

A Future Energy and Energy Materials Company

Corporate and Strategy Update

20 January 2022 Annual General Meeting Presentation

ASX: HXG, January 2022

Important Notices



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COMPETENT PERSONS' ATTRIBUTIONS

Mcintosh, Alabama & Halls Creek Projects

The information within this report that relates to exploration results, Exploration Target estimates, geological data and Mineral Resources at the McIntosh, Alabama and Halls Creek Projects is based on information compiled by Mr. Michael Atkinson, a Competent Person and a member of The Australian Institute of Geoscientists. Mr Atkinson is a consultant to the Company and has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australiasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and he consents to the inclusion of this information in the form and context in which it appears in this report.

The McIntosh resource data and statement referenced in this presentation have previously been logged by Hexagon Energy Materials Ltd and related entities with the ASX via the AGM Presentation of 27 November 2015 and announcement dated 11 November 2021. The Halls Creek historic data via ASX announcement dated 7 December 2021. The Alabama graphite data via ASX announcement dated 8 December 2021. Hexagon Energy Materials Limited is not aware of any other new information or data that materially affect the information included in the original market announcement referred to above, and that all material assumptions and technical parameters have not material changed.

Authorised for release by the Board of Directors

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Corporate Overview



Hexagon Moving Forward

Secure and leverage technical and commercial alliances, by commodity. Future energy and future energy materials core focus.

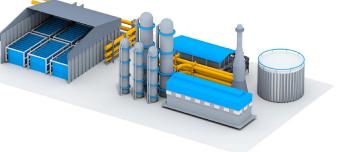
- 1. Future Energy: Clean Hydrogen.
 - a) NT (Pedirka) Hydrogen PFS completion by 28 February 2022.b) Northern Australian opportunity focus:- WA Blue Hydrogen Project.
- 2. Future Energy Materials: Nickel, Copper, PGE's, Graphite.
 - i. The McIntosh Project.
 - a) Nickel-Cu-PGE: Drilling program 2022.
 - b) Graphite value creation: Mineral rights earn-in negotiations underway.
 - ii. Ceylon Graphite U.S.A.: Progressed through the South Star deal.
- 3. Historic Assets:

Halls Creek – Gold, Copper, PGE's: Negotiations underway.





Green H₂ small scale plant



Source: Thyssenkrupp, Insights Industrial Solutions https://insights.thyssenkrupp-industrialsolutions.com/story/small-scale-green-ammoniaplants-open-up-new-storage-possibilities-for-windand-solar-power/

McIntosh sulphide mineralisation

Corporate Assets and Focus



Future energy and energy materials asset base, focused on project development in Northern Australia.

Northern Australia





(Source: Britannica, https://www.britannica.com/place/Alabama-state.)

Future Energy: Northern Australia

- Northern Territory (NT) Pedirka Clean Hydrogen (Blue Ammonia) Project: Alice Springs or Middle Arm, Darwin.
- 2. Western Australian (WA) Hydrogen Project.

Future Energy Materials:

- 3. The McIntosh Project: Graphite, Nickel, Copper and PGEs.
- 4. Ceylon Graphite Project in Alabama, U.S.A.

Historic:

5. The Halls Creek Gold and Base Metals Project.



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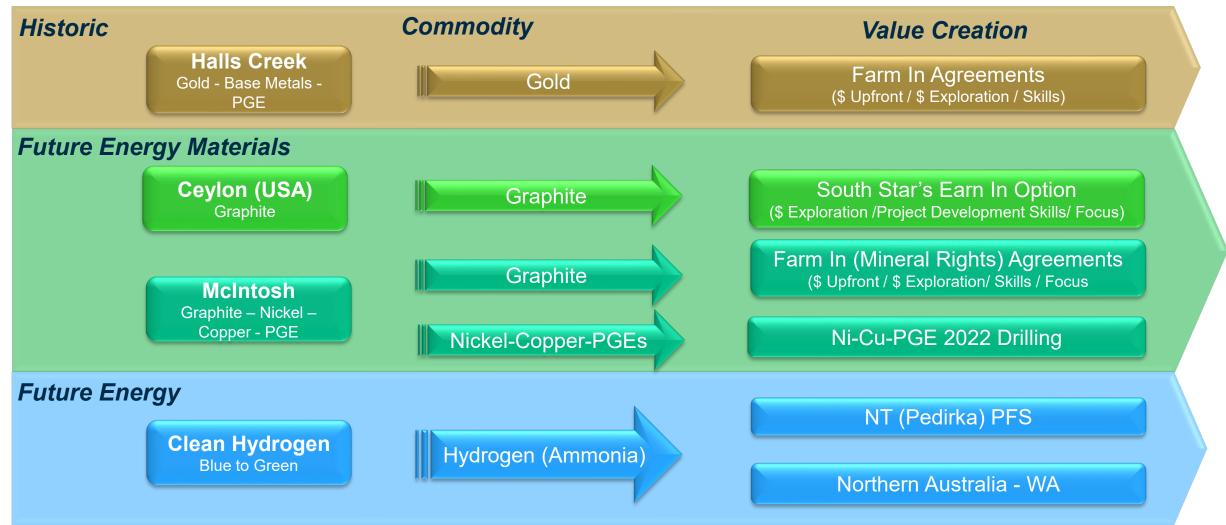
Company Strategy



Corporate Strategy



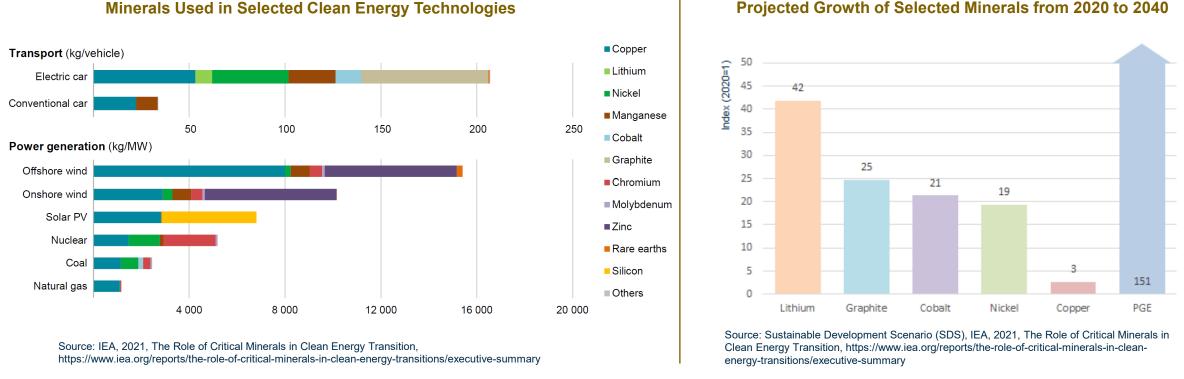
Secure and leverage technical and commercial alliances, by commodity. Future energy and future energy materials core focus.



Future Energy Materials: Graphite, Nickel, Copper & PGE's



Clean energy technologies are driving substantial (+20 fold) growth in demand for future energy materials.



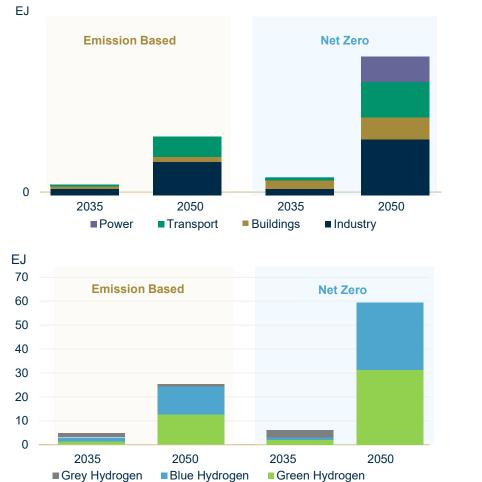
Projected Growth of Selected Minerals from 2020 to 2040

- Copper is fundamental to all electricity related technologies including in electricity networks.
- Graphite and Nickel are crucial to battery performance, longevity and energy density.
- Platinum and Palladium are used in fuel cell and electrolyser manufacture/ are key to the hydrogen transition. .

Future Energy: Hydrogen



Hydrogen is a clean, versatile energy source with strong growth in demand forecast.



Hydrogen Use by Sector & Hydrogen Production by Source

- The global clean hydrogen market is forecast to reach US\$300 billion (+ A\$410 billion) in sales revenue by 2050*.
- 70 million t.p.a. (2020) base to grow by a factor of 10 by 2050.**
- Japan's (METI) Basic Hydrogen Strategy 2017*** predicts Japanese hydrogen consumption at 5 -10 million t.p.a. post 2030.
- The current cost of large-scale green hydrogen production (at +\$3.90/kg) and handling/transportation (add A\$9/kg) precludes rapid expansion.****
- Blue hydrogen (Ammonia) will be key to early market growth and carbon emissions reductions.

* Source: Strategy& Part of the PwC Network, "The dawn of green hydrogen" Maintaining the (Gulf Co-operation Council) GCC's edge in a decarbonized world 2020 Report. https://www.strategyand.pwc.com/m1/en/reports/2020/the-dawn-of-green-hydrogen.html , F/X Source: xe.com ** Source: Depending on whose market forecast you rely upon; BP, Shell, ARENA, Bloomberg NEF, McKinsey or the Australian Hydrogen Centre. *** Source: Ministry of Economy, Trade and Industry (METI), "Basic Hydrogen Strategy" https://www.meti.go.jp/english/press/2017/pdf/1226_003b.pdf **** Source: Advisian Pty Ltd for the Clean Energy Finance Corporation (CEFC) , "Australian Hydrogen Market Study" May 2021 https://www.cefc.com.au/media/nhnhwlxu/australian-hydrogen-market-study.pdf

Source: BP Energy Outlook 2020, https://www.bp.com/content/dam/bp/businesssites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2020.pdf



20 January 2022 AGM Presentation

Project Pipeline



Northern Territory (Pedirka) Hydrogen Project Pre-Feasibility Study (PFS)

Range of improvement opportunities under assessment.

Substantial PFS progress made May 2021 to December 2021 – final stage to conclude by February 2022.

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Northern Territory (Pedirka) Hydrogen Project Pre Feasibility Study Engagement with governments to ensure project continues to be consistent with hydrogen strategies for domestic use and export, and approval processes are within commercial timeframes by NT Government representatives providing services for the NT Environmental Protection Authority (EPA)

- **√**02 **〉**
- a) Identify technology partner for gasification process
- b) Determine whether hydrogen or hydrogen derivatives such as ammonia are the best route to market

Pending

a) Determine coal resource and hydrogen production potential

Drilling program aimed to establish JORC Compliant Resource during Pre-Feasibility

 Identify other option/opportunities (technical and commercial comparisons)

√04 **〉**

Develop carbon capture and storage (CCS) solutions to ensure production of blue hydrogen end product

~05)

Determine optimal supply chain for transportation of raw material, as appropriate, and end product Progress financial modelling and commercial analysis and customer offtake agreements at competitive price of delivery to end markets

Developing large scale, commercial clean hydrogen project and exporting to Japan and South Korea.



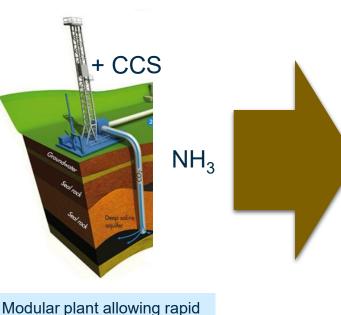
Northern Australia focus: WA Hydrogen Project



Practical, low risk and establishment cost with high potential for commercial success. Large scale, clean hydrogen project supplying domestic and global markets.



Blue to Green Transitioning



scale up as markets grow.



Large, Green Hydrogen Plant Visualisation

Source: Kapsom, Nanjing, China. Electrolysis, PSA, Synthesis and Storage https://www.kapsom.com/avada_portfolio/ammonia-plant

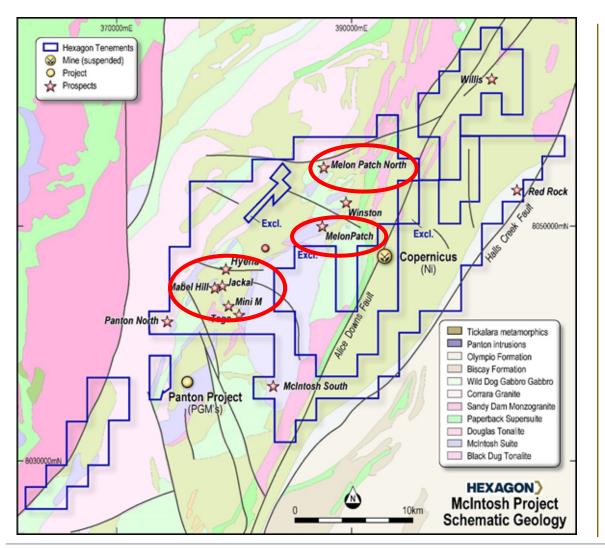
Source: Ammonia Production plant, Dreamtime (Licensed) Source: Japan bets on ammonia as the fuel of the future, Robin Harding JULY 23 2020 Financial times https://www.ft.com/content/254e44c4-afec-11ea-94fc-9a676a727e5a © ShutterstockShare.

WA Strategic Industrial Area (SIA) application lodged. Gas supply and CCS negotiations underway.

The McIntosh Project



Highly prospective Nickel, Copper, PGE ground holdings with established Graphite deposits.



- McIntosh is in a well-established Ni-Cu-PGE area.
 - Future Metals NL (ASX: FME) has 14.32Mt @ 4.89g/t PGM JORC resource* at its Panton PGM Project.
 - Panoramic Resources Limited's (ASX:PAN) Savannah and Savannah North Ni-Cu operations comprise of 13.45Mt @1.56%Ni, 0.70% Cu and 0.10% Co JORC mineral resources**.
- Systematic geological assessment (on ground mapping, resource model development, geophysical surveys and soil/geochemical sampling) has taken place over the past two years.
- Four drill targets for 2022 field season are Melon Patch North, Mabel Hill, Jackal and Hyena.
- Past extensive graphite deposit development work has received interest (mineral rights).

*Source: Future Metals NL, ASX Announcement 8th December 2021, <u>https://www.investi.com.au/api/announcements/fme/d9bd9306-593.pdf</u> **Source: Panoramic Resources Ltd, ASX Announcement 22 July 2021, https://wcsecure.weblink.com.au/pdf/PAN/02397802.pdf

The McIntosh Project



Significant Nickel, Copper and PGE deposits nearby – in good company.

Pantoro Limited (ASX:PNR)

- New drilling results*:
 - 30 m @ 1.03 g/t Pt+Pd+Au (3E); 0.54% Ni and 0.033% Co from 3 m.
 - ...strong correlation between PGE and Ni + Co mineralisation
- 43 km SW of HXG McIntosh Project.



**

ASX Announcement 15 November 2021

Drilling Confirms Large Scale Lamboo PGE Deposit

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to advise that it has completed its maiden step out drill program on the prospective Lamboo ultramafic basal contact at the Halls Creek Project (PNR 100%), with outstanding platinum group element (PGE) results returned.

*Source: Pantoro Limited, ASX Announcement, 10 January 2022

McIntosh:

- 5,200 soil samples collected during the 2021 field season under geochemist expert review (all final assays received).
- Historic drilling further reviewed.
- Past Graphite drill core in storage being recovered for Ni, Cu, PGE assaying.

• Field program 2022:

- Drilling of Anomaly A, 22 and 9.
- More granular IP survey Mabel Hill and Melon Patch. Extension of IP at Melon Patch. New surveys at Melon Patch North.
- More Soil sampling Mabel Hill, Melon Patch, Melon Patch North.

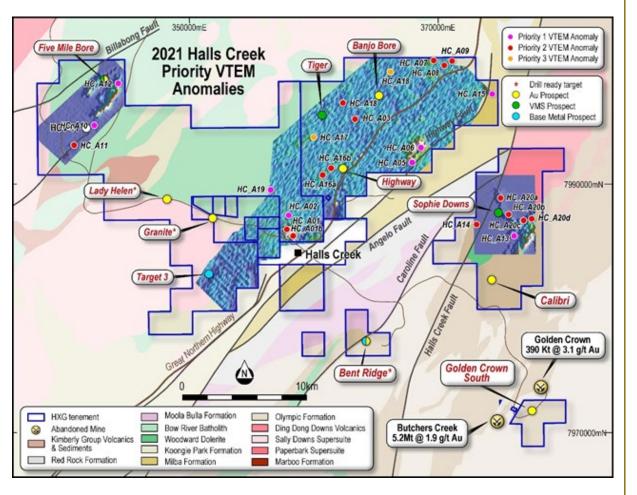
^{**} Source Pantoro Limited, ASX Announcement 15 November 2021

https://app.sharelinktechnologies.com/announcement/asx/0fb756c82ef34c79a753e17 a92211d87

The Halls Creek Project



High grade Gold and Base Metals prospects for the Halls Creek Project.



• Halls Creek is a historic gold mining area (1880's).

HISTORIC SURFACE SAMPLING INCLUDES:					
Lady Helen	Granite	Bent Ridge			
56g/t Au from trench sample and 36.5g/t Au from rock chip sample	11.5g/t Au	1.38g/t Au			

- 8 high priority VTEM targets have been identified (HXG ASX Announcement 7 Dec 2021).
- 3 drill ready targets: Lady Helen, Granite and Bent Ridge.
- The Golden Crown South prospect has Au in soil anomalies over 1.4 km. Associated with similar fault structures to nearby historically gold producing Golden Crown Mine (+288,000 oz gold*) and Butcher Creek Gold Mine (+52,000 oz gold**).
- Farm-in negotiations underway with ASX listed Gold companies with nearby ground.

*Source: Proactive, Aragon Resources intercepts bonanza gold at Golden Crown Mine, <u>https://www.proactiveinvestors.com.au/companies/news/148525/aragon-resources-intercepts-bonanza-gold-at-golden-crown-mine-9458.html</u> **Source: Meteoric Resources, Palm Springs WA, https://www.meteoric.com.au/palmsprings/

The Ceylon Graphite Project: USA



Leverage South Star Battery Metals Graphite commodity focus and project development experience.

8 December 2021: Earn-In & Option Agreement signed - Total C\$750,000 over 3 years for 75% Earn-In.



Source: South Star Battery Metals Corp. November 2021 presentation.

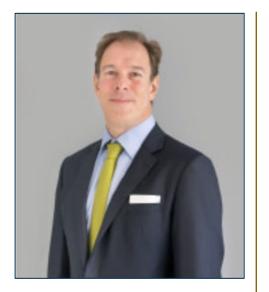
Ceylon Graphite Project 2022 Program:

- Exploration (Drilling & Sampling).
- Process & Value Add Testing Program.
- Studies (Technical Report with NI43-101 Maiden Resource Definition).
- Permitting & Licensing.
- Land & Mineral Rights Meet with current landowners and with Municipal and State of officials.
- Define future work plan.

Source: South Star Battery Metals Corp. November 2021 presentation. Summarised.

Leadership Team





Charles Whitfield Chairman

Formerly: Executive Director at lithium producer Galaxy Resources Ltd (now part of Orocobre Limited), Investment Banking -Citigroup & Deutsche Banks. Highly experienced/Multicompany director.



Formerly: Founding MD in hydrogen - Syngas Ltd and Renewables -Biosyngas Ltd. Extensive Nickel and Gold operations experience - Western Mining Corporation Ltd and Gutnick Group.





Garry Plowright Non-Executive Director

Extensive experience in the resource sector. Background in mining law - regulatory processes and mine development including stakeholder, community relations and company administration. Hexagon works with technical experts across its project portfolio including:

- Genesis Energies, a Technip Energies company: NT (Pedirka) H₂ Project.
- Integrated Geological & Mining Services Pty Ltd now part of MEC Mining Group Pty Ltd: McIntosh.
- SRK Consulting, Dr. Mark Rieuwers: McIntosh.
- Telemark Geosciences, Dr. Dennis Arne: McIntosh.
- Southern Geoscience Consultants, Dr. Heidi Pass: Halls Creek.

Hexagon also works with the following commercial advisors:

- GRACosway.
- BDO Audit (WA) Pty Ltd and Tax.

Hexagon Moving Forward Summary.

HEXAGON

Secure and leverage technical and commercial alliances, by commodity. Core future energy and future energy materials focus.

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Source: Thyssenkrupp, Insights Industrial Solutions https://insights.thyssenkrupp-industrial-solutions.com/story/smallscale-green-ammonia-plants-open-up-new-storage-possibilitiesfor-wind-and-solar-power/

McIntosh sulphide mineralisation



Source: HXG AGM Presentation 27 November 2015.

Corporate Overview

Leveraging established technical, commercial and investment capabilities through key alliances to create value across the Company's portfolio.

HEXAGON ENERGY MATERIALS LTD

20 November 2020 – 9 Jan 2022 (Sources: marketindex.com.au and Automic Pty Ltd)

ASX Code HXG	Share Price (9/01/22) A\$0.073	Market Capitalisation A\$32.6M	Shares on Issue 446M
Options	52 Week High	52 Week Low	Average Daily Volume 1.30M
4M	A\$0.16	A\$0.058	

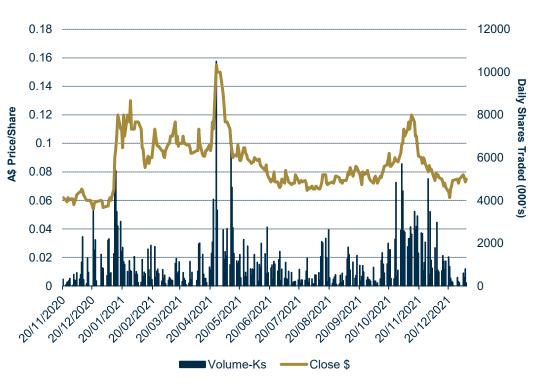
TOP FIVE SHAREHOLDERS

At 9 January 2022 (Source: Automic Pty Ltd)

Hole	der	Shares (Millions)	Holding (%)
1.	Citicorp Nominees Pty Ltd	29.87	6.70
2.	UBS Nominees Pty Ltd	21.98	4.93
3.	Investorlink Direct Portfolio Pty Ltd	15.92	3.57
4.	HSBC Custody Nominees (Aust) Ltd	13.62	3.05
5.	HSBC Custody Nominees (Aust) Ltd	9.64	2.16
	TOP FIVE TOTALS	91.05	20.41

HXG SHARE PRICE

20 November 2020 - 9 Jan 2022 (Source: finance.yahoo.com)



Substantial Shareholder - Tribeca Investment Partners Pty Limited, 8.22%

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MERRILL GRAY

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FUTURE ENERGY AND ENERGY MATERIALS IN NORTHERN AUSTRALIA