

IMPACT CASE STUDY

Client:
InfraBuild

Services:
Environmental Product Declaration (EPD)

Circular economy

Product carbon footprint (electricity impacts, warm charging)

Materiality assessment

InfraBuild's steps towards positive change

We are on a mission to help clients like InfraBuild put sustainability at the heart of their business.

Becoming more sustainable involves taking many steps – some big, some small. We are using our expertise to help our clients source the data and access the resources, tools and networks they need to make progress.

In this impact case study, we look at the projects we've worked on with InfraBuild and how they helped to make positive change.

5x EPDs
2016 → Updated 2020 & 2022

Electricity impact report
2021

Materiality assessment
2022

2021-2023
Warm charging study

InfraBuild
Building futures through sustainable steel

About InfraBuild

Australia's largest processor and distributor of steel long products and the country's only steelmaker that offers scrap metal recycling, manufacturing and distribution. InfraBuild makes new steel from scrap at their two Electric Arc Furnace facilities and other steel products at their other facilities across Australia.

Successes:

- Makes steel products that help the infrastructure, building, construction, rural and mining sectors to operate more sustainably
- Committed publicly in 2020 to becoming a low-emission, net zero (carbon-neutral) steel manufacturing business by 2030
- First organisation to have reinforcing bar and mesh products certified by Good Environmental Choices Australia (GECA) in 2023

Location: 150 sites across Australia and New Zealand

Number of employees: 5,000

Products: reinforcing bar, reinforcing mesh, tubular and hollow sections, merchant bar and wire products

THE PROJECT:

EPDs

2016, 2020 (update), 2022 (update)



THE CHALLENGE

InfraBuild sees publishing the sustainability credentials of its products as vitally important. This recognises the customer's demand to provide standardised and transparent information about their environmental performance.

That's why they asked us to help them create EPDs. We started this work in 2016 when EPDs in Australia were seen as still quite new.

WHAT WE DID TOGETHER

We developed five EPDs in 2016 and updated these in 2020. InfraBuild engaged us again mid-2022 to provide updated EPD data (to the new ISO 15804+A2 Standard) that InfraBuild's customers will use to develop their own EPDs. We also helped InfraBuild understand the changes involved in moving from the +A1 to +A2 Standard.

We included Material Circularity Indicator (MCI) metrics for each product in the EPDs. The MCI gives insights on where to focus to make their processes more circular.

As InfraBuild is a highly circular manufacturer of steel (using scrap steel to make new steel with no loss of quality), including MCI metrics was the next step.

THE BENEFITS

- Communicate the product's strengths
- Competitive advantage
- Identify risks
- Social licence

WHAT CHANGED FOR THE BETTER

Information for industry

InfraBuild's EPDs are used:

- by designers, sustainability professionals, construction experts, procurement teams and others to make informed decisions. Using InfraBuild's products can make their projects more sustainable.
- to direct customers to develop their own EPDs for their steel products such as reinforcing steel, concrete pipes and mining products.

Knowledge for change

Knowing that the bulk of their emissions come from the electricity they use, InfraBuild plans to cut its emissions by:

- moving from fossil fuel-generated electricity to 100% renewable electricity
- investigating low- or zero-emission alternatives to natural gas and coke.

Progress made visible

Between the first EPDs in 2016 and the updated EPDs in 2020, InfraBuild reduced the carbon footprint of their reinforcing bar by 9% and their reinforcing mesh by 21%.

The MCI helps InfraBuild make their processes even more circular.

It also provides the market with a quantitative measure to understand the circularity of the products going into their projects.

THE PROJECT:

Certified Renewable Electricity impacts

2021

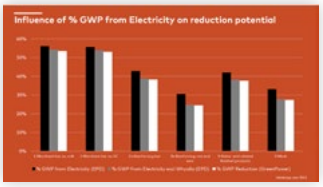
THE CHALLENGE

InfraBuild makes around 1.2 million tonnes of steel from scrap annually in their electric arc furnace steelmaking facilities in Melbourne and Sydney. In FY21 scope 2 emissions were around 76% of InfraBuild's combined scope 1 and scope 2 emissions, as a result of the electricity used from the grid.

InfraBuild wanted to know if they could reduce their carbon footprint by using renewable electricity and how this would change the carbon footprint of their products.







WHAT WE DID TOGETHER

We reviewed the impact of changing to certified renewable electricity.

The results showed that the biggest way to reduce emissions and the embodied carbon of InfraBuild's products is to move from fossil fuel-generated grid electricity to 100% renewable electricity.

WHAT CHANGED FOR THE BETTER

The study:

- showed scope 2 emissions would reduce to almost zero through the use of Power Purchase Agreements (PPAs)
- supported InfraBuild's business case to investigate and enter into PPAs so the business would use renewably generated electricity by 2025.

'This is pivotal work that will deliver emission reductions, provide the market with low embodied carbon steel solutions and help to meet our aim to be a low emission, net-zero steel manufacturer by 2030.'

David Bell, Manager Sustainability & Insight

THE BENEFITS

- Lower cost
- Lower risk
- Lower CO_2 emissions
- A more resilient organisation

thinkstep anz

THE PROJECT:

Warm charging study

2021 - 2023

THE CHALLENGE

InfraBuild converts scrap steel into new steel products, including reinforcing bars and mesh, via their EAF Mills in Melbourne and Sydney. During rolling, steel billets (long, square semi-finished steel products) are sent into a reheat furnace to raise them back up to the required temperature. Warm charging is the practice of minimising the time between when the billet is cast and rolled.

InfraBuild wanted to know the actual and potential energy savings through warm charging and whether the method delivered enough gas savings to qualify as an energy-reducing process in the Green Building Council of Australia (GBCA) Green Star tool.



'We are regularly asked by our customers, especially builders and reinforcing processors, for our latest 'Energy Reducing Process' Certificate. This is great because it shows us that this initiative continues to be valued and used by the market in their Green Star-rated projects.'

David Bell, Manager Sustainability & Insight

WHAT WE DID TOGETHER

We showed that the amount of gas savings means warm charging qualifies as an 'energy-reducing process in steel reinforcement production' under the GBCA Green Star system.

We repeat this verification annually to confirm that the energy savings are ongoing and continue to comply with Green Star requirements.

THE BENEFITS

Competitive advantage | Market share | Lower cost | Social licence

WHAT CHANGED FOR THE BETTER

The study provided InfraBuild with:

Points under GBCA's Green Star rating

Projects that use InfraBuild's reinforcing steels can claim one Green Star point in the GBCA's Design and As-Built tool.

InfraBuild was already using a manufacturing process that offered the same Green Star point, but the study found that the warm charging process also used less natural gas, which helped reduce InfraBuild's scope 1 emissions.

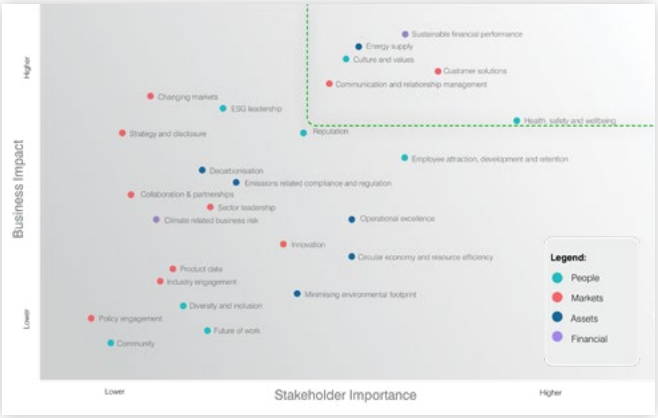
Better understanding of gas savings

This knowledge helps InfraBuild adapt its steelmaking processes.

THE PROJECT:

Materiality Assessment

2022



THE CHALLENGE

InfraBuild asked us to help them with a materiality assessment to support their sustainability report. They needed the assessment so the report could comply with the Global Reporting Initiative (GRI) framework. They also wanted to support their stakeholder engagement and sustainability programs.

'Five of the top ten material topics were people-related rather than about the other three themes of markets, assets or financials. This confirms to us that sustainability in all its forms affects so much of what we do and stand for as a business.'

David Bell, Manager Sustainability & Insight

WHAT WE DID TOGETHER

The materiality assessment involved suppliers, customers and internal stakeholders. This is a rare opportunity to engage with such rigour, depth and breadth.

The assessment allowed InfraBuild to understand which environmental, social, and governance areas are the most important to their stakeholders and their business.

The process provided anonymous responses, allowing InfraBuild to hear the raw and unfiltered voice of the customer, which they felt was 'powerful and important'.

They now have a deeper understanding of what matters most for their business.

WHAT CHANGED FOR THE BETTER

The process enabled InfraBuild to:

- deliver a better sustainability report
- improve communication with customers and other stakeholders
- prioritise the topics that are most important to their customers and other stakeholders
- confirm their sustainability and decarbonisation strategies.

THE BENEFITS

- A clear strategy
- A more resilient organisation
- Stronger stakeholder partnerships
- Engaged employees
- Investor confidence



Read our Need to Know on Materiality Assessment

WE ASKED INFRABUILD:

What are the advantages of having a long-term relationship with a sustainability firm?

‘Our long-standing relationship with thinkstep-anz means we’re **engaging with experts** in their fields, knowledgeable professionals who know the intricacies of sustainability and how the building and infrastructure markets and value chains work.

‘**thinkstep-anz gets us**. They know our business, they understand how we do what we do.

‘That’s why we continue to work with thinkstep-anz to inform and guide us so we can best position ourselves now, and into the future, to meet our customers’ needs. This includes how we meet the main sustainability rating tools as well as the broader market expectations on all things sustainability.

‘**The thinkstep-anz team understands our market**, the journey we are on, and why we have chosen to significantly decarbonise our manufacturing processes, greatly reducing the embodied carbon of the products we make.

‘Finally, thinkstep-anz provides **support across the broader ESG themes**, including our materiality assessment project. This helps us understand market needs for responsibly sourced and manufactured products and services that are verified to independently recognised environmental standards.’

David Bell
Manager Sustainability & Insight, InfraBuild

thinkstep anz

We’re an independent sustainability firm with offices in Australia and Aotearoa New Zealand - and a global reach.

Our team works with you to put sustainability at the heart of your business, to set you up to succeed and inspire you to keep achieving more.

We focus on what matters and use data to understand organisations and their impact. We provide practical resources and ideas that move you ahead.

We create value for organisations like yours, bringing our technical expertise and business know-how to help you tell your story. It’s what we’ve done for the last 16 years.

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We don’t just talk about sustainability – we practise it too.

Certified B Corporation

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION