

# FUTURE ENERGY AND ENERGY MATERIALS

## FUTURE ENERGY

### HEXAGON AND HYDROGEN



The global Hydrogen export market is forecast to reach A\$300 billion in sales by 2050. This is attracting significant attention. On a risk managed, shareholder value maximising basis, becoming an established Hydrogen market participant is core to Hexagon's strategy.

Hexagon's initial focus is on large scale blue Ammonia project development in Northern Australia, Utilising local feedstock and Carbon Capture and Storage (CCS) to decarbonise Ammonia.

Hexagon's plan is, to the greatest extent possible, to use Renewable Energy in hydrogen production and, over time, transition to green, liquid hydrogen production once key hydrogen materials handling technology breakthroughs are achieved and become commercial.

The Hexagon team is experienced, has skills in hydrogen project development, and understands how important to project success the following are:

- Access to low-cost long-term feedstock,
- Use of proven production technologies to mitigate risks,
- Access to well established port, electricity and transport infrastructure,
- Access to low cost, quantities of process water,
- Access to low-cost renewable energy,
- Access to installed Carbon Capture and Storage (CCS) infrastructure and reservoirs through toll service providers,
- The building of end customer relationships and the securing offtake agreements.

Hexagon's lead Hydrogen project (WA<sub>H2</sub>) is located in North Western Australia. Stage 1 will see 250,000 t.p.a. of blue Ammonia produced from 2028 with Stage 2 expanding to 800,000 t.p.a. WA<sub>H2</sub> is underpinned by the scope of work completed for the Northern Territory (Pedirka) Blue Hydrogen Project Pre-Feasibility (PFS) between April 2021 and February 2022 (see figure overleaf).

A pipeline of large-scale natural gas fed Steam Methane Reformation (SMR), Nitrogen plant, combined with CCS, blue Ammonia projects are to be developed by Hexagon.

The Hexagon team's practical, delivery focused approach, Australian energy and industrial sector relationships and international end customer networks (focused on coal fired power station operators and shipping lines) underpin Hexagon's capacity to deliver for stakeholders in the emerging Hydrogen market.

## FUTURE ENERGY MATERIALS

Hexagon also has a future energy materials asset base.

### 1. McIntosh Project - Nickel-Copper-PGEs

Hexagon's McIntosh Project comprises a highly Ni-Cu-PGE prospective 542km<sup>2</sup> ground holding (17 Exploration Tenements) in the Kimberley in the Northwest of Western Australia (WA), with Panoramic Ltd's Savannah Nickel Project and processing plant to the North and Future Metals NL's Pantong PGE project to the south of Hexagon's McIntosh Project ground holdings.

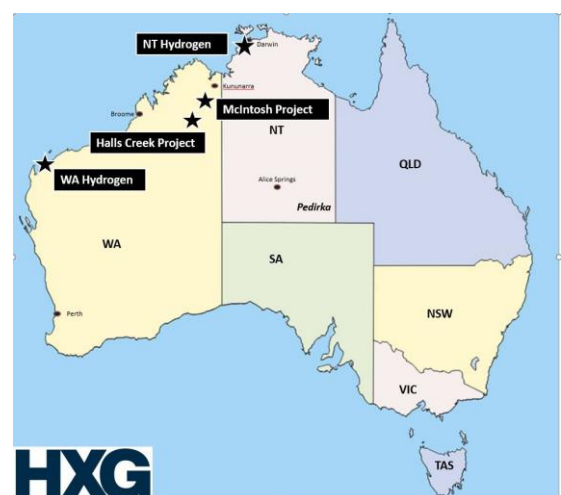
Hexagon's systematic Ni-Cu-PGE exploration approach over the past two years has modelled and identified multiple drill targets to be drilled during the 2022 field season.

### 2. McIntosh and Ceylon Project - Graphite

- In February 2022 Hexagon signed an Earn-in deal over the Graphite Mineral rights at McIntosh with Green Critical Minerals Pty Ltd to unlock value from past investments (McIntosh's Graphite assets are a combined total Graphite resource of 23.8 million tonnes, grading 4.5% TGC, with 81% indicated)
- In the USA (Alabama) in December 2021 Hexagon completed a development deal (Binding Earn-in-Option) with Canadian Graphite project development company South Star Battery Materials Corporation (TSXV: STS) over the Ceylon Graphite deposit (ground holdings of 500 km<sup>2</sup>) that Hexagon had secured and invested in assessing. The agreement provided for an 'on the ground' program (expenditure) taking place over the next three years by STS.

### 3. Gold and Base Metals

Hexagon holds 430km<sup>2</sup> of highly prospective Au-Cu ground (13 Exploration Tenements) in the historic gold mining area of Halls Creek in WA, with multiple priority targets identified through geophysical work completed in 2021.



Map showing Hexagons Australian Project Portfolio

# FUTURE ENERGY AND ENERGY MATERIALS

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

✓ 01

Engagement with governments and other stakeholders to ensure projects continue to be consistent with hydrogen strategies for export and domestic markets. Also so regulated approvals are cost effectively completed within commercial timeframes e.g. working with Environmental Protection Authority (EPA) and other regulators.

✓ 02

- a) Identify a technology partner for gasification process or other hydrogen production technologies.
- b) Determine whether hydrogen or hydrogen derivatives (carriers) such as ammonia are the best route to market – short, medium and long term.

✓ 03

- ✓ a) Determine coal resource and hydrogen production potential. *Not Completed*  
Drilling program aimed to establish JORC Compliant Resource.
- ✓ b) Identify other feedstock options/opportunities.

Development of large scale, commercial, clean hydrogen projects. Delivering into global export markets.

✓ 04

Develop carbon capture and storage and utilisation (CCS/CCUS) solutions to ensure sustainable production of blue hydrogen end product.

✓ 05

Determine optimal supply chain for transportation of raw materials, as appropriate, and end product (pipeline, rail, road, sea). Working with owners and operators.

✓ 06

- a) Progress customer discussions over offtake incorporating competitive cost of delivery to end markets.
- b) Progress funding/financing of entire projects (into operation) including strategic partnerships.

✓ 07

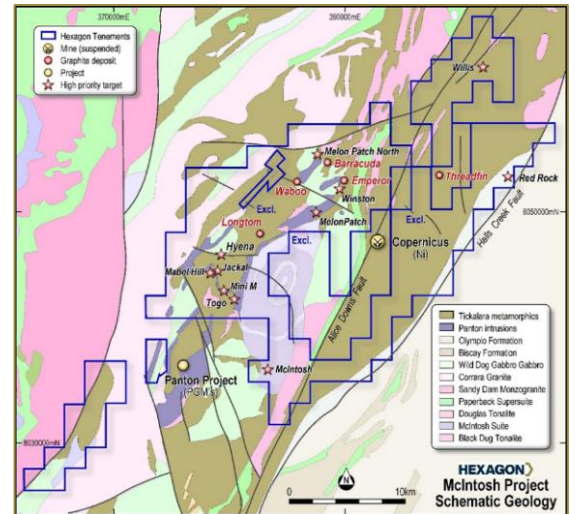
Progress financial modelling and commercial analysis.

Source: Adapted 9 July 2021 and 20 January 2022 AGM Presentation ASX Announcements

## McINTOSH NI-CU-PGE PROJECT

The McIntosh Project area has established Ni-Cu-PGE potential through deposits including the + 2 Moz Pantan PGE Project and Panoramic Ltd's Copernicus Ni-Cu Deposit and Resources and Savannah and Savannah North Ni-Cu operations.

Through a systematic, wide ranging geological program of work over the past two years, that incorporated geophysical data collection and review, geochemical work (soil sampling), on the ground mapping and resource model development, several high priority targets have been identified, including Melon Patch North, Mabel Hill, Jackal and Hyena. A drilling program is planned for the 2022 field season.



## HALLS CREEK AU- CU PROJECT

### High-grade gold targets and base metal prospects

Halls Creek is a historic gold mining area.

Hexagon's Golden Crown South prospect has Au soil anomalies over a length of 1.4 km. This prospect is associated with similar fault structures to the nearby historically gold producing Golden Crown and Butcher Creek Gold Mine.

The results below have been recorded on Hexagon held ground at Halls Creek.

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

