MURCHISON GREEN HYDROGEN

Version 3.0 | February 2025

Environment and Planning Approvals

What is the Murchison Green Hydrogen project?

Located in the Mid West region of Western Australia (WA) and powered by onshore wind and solar, the project will produce green hydrogen, which will be converted into green ammonia for export to global markets.

Underpinned by extensive experience in renewable energy infrastructure projects, Murchison Green Hydrogen is being developed by Copenhagen Infrastructure Partners (CIP), a global leader in renewable energy developments.

The project will feature:

- A wind farm with ~550 wind turbines.
- Up to 10,000 hectares of solar panel arrays.
- A desalination plant.
- Hydrogen and ammonia production plants and storage.
- Marine export infrastructure, including a sub-sea pipeline, single point mooring and tugboat facility.

The project will have a generation capacity of approximately 6 gigawatts of green energy from onshore wind and solar. This will drive 3GW of electrolysis and produce approximately 1.9 million tonnes per annum of green ammonia.

The use of green ammonia or green hydrogen, as a clean alternative to fossil fuels, will reduce approximately 5.3 million tonnes of carbon dioxide (CO_2) being released into the global atmosphere each year.

Where will it be located?

The project will be located on Murchison House Station, approximately 20km north of the coastal town of Kalbarri in Western Australia.

Our state, and in particular the Mid West region, is an ideal location for green hydrogen production.

The project site has been chosen for several key reasons, including:

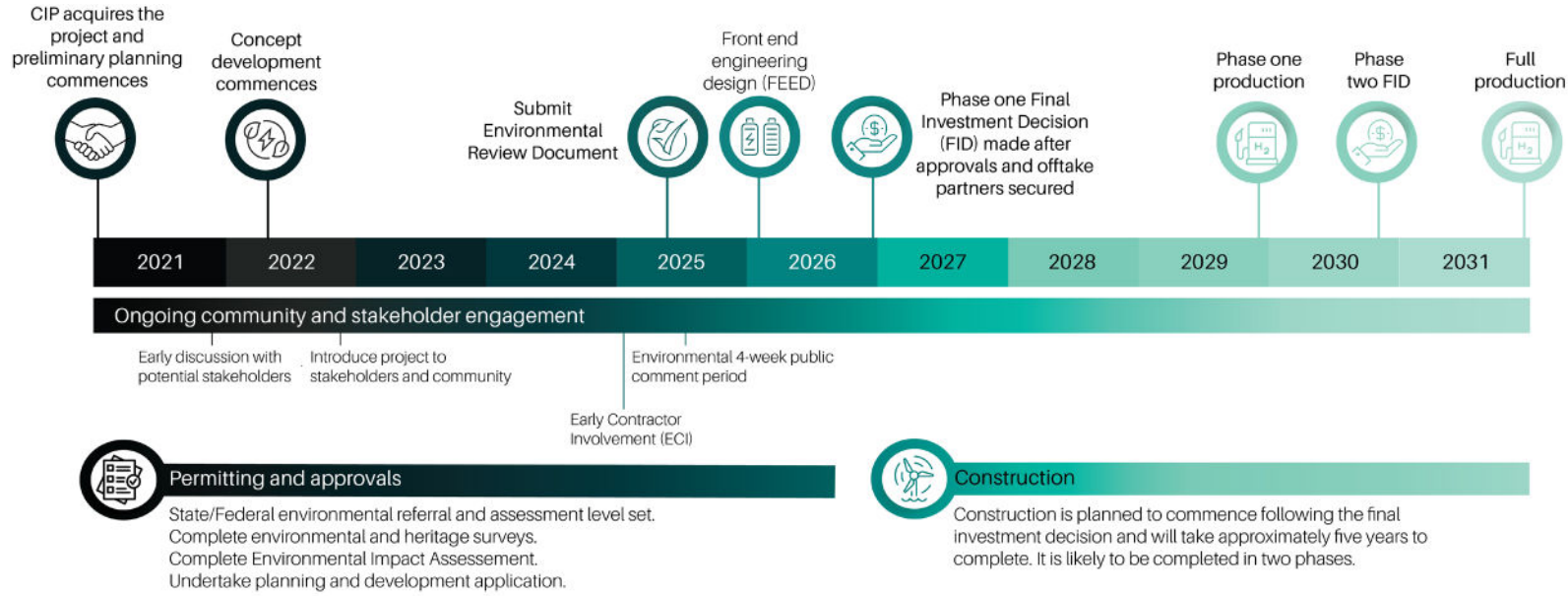
- The quality of the wind and solar resources and its complementary nature (wind at night and solar during the day).
- Access to a single, large parcel of land on which all project infrastructure can be located.
- Proximity to the coast for water to produce hydrogen and access to deep water for marine export.

Project Milestones and Status

What are the key milestones the project must meet to proceed to construction?

There are several approval milestones, these include:

- **Project initiation:** Project referred to Federal and State environmental regulators and early stakeholder engagement.
- **Surveys and assessments:** Completing environmental and heritage surveys, determining project impacts and opportunities, initiating development approvals and engaging with community and other stakeholders.
- **Environmental and planning approvals:** Obtaining environmental and planning approvals through Federal and State regulators.
- **Final Investment Decision:** Assessment of project viability and decision to proceed with construction and operations.



Timeline last updated February 2025

Project Initiation | Completed in 2022

Project approvals were initiated in 2022. Work completed during this stage included:

- Referral to Federal and State environmental regulators.
- Baseline environmental surveys commenced.
- Engagement with community and stakeholders to introduce the project.

Surveys and Assessments | 2023 – 2024

Environment

In 2023 and 2024, a wide range of baseline environmental surveys were undertaken to understand the present state and health of the existing environment.

The information collected through these studies will inform how the project's infrastructure will be designed to minimise impacts. They will also inform the Environmental Review Document (ERD) that will be submitted to the EPA for assessment in 2024.

Heritage

The project team acknowledge the Traditional Owners of the proposed project land, the Nanda People. To ensure the protection of Aboriginal heritage MGH will work closely with the Nanda People, and other knowledge holders, to ensure compliance with all aspects of the Aboriginal Heritage Act 1972.

Planning

A Town Planning Scheme Amendment is proposed to be initiated to ensure the site is zoned appropriately for the Project's operations. Over the past two years Murchison Green Hydrogen has worked with the Shire of Northampton, the Department of Planning, Lands and Heritage (DPLH) and the Department of Water and Environmental Regulation (DWER) to develop an appropriate scheme amendment.

The proposed scheme amendment binds any zoning change to the Murchison Green Hydrogen Project, and in this way ensures no unexpected industry development can occur on Murchison House Station, should the Murchison Green Hydrogen Project not proceed. It also restricts industrial activity to 635 hectares which is approximately 5.3% of Murchison House Station.

Further information on the proposed scheme amendment process and timing will be made available in the coming months.

Social

Throughout the planning and development of the project, we are engaging with the local community, including project updates and information, and other stakeholders to understand local concerns and aspirations.

A socio-economic impact assessment will be completed to understand and communicate the expected changes in the region.

Recognising the challenges a project of this scale can bring to Kalbarri and the region, it is important to us that local communities benefit from the project. Therefore, we are engaging with stakeholders to co-develop a Community Benefits Sharing Framework that will guide any future investment in or funding of community projects and initiatives by Murchison Green Hydrogen.

Environmental and planning approvals | 2025/6

For Murchison Green Hydrogen to make a Final Investment Decision on the project the following approvals will need to be in place in 2025/6:

- State environmental approval.
- Federal environmental approval.
- The Town Planning Scheme Amendment.
- Development approval.

The Environmental Approvals Process

What's involved in the environmental assessment and approval process?

The environmental impact assessment for the project will be undertaken by the Green Energy Directorate in the Department of Water and Environmental Regulation (DWER), which is WA's primary water and environmental regulator.

DWER will assess the impacts of the project and as part of this process the community will be provided the opportunity to submit their comments on the proposal. DWER will then report its findings to the Environmental Protection Authority (EPA).

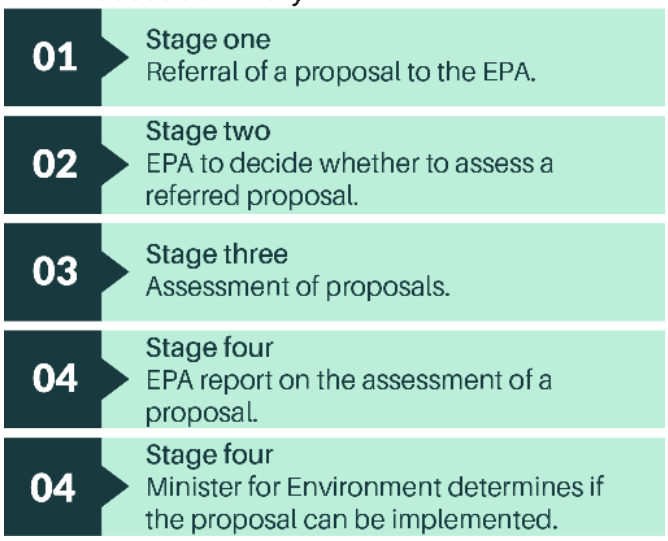
The EPA comprises of five members and is independent from government; it is not subject to direction by the Minister and its advice to the government is public. The Authority's operations are governed by the Environmental Protection Act 1986, which stipulates that the objective of the EPA is to: use its best endeavours to: a) protect the environment; and b) prevent, control and abate pollution and environmental harm.

The EPA will consider the project and report its recommendations to the WA Minister for the Environment. A report on matters of national environmental significance (MNES) will also be sent to the Federal regulator, the Department of Climate Change, Energy, the Environment and Water (DCCEEW), for their review and recommendation to the Federal Minister for the Environment.

The State and Federal Ministers will then make a final decision on the approval of the project. Both approvals are required before the project can progress to a Final Investment Decision (FID).

Further details about this process can be found on the EPA website here: **www.epa.wa.gov.au/step-step-through-proposal-assessment-process.**

EPA Process summary



The Murchison Green Hydrogen project undertook the first step in the process in May 2021, when the project was referred to the EPA.

The EPA considered our referral and agreed with our request to have the project assessed under the highest level of environmental impact assessment, that being a Public Environmental Review (PER) level of assessment.

The project is now undertaking surveys and preparing the required information, prior to submitting our Environmental Review Document for assessment, under Stage 3 of the process.

This document will be submitted to the EPA for environmental assessment in 2025.

What studies and investigations will be undertaken to inform the Environmental Review?

Initial terrestrial and marine environmental surveys were undertaken in 2021-2022 to establish a baseline understanding of the natural state and health of the existing environment.

Further environmental, social, heritage and engineering surveys and investigations are being undertaken as part of the surveys and assessments stage to inform the refinement of the project's infrastructure design, site layout and the development of the Environmental Review Document.

The studies and investigations we are undertaking to meet environmental regulator's requirements include:

Terrestrial environmental studies:

- **Flora and vegetation:** Plant surveys to record amount, type and quality of native vegetation and ecological communities.
- **Terrestrial fauna:** Ecologist and zoologist-informed surveys of native animals and fauna habitats through the use of remote sensing cameras, funnel traps, pit traps, fauna recording devices, visual searches etc.
- **Surface Water:** Undertaking a hydrology assessment, including flooding.
- **Air quality baseline assessment and modelling assessment:** Undertaking a baseline survey to record the quality of the existing environment and then assessing potential air quality impacts during construction and operations.
- **Operational odour assessment:** Understanding any odour emissions during operations and any impacts.
- **Greenhouse gas emissions:** Assessing any greenhouse gas emissions during construction and operations.
- **Social surrounds:** Assessing potential social impacts on local residents, communities, farmers and landholders in the area during construction, operation and decommissioning. This will include Aboriginal and European heritage (shipwrecks), visual amenity and traffic impacts.
- **Landforms:** Understanding any potential impacts on the Zuytdorp cliffs.

Marine environmental studies:

- **Benthic communities and habitats:** Surveys of plants and organisms on the seafloor using underwater cameras.
- **Local wave climate:** Wave and current monitoring using detection and measurement instruments deployed in the water for a year.
- **Coastal processes and impact assessment:** Understanding any impacts to the movement of nearshore sand along the coast.
- **Baseline water quality monitoring:** Using instruments in the water and taking samples to record the existing water quality, over a one-year period including: depth, temperature, salinity, turbidity, and levels of nutrients, algae, metals etc.
- **Water quality impacts modelling:** Modelling is undertaken to determine any changes to water quality that may result from the project.
- **Dredging sediment quality:** Samples of sand from the seabed are analysed to determine if they contain any existing harmful materials.
- **Underwater noise modelling and impact assessment:** Assessing potential changes to noise levels underwater during construction and operation.
- **Marine construction and operational impacts modelling:** Assessing potential impacts to marine environment during both construction and operational activity.
- **Marine fauna:** Marine fauna baseline and impact assessment: understanding habitat, distribution, abundance, temporal occurrence/use of the area for dolphins, whales, turtles, seabirds and commercial/recreational fish and any impacts as a result of the project.
- **Introduced marine species baseline survey and risk assessment:** Marine scientists dive and collect samples of species and identify any pre-existing and introduced marine pests.
- **Marine environmental quality impact assessment:** Overall impacts to the marine environment, as a result of the project, drawn from all marine studies.
- **Ammonia spill modelling:** Modelling of impacts associated with an unplanned ammonia spill to ensure this risk is understood and mitigated and that safety and environmental management systems are developed to meet Regulator standards and approval.

How is the data from the studies and investigations used?

Information collected enables the project team to determine predicted changes to the environment, understand potential benefits, and manage impacts through the best-practice strategies to avoid, minimise, manage, or offset these.

Our final Environmental Review Document will include our commitment to implementing these strategies.

When will you share the findings from environmental and marine investigations?

A large number of studies need to be completed in a particular sequence, with many requiring the collection of data over an extended period of time for accuracy.

While some baseline studies are complete, the final outcomes of the environmental and marine investigations, and project findings will be included in the Environmental Review Document submitted to the EPA for assessment.

Will the community have a say?

Murchison Green Hydrogen is working with the community to understand areas of interest and concern.

Insights gathered through consultation are considered during the surveys and assessments stage and will help to inform our final Environmental Review Document.

The Environmental Review Document will be published for public comment by DWER in 2025.

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