



athena
RESOURCES

ASX Announcement
14th July 2025

Level 33, 1 Spring Street | Perth WA 6000 [E ahn@athenaresources.com.au](mailto:ahn@athenaresources.com.au) [W athenaresources.com.au](https://www.athenaresources.com.au)

ATHENA TO COLLABORATE ON MID WEST GREEN IRON PROJECT

Athena Resources Limited (ASX: AHN) (“Athena” or the “Company”) is pleased to announce the Company has agreed to be a foundation partner with Warradarge Energy Pty Ltd (“Warradarge Energy”) and Fenix Resources Limited (“Fenix”) (ASX:FEX) in the establishment of a new Green Iron Project in Western Australia’s mid-west region.

HIGHLIGHTS

- Athena, Warradarge Energy and Fenix (collectively “the “Parties”) have signed a Memorandum of Understanding agreement (the “Agreement”) whereby the Parties will work together to plan and establish a new Mid West Green Iron Project (the “Project”) in Western Australia.
- The ambition of the Project is ultimately to produce commercial quantities of direct reduction iron ore products using locally mined mid-west ultra-high grade iron ores and locally produced green hydrogen using available technology solutions.
- Under the Agreement a new company will be established, Mid West Green Iron Pty Ltd, with equal shareholdings between the Parties, to act as the project development vehicle.
- Mid West Green Iron Pty Ltd brings together three focused regional entities, Athena, Warradarge Energy, and Fenix, with the essential assets and capabilities that have the potential to successfully develop a Mid West Green Iron Project.
- The Project is intended to be developed in stages with Athena’s main role being the initial provision of ore samples to trial suitable green iron technologies and ultimately the potential to provide high-grade magnetite concentrate from Athena’s Byro Magnetite Project for the Mid West Green Iron Project.
- Athena’s commitment to Mid West Green Iron Pty Ltd is not expected to require significant capital investment outside of the Company’s existing development activities at the Byro Magnetite Project.

About Athena Resources: AHN is an Australian ASX listed explorer and developer of highgrade iron ore assets in Western Australia. The Company is focused on its Byro Project, strategically located in the Mid-West region 410km from the Port of Geraldton. The Byro Iron Ore Project has potential to mine and supply premium grade, low impurity magnetite (>70% Iron Content) for the production of Dense Media Separation material, Green Steel and other Industrial Mineral applications.

Directors: John Welborn, Peter Jones, Peter Newcomb, Terry Weston, Garry Plowright • **Company Secretary:** Peter Newcomb • **Athena Resources Limited** ACN 113 758 900



athena
RESOURCES

ASX Announcement
14th July 2025

Level 33, 1 Spring Street | Perth WA 6000 [E ahn@athenaresources.com.au](mailto:ahn@athenaresources.com.au) [W athenaresources.com.au](https://www.athenaresources.com.au)

Athena's Managing Director & CEO, Mr Peter Jones, commented:

"The quality, scale, location and metallurgy of the Byro Magnetite Project provide a unique ability to provide the ultra-high-grade concentrate products that are required for a regional green iron development. Warradarge Energy have a similar regional focus and synergistic scaled development plan for their Warradarge Green Hydrogen Project in the mid-west. Fenix, Athena's largest shareholder, have the regional logistics solutions and balance sheet to support future project development and management of a green iron project."

"Athena's primary focus remains the development of the Company's 100% owned high quality Byro Magnetite Project. Partnering on local green iron opportunities is an obvious opportunity for Athena to develop a future high value market for our iron products in addition to the obvious export opportunities."

MID WEST GREEN IRON PROJECT

Green iron is a description of iron products that have been produced via sustainable processes using carbon neutral energy (such as hydrogen rather than coal or natural gas or other fossil fuels). Producing green iron requires the reduction of iron ore where hydrogen replaces coking coal in the reduction process. If the hydrogen used in the reduction process is produced using renewable energy, then the resulting iron can be produced with a reduction in carbon emissions by as much as 90% compared to traditional processes.

Currently, steel production is responsible for approximately 8% of worldwide carbon emissions and so green iron is an important opportunity to significantly reduce global emissions. In addition to the environmental benefits, green iron is also an opportunity to develop more efficient steel making technologies, diversify the iron ore and steel economy, and support the development of renewable energy sources and other environmentally positive outcomes.

Almost all green iron technologies require high-grade iron ore concentrates (greater than 65%Fe and preferably greater than 68%Fe) as feedstock. As a result, there is a growing industry focus on sourcing higher grade iron ores for green steel production. Magnetite, with its higher iron content is a preferred feedstock for green iron production, especially when beneficiated to high-grade concentrates.

Athena's Byro Magnetite Project has the potential to produce a 70%Fe grade concentrate, so is ideally suited for potential green iron applications.



Western Australia's Mid-West has been identified as a region that has the potential to be a global leader in Green Iron production due to the potential to produce hydrogen from available renewable energy resources (wind and solar) and the abundance of undeveloped magnetite resources with potential to produce high-grade iron ore concentrates.

The Mid West Green Iron Project is intended to be developed by the Parties in three stages:

1. **Validation:** Athena will provide magnetite concentrate samples from the Bryo Magnetite Project for testing using innovative technologies and processes to confirm the feasibility of the reduction process and demonstrate the best development pathway. The Validation phase is intended to provide confidence that high value pellet or briquette Green Iron can be produced sustainably and economically in the Mid-West. This phase is not expected to be a significant capital cost and will be conducted in parallel with the Parties individual development activities on their own projects to, respectively, develop regional high-grade magnetite production (Athena at Byro), regional green hydrogen production (Warradarge Energy – Mid-West Green Hydrogen Project) and regional logistics solutions (Fenix – Newhaul). The target date for completion of the Validation phase is the end of calendar 2026.
2. **Demonstration:** Confirmation of technical feasibility from the Validation phase is expected to enable the development of a small scale green iron demonstration plant in the Mid-West. The demonstration plant is expected to be modular and to provide multi-user downstream processing opportunities. The Parties are open to further partnership opportunities in the development of the pilot plant and see significant potential for future collaboration and funding agreements with government and non-government partners.
3. **Commercial Production:** Successful demonstration of the viability of the Mid-West production of green iron will support the development project of a full scale production plant. The ultimate ownership and operation of the commercial production facility will depend on the final technology solution with opportunities to broaden the partnership model to include additional project partners.

The expectation of the Parties is that high grade magnetite concentrate feedstock will be sourced from Athena's Byro Magnetite Project, green hydrogen will be supplied from Warradarge Energy's Mid-West Green Hydrogen Project, and logistics and port services provided by Fenix's 100% owned logistics provide Newhaul Pty Ltd.



MID WEST GREEN IRON PTY LTD AGREEMENT

The Project vehicle, Mid West Green Iron Pty Ltd, has been created subject to a binding Memorandum of Understanding agreement whereby the Parties, Athena, Warradarge Energy and Fenix, are equal shareholders in the new entity.

The intention of the Parties Agreement is to partner in the scoping and development of the production of green iron in the mid-west jointly and collaboratively. The Agreement defines the potential stages of Project development (as outlined above) and provides flexible terms to allow parallel development of each parties components as well as the potential addition of new partners in future.

The Parties will work to further define the project through targeted technical studies and may establish commercial agreements to secure the foundational rights of the Project, such as land, power, iron ore, water, hydrogen, transport services and other project inputs.

A key area of partnership will be advocacy for favourable policies to support the development of green iron projects as well as the identification of potential sources of finance to enable the Project.

BYRO MAGNETITE PROJECT

Athena's flagship Byro Magnetite Project is located within the Murchison Province of Western Australia. The Murchison Province forms a part of the mid-west region, a well-established mining and pastoral hub.

The Project is situated approximately 90km north of the Murchison Shire Settlement, 285km north-northeast of the town of Mullewa, 340km north-east of the Port of Geraldton, and 650km north of Perth. (refer Figure 1 Byro Project Location).

The Byro Magnetite Project hosts a series of high priority magnetite targets including Byro North, FE1, Byro South, and Mt Narryer.

At FE1, Athena has defined a magnetite deposit with a Whole Rock Mineral Resource of 29.3Mt @ 24.7% Fe (10% cut-off) comprising 24.0Mt indicated at 25.1% Fe and 5.3Mt inferred at 22.7% Fe.

This has yielded Magnetite Mineral Resource of 21MT @ 70.7% Fe (DTR, 20% cut-off) comprising 17.7 Mt indicated at 70.7% Fe and 3.3 Mt inferred at 70.8% Fe

(See ASX Announcement dated 17/1/2023).



athena
RESOURCES

ASX Announcement
14th July 2025

Level 33, 1 Spring Street | Perth WA 6000 [E ahn@athenaresources.com.au](mailto:ahn@athenaresources.com.au) [W athenaresources.com.au](https://athenaresources.com.au)

ABOUT ATHENA <https://athenaresources.com.au/>

Athena (ASX: AHN) is an Australian mineral exploration company focused on the development of the Byro Magnetite Project in Western Australia. The Company aims to unlock the potential of its high-grade magnetite mineralisation to deliver value to shareholders.

Athena is focused on the exploration and development of high-quality magnetite projects in Western Australia to support the emerging global green steel industry. The Byro Magnetite Project is strategically located within 100km of Sinosteel's Jack Hills Magnetite Project and approximately 180km from Fenix Resources Limited's Iron Ridge Iron Ore Mine.

Byro has unique project advantages in quality, scale, location and metallurgy which provide an opportunity to partner with relevant regional project partners to build an integrated value chain. Work completed at Byro demonstrates the project can produce an exceptionally high-grade clean magnetite concentrate product with potentially very low capital intensity.

ABOUT WARRADARGE ENERGY <https://warradarge.com.au/>

Warradarge Energy is a private Western Australian renewable energy and hydrogen company focused on developing the Warradarge Green Hydrogen project.

Warradarge focuses on building hydrogen projects with strong foundations, from positioning assets in world class wind and solar resource regions with grid connectivity, coupled with downstream market cultivation in key markets such as green iron and heavy transport.

Warradarge's proposed 1 GW Hydrogen project has the potential to supply a majority of the reducing gas to the Mid-West Green Iron Project, supported by over 1.5 GW of Wind and Solar capacity currently under development.



athena
RESOURCES

ASX Announcement
14th July 2025

Level 33, 1 Spring Street | Perth WA 6000 ahn@athenaresources.com.au www.athenaresources.com.au

ABOUT FENIX

<https://fenix.com.au/>

Fenix (ASX: FEX) is a fully integrated mining, logistics and port services business with a track record of successfully developing and operating iron ore mines in WA's Mid-West. Fenix is targeting to achieve an annual production rate of 4 million tonnes of iron ore during 2025 from three operating mines.

High quality iron ore products are transported by road to Geraldton using the Company's 100% owned Newhaul Road Logistics business.

Fenix's wholly owned Newhaul Port Logistics business operates its own loading and storage facilities at the Geraldton Port, with storage capacity of more than 400,000 tonnes and loading capacity of more than 5 million tonnes per annum (Mtpa). Fenix is Athena's largest shareholder with a current holding representing 37.2% of issued capital.

This announcement has been authorised for release by the Board of Athena Resources Limited.

Peter Jones
Managing Director
Athena Resources Limited
Email: peter.jones@athenaresources.com.au

Exploration Results

The information in this announcement that relates to exploration results has been extracted from the ASX announcement titled Minerals Resource Estimate released on 17/01/2023 and which is available at www.asx.com.au. The competent person for the exploration results in that announcement was Liam Kelly. The Company confirms it is not aware of any new information or data that materially affects the exploration results set out in the in the original announcements.

The information in this Announcement that relates to previous Exploration Results was prepared and first disclosed under the JORC Code 2012 and has properly and extensively cross-referenced in the text to the date of the original announcement to the ASX.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Athena Resources Ltd (ASX: "AHN") planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Athena Resources Ltd (ASX: "AHN") believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.



athena
RESOURCES

ASX Announcement
14th July 2025

Level 33, 1 Spring Street | Perth WA 6000 [E ahn@athenaresources.com.au](mailto:ahn@athenaresources.com.au) [W athenaresources.com.au](http://www.athenaresources.com.au)



Figure 1 Byro Project location in WA's Mid-West