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ASX: CR1

NATURAL HYDROGEN & HELIUM

EXPLORATION WITHIN WESTERN AUSTRALIA

The search for natural hydrogen as a future energy resource is in its infancy, with the untapped potential akin to the early decades of oil exploration.

INVESTOR PRESENTATION JUNE 2025

Background image displays Constellation Resources Edmund-Collier Project

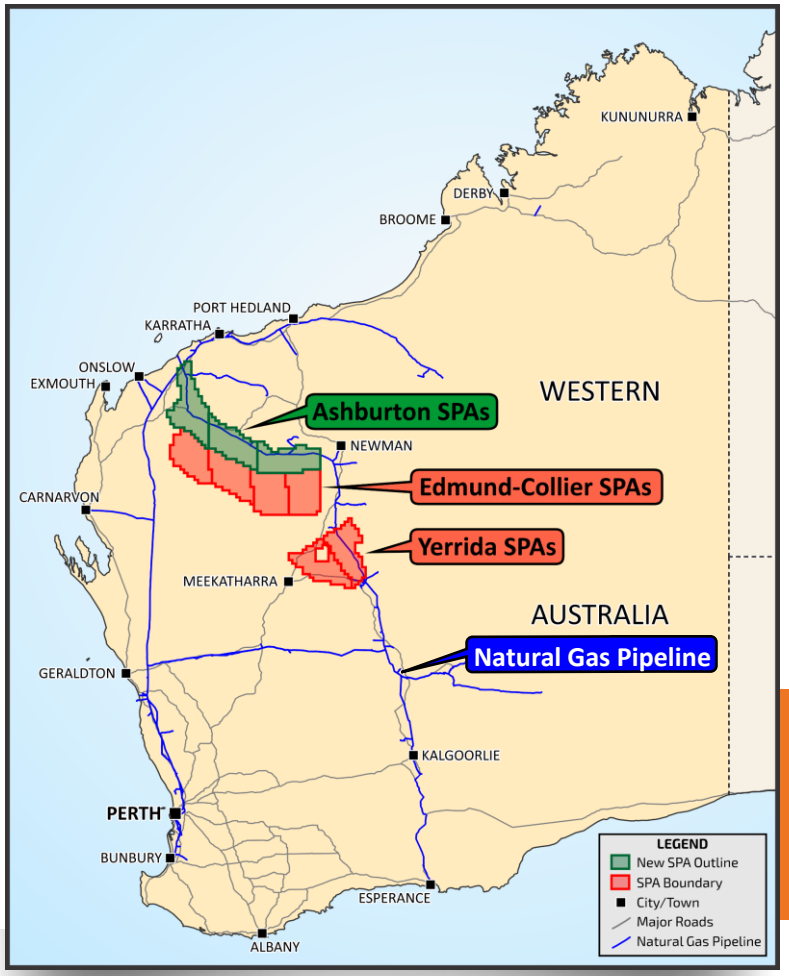
INVESTMENT CASE

1 With soaring gas prices and increasing constrictions to domestic supply, the industry is in critical need of a major shift

2 In Western Australia, where significant supply challenges loom[1] and the options for increasing supply beyond the Scarborough Project and Perth Basin are limited[2], the industry is at a critical inflexion point

3 In response to these conditions, in 2024, the Western Australian Government passed legislation[3] that enables the inclusion of hydrogen into existing gas pipelines (based on a review of the entire DBNGP[4])

4 This provides ideal conditions for a new, economically viable hydrogen source to revolutionise the market



5 Constellation Resources has **3 basin-scale projects** in Western Australia covering an enormous **88,000km²** – all strategically positioned in proximity to existing gas pipelines

6 If viable, any one of these basins could potentially provide the quantity of hydrogen required to supply Western Australia's hydrogen market - there are currently no existing domestic suppliers

7 The location of Constellation's projects also provides an opportunity to inject H_2 directly into the Dampier to Bunbury Natural Gas Pipeline (DBNGP)

8 Naturally sourced hydrogen is potentially both a low cost and low carbon alternative to existing gas and hydrogen supplies, with a fast pathway to market

1) Petroleum Australia, May 20th 2025, WA's domestic gas market faces potential supply shortfalls, report warns
2) West Coast Gas Outlook 2024 – Calm before the Storm? Energy Quest
3) WA Petroleum Legislation Amendment Bill, May 2024
4) Dampier to Bunbury Natural Gas Pipeline Public Sharing Knowledge Report DPB-Z-REP- 103-01 by the Australian Gas Infrastructure Group (AGIG)

COMPANY HIGHLIGHTS

Constellation Resources has the potential to completely disrupt the Western Australian gas market with an economic and sustainable alternative

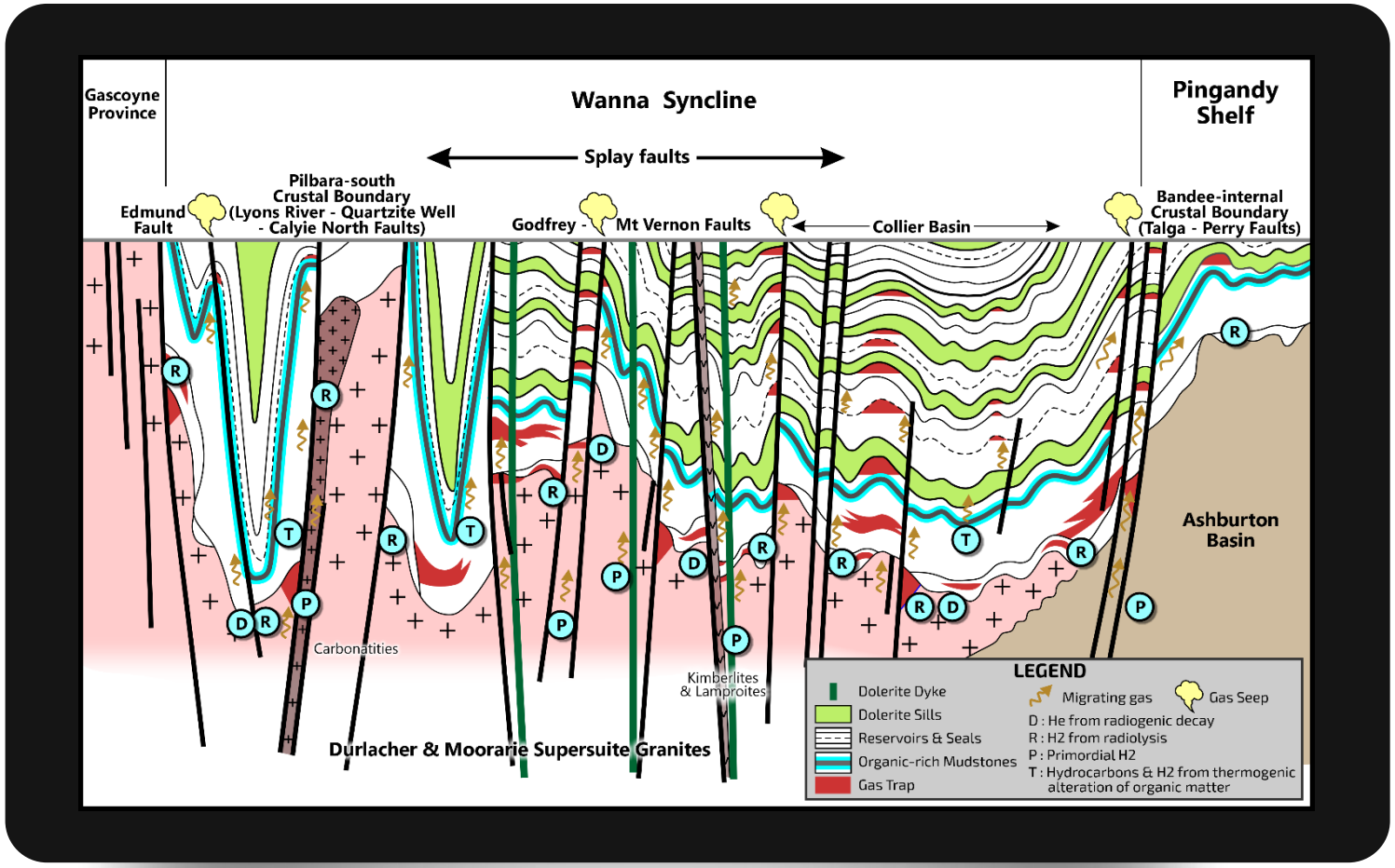
The Company has secured acreage that contains **three Basin-scale projects -** providing an enormous prospective land area, 88,000km^2

Several critical milestones have already been achieved including confirmation of the Thermogenic Hydrogen Viability of the shales at Edmund Collier Basin

The Q3 2025 sampling program will search for surface gas seepages. If discovered these will provide a **major development catalyst**

NATURAL HYDROGEN

EACH OF CONSTELLATION'S THREE PROJECTS CONTAIN ALL THE GEOLOGICAL ELEMENTS NEEDED FOR A POTENTIAL BASIN SCALE HYDROGEN SYSTEM



Large scale open folds containing **basin wide organic rich source rocks extending in excess of 300km east-west and 40km north-south**, reservoirs, seals and faults that collectively may present a case for a complete hydrogen system and possible viable accumulation sites.

Thermogenic Hydrogen (T)

Hydrogen produced by sufficient heating/pressure of organically rich shale units in the Edmund-Collier Meso-Proterozoic Basin

Radiogenic Hydrogen +He (R)

Edmund-Collier Paleo-Proterozoic Basin potentially trapping H_2 and He produced by the interaction of groundwater and Paleo Proterozoic hot granites

ASX Announcement "Thermogenic Hydrogen Potential Confirmed at Edmund Collier" 19th May 2025

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NEXT STEPS TOWARDS PRODUCTION

INDICATIVE PRODUCTION CONCEPT

A NATURAL HYDROGEN DEVELOPMENT HAS A SMALL SITE FOOTPRINT

requiring only compressors to pressurise hydrogen, storage tanks, generator, office and a pipeline to connect to the main gas pipeline

Site footprint equivalent to the footprint of a cattle station homestead

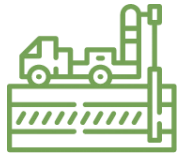
Estimated site footprint of a natural hydrogen development

EXPLORATION TO PRODUCTION

1

EXPLORATION – INVESTIGATIVE

2



EXPLORATION – SAMPLING

3

PRODUCTION

CURRENT

Special Prospecting Authority – Acreage Option Permits

- Soil gas surveys to commence **Q3 2025** to detect surface seepages of targeted gases
- The surveys are simple, cost effective and have low environmental impact
- CSIRO studies will continue to help optimise upcoming soil gas survey and basin prospectivity assessments
- Large H_2/He systems are expected to leak to the surface, and if found, will be a **major milestone and catalyst to proceed to the next phase**

CY 2026

Petroleum Exploration Permit

- Exploration Permit submission – approval followed by:
  - Infill soil gas sampling
  - Mapping and geophysics to confirm drill target (may include seismic lines and airborne geophysical surveying)
  - Exploration Wells (akin to diamond drilling for mineral explorers) to find potentially viable gas accumulation.

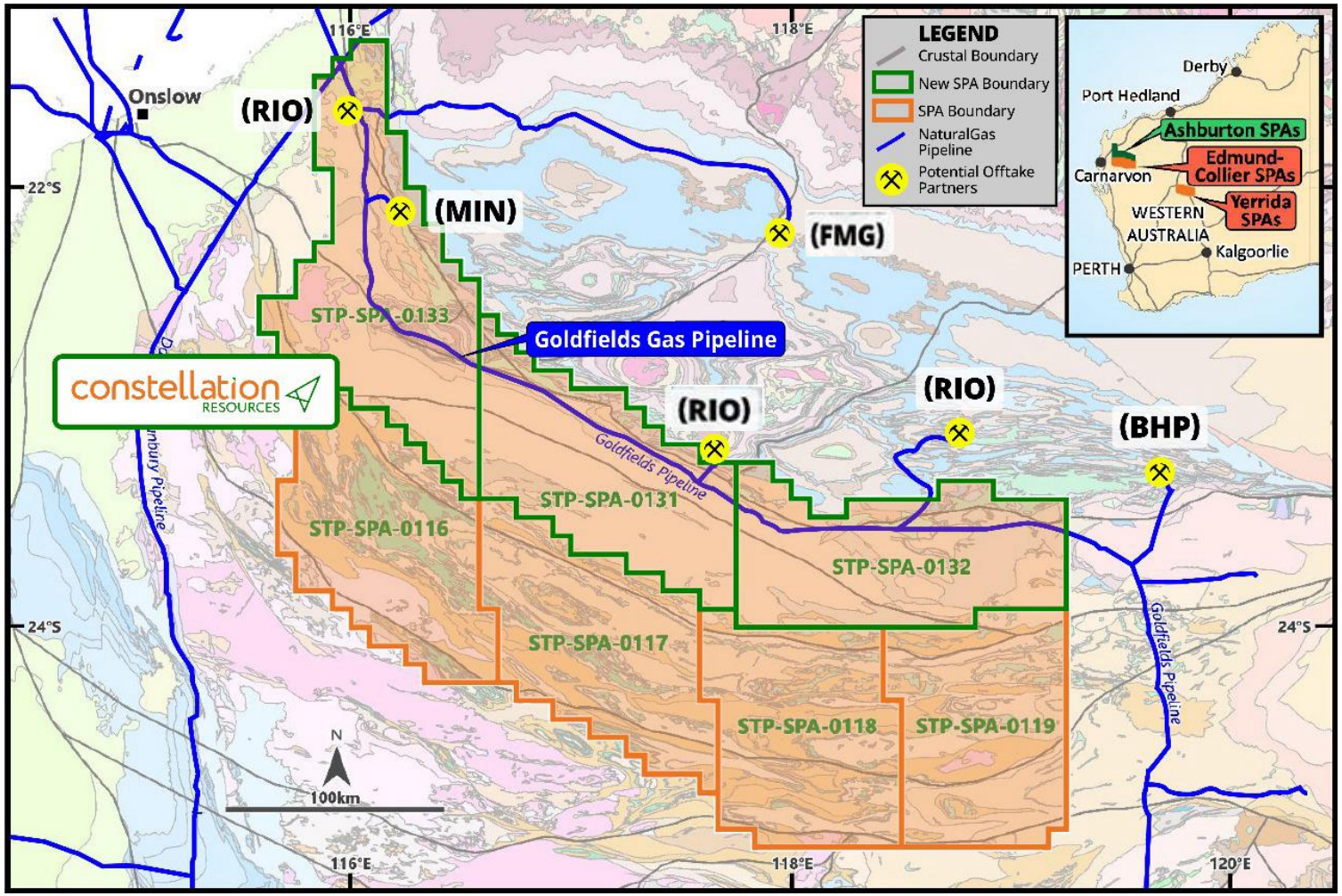
>2028

Petroleum Production Permit

- Gas Reserve drilling and Feasibility Studies
- Productions Wells constructed
- Production Facilities established

HYDROGEN COMMERCIALITY

- The underlying geology of Constellation's SPAs contains the source rocks, reservoirs, seals and migration pathways needed for a commercially viable hydrogen discovery
- The map to the right features the coverage of Constellation's Edmund-Collier and Ashburton SPAs, with potential routes to market
- Particular emphasis is placed on the Goldfields Gas Pipeline running directly through the SPAs, and the close proximity to a number of major consumers, including iron ore mines who are investigating pathways for onsite green steel production



WA MARKET POTENTIAL

- In 2019, the Western Australian Government released its Renewable Hydrogen Strategy, delivering a roadmap to a low-carbon future through renewable hydrogen for the state, with **WA aiming to become a significant producer, exporter and user of renewable H_2**
- To confirm the viability of the Government's plan, it supported ATCO in developing a H_2 Blending Gas Plant at Jandakot, Western Australia
- Commissioning of the Gas Plant was completed in 2022 and operated successfully from January to October 2023 blending 2% (v/v) Hydrogen. The plant is designed to **blend up to 10% (v/v) hydrogen** at maximum capacity into the **existing gas network**
- Additionally, the Dampier to Bunbury Natural Gas Pipeline (DBNGP) Public Sharing Knowledge Report by the Australian Gas Infrastructure Group (AGIG) reported a method that can be applied to approve hydrogen concentrations up to a partial pressure of 500kPag.
- This partial pressure represents a **9% v/v blend** for **many of the DBNGP sections**

ATCO's fully commissioned H_2 Blending Station at Jandakot

ATCO Public Operational Sharing Report, H2 Blending Project, ATCO GAS, 15 November 2024

NATURAL HYDROGEN INVESTING

- Constellation Resources (ASX: CR1) has a prospective land area of **88,000km²** and a current market cap of approximately **$7M,** with early-stage results indicating the potential for a significant system

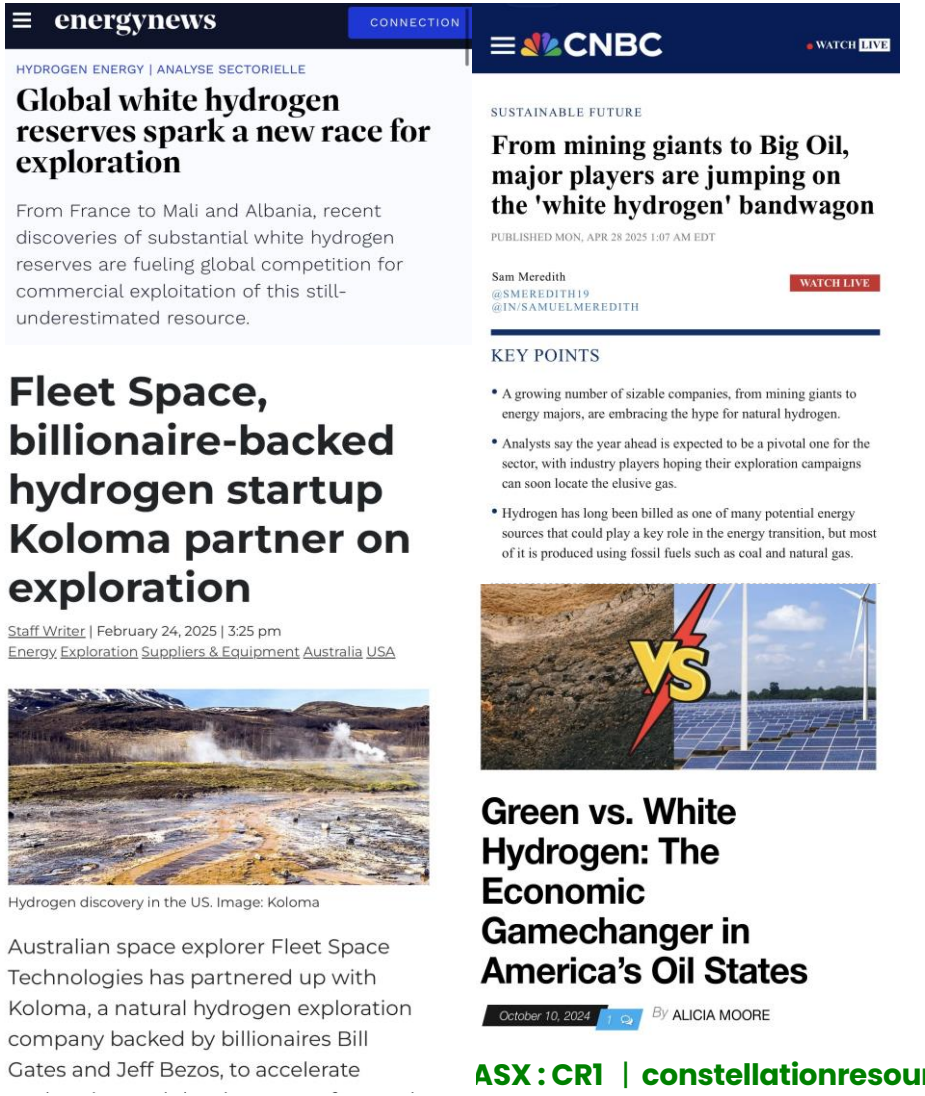
- A **major developmental milestone** was achieved in May 2025 when core samples taken from Edmund-Collier **confirmed thermogenic hydrogen** potential at this site

- In February 2025, Koloma announced its international expansion into Australia through a **$36.3M** capital raise with the intention to "unlock natural hydrogen resources in the most promising places across the planet"

- Natural hydrogen is attracting prominent investment from global leaders, including **Bill Gates** and **Jeff Bezos** and companies such as **Rio Tinto** and **BP**

- Hyterra Ltd (ASX: HYT) is a Kansas based, ASX listed natural hydrogen explorer that has attracted a strategic investment of **$22M by Fortescue**

1) https://koloma.com/resource/726/
2) Hyterra Ltd (ASX: HYT) – ASX Announcement – Fortescue acquires a strategic interest in HyTerra – 6 December 2024



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HYDROGEN ENERGY | ANALYSE SECTORIELLE

Global white hydrogen reserves spark a new race for exploration

From France to Mali and Albania, recent discoveries of substantial white hydrogen reserves are fueling global competition for commercial exploitation of this still-underestimated resource.

Fleet Space, billionaire-backed hydrogen startup Koloma partner on exploration

Staff Writer | February 24, 2025 | 3:25 pm
Energy Exploration Suppliers & Equipment Australia USA

Hydrogen discovery in the US. Image: Koloma

Australian space explorer Fleet Space Technologies has partnered up with Koloma, a natural hydrogen exploration company backed by billionaires Bill Gates and Jeff Bezos, to accelerate

CNBC WATCH LIVE

SUSTAINABLE FUTURE

From mining giants to Big Oil, major players are jumping on the 'white hydrogen' bandwagon

PUBLISHED MON, APR 28 2025 1:07 AM EDT

Sam Meredith
@SMEREDITH19
@IN/SAMUELMEREDITH

WATCH LIVE

KEY POINTS

- A growing number of sizable companies, from mining giants to energy majors, are embracing the hype for natural hydrogen.
- Analysts say the year ahead is expected to be a pivotal one for the sector, with industry players hoping their exploration campaigns can soon locate the elusive gas.
- Hydrogen has long been billed as one of many potential energy sources that could play a key role in the energy transition, but most of it is produced using fossil fuels such as coal and natural gas.

Green vs. White Hydrogen: The Economic Gamechanger in America's Oil States

October 10, 2024 By ALICIA MOORE

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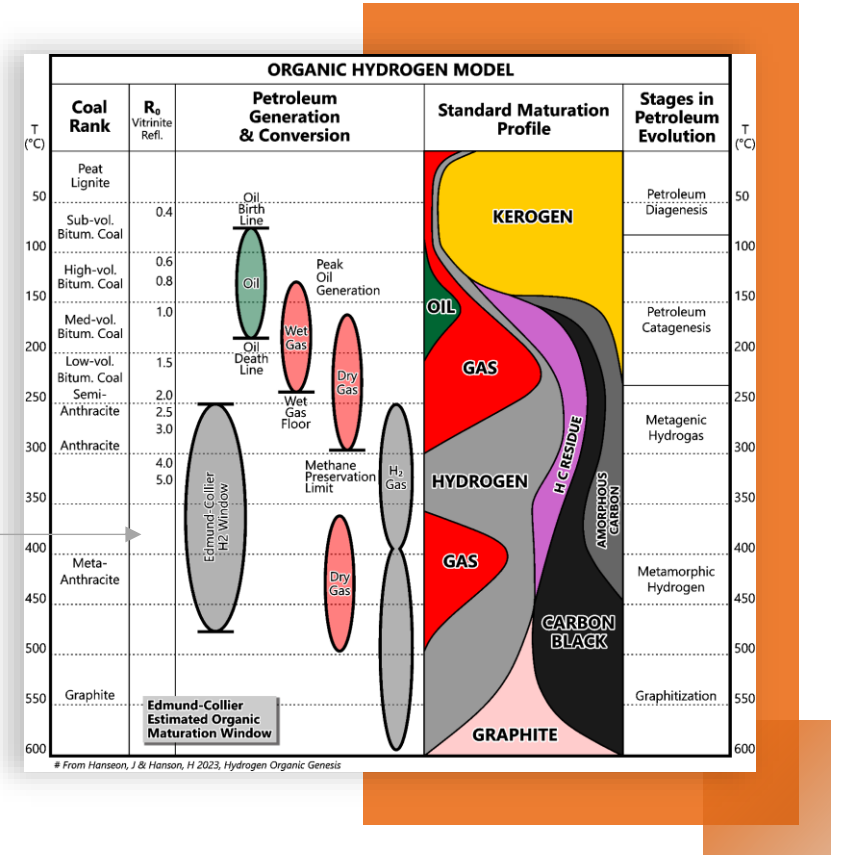
EDMUND COLLIER
TECHNICAL ASSESSMENTS

THERMOGENIC MODEL TO GENERATE H_2

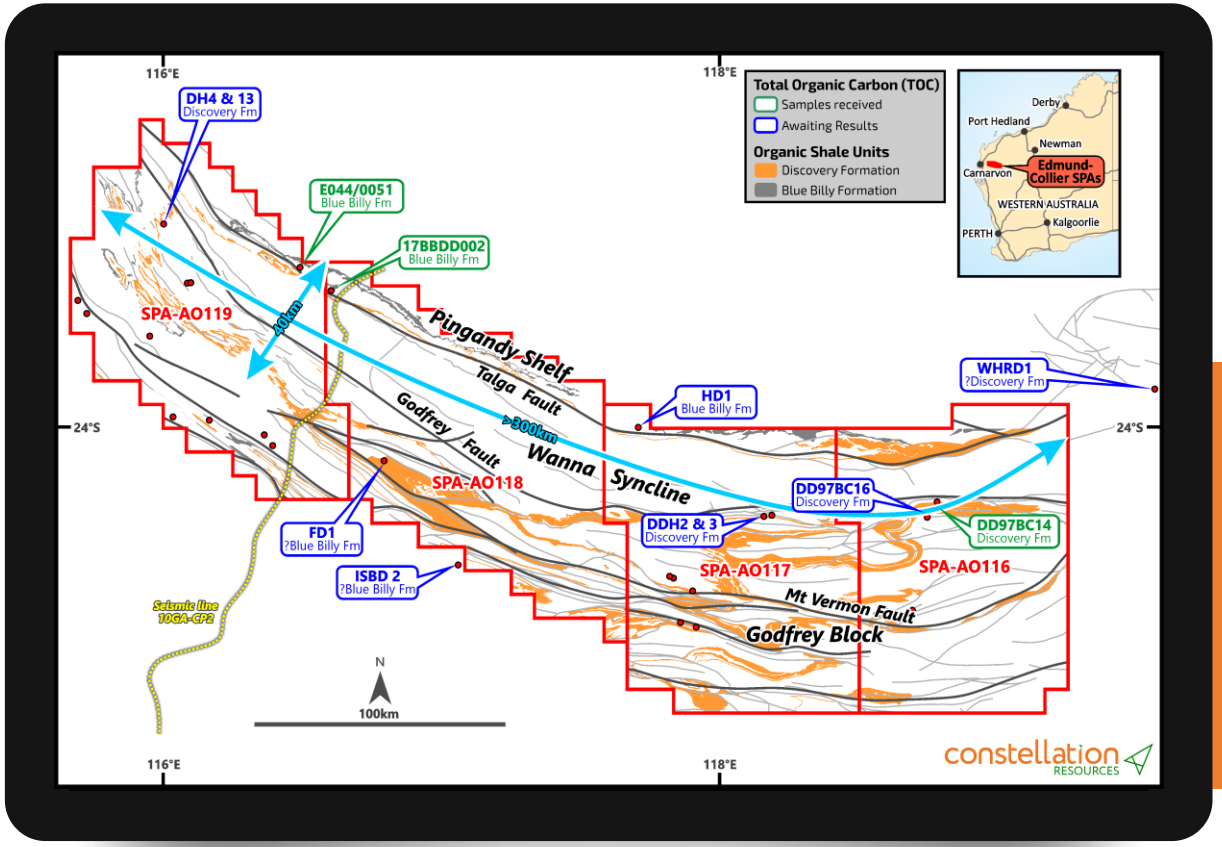
- Extensive research and case studies display that thermogenic hydrogen generation is possible from heating organic-rich source rocks
- Production increases markedly beyond the close of the hydrocarbon dry-gas window (~250°C), with an optimal hydrogen generation window predicted at ~250°C to 500°C in organic rich units
- Organic rich samples from holes within the Edmund-Collier Project were assessed by the CSIRO for thermal maturity (TM) (i.e. predicting historical temperature conditions), using techniques suitable for Mesoproterozoic organic rocks
- The method selected to determine the TM is to measure the vitrinite reflectance equivalent (EqVR) values. The analyses were predominantly measured from bitumen (preferred) within the organic-rich shale units.
- The results from the thermal maturity analysis indicate that the samples are within the optimum range for thermogenic hydrogen generation. **EqVR range: 2.24-11.05 suggesting 250°C to 450°C**
- **Edmund–Collier EqVR range: 2.24-11.05**



ASX Announcement "Thermogenic Hydrogen Potential Confirmed at Edmund Collier" 19th May 2025

EDMUND-COLLIER THERMOGENIC H_2 MODEL

BASIN WIDE, ORGANIC RICH FORMATIONS THAT ARE INTERPRETED TO BE WITHIN THE OPTIMAL HYDROGEN GENERATION WINDOW



Edmund Basin outcropping organic-rich shale units and drill hole sample locations for TOC and thermal maturity analyses

Under the CSIRO Research Agreement, initial TOC laboratory results from three of eleven diamond drillholes (results from the remaining eight drillholes are pending) within the Edmund-Collier Project area have returned highly encouraging TOC values from the organic-rich shales units.

The first batch of TOC samples received all reported >1% TOC values over significant intervals of the shale unit, above the threshold considered useful for hydrogen source rock potential

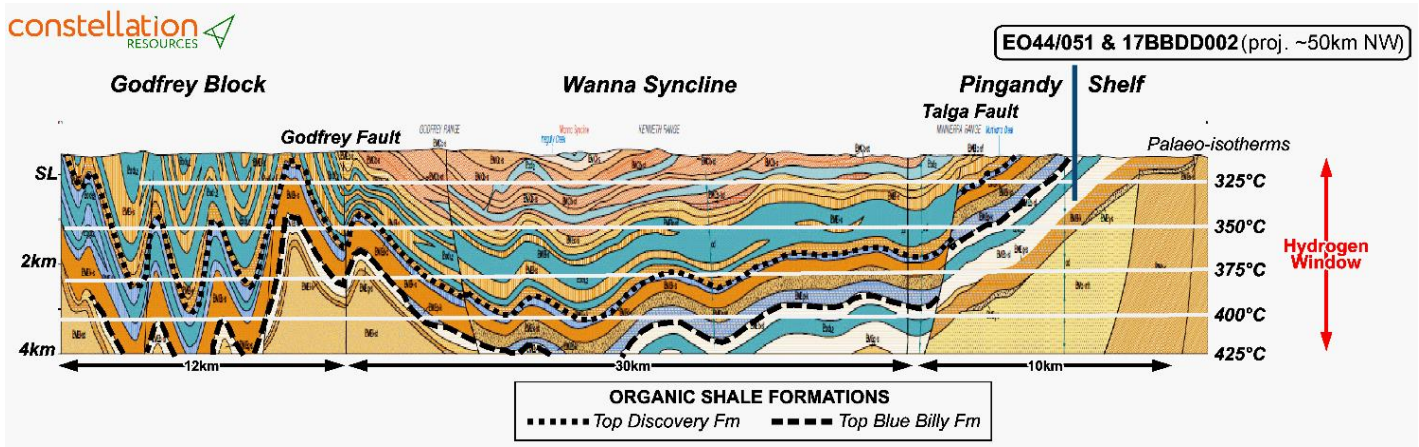
- 17BBDD002: **TOC values ranging from 0.91% to 10.10%** (average 3.59%) from eleven core samples over a 339m down hole interval through the Blue Billy Formation (127m-466m).
- E044/0051: **TOC values ranging from 1.40% to 4.76%** (average 3.08%) from five core samples over a 159m down hole interval through the Blue Billy Formation (60m-219m).
- DD97BC14: **TOC values ranging from 3.06% to 7.75%** (average 5.76%) from four core samples over a 59m down hole interval through the Discovery Formation (62m-121m).

ASX Announcement "Thermogenic Hydrogen Potential Confirmed at Edmund Collier" 19th May 2025

EDMUND-COLLIER – ALL THE KEY ELEMENTS

BASIN CROSS SECTION

Large scale open folds containing **basin wide organic rich source rocks extending in excess of 300km east-west and 40km north-south**, reservoirs, seals and faults that collectively may present a case for a complete hydrogen system and possible viable accumulation sites.



Cross-section based on outcrop and seismic line 10GA-CP2 (Elliot Creek 1:100 000 geological map sheet; GSWA, 2004). The conceptual palaeo-isotherms are based on shallow thermal maturity data from the Blue Billy Fm collected by the Company and a conservative palaeo-geothermal gradient of 25°C/km.
ASX Announcement "Thermogenic Hydrogen Potential Confirmed at Edmund Collier" 19th May 2025

Optimal hydrogen generation is predicted at ~250°C to 500°C, which equates potentially to at least the minimum temperature that organic-rich shales have reached in the deepest parts of the Wanna Syncline, now at present-day ~4–5km depth.

The organic-rich shale units are projected to be increasing in thermal maturity with depth into the Wanna Syncline depocentre and the highly organic-rich units could potentially also get thicker. There has been no deep drilling in the Wanna Syncline which is a large-scale basinal feature within the Edmund–Collier Basins, extending in excess of 300km east-west and 40km north-south

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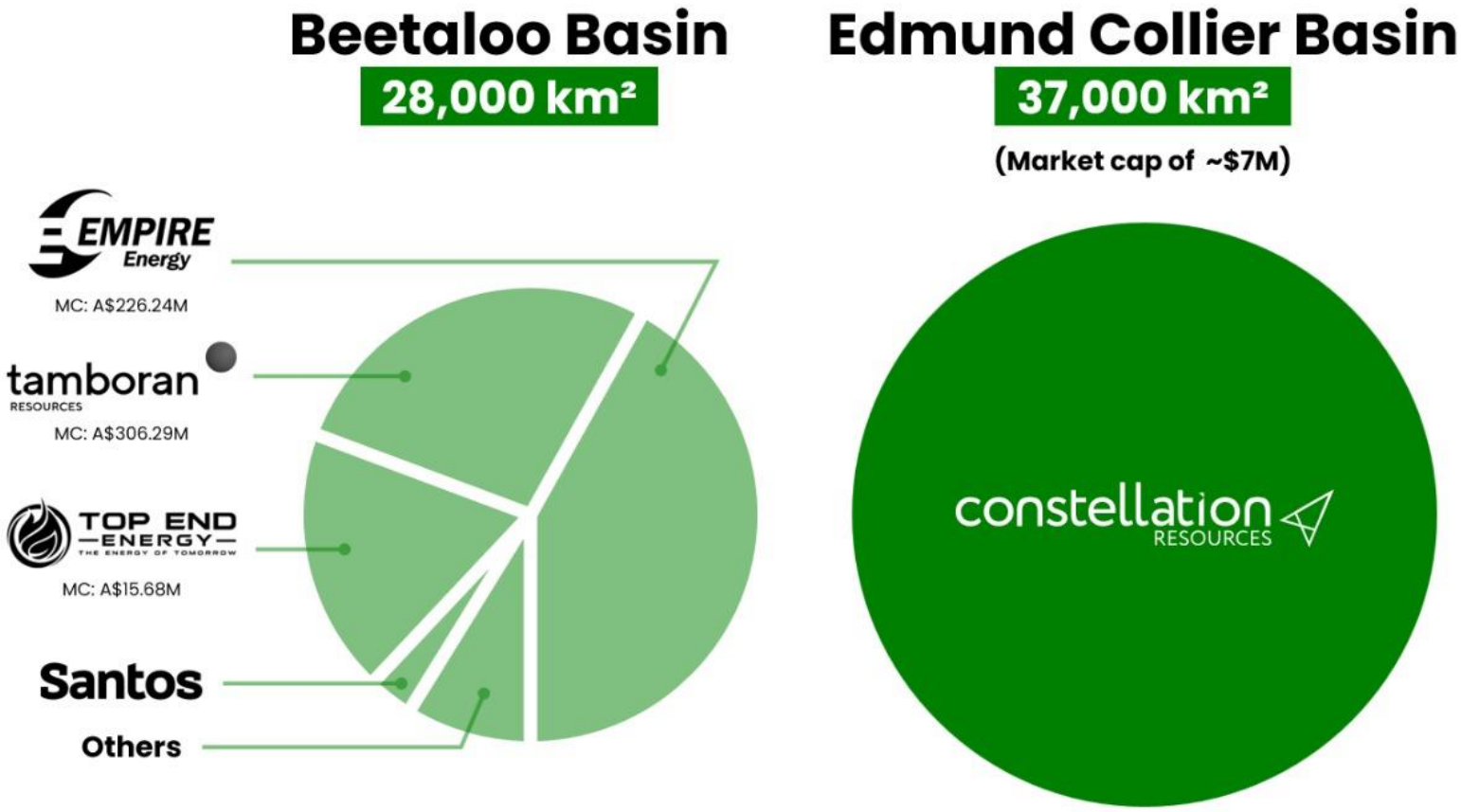
HYDROGEN POTENTIAL

EXPANSIVE PROJECT SCOPE



The Beetaloo Basin is one of the oldest and most prospective basins in Australia, believed to hold trillions of cubic feet (TCF) of recoverable gas resources. It is comparable to the early development of US oil and gas plays.

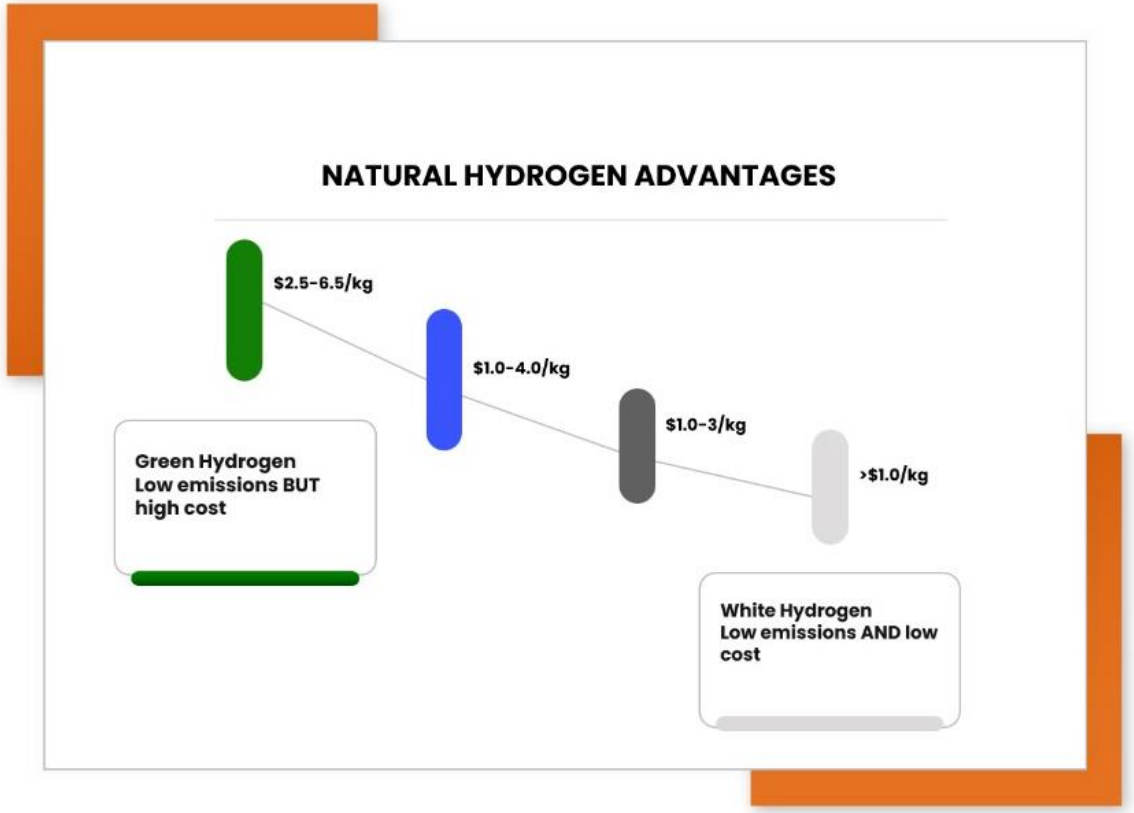
Beetaloo produces natural gas from organic shales. It is the same mesoproterizoic age as Constellation's Edmund-Collier Basin, but smaller in size and already divided up between several companies.

Constellation's Edmund-Collier Project is one of its **3 basin-scale projects** in Western Australia.

1) https://territorygas.nt.gov.au/onshore/beetaloo-sub-basin
2) https://www.tamboran.com/assets/
3) https://resourcingtheterritory.nt.gov.au/energy/oil-and-gas/onshore-exploration-highlights
4) https://falconoilandgas.com/beetaloo-australia/ Note: Falcon Oil & Gas holds a 22.5% non-operating interest in Tamboran's JV permits.
5) Energy Club NT - Top End Energy: Acquisition of Granted NT Acreage and $2.1m Capital Raising

NATURAL HYDROGEN ADVANTAGES

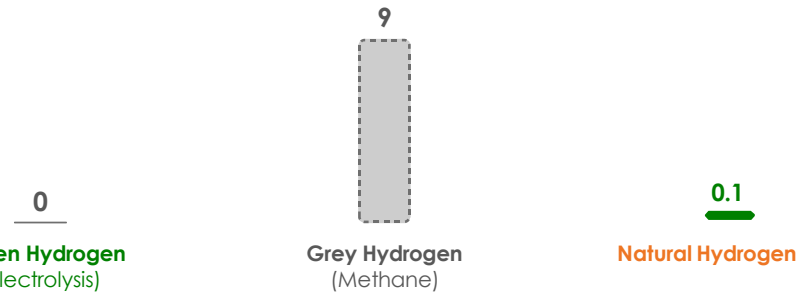
- Geological (white or natural) hydrogen is potentially a **cheaper and cleaner** energy source that could **revolutionise** the global energy industry
- It is positioned to be significantly **more economically viable than green hydrogen**, which has a high production cost
- Natural hydrogen is formed from natural processes and could accumulate to commercial quantities underground
- It is colourless, odourless and **naturally replenishing**
- Hydrogen is a flexible fuel with **diverse uses** in the areas of industrial processes; electricity production and energy storage



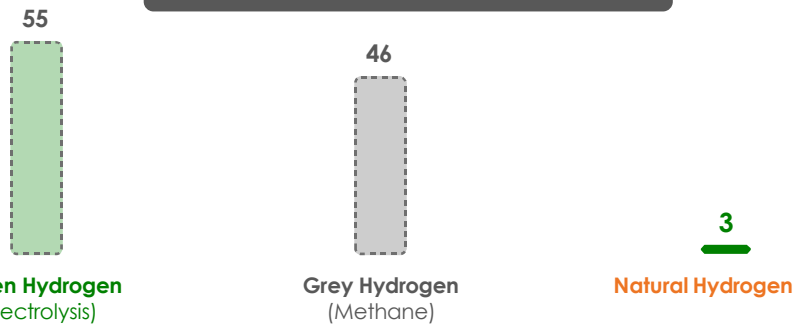
Source: Ranges sourced from BloombergNEF, IEA, Lazard, IRENA. 'At the dawn of a hydrogen era', Clota Varde Feb 2023
Modified from Koloma article Values obtained from 2022 GREET Model
Koloma Australia Fact Sheet June 2025

HYDROGEN COMPARISONS

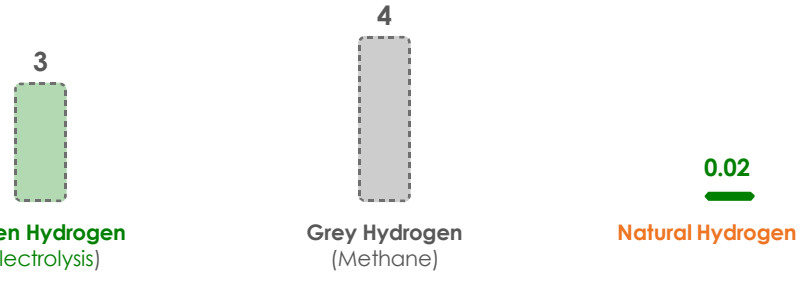
Carbon Intensity | kg CO_2e/kgH_2



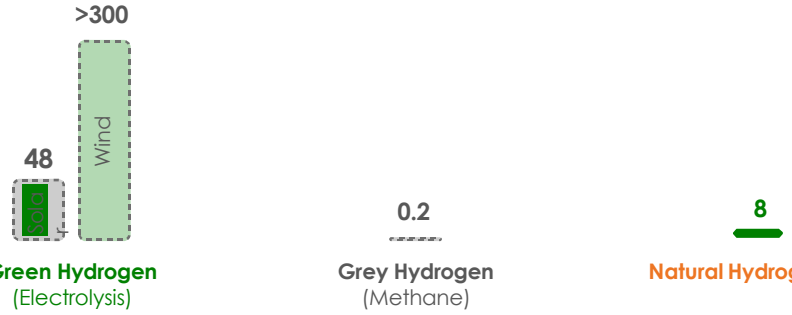
Energy Required | kwh/kgH_2



Water Use | gal/kgH_2

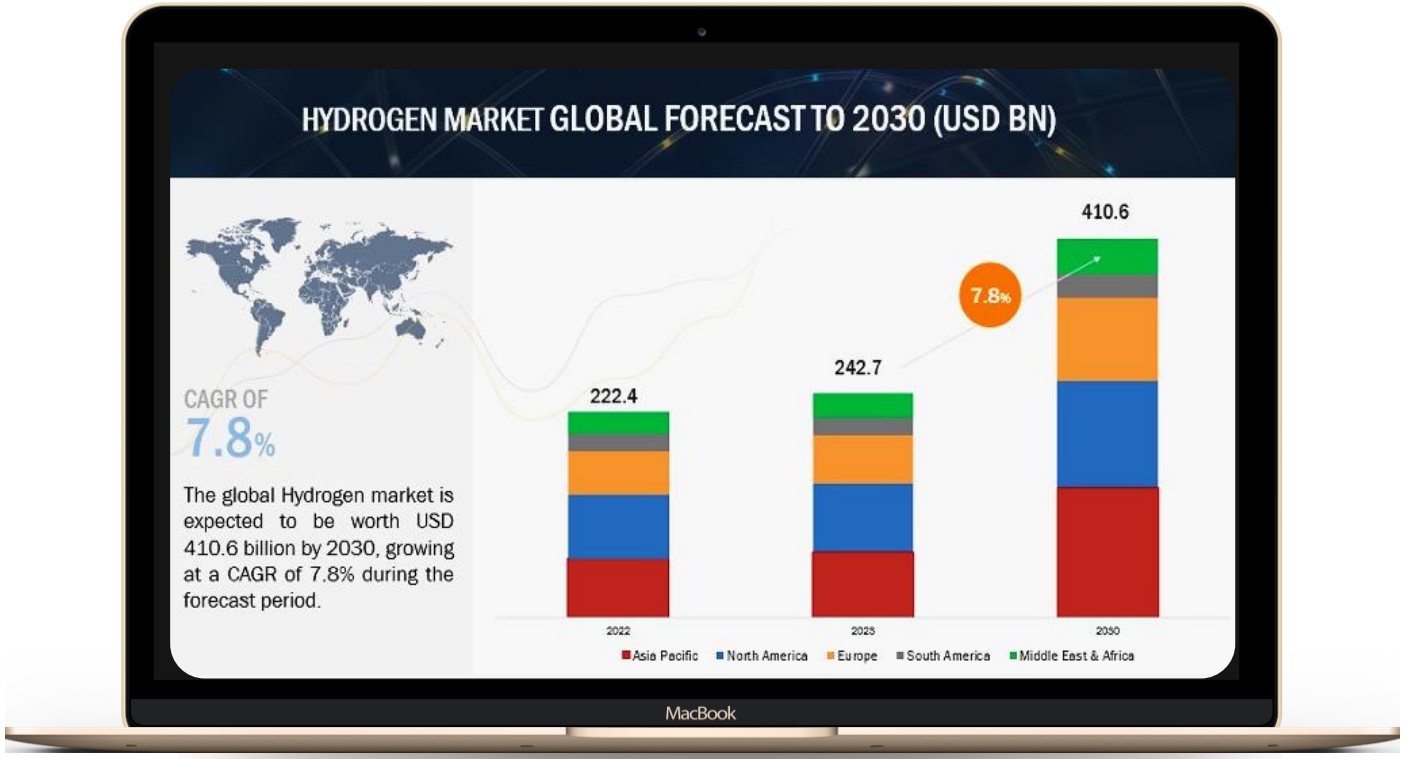


Surface Footprint | mi^2



https://koloma.com/natural-hydrogen/

GLOBAL MARKET POTENTIAL



Source: Ranges sourced from BloombergNEF, IEA, Lazard, IRENA. 'At the dawn of a hydrogen era', Clota Varde Feb 2023 # Modified from Koloma article Values obtained from 2022 GREET Model

The global hydrogen market is expected to be worth **USD 410.6 billion** by 2030, growing at **CAGR of 7.8%** during the forecast period[1]

Demand for low-emissions hydrogen grew almost 10% in 2023, but still accounts for less than 1Mt. Government action has intensified recently and this could boost demand to over 6Mtpa by 2030[2]

The refining sector presents one of the largest amounts of contracted demand, as well as the largest share of firm agreements[1] – representing a huge market to further develop, particularly in **WA's steel industry**

1) Markets and Market Insights, Hydrogen Market to touch USD 410.6 Billion at a 7.8% CAGR by 2030, 4 August 2023
2) Global Hydrogen Review 2024, International Energy Association

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CONSTELLATION INVESTMENT OVERVIEW

MILESTONES ACHIEVED

CR1 Energy's Special Prospecting Authorities (88,000km^2) are conditionally accepted

These applications are believed to cover the highest ranked hydrogen, helium and associated gas basin plays within WA

Three of eleven diamond drill holes have been returned to date, **all demonstrating Total Organic Carbon (TOC) averages between 3.59%-5.76%** (anything over 2% TOC is considered good to excellent)

Thermogenic Hydrogen Potential has been confirmed at Edmund-Collier[1]

The shale units have also been confirmed by the **CSIRO** as organic rich and of a thermal maturity level that could generate hydrogen.

They are laterally extensive and established as covering a substantial area of **300km east-west and 40km north-south**, with associated targets never tested by drilling

Constellation has signed an ongoing research agreement with the **CSIRO** into the exploration of natural hydrogen in Western Australia[2]

Department of Mines, Industry Regulation and Safety permits and other stakeholder **agreements for exploration are being finalised**

1) ASX Announcement "Thermogenic Hydrogen Potential Confirmed at Edmund Collier" 19th May 2025
2)ASX Announcement "Constellation Collaborates with CSIRO on Natural Hydrogen Research and Exploration" 5th December 2025

BOARD & MANAGEMENT

Ian Middlemas

Chairman

Senior Group Executive for Normandy Mining for more than ten years, which was Australia's largest gold miner before merging with Newmont Mining. He is currently Chairman of a number of ASX listed resource companies and was previously Chairman of Papillon Resources Limited and Mantra Resources Limited.

Peter Woodman

Managing Director

Geologist with 35+ years' experience, graduated from the Australian National University and is a member of the Australian Institute of Mining and Metallurgy. He has contributed to major project acquisitions and discoveries, specializing in management, exploration, and mining operations in Australia and internationally.

Peter Muccilli

Technical Director

Geologist with 28+ years' experience in resource exploration and development, specializing in nickel, gold, zinc, and lead. He was the former MD and CEO of Mincor Resources NL, where he also served as Kambalda Exploration Manager, leading the team responsible for the successful Cassini nickel discovery.

Iain Copp

Geologist - Consultant

35+ years' diverse experience in minerals and petroleum exploration, including roles as a government geologist, hydrogeologist, and exploration geologist. Currently, the Sole Director of Good Earth Consulting, specializing in basin exploration for hydrocarbons and base metals, particularly in carbonate terrains. Mr. Copp's work has been widely published.

Tony Rudge

Geophysicist - Consultant

20+ years' experience in onshore exploration and development in the resource sector. Experience in oil and gas exploration and was part of the team to discover the Ungani oilfield and Laurel tight gas play in the Canning Basin. He is currently MD of Thunderstone Energy, a specialist geophysical consultancy to the onshore exploration industry.

Mark Pearce

Non-Executive Director

Chartered Accountant and director of several listed resource companies. With extensive experience in forming and developing resource firms, he has worked with major international accounting firms. He is a Fellow of both the Governance Institute of Australia and the Financial Services Institute of Australasia.

Robert Behets

Non-Executive Director

Geologist with 35+ years' experience in the mineral exploration and mining industry in Australia and internationally. Mr Behets was instrumental in the founding, growth and development of Mantra, an African-focused uranium company, through to its acquisition by ARMZ for approximately A$1 billion in 2011.

CORPORATE SNAPSHOT

A$0.115	**A$7.2m**	**Nil**	**57%**
Share Price	Market Cap	Debt	Top 20 Ownership
63,039,225*	**7,750,000**	**A$0.8m**	**CR1**
Shares on Issue	Options	Cash – 31 March 2025	ASX Code

** The Company is currently undertaking a non-renounceable entitlement offer which allows existing shareholders to acquire one (1) new fully paid ordinary share (New Share) for every three (3) existing shares held, at an issue price of $0.12 per New Share to raise approximately $2.52 million (before costs), as set out in the offer document lodged with ASX on 23 May 2025.*

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COMPETENT PERSONS STATEMENT

The information in this Presentation that relates to Exploration Results is extracted from the Company's ASX announcement dated 19 May 2025. This announcement is available to view at the Company's website on www.constellationresources.com.au. The Company confirms that a) it is not aware of any new information or data that materially affects the information included in the ASX announcement; b) all material assumptions included in the ASX announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the ASX announcement.

CONTACT US
FOR MORE INFORMATION

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