand for NdPr



Strong NdPr demand driven by green technology to push prices higher



Rapid EV adoption coupled with wind energy uptake to drive REO demand



2020

2025

2030

2035

2040

- Half of all passenger vehicles sold in 2032 will be EVs
- Wind power to supply 12% of the globe by 2030 and 31% by 2050 – currently 5%



India: Only sales of NEV by 2030

Ireland: Sales ban of ICE by 2030

Netherlands: Sales ban of ICE by 2030

Slovenia: Sales ban of ICE by 2030

Norway: Sales ban of ICE by 2030

Scotland: Sales ban of ICE by 2032



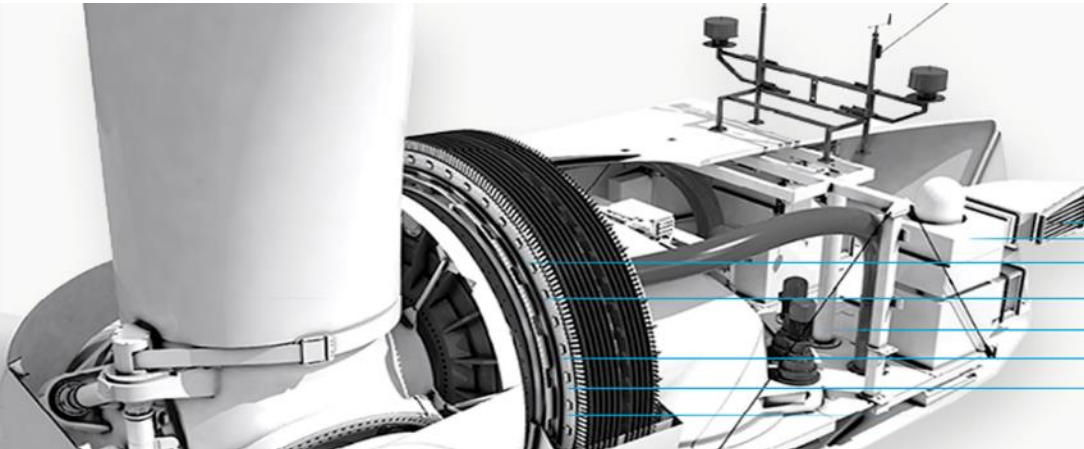
France: Sales ban of ICE by 2040

UK: Sales ban of ICE by 2040

Sri Lanka: Fleet w/o ICEs by 2040

Sweden: Fleet w/o ICEs by 2045

Fossil Free Street Declaration Auckland, Barcelona, Cape Town, Copenhagen, London, Los Angeles, Mexico City, Milan, Oxford, Paris, Quito, Seattle, Vancouver,



**1 Megawatt from
200 kg NdPr Oxide**

Each direct drive wind turbine uses a permanent magnet motor that generates between 2-6 MW of performance. Each megawatt requires approx. 200kg pure **neodymium** and **praseodymium**.

ENABLING LOW CARBON TECHNOLOGIES



Peak is refreshed and working to secure the SML in Tanzania post-election



1

Recent Board and management changes to enhance focus on SML strategy and costs

2

SML strategy enhanced to focus on dedicated in-country senior support, with more significant in-country presence of senior management and Board

3

Remuneration changes at Board and management level designed to create stronger alignment with shareholders

4

Stronger focus on cost control to minimise dilution as Peak works to secure its SML

Project defined, tested and ready for progression



World Class Light Rare Earth Asset

- First 30 years consumes 22% of total resource. Generational operation, decades of on-going financial benefits

Barrick / GOT Framework

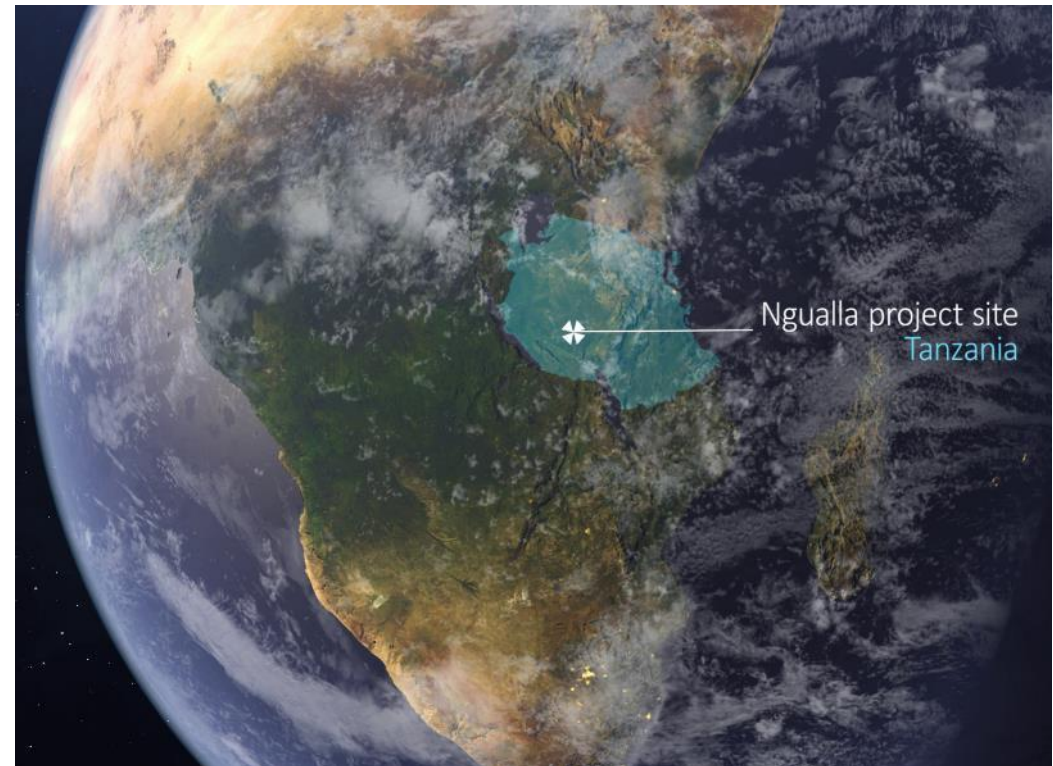
- Excellent guide for mining operations, brings Tanzania back to the generation of wealth for the country for decades

Special Mining Licence (SML)

- Have progressed to new heights in negotiating with GOT in last several months. President Magufuli has increased emphasis to getting Foreign Direct Investment to generate jump start in mining arena.

Project Finance

- Solid framework agreement, similar to Barrick will allow Export Credit Finance to be developed over the coming year, and then construction/start up over next 2 Years.



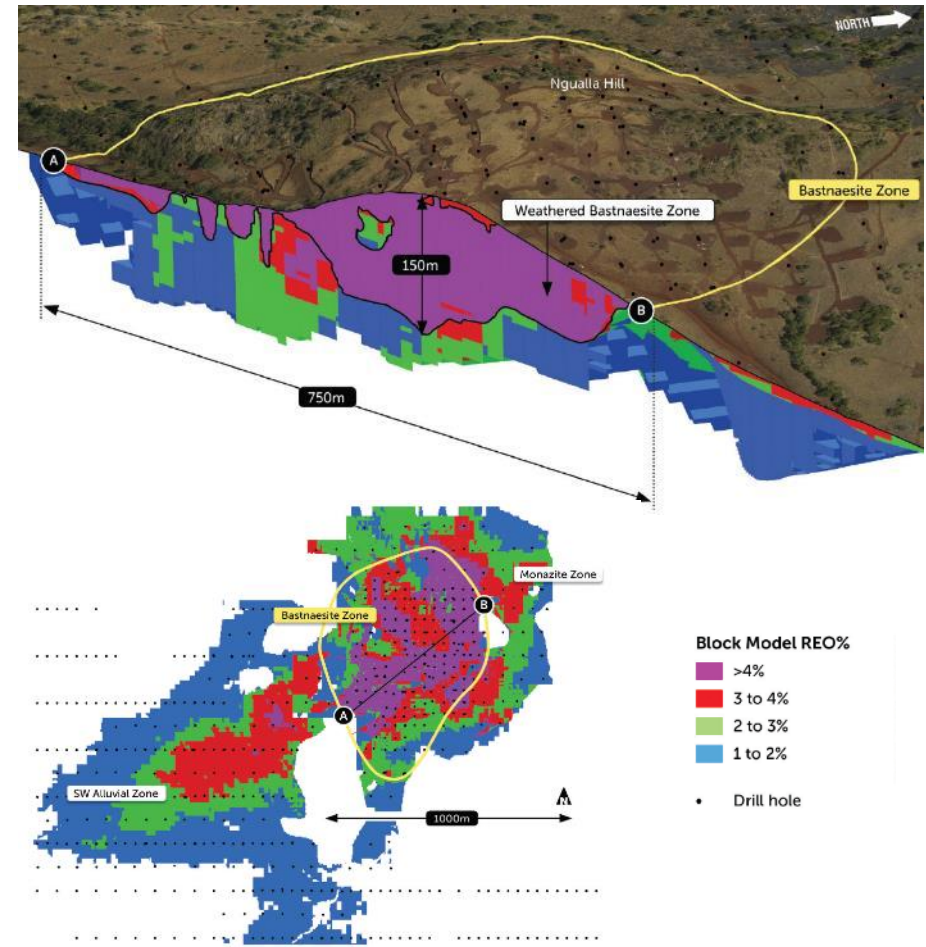
NGUALLA RARE EARTH PROJECT: UNDERSTOOD – DE-RISKED – COMPETITIVE – MANAGEABLE – READY TO BE DELIVERED



Strong Resource and Reserve base to drive value



Location:	Tanzania (~1000km west of Dar es Salaam) United Kingdom (Tees Valley)
Geology:	Weathered carbonatite with a high grade bastnaesite-rich zone, low in phosphate and carbonate
Ore Resource:	214.4Mt grading 2.15% REO for 4.61Mt REO
Ore Reserve:	18.5Mt grading 4.80% REO for 887kt REO
Life of Mine:	26 years
Mining:	Open Pit with low strip ratio of 1.77
ROM Throughput:	711ktpa dry ore
Annual Production:	9.3ktpa REO (2.8ktpa NdPr)
Environmental Certificate:	Received March 2017
Mining Licence:	SML pending
Operating Cost:	US\$32.24/kg NdPr
Operating Margin:	62%
Initial Capex:	US\$365m including Tanzania and UK Tees Valley



32.24 [#] **OPEX INTENSITY**
US\$/kg NdPr*²



Peak has one of **the lowest OPEX** as a fully integrated producer per kg of NdPr among 58 development projects worldwide*³

5.00 **CAPEX INTENSITY**
US\$/kg NdPr Oxide LoM



Peak has one of **the lowest CAPEX** as a fully integrated producer per kg of NdPr among 58 development projects **worldwide***³

*²NdPr = Nd₂O₃ /Pr₆O₁₁ Mixed Oxide 2N – min 75% Nd₂O₃. *³ [Benchmarking data](#) provided by: [Adamas Intelligence](#)

US \$32.24 is the breakeven point for positive cash flow only from the projected 2,810t p.a. NdPr sales; OCBRTDA = Operating cost before royalties, interest, tax, depreciation and amortisation.

See ASX Announcement: "[BFS positions Ngualla one of worlds lowest cost RE Projects](#)" dated 12 April 2017 and ASX Announcement: "[Process optimisation study boosts Ngualla's operating margin](#)" dated 28 August 2017

Compelling Project Economics

US \$914m

NPV_{8%} – Pre-Tax and Royalties

26 yrs

Life of Mine

US \$108m p.a.

Average Annual Post Tax Cash flow

US \$612m

NPV_{8%} – Post-Tax and Royalties

26%

IRR – Pre-Tax and Royalties

22%

IRR – Post-Tax and Royalties

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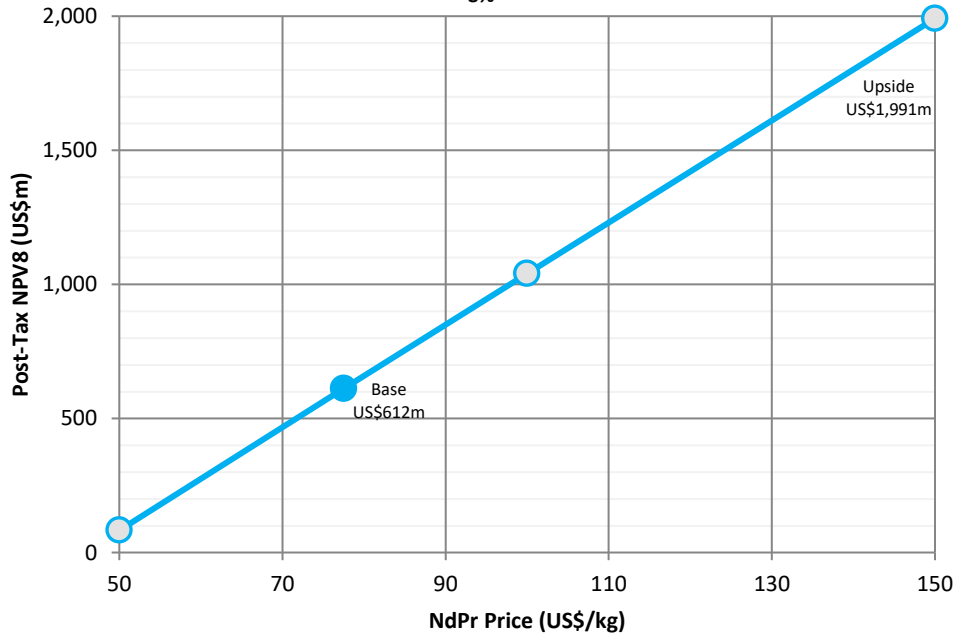
See ASX Announcement: "[Process optimisation study boosts Ngualla's operating margin](#)" dated 28 August 2017

BFS Price deck: NdPr Mixed Oxide 2N Min 75% Nd2O3 US \$77.50/kg; Cerium* US\$ 02.20/kg; Lanthanum* US \$03.70/kg; SEG & Mixed Heavy* US \$08.00/kg

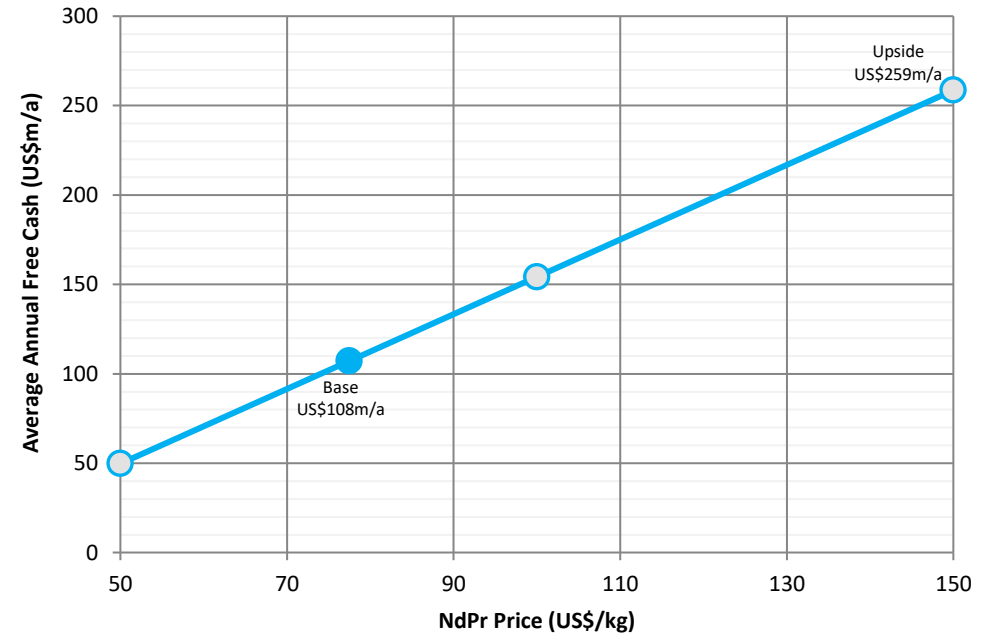


Pricing Impacts on Project Economics

Post Tax NPV_{8%} vs NdPr Price



Average Annual Free Cash vs NdPr Price



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Located near strategic end market in the EU



Overview

- Peak's refinery will be located at Wilton International's Teesside Industrial Zone located in Tees Valley, North East England.
- Chosen from a shortlist of 26 countries through a combination of quantitative and qualitative assessments
- Teesside benefits from existing fully integrated site infrastructure located within a major UK exporting region which is home to existing heavy industries including mineral processing, automotive and advanced manufacturing.
- Existing infrastructure includes road, rail, air and sea connections providing access to European and Asian markets.
- Tees Valley is located alongside the UK's 3rd largest port by volume within close proximity to competitively priced chemicals, water disposal and treatment facilities required for the refining process.
- Power is generated on-site and is also connected to the UK National Grid providing power security whilst avoiding the need for significant capital outlay.
- Teesside benefits from an available skilled workforce and local government and community support.
- Capex: US\$365 includes Tanzania project and UK Tees Valley project

Refinery location



Fully permitted 'outside of China' rare earth processing hub



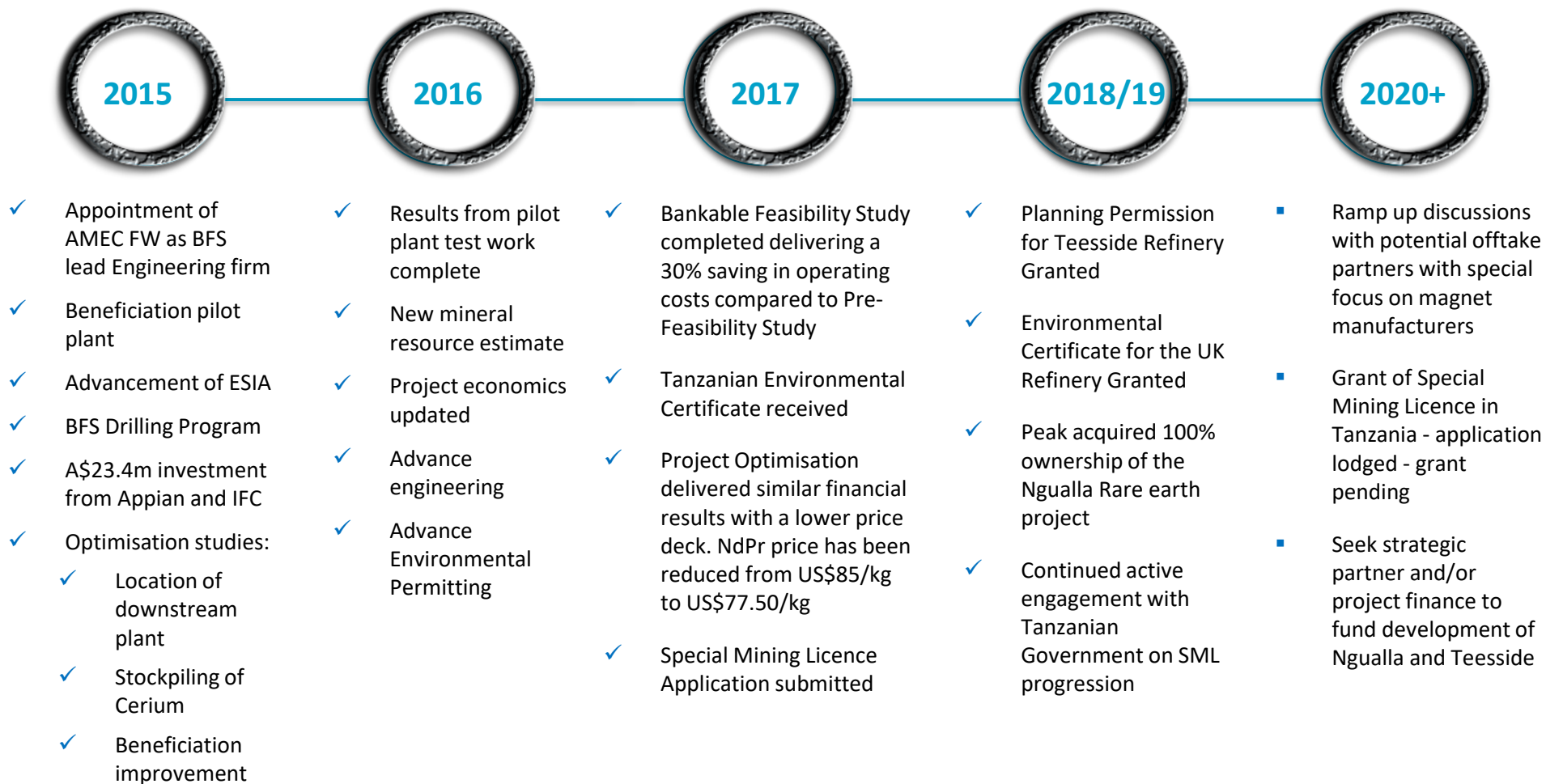
Overview

- The Teesside Rare Earth Separator is a significant differentiator over Peak's peers.
 - Maximise product value, product quality and customer satisfaction
- Low capex and opex for NdPr oxide
 - Operating cost of US\$32/kg typical existing costs US\$40/kg
- The Teesside Separator to become a rare earth separation hub. Look to other sources of supply to supplement Tanzanian concentrate. Significant opportunities from existing and future operations
- **Phase 2 Operations to include:**
 - Double production capacity
 - Magnet recycling
 - Heavy RE separation
 - Metal conversion
- **Tees Valley Wilton Complex**
 - The UK's 3rd largest port
 - Competitively priced chemicals
 - Solid/liquid waste treatment
 - Local and National Support
 - Option to purchase

Plant facility and infrastructure



Peak on path to deliver more major project milestones



Positioned to be one of the world's lowest cost, fully integrated NdPr producer



- ✓ Project placed to benefit from the upcoming REO market window
- ✓ Located at a strategic end market location in the EU
- ✓ Benefits from vertically integrated assets

NGUALLA ORE BODY

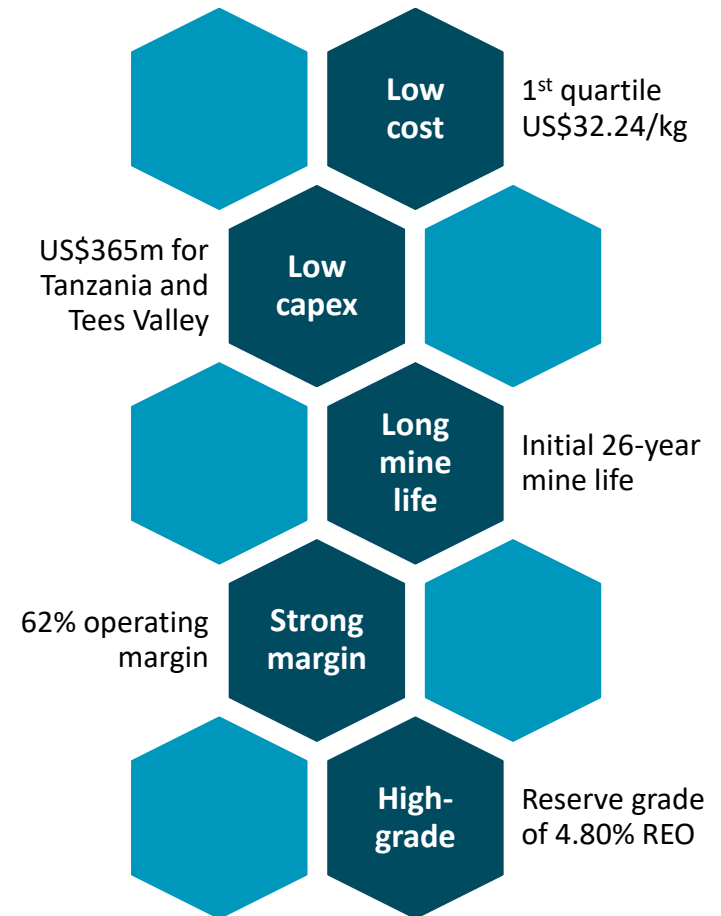
- Large deposit
- Bastnaesite mineralogy
- Mineralisation from surface
- Very low U and Th (15 and 53 ppm)
- Thick blanket morphology
- Low in reagent consuming minerals

TEES VALLEY REFINERY

- Selective leach process
- Low strength acids - no acid roast
- Small SX separation plant
- Bulk, low-cost reagents available
- Pre-existing utilities
- Existing waste management facilities

NGUALLA MINE AND PROCESS PLANT

- Soft, free dig ore
- Low waste: Ore strip ratio (1.77)
- Zero offsite discharge + water recycle
- High Grade (45% REO), low mass concentrate
- Proven piloted process



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Tony Pearson

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Jonathan Murray

