

Fortescue is taking a global leadership position in the renewable energy and green products industry by harnessing the world's renewable energy resources to produce renewable electricity, green hydrogen and other green industrial products such as green ammonia and green iron.

What is ammonia?

Ammonia is a compound of hydrogen and nitrogen.

- It is a colourless gas with a distinct smell produced naturally in the environment in air, soil, water, plants and animals, including humans
- It is also produced by industry for use in agriculture as fertiliser, a refrigerant gas, for purification of water supplies and in the manufacture of plastics, textiles, dyes and other chemicals.

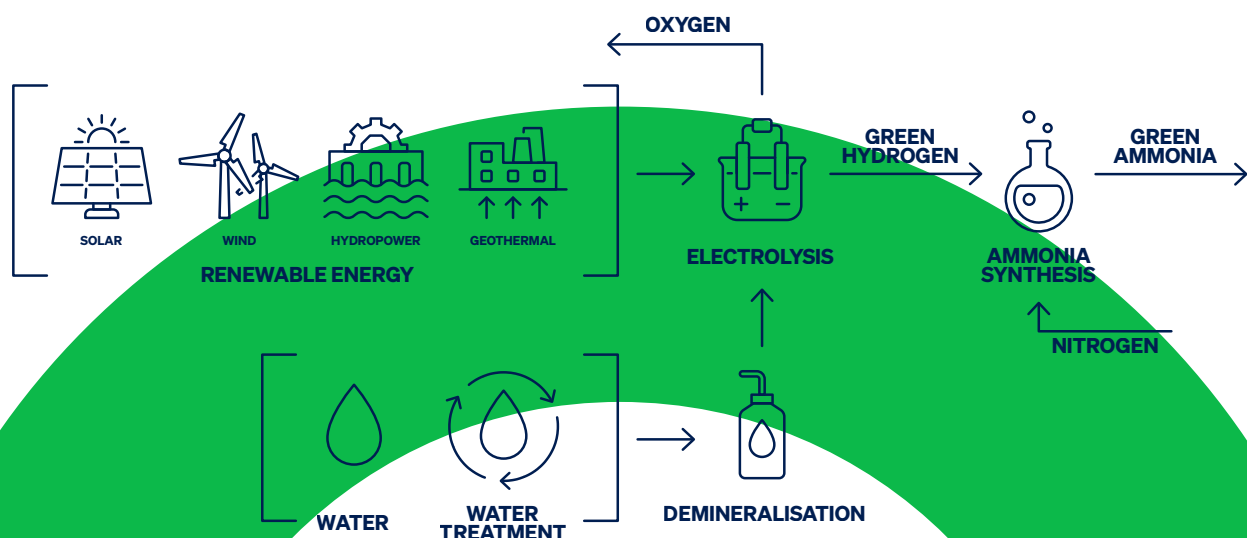
What is green ammonia?

- Ammonia can be made synthetically by combining nitrogen with hydrogen, in a process called ammonia synthesis.
- When this process is completed using renewable energy sources such as wind, solar, hydropower and geothermal energy and zero carbon emissions the result is green ammonia.

How is it made?

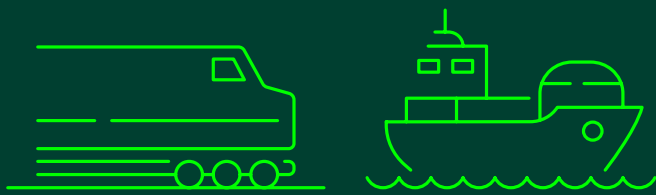
Ammonia synthesis is achieved by combining and reacting hydrogen and nitrogen at high temperature and pressures.

Nitrogen can be extracted from the Earth's atmosphere using an air separation unit and hydrogen can be generated through electrolysis, which splits water into hydrogen and oxygen using electricity.



How is green ammonia used?

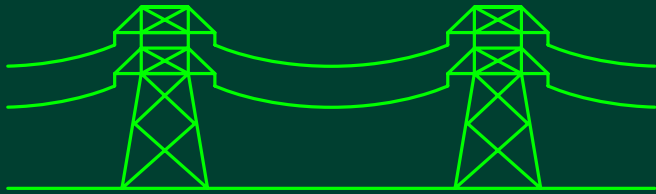
Green ammonia holds the potential to drastically reduce global carbon emissions when used as a:



Fuel for engines such as locomotives and shipping, replacing diesel and marine fuel oil



Building block to make fertilisers for use in agriculture



Fuel source for electricity power generation



Feedstock for industrial and manufacturing applications ranging from water purification through to pharmaceuticals

Used across the globe for well over a hundred years, the requirements for the safe production, storage and use of ammonia are well established.

Fortescue's green hydrogen and ammonia processing infrastructure follows the principal of inherently safer design; ensuring hazards are eliminated where possible, reduced through substitution or controlled through engineering solutions.

Fortescue will use green ammonia to decarbonise the company's mining fleet including light vehicles, trucks and trains. Fortescue has announced an ambitious emissions reduction goal to achieve carbon neutrality by 2030, positioning the company as a leader in addressing the global climate change challenge. Producing green hydrogen is key to achieving this goal.

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