

The importance of copper and zinc

As an Australian producer of the minerals and metals that drive our renewable future, Aeris plays an important role in our transitioning world.

While there are many different minerals and metals that contribute to our renewable future, copper and zinc will make a particularly significant impact in our transition to renewable energy sources.

Stockman Mine will play an important role in mining these two valuable metals, producing both copper and zinc concentrate. As part of its normal refining process, the mine will also produce smaller quantities of other important metals like gold and silver.

COPPER

Copper is considered to be humankind's oldest metal, dating all the way back to about 8000 BC when it was used as a popular alternative to stone tools. These days, as we move away from fossil fuels, towards renewable sources of energy like solar and wind power, the increasing demand for copper in enabling this transition to a greener future, is unlikely to slow in the near future.

Many people will be familiar with the applications of copper, which include use in electrical wiring, circuit boards, electric cars, plumbing and general homewares.

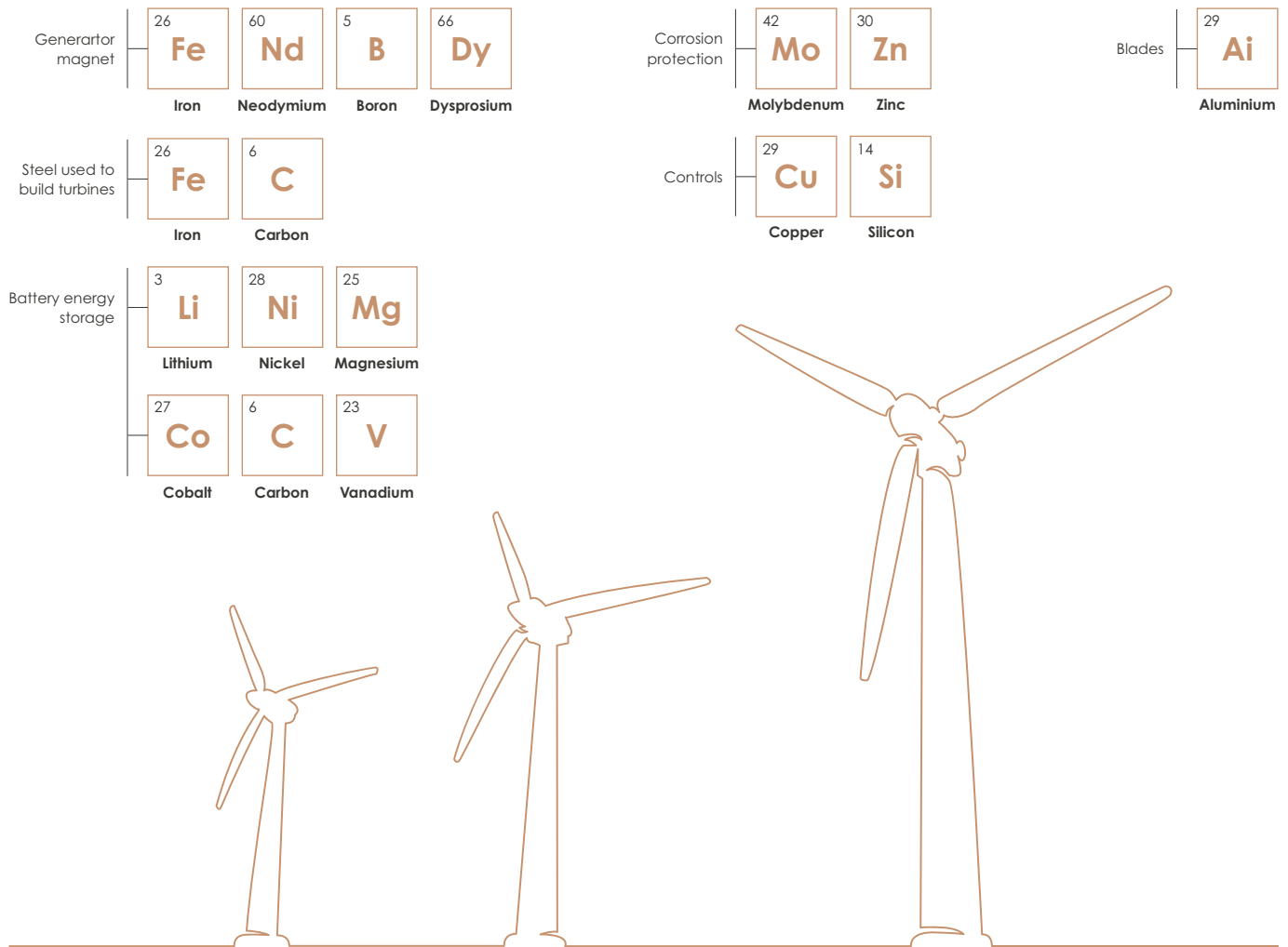
Just one tonne of copper brings functionality to 40 cars, powers 100 000 mobile phones, enables operations in 400 computers and distributes electricity to 30 homes.

ZINC

For many of us, zinc is best known as the key ingredient in the sunscreen we apply to protect our skin from the sun. In a similar way, zinc is also a key ingredient in the galvanising process we use to protect metals from corrosion.

Galvanising our renewable energy infrastructure is a vital step in our transition to a renewable future, ensuring we protect against corrosion and secure reliable energy production well into the future.

Australia has the world's largest reserves of zinc and is one of the biggest zinc producers globally, along with China and Peru. Beyond galvanisation, zinc is also used in the production of metal alloys, soap, plastics, rubber and ink.



CONTRIBUTION TO WIND TURBINES

Both copper and zinc are essential to the production of wind turbines. Onshore and offshore wind farms have been growing in popularity in recent years, with forecasts expecting the trend to continue in the decades ahead as more renewable energy sources come online.

Copper applications in wind turbines include use in cabling, wiring, turbine components and transformers. Offshore windfarms require significantly more copper than onshore windfarms due to their increased cabling requirements.

Wind turbines also rely heavily on zinc for corrosion protection, with the World Bank estimating about 98% of renewable energy's demand for zinc being driven from its use in wind turbines.

Australia has a substantial number of wind farms already in use, with more development projects planned for the years ahead. Importantly, this includes the Greater Gippsland Offshore Wind Project (GGPWP) which is located in the same region as the Stockman Project. You can learn more about the project on their website at www.gretergippslandowp.com.au.

RESOURCES

MINERALS COUNCIL OF AUSTRALIA: 30 THINGS BROCHURE

minerals.org.au/sites/default/files/30 Things.pdf

30 THINGS: THE FUTURIST EDITION BROCHURE

minerals.org.au/sites/default/files/30Things_The_Futurist_Edition.pdf

INTERNATIONAL COPPER ASSOCIATION

AUSTRALIA THE BENEFITS OF COPPER WEBPAGE

copper.com.au/benefits-of-copper/

GEOSCIENCE AUSTRALIA OVERVIEW OF ZINC WEBPAGE

www.ga.gov.au/education/classroom-resources/minerals-energy/australian-mineral-facts/zinc