



COLLABORATION FOR CHANGE

# Case Study: Zero Emission Copper

Embodied CO2e reduction  
(tCO2e)

50,000,000

## CATEGORY

PRODUCT	SYSTEM	PROJECT	CONCEPT
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## SUPPLY CHAIN

MANUFACTURING	PROCESSING	TRANSPORTATION	CONSTRUCTION
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## REGION

WA	NT	SA	QLD
NSW	ACT	VIC	TAS

## Profile

Organisation: B&A, LS, ICAA

Website:

<http://greener technologies.com.au>

About: Consortium for "Zero Emission Copper Mine of the Future". Brinson & Associates, LarkinSykes, ICA Aus



CLEANER. GREATER. BETTER.

## Section 1: Opportunity

Copper is essential to build PV solar, wind turbines, EVs, etc. but globally, approx 50mil tonnes CO2eq/yr is related to primary copper production. The industry seeks to reduce its own emissions, but the upstream production is quite complex.

## Section 2: Solution

An industry consortium is studying pathways to a Zero Copper Mine of the Future, adopting new technologies, electrifying, digitising and rethinking how processes work.



# Zero Emission Copper Mine of the Future



## Section 3: Lessons

Phase Two is studying how to reduce emissions related to the large volume of water used in processing minerals. Copper, energy and water are a nexus of challenging possibilities. Drought, climate and agriculture demands add further to the complexities. Zero carbon supply chains seek new copper.

## Section 4 : Impact measurement

Copper is essential to a zero carbon energy future. Globally around 50mil tonnes/yr CO<sub>2</sub> comes from copper itself. The impact is to produce copper for zero energy without the CO<sub>2</sub> upstream. High recycling already occurs, but primary metal production is still required.

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