

Towards Net Zero*



*WesCEF's net zero roadmap and emissions reductions targets apply to its wholly owned business and controlled joint ventures. They do not apply to its stakes non-controlled joint ventures Covalent and QNP.



**Wesfarmers Chemicals,
Energy & Fertilisers**

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A message from the Managing Director



We are proud of WesCEF's progress to reduce greenhouse gas emissions and identify a path towards net zero since the launch of our first Net Zero Roadmap in 2022.

Our progress has been underpinned by nitrous oxide abatement and energy efficiency projects, as well as commercial and technical assessments of options to reduce our carbon dioxide emissions over the long-term.

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While we are on track to meet our interim 2030 emissions target, the next phase of decarbonisation will be more challenging. Achieving net zero by 2050 in a competitive environment will require ongoing commercial and technical discipline, supportive policy settings and innovation to drive the emergence of commercially viable technology options. This updated Roadmap reflects both our progress to date and the work still ahead.

Reforms enacted by the Australian Government in 2023 mean the policy settings and compliance requirements under the Safeguard Mechanism are a key driver of our approach to emissions reduction post-2030. Further changes to the Safeguard Mechanism will be considered during a review in 2026-27 and may require adjustments to our approach to achieving net zero emissions in the long-term.



Net Zero Roadmap
Decarbonisation Journey (2022)

This updated WesCEF Net Zero Roadmap reflects the progress we've made to date, and our better understanding of future decarbonisation options. The Roadmap is a living document and will adapt to the rapidly changing environment we operate in.

Aaron Hood
Managing Director, WesCEF



About WesCEF*

Our vision:

We create long-term value for critical industries and everyday life

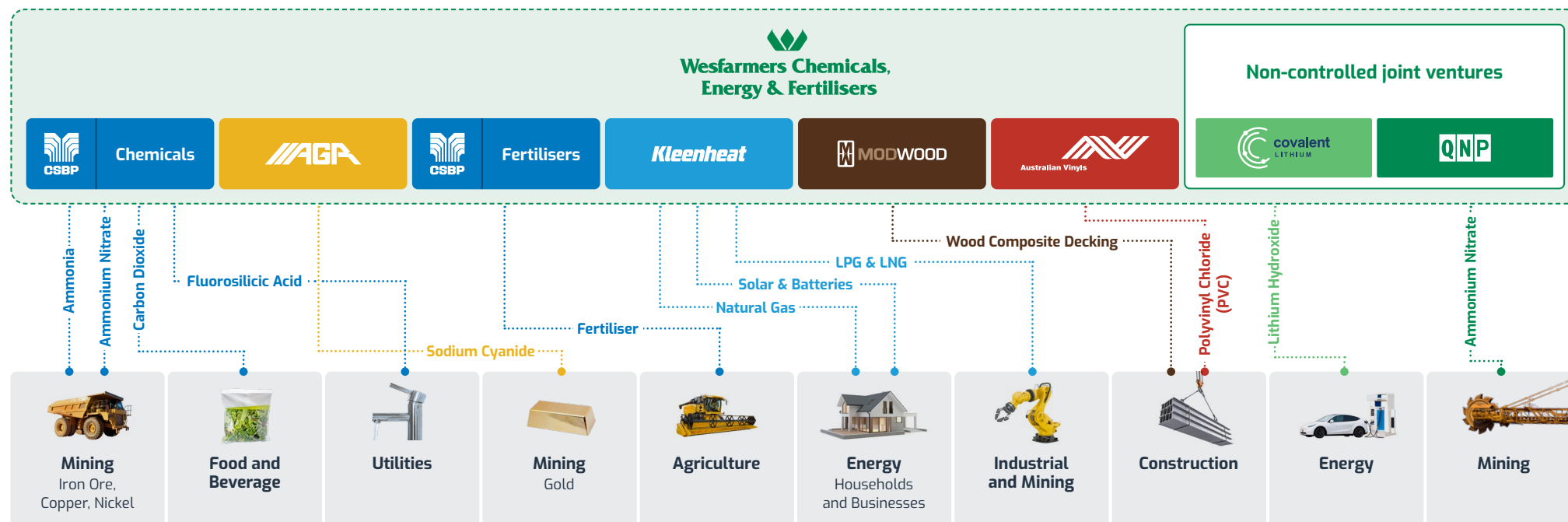
WesCEF is part of Wesfarmers Limited, one of Australia's largest ASX-listed companies. We've been operating for more than 110 years, managing a diverse portfolio of businesses that deliver essential products to industries around the world.

Our businesses supply high-quality, trusted products to more than 235,000 customers.

We support industries that Australians rely on every day, including agriculture, iron ore and gold mining, energy and construction, as well as the food and beverage sector. From fertilisers that are vital for growing local crops to energy supply for homes and businesses, our products play a vital role in everyday life while creating long-term value for critical industries and Australia's economic prosperity.

Safety is at the heart of how we operate. We are committed to protecting our people and communities, and continuously improving safety across our operations. We recognise our responsibility to the natural environment in which we we operate and aim to minimise our environmental impact, including through continued efforts to reduce our operational emissions and progress towards Net Zero Scope 1 and 2 greenhouse gas emissions.

WesCEF's products are critical inputs for industries that make a major economic contribution to Australia.



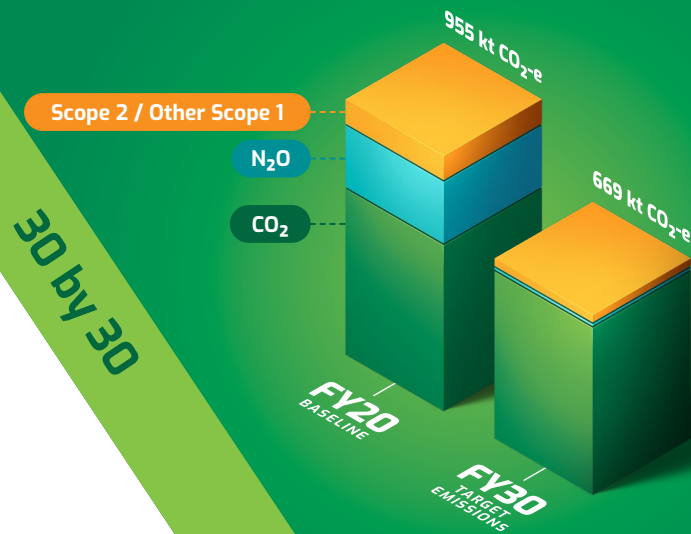
Towards Net Zero



A 30% reduction from our 2020 emissions baseline by 2030: '30 by 30'



Targeting net zero Scope 1 and Scope 2 (location-based) emissions by 2050¹



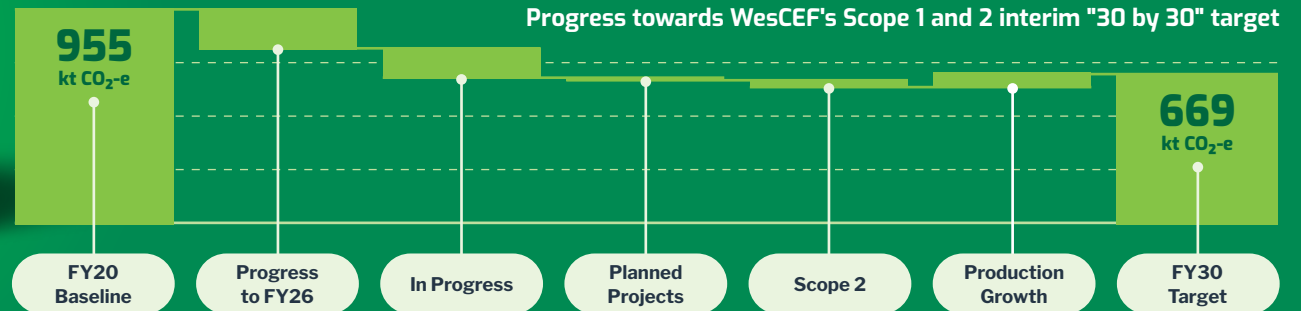
Our emissions profile by 2030



Almost all nitrous oxide (N₂O) emissions will be eliminated



About 95% of our emissions will be carbon dioxide (CO₂)



Emissions abatement solutions



Carbon capture and storage (CCS)



Carbon capture and utilisation (CCU)



Electrification



Energy efficiency

Net Zero enablers and dependencies

- » Government policy settings
- » Cost effective abatement technology
- » Our carbon culture
- » Innovation
- » Carbon credits
- » Growth guardrail

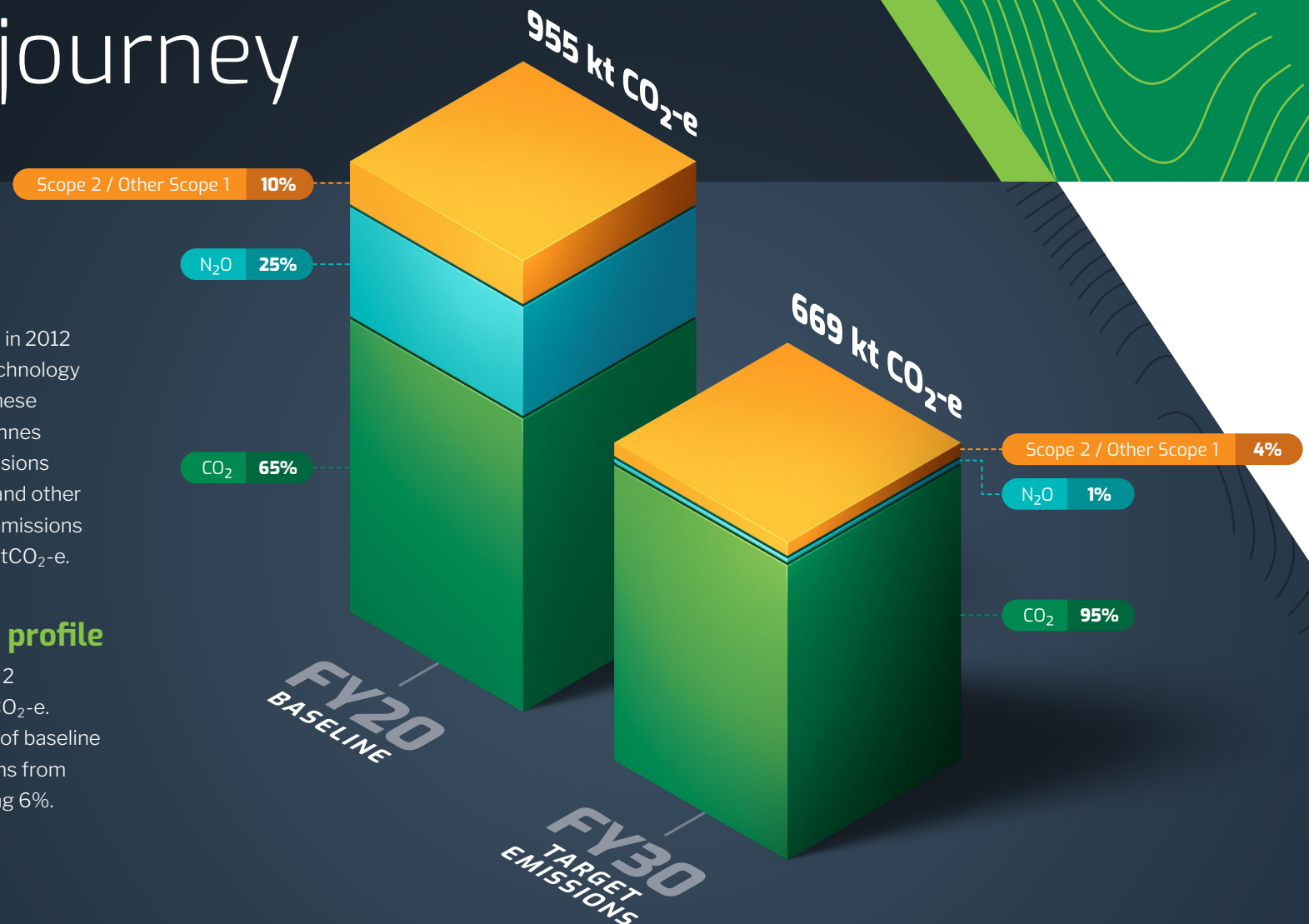
Our emissions reduction journey

Early action

WesCEF's emissions reduction journey began in 2012 with the installation of abatement catalyst technology in our nitric acid ammonium nitrate plants. These catalysts have delivered around 10 million tonnes of carbon dioxide equivalent (tCO₂-e) in emissions reductions since installation. Without these and other early abatement projects², WesCEF's 2020 emissions baseline would have been around 1.8 million tCO₂-e.

Our Scope 1 and 2 emissions profile

WesCEF's 2020 baseline Scope 1 and Scope 2 (location-based) emissions were 955,000 tCO₂-e. Scope 1 emissions represented around 94% of baseline operational emissions, with Scope 2 emissions from grid electricity use representing the remaining 6%.



“ We are managing risks to our interim target by continually reviewing abatement opportunities. A recent example of this involved our team identifying a series of energy efficiency projects at the Kleenheat Production Facility. If these projects and others in the pipeline are delivered as expected, we’ll be on track to achieve our 30 by 30 target. ”

Mussaret Nagree

Chief Energy Transition
Officer, WesCEF

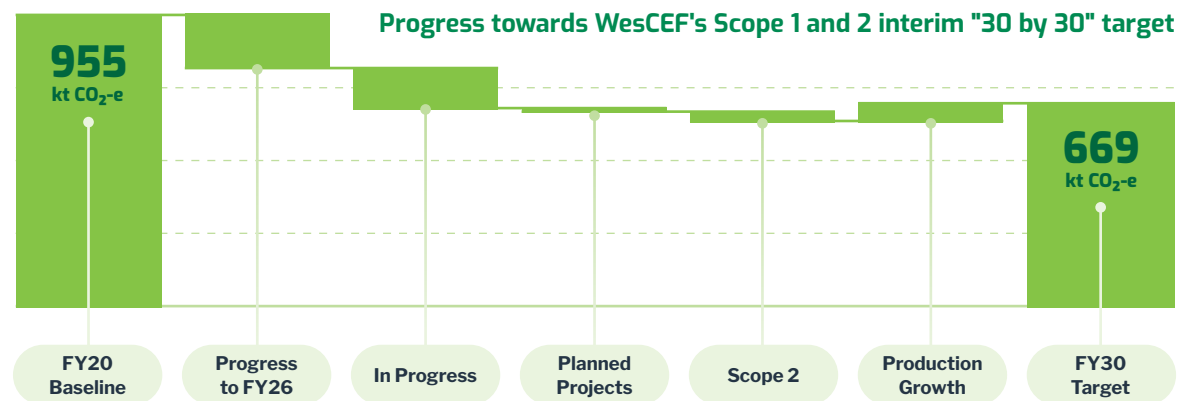


30 by 30

We have made substantial progress towards our ‘30 by 30’ interim target, which requires combined annual Scope 1 and Scope 2 (location-based) emissions to decline by 30% from 955,000 tCO₂-e to ~669,000 tCO₂-e by 2030.

Over this period, we will also increase our annual sodium cyanide and ammonium nitrate production.

At the end of FY2026 over half the interim target has been delivered and abatement projects in progress are expected to reduce N₂O by a further 110,000 tCO₂-e per annum and CO₂ by close to 20,000 tCO₂-e per annum.



1



Installation of additional abatement catalysts across WesCEF's nitric acid plants

2



Installation of new low-emissions waste gas incinerator in our sodium cyanide facility

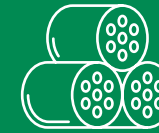
3



Gas efficiency improvements at the Kleenheat Production Facility

Nitrous oxide in focus

We have been on a 15 year journey to reduce our N₂O emissions and by 2030 we will have eliminated almost all N₂O emissions from our production processes



Abatement catalysts installed throughout WesCEF's operations reduce our Scope 1 emissions by over 900,000 tCO₂-e each year.



Why does nitrous oxide matter?

N₂O is a potent greenhouse gas with a global warming potential 265³ times greater than CO₂ and an atmospheric lifetime of over 110 years. It is a by-product of our ammonium nitrate and sodium cyanide manufacturing processes. These products support Australia's iron ore, gold and agricultural industries. This means N₂O abatement not only helps achieve our emissions reduction targets, but it also contributes to decarbonising the supply chain of Australia's iron ore, gold and agriculture export industries.

What is abatement catalyst technology?

This technology uses a chemical process that breaks down N₂O into nitrogen and oxygen, which are naturally abundant and harmless in the atmosphere. We first introduced this technology in our nitric acid ammonium nitrate plants in 2012. In 2025, we upgraded our newest nitric acid ammonium nitrate plant with additional 'tertiary' abatement catalyst technology. Emissions reduction from this tertiary technology has exceeded expectations, with almost all N₂O emissions from the plant abated. By 2030 we expect to have installed this technology in all three of our nitric acid ammonium nitrate plants.

“ Government grants were essential to unlocking the N₂O abatement program and demonstrate what can be achieved when Government and industry work together to deliver our common goal of emissions reductions. ”

Leigh Meyers

Chief Operating
Officer, WesCEF



Partnering with Government

Our N₂O abatement program has been enabled by \$500,000 in funding from the Western Australian Government's Carbon Innovation Grants Program and \$40.4 million from the Australian Government's Powering the Regions Fund.

NAAN emissions abatement

115,000 tCO₂-e is the expected annual incremental emissions abatement once tertiary catalyst technology is installed in all three nitric acid ammonium nitrate plants. This represents a 12% reduction relative to our 2020 emissions baseline.



Emissions abatement from sodium cyanide production

We are also installing a more efficient waste gas incinerator in our sodium cyanide production facility, to reduce N₂O emissions. This incinerator is expected to reduce N₂O emissions by around 25,000 tCO₂-e per annum. Construction of this project is underway and due for completion in FY2027.



Towards Net Zero Scope 1 and Scope 2⁴ emissions

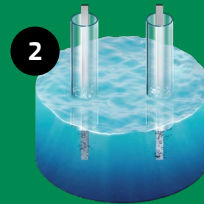
With a clear pathway developed for our N₂O emissions, we are increasingly turning our attention to large scale solutions for our CO₂ emissions. By 2030 approximately 95% of our emissions will be CO₂ emissions, the majority of which are generated from the production of hydrogen; a feedstock for our ammonia production. This hydrogen is often referred to as grey hydrogen.

The two leading solutions to reduce CO₂ emissions from hydrogen production:



Carbon capture and storage (CCS):

This involves capturing and permanently storing the CO₂ emitted from the steam methane reforming (SMR) hydrogen production process. Hydrogen produced in this way is referred to as blue hydrogen.



Electrolysis:

This requires replacement of the existing SMR hydrogen production with electrolyzers that use renewable electricity and water as inputs to produce hydrogen. This process has zero emissions and is known as green hydrogen.

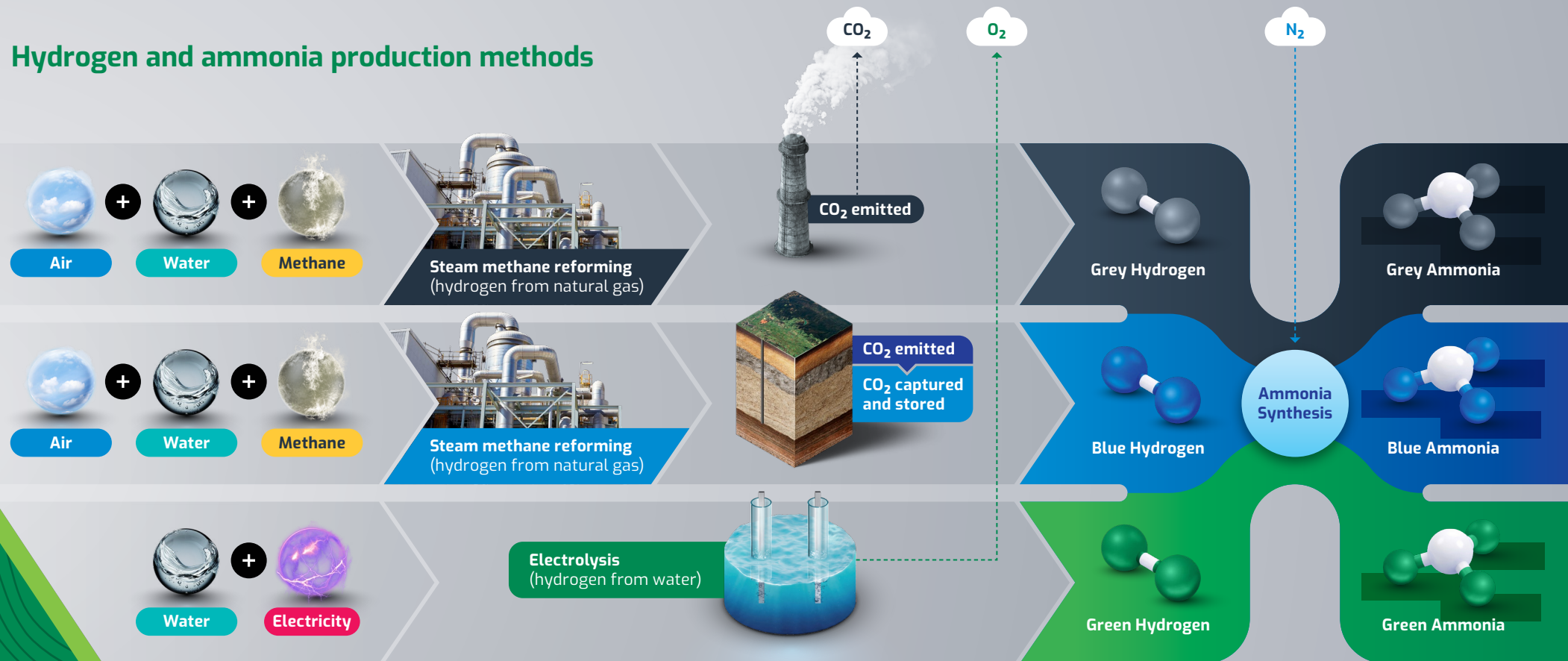
Our analysis of these CO₂ abatement options concluded that both blue and green hydrogen production methods are technically feasible and can be operated safely, but neither is commercially viable at present.

Based on our analysis, blue and green hydrogen are much less commercially viable than the alternative of conventional grey hydrogen, with CO₂ emissions offset through the purchase of carbon certificates.

Our studies have also identified several challenges with green hydrogen. These include the scale and cost of renewable electricity required for green hydrogen production and the transport of green hydrogen over long distances.

Over time, innovation may solve many of these challenges, but in the meantime blue hydrogen is more cost effective than green hydrogen, and grey hydrogen with carbon certificates is more cost effective than blue hydrogen.

Hydrogen and ammonia production methods



Informed assessment

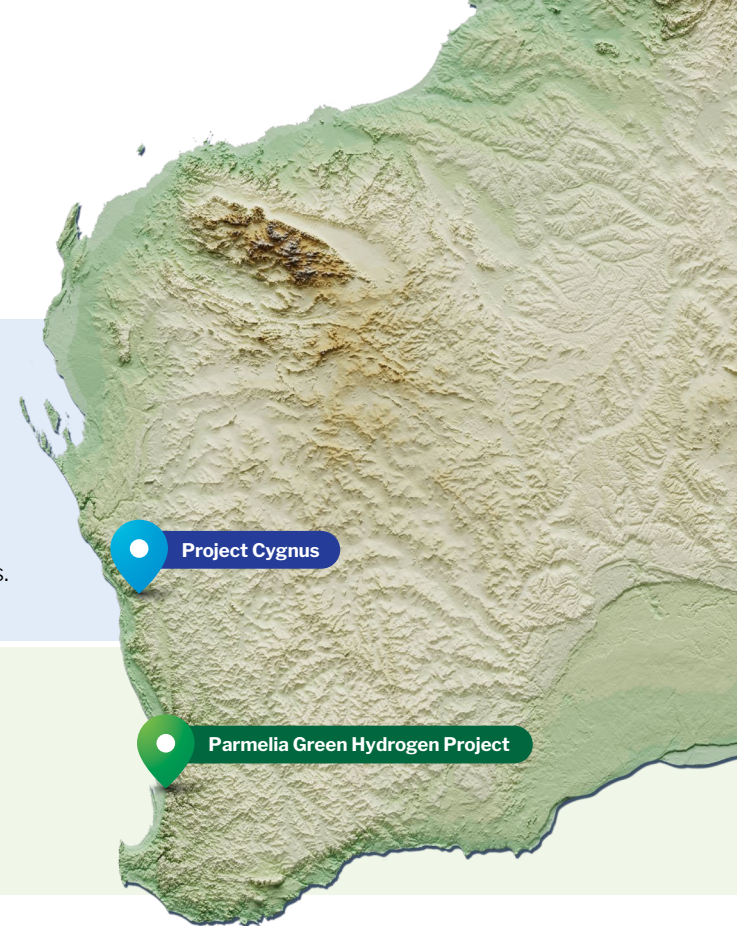
WesCEF's views on the attributes of blue and green hydrogen have been informed by feasibility studies conducted as part of the early development phases of two CO₂ abatement projects:

1 Project Cygnus:

Feasibility work on a CCS facility with Mitsui E&P Australia that uses depleted natural gas reservoirs near Dongara, Western Australia for CO₂ storage. A successful CO₂ injection test has been undertaken and data collected during the test confirmed the technical viability of the storage site. Project Cygnus has been supported by both the Western Australian and Japanese Governments, with the Western Australian Government's Investment Attraction Fund (IAF) allocating \$11 million to a future FEED study, and Japan's JOGMEC funding of circa \$500,000 used to support feasibility study activities.

2 Parmelia Green Hydrogen Project:

A large-scale green hydrogen production facility with APA Group located south of Kwinana which would use the southern section of APA's Parmelia gas pipeline to transport the green hydrogen to CSBP Kwinana. The feasibility study was completed in 2023 with \$1.33 million in funding from the Australian Renewable Energy Agency (ARENA).



The commercial viability of green and blue hydrogen projects is likely to remain challenging until the market reflects the cost of lower-emissions products.

Given the cost benefit of blue hydrogen over green hydrogen, we are prioritising CCS as a CO₂ abatement solution for emissions from our hydrogen production. While it will be challenging for green hydrogen to become cost competitive in the short-to-medium term, we will continue to assess green hydrogen opportunities as they arise.

We are also exploring the use of CCS and alternative abatement solutions for other CO₂ streams generated by our businesses. This includes assessing the electrification of the mechanical drives and reactors in our chemical and energy plants. Progressing these opportunities is dependent on technology maturity, electrical grid capacity and electricity costs.

Identifying CCU opportunities

We are also evaluating carbon capture and utilisation (CCU) opportunities for additional, incremental CO₂ abatement. Alongside our assessments of blue and green hydrogen solutions, we have undertaken extensive work to identify opportunities to utilise CO₂ for the production of fertilisers, fuels and plastics, with these applications of CO₂ known as CCU.

We were a major sponsor of CSIRO's 2021 CO₂ Utilisation Roadmap, which assessed 18 CCU applications across direct use and conversion pathways. Building on this work, we evaluated a further 15 CCU opportunities. While some may have medium-term potential, none currently offer a scalable solution at a commercially viable cost. Assessment of CCU opportunities continues through research partnerships and ongoing screening activities.

Understanding Scope 3 Emissions

Since the launch of our Net Zero Roadmap, WesCEF has completed the measurement of all material Scope 3 emissions categories.

We now have well-developed procedures and processes for calculating and estimating our Scope 3 emissions, with a sound understanding of major Scope 3 emissions sources and decarbonisation plans and commitments of major suppliers.

About 30% of our Scope 3 emissions are from purchased ammonia and fertilisers. Our ammonia and fertiliser suppliers face the same challenges we have for decarbonising hydrogen and ammonia production, so we have a good understanding of the technical and cost drivers of the technologies that will lead to lower Scope 3 emissions.



**Scope 3
emissions**

30%
from purchased



ammonia

+



fertilisers

Net Zero enablers

While we have made good progress on many elements of our Net Zero Roadmap, multiple external factors will determine our ability to achieve net zero, especially via abatement rather than carbon credits.

We are committing substantial efforts in ensuring these factors enable our journey towards net zero emissions.

Policy settings as a driver for emissions reduction

Reforms enacted by the Australian Government in 2023 mean compliance requirements and policy settings under the Safeguard Mechanism are a key driver of our approach to emissions reduction, post 2030.

During 2026-2027, the Government will review the Safeguard Mechanism and to provide a response to 'carbon leakage' risk. Any key changes resulting from the review may require adjustments to our long term approach to net zero.

Safeguard Mechanism mandating industrial emissions reductions

WesCEF's CSBP Kwinana facility is covered by the Safeguard Mechanism, the Australian Government's policy requiring large industrial facilities to reduce their greenhouse gas emissions over time. The Safeguard Mechanism does this by setting declining emissions limits, known as baselines, for covered facilities. Businesses must reduce their emissions or purchase carbon credits to ensure they stay under their baseline each year.

Businesses must do one of the following to stay under their Safeguard baseline:



**Reduce
emissions**

OR



**Purchase
carbon credits**

We are mindful of the risk to our competitiveness, with many of our international competitors manufacturing ammonia, hydrogen and other products in jurisdictions with no comparable emissions reduction policy framework.

Importantly, government policy settings will need to balance Australia's industrial emissions abatement pathways, including alignment to Australia's national targets, while ensuring domestic manufacturers remain competitive with emissions-intensive imports.

The role of carbon credits

The extent of carbon credit use in our emissions reduction journey will be influenced by government policy, such as the Safeguard Mechanism, as well as the maturity and commerciality of abatement technologies. Our preference is to abate emissions where it is technically and commercially viable to do so, but improvements in emissions abatement technology and implementation of projects occur in step shifts. This means we may need to use carbon credits on occasion to meet our Safeguard Mechanism obligations. In addition, we expect carbon credits will be required for emissions sources that have no technical abatement solution. We expect 5 to 10% of our 2026 emissions will have no known technical solution by 2050.

Technology maturity

The rate at which abatement technologies mature and become cost-effective and deployable at scale is a key factor in our ability to achieve net zero. Prospective abatement technologies identified as part of our net zero journey include solutions that are either not yet commercially feasible in their own right, or are yet to be demonstrated at scale.

Industry and government both have roles to play in advancing the maturity and commerciality of abatement technologies. For industry, this includes early stage development of abatement technologies via trials and pilots. For government, the deployment of abatement technologies with grants, infrastructure investment and other incentive mechanisms.

Understanding carbon leakage risk

Carbon leakage refers to shifts in production from countries with more ambitious emissions reduction policies to those with weaker (or no) emissions reduction policies solely because of different policy settings. There are two key types of carbon leakage risk:

1

Production leakage occurs when domestic production declines because imports from countries with weaker climate policies become more price competitive.



2

Investment leakage occurs when new facilities or expansions are built offshore instead of Australia due to domestic regulatory settings.



This is especially relevant for WesCEF's domestic ammonia production at our CSBP Kwinana facility, which is covered by the Safeguard Mechanism. Complying with Safeguard Mechanism obligations means CSBP Kwinana will incur costs that do not apply to international ammonia exporters. It is important that policy addresses this imbalance.

Carbon culture

We are building awareness of climate change related risks and factoring in climate change considerations to our operations and decision making.



“Our team is increasingly focused on how we can reduce our emissions. In addition to large abatement projects, we have reduced our emissions through a series of operational improvements. The most recent example involved the optimisation of our gas-fired boiler, which has reduced our emissions by 3,500 tonnes CO₂ per year.”

Naresh Patel

Engineering Manager, WesCEF

Creating a carbon aware culture



Project initiation and project approvals:

Requests explicitly require project teams to consider climate change.



Corporate Plan:

WesCEF's business units forecast Scope 1 and 2 emissions as part of the annual corporate planning process.



Climate Governance:

WesCEF is a division of Wesfarmers, a diversified conglomerate listed on the ASX. The Wesfarmers Board has responsibility for managing the Group's response to climate change. More information on Wesfarmers and WesCEF's climate governance approaches can be found at www.wesfarmers.com.au and www.wescef.com.au.



Awards:

Our decarbonisation efforts have been recognised widely by our peers. In 2023 we won Chemistry Australia's inaugural Net Zero Transition Award. In 2025 CSBP Fertilisers won Fertiliser Australia's Platypus Environmental Award for our ammonium nitrate decarbonisation efforts. In 2024 and 2025 we were shortlisted for the AIM WA Pinnacle Environmental Sustainability Excellence award.

Climate opportunities

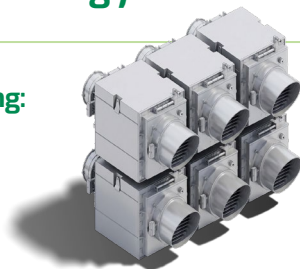
We recognise that moving to a net zero economy creates new opportunities. We actively review opportunities in low carbon fuels, alternative ammonia pathways and carbon utilisation applications.



Driving innovation in abatement technology

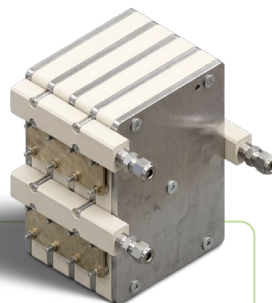
ARC Research Hub for Carbon Utilisation and Recycling:

WesCEF is a major partner in the Monash University-led Recarb Hub focused on advancing CCU applications in businesses like ours. The Hub is a five-year program which was officially opened in 2023.



Jupiter Ionics:

WesCEF has joined a consortium led by Jupiter Ionics to develop low carbon ammonia technology, which aims to deploy pilot scale units in locations where ammonia is currently used and enable the users to produce low carbon ammonia on site.



JUPITER IONICS

Enabling growth

We aim to continue growing as a business at the same time as we work towards net zero. Our growth guardrail ensures any major new investments including material product volume expansion must factor in the forecast cost to achieve net zero. This will help ensure WesCEF's growth strategy aligns with our net zero aspirations.



Our growth guardrail:

Any major new investments or material product volume expansion must factor in the forecast cost to achieve net zero by 2050.

The growth guardrail is enabled by the use of a shadow carbon price to incorporate the potential cost of greenhouse gas emissions into investment decisions. This helps ensure major new investment decisions reflect long-term climate and regulatory risks.

Footnotes

- ¹ In targeting net zero by 2050, WesCEF assumes that low-emissions technologies and emerging solutions will advance, become commercially viable and operate at scale, well before 2050. WesCEF also assumes that government policy will remain supportive of climate action, technologies and the competitiveness of Australian manufacturing.
- ² Includes CO₂ sales and self-generation of electricity.
- ³ In 2021, the IPCC Sixth Assessment Report updated the global warming potential for N₂O from 265 to 273. WesCEF still uses the 265 GWP to calculate our Scope 1 emissions, as this is the value used by the Australian Government's NGER Scheme for emissions reporting purposes.
- ⁴ Scope 2 emissions are location-based.





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