



PILBARA MINERALS
LIMITED

ASX: PLS

Pilgangoora Lithium-Tantalite Project

The world's leading lithium development project

Sydney Mining Club - August 2016

Disclaimer and Competent Person's Statement



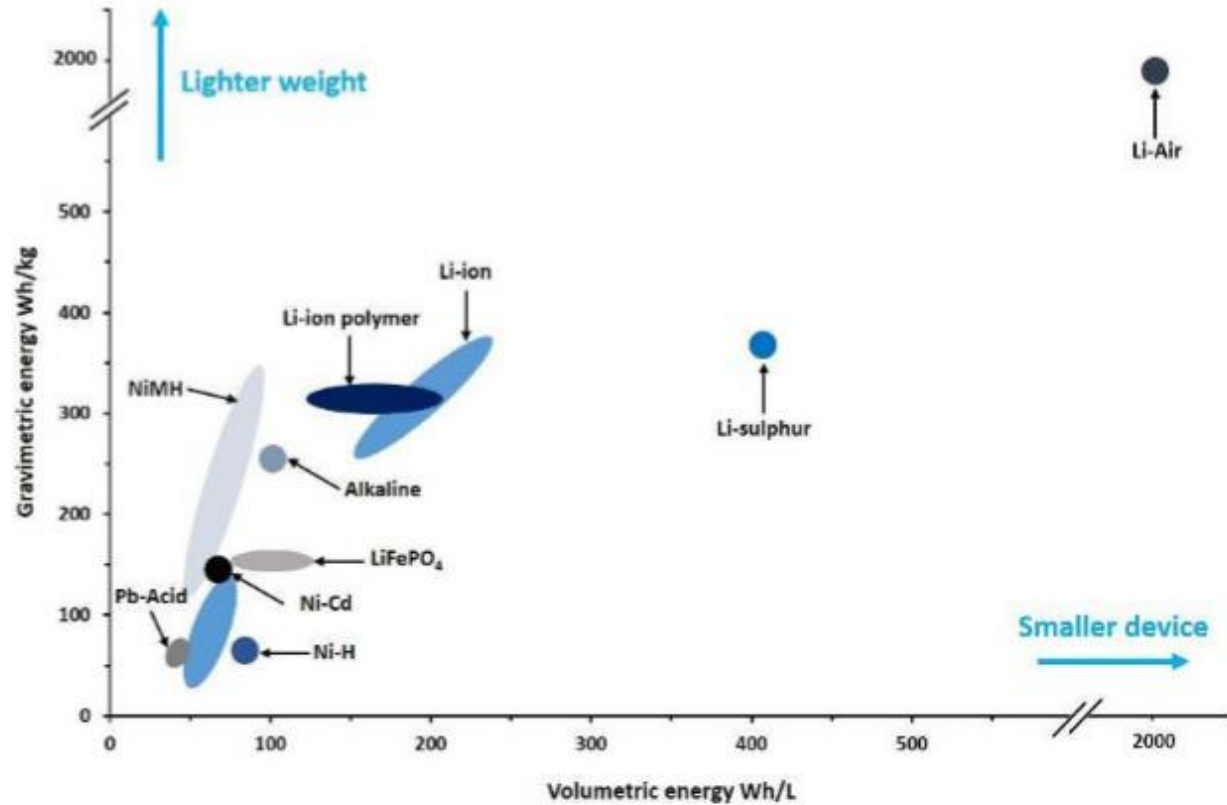
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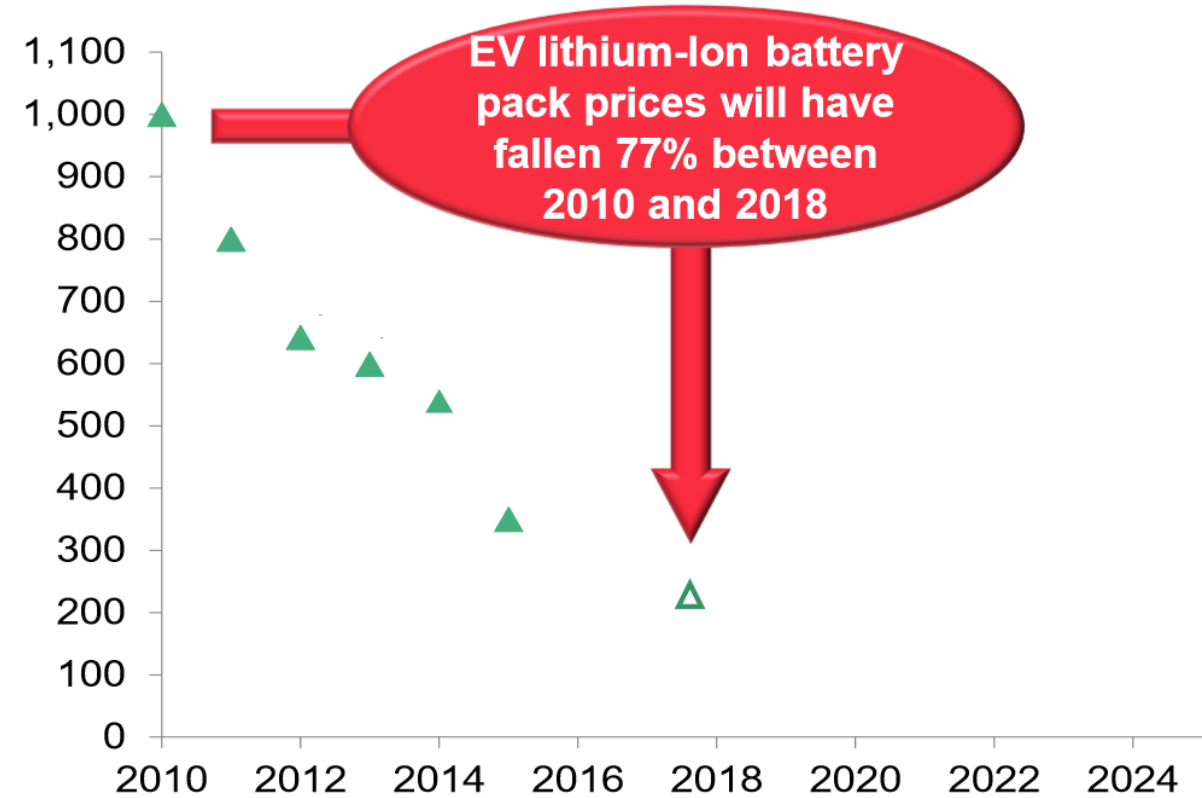
Competent Person Statements

- ▶ The information in this report that relates to Mineral Resources is based on information compiled by Mr Lauritz Barnes, (Consultant with Mitchell River Group Pty Ltd) and Mr John Young (Technical Director). Mr Young is a shareholder of Pilbara Minerals. Mr Barnes and Mr Young are members of the Australasian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Young is the Competent Person for the database, geological model and completed the site inspection. Mr Barnes is the Competent Person for the database and the resource estimation. Mr Barnes and Mr Young consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.
- ▶ The information in this report that relates to Ore Reserves is based on information compiled by David Billington is employed by Mining Plus, is a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy included in a list that is posted on the ASX website from time to time. David Billington has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Ore Reserves'. David Billington consents to the inclusion in the report of the matters based on his (or her) information in the form and context in which it appears.

Lithium Ion Battery Technology



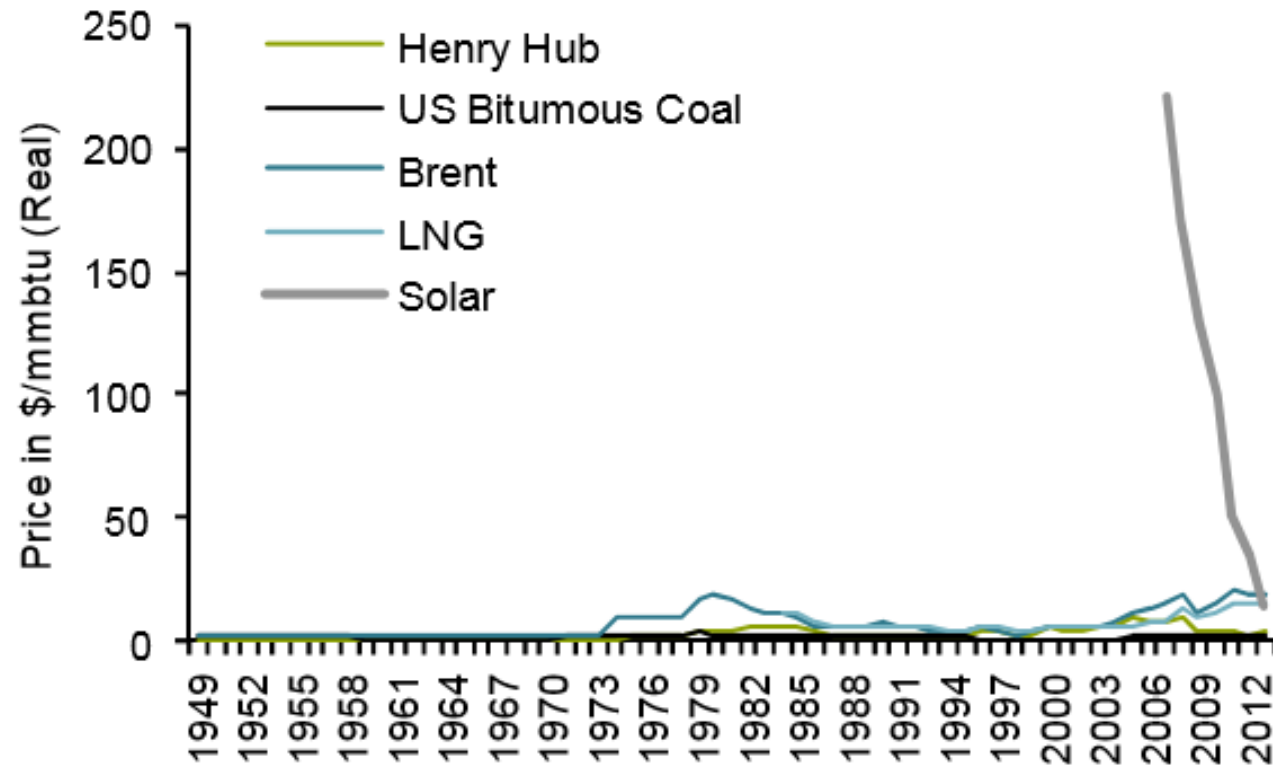
Source: CSIRO



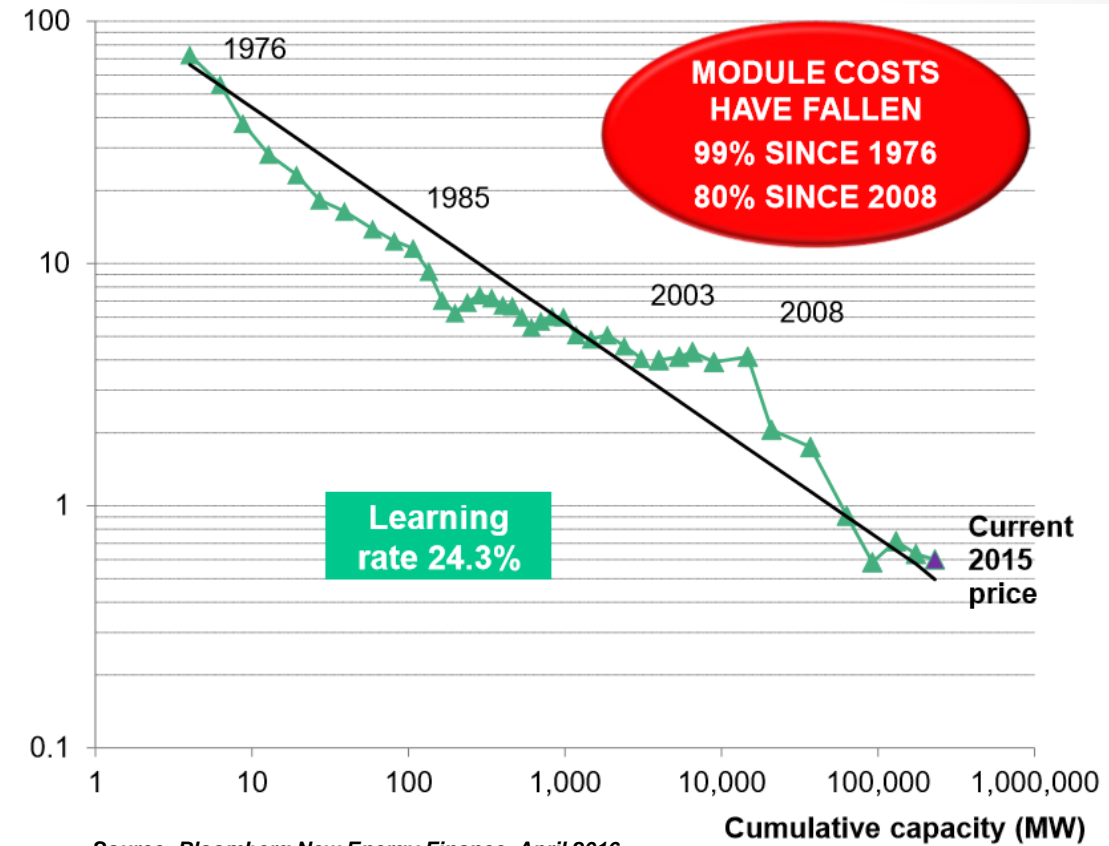
Source: Bloomberg New Energy Finance, April 2016



Solar Disruption



Source: EIA, CIA, World Bank, Bernstein Analysis, April 2014

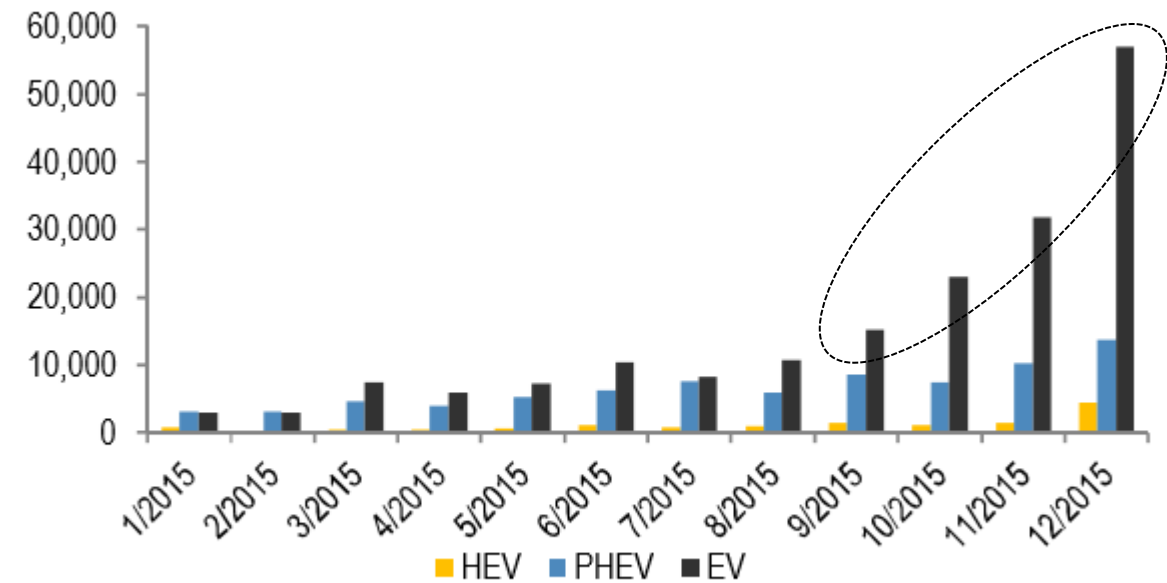


Source: Bloomberg New Energy Finance, April 2016

China – A Lithium Consumption Powerhouse



- ▶ Broad Central Government policy position towards 'New Energy'
 - ▶ *Domestic carbonate pricing took-off coincident with acceleration in EV sales*
- ▶ Significant expansion through entire lithium-ion supply chain, including major chemical conversion capacity expansion (spodumene to Li_2CO_3 & LiOH)
- ▶ E-Bike phenomenon
 - ▶ *30 Million E Bikes produced annually in China, converting to Li ion batteries.*
- ▶ Broad transport electrification
 - ▶ *5M new energy vehicles by 2020*
- ▶ Many Brands, typically unheard of in the western world



Source: CAAM

| Rank | OEM | Model | Sales volume | 2015 market shr |
|-----------------------------|------------------|-----------------|----------------|-----------------|
| 1 | BAIC | D20 (E150) | 16,598 | 14% |
| 2 | Jiangnan | Zotye Cloud 100 | 15,467 | 13% |
| 3 | Chery | QQ3/ New QQ | 12,494 | 11% |
| 4 | Geely-Kandi | Panda | 8,756 | 6% |
| 5 | BYD | e6 | 8,125 | 7% |
| 6 | Geely-Kandi | K10 | 7,966 | 8% |
| 7 | Jiangnan | Zotye E20 | 6,385 | 7% |
| 8 | JMC | D100 | 5,268 | 5% |
| 9 | Lifan | 320 | 4,345 | 3% |
| 10 | Geely-Xin Dayang | ZD D2 | 3,777 | 2% |
| | Others | | 26,620 | 26% |
| China total EV sales | | | 115,801 | 100% |

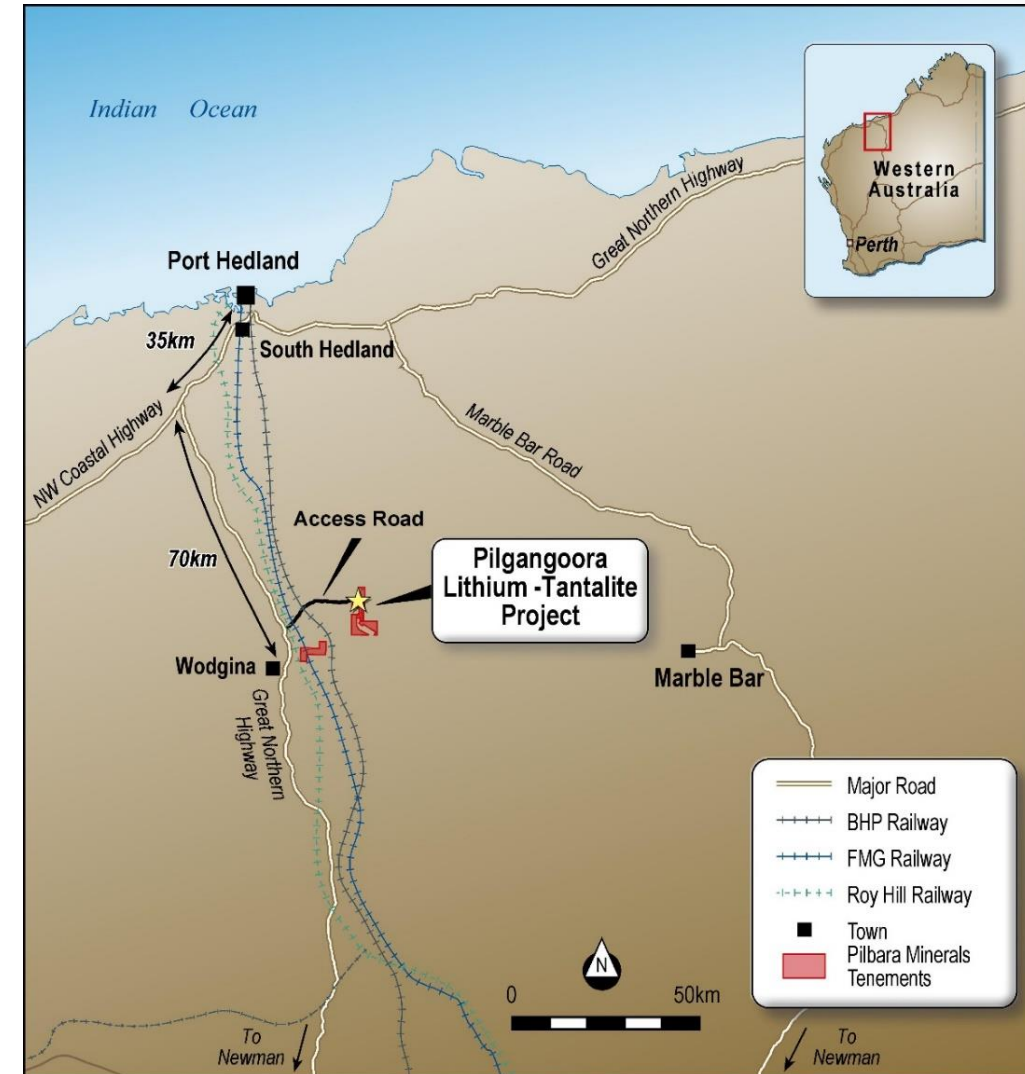
Source: CAAM

Developing a World-Class Lithium Mining Centre

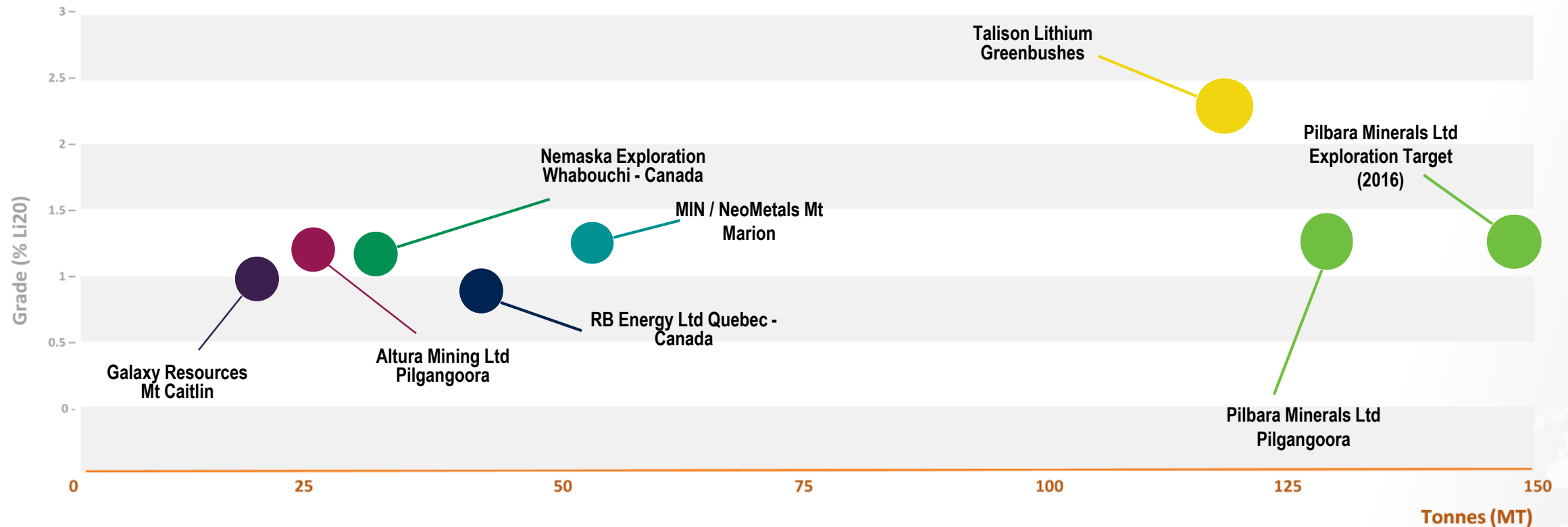


- ▶ Pilgangoora Project located 120km south of Port Hedland in WA's Pilbara region
- ▶ Reserve location offers strategic advantages for infrastructure access, mining approvals and lower cost of operations
- ▶ High quality PFS demonstrates economic potential of one of the world's leading lithium development projects:
 - ▶ *Strong technical fundamentals and very low forecast cash operating costs*
 - ▶ *High margin project set to deliver outstanding cash-flows and returns*
 - ▶ *Initial mine life of 15 years based on current reserve with significant growth potential*
- ▶ DFS underway, completion August 2016

A robust, long-life project in a Tier-1 mining jurisdiction



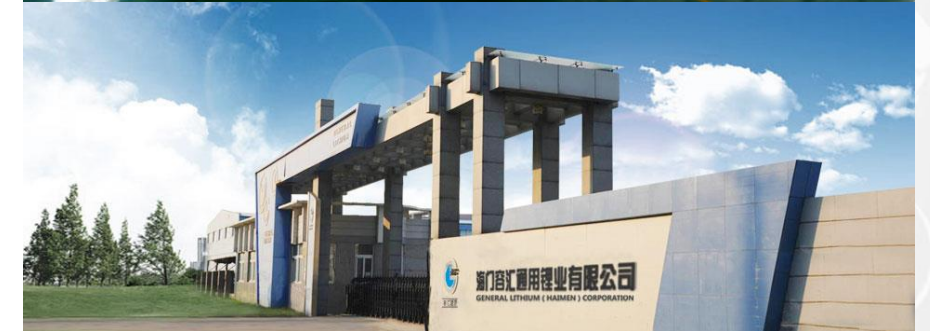
Pilgangoora – A Globally Significant Lithium Resource



General Lithium – a major producer of lithium chemicals in China



- ▶ Listed on NEEQ, Beijing, Code No: 837358
- ▶ Currently produces 8,000tpa of Lithium Carbonate (LC) & 2,000tpa of High Purity LC 4N (99.99%)
- ▶ Soon to commission 5,000tpa of Lithium Iron Phosphate (LFP), Li battery cathode powder material in Qinghai Province
- ▶ Expansions on going to add another 16,000tpa of Lithium Hydroxide (LiOH) & LC in Jiangxi Province
- ▶ Owns the patent on direct production of LiOH from lithium sulphate
- ▶ One of the top quality producers of Battery Grade LC in China, with established sales to a broad list of major Chinese Li battery cathode powder manufacturers
- ▶ General Lithium to provide the designs, technical expertise and operate proposed JV chemical plant



General Lithium Corporation



Lithium Raw Materials – Battery Supply Chain



*Future Value Added Products
Pilbara and General Lithium*



Spodumene
Mine



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Lithium
Carbonate/Hydroxide
Producer



Upgraders
& Component
Mixers



Cathode &
Electrolyte
Producers



Battery
Producer



E Transport
Grid Storage
Grid Stabilisation



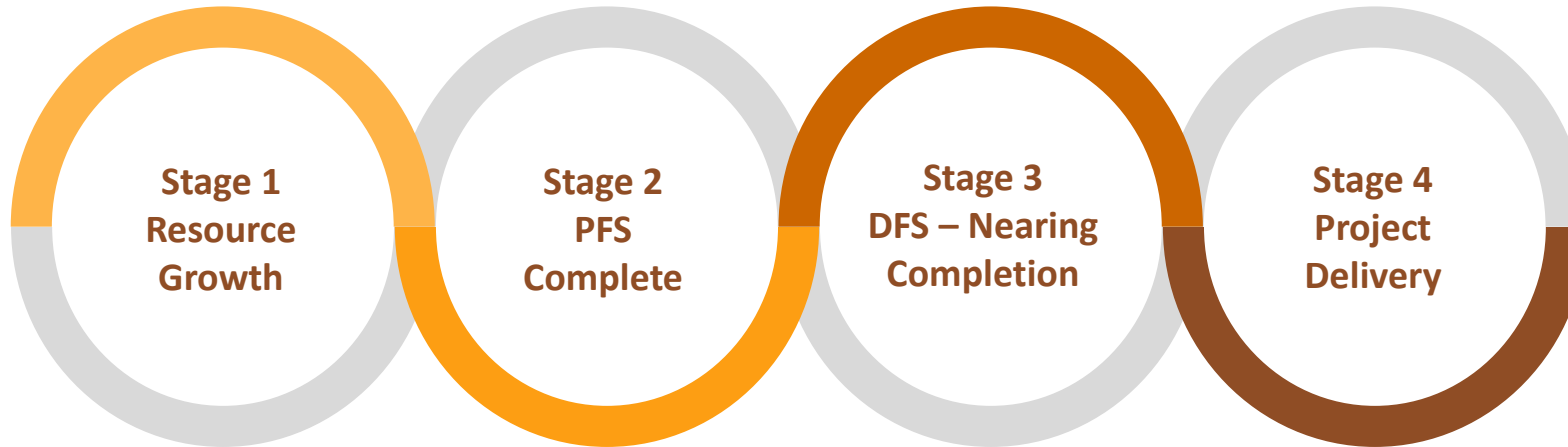
Downstream value-added products provides an opportunity to leverage the quality of the Pilgangoora resource



- ▶ Develop partnerships with key lithium chemicals industry participants
- ▶ Access to technology, operating expertise and intellectual property
- ▶ Shortcut to Pilbara's participation in downstream lithium chemicals market, supporting the Company's future growth
- ▶ Diversifies Pilgangoora product export destinations beyond China
- ▶ Potential to become a key quality carbonate and/or hydroxide supplier to markets ex-China
- ▶ Pilgangoora's significant resource scale, grade and preeminent location could support multiple chemical facilities
- ▶ Lithium Australia deal to facilitate continued SiLeach testwork on Pilgangoora samples, potential for future Port Hedland facility



Pilgangoora DFS Nearing Completion



Resource Estimation

- ▶ JORC Inferred /Indicated completed
- ▶ 130Mt Resource
- ▶ Further resource growth expected
- ▶ Massive pegmatite system on Pilbara's tenure presents outstanding opportunities for further resource and reserve growth
- ▶ Key global strategic resource

Project Definition

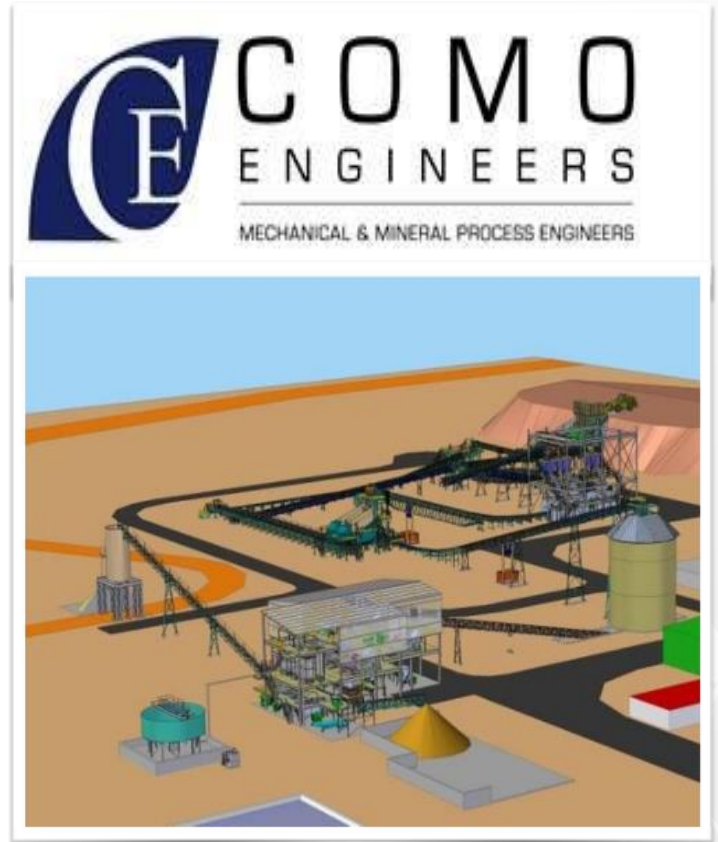
- ▶ Maiden reserve, 29.5Mt @ 1.35% Li_2O , 134ppm Ta_2O_5 tantalite
- ▶ Outstanding project economics
- ▶ Very low cost hard-rock Spodumene production
- ▶ Further reserve growth expected, growing mine-life

Detailed Design and Project Planning

- ▶ Targeting >25yr mine life
- ▶ Plant process and design optimisation
- ▶ Product specification and bulk samples to customers
- ▶ Tailings design
- ▶ OPEX updates
- ▶ CAPEX update
- ▶ Updated financial models

Finance / Permitting – December 2016

- ▶ Native Title Agreement
- ▶ Statutory mine approvals
- ▶ Major construction and operating contracts
- ▶ Financing
- ▶ Decision to mine
- ▶ Construction
- ▶ Commissioning
- ▶ Production ramp-up





Developing a globally significant new Australian lithium business



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