Towards Net Zero

WesCEF's Net Zero Roadmap August 2026







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 our work towards net zero emissions. [1]

We have reduced our emissions through nitrous oxide abatement and energy efficiency projects, and have undertaken commercial and technical assessments of options to reduce our carbon dioxide emissions over the long-term.

While we are on track to meet our interim 2030 emissions target, achieving net zero emissions will be more challenging. In setting our net zero by 2050 target in 2022, we assumed low emissions technologies and emerging solutions would advance and become commercially viable and operate at scale, well before 2050. We assumed that government policy would remain supportive of climate action, technologies and the competitiveness of Australian manufacturing. Since then, we have identified commercial challenges for abatement technologies for hard-to-abate industrial process emissions and there is continued uncertainty in government policy.

The compliance requirements of the Safeguard Mechanism are a key driver of our approach to emissions reduction post-2030 and the review of the Safeguard Mechanism in 2026-2027 may impact our pathway to net zero emissions.

[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.



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[2]

Our vision:

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

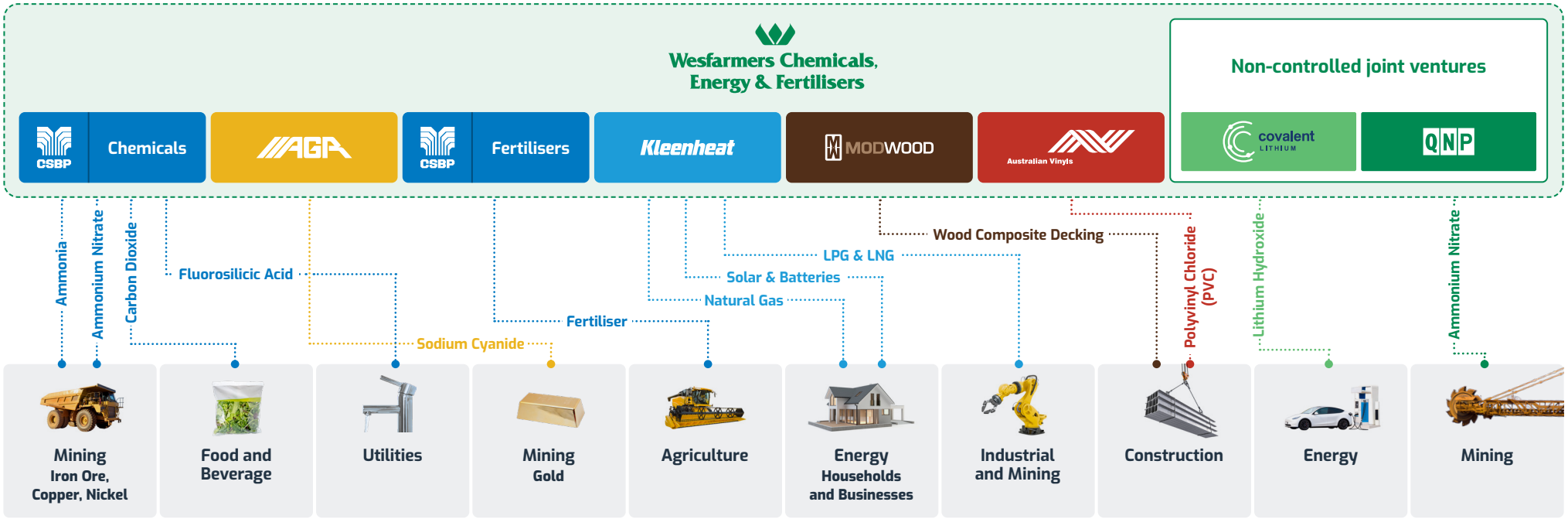
WesCEF is part of Wesfarmers Limited, one of Australia's largest ASX-listed companies. We've been operating for more than 110 years, managing a diverse portfolio of businesses that deliver essential products to industries around the world.

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.



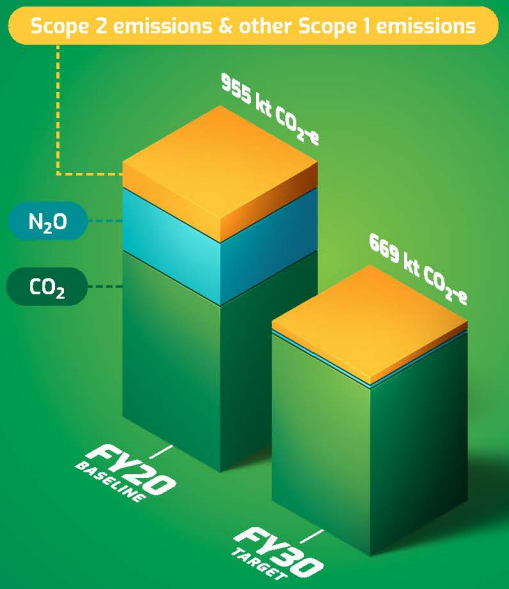
[2] WesCEF's net zero roadmap and emissions reductions targets apply to its wholly owned businesses and controlled joint ventures. They do not apply to WesCEF's interests in non-controlled joint ventures, Covalent and QNP.

Towards Net Zero

A 30% reduction in Scope 1 and Scope 2 (location-based) emissions from our 2020 baseline by 2030: **'30 by 30'**

Targeting net zero Scope 1 and Scope 2 (location-based) emissions by 2050[3]

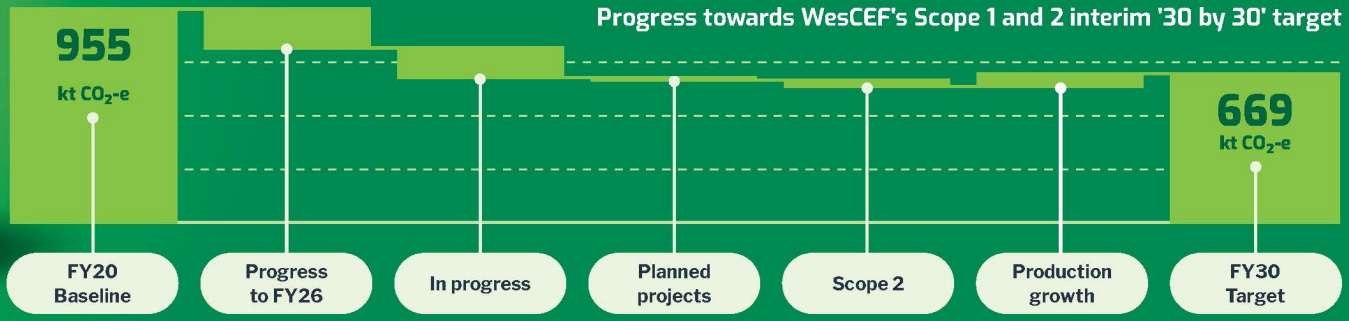
'30 by 30'



Our emissions profile by 2030

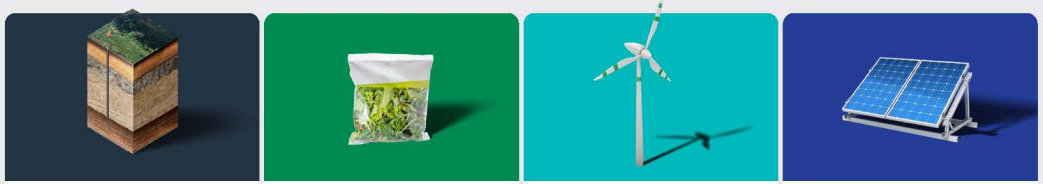
Almost all nitrous oxide (N_2O) emissions will be eliminated

About 95% of our emissions will be carbon dioxide (CO_2)



Post 2030

Technically viable carbon dioxide abatement solutions



Carbon capture and storage (CCS)	Carbon capture and utilisation (CCU)	Electrification	Energy efficiency

Net Zero enablers

- Commercial culture
- Climate governance
- Research

Net Zero dependencies

- Government policy settings
- Commercially viable abatement technology
- Carbon markets

We estimate that no known technical abatement solutions exist for approximately 5 to 10% of our Scope 1 emissions.

[3] 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.

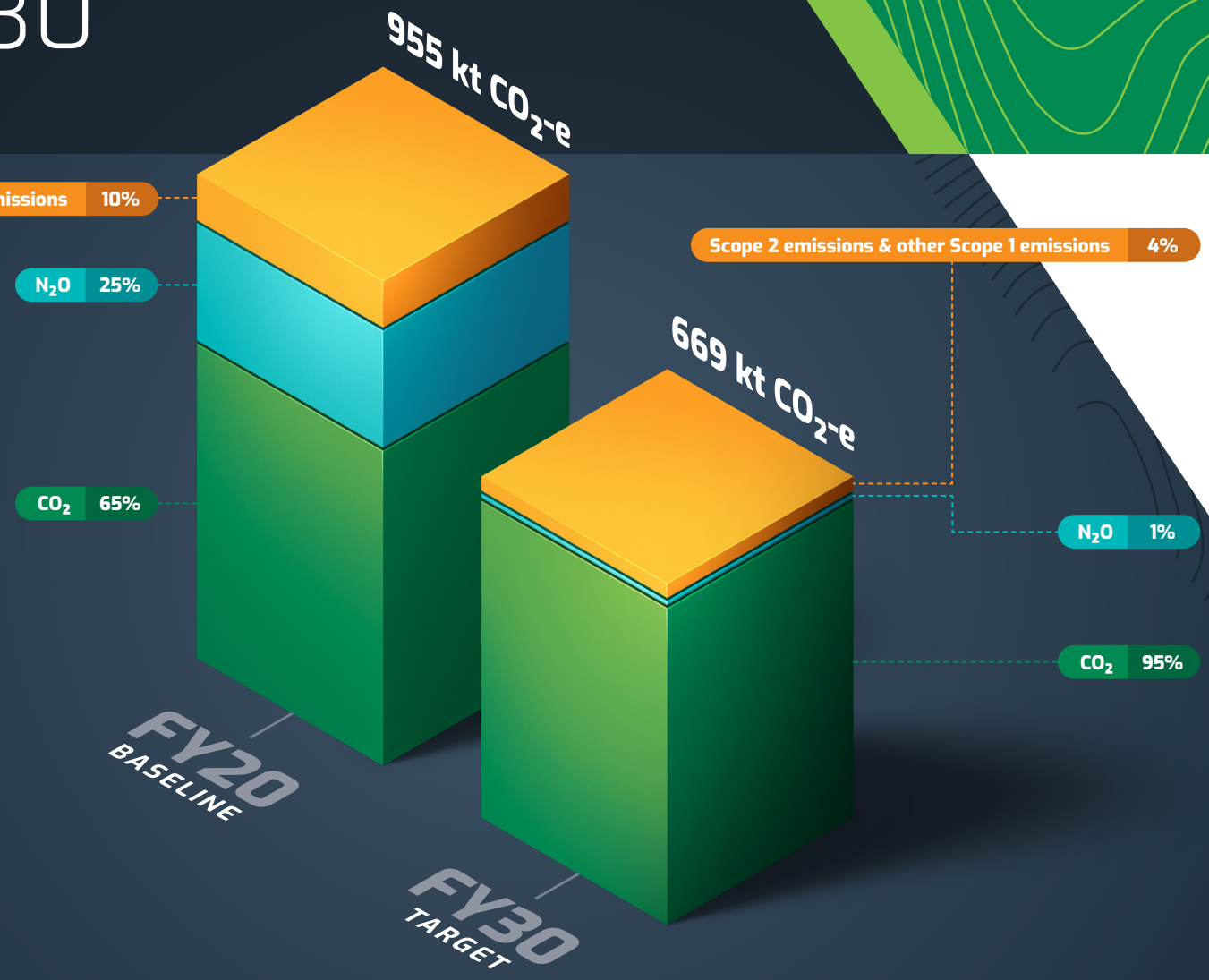
Our emissions reduction journey to 2030

Early action

WesCEF's emissions reduction journey began in 2012 with the installation of abatement catalyst technology in our nitric acid ammonium nitrate plants. Since then, these catalysts have delivered around 10 million tonnes of carbon dioxide equivalent (tCO_2-e) in emissions reductions. Without these and other early abatement initiatives[4], WesCEF's 2020 emissions baseline would have been around 1.8 million tCO_2-e, not 955,000 tCO_2-e as it was in 2020.

Our Scope 1 and Scope 2 (location-based) emissions profile

WesCEF's 2020 baseline Scope 1 and Scope 2 (location-based) emissions were 955,000 tCO_2-e. Scope 1 emissions represented around 94% of baseline operational emissions, with Scope 2 emissions from grid electricity use representing the remaining 6%.



[4] Includes carbon dioxide sales and self-generation of electricity.

> As we work towards our interim target, we continually review 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

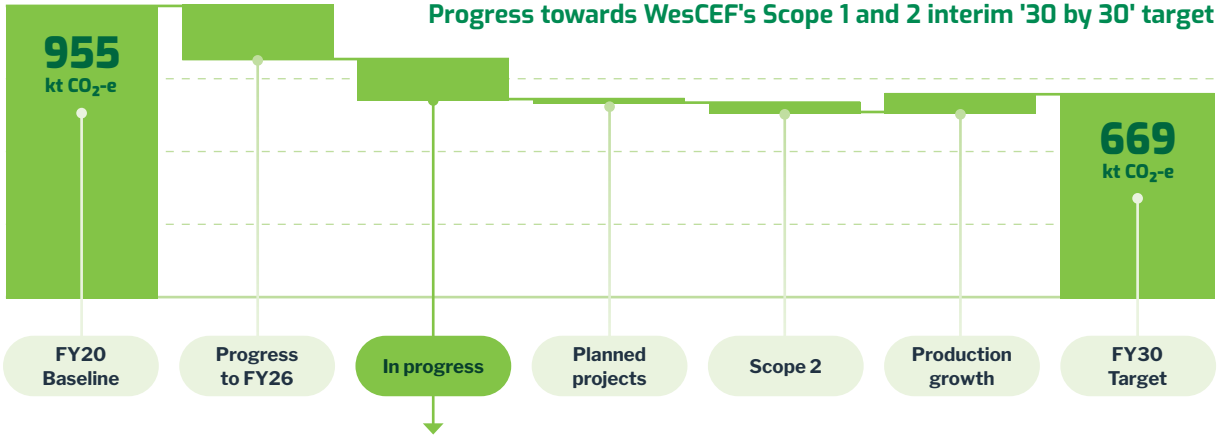


'30 by 30'

We have made substantial progress towards our '30 by 30' interim target, which requires annual Scope 1 and Scope 2 (location-based) emissions to decline by 30% from 955,000 tCO_2-e to ~669,000 tCO_2-e by 2030.

At the end of FY2026, more than half the '30 by 30' target has been delivered, with Scope 1 and Scope 2 (location-based) emissions totalling 778,000 tCO_2-e. Abatement projects in progress are expected to reduce nitrous oxide by a further 110,000 tCO_2-e per annum and carbon dioxide emissions by close to 20,000 tCO_2-e per annum.

Progress towards WesCEF's Scope 1 and 2 interim '30 by 30' target



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

Since 2012, we have been on a journey to reduce nitrous oxide emissions, and by 2030 we expect to have eliminated almost all of them from our production processes.





Why does nitrous oxide matter?

Nitrous oxide is a potent greenhouse gas with a global warming potential 265[5] times greater than carbon dioxide and an atmospheric lifetime of over 110 years. Nitrous oxide 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 nitrous oxide abatement helps achieve our emissions reduction targets, and contributes to decarbonisation of Australia's iron ore, gold and agriculture industries.

[5] In 2021, the IPCC Sixth Assessment Report updated the global warming potential for nitrous oxide from 265 to 273. WesCEF still uses the 265 to calculate our Scope 1 emissions, as this is the value used by the Australian Government's NGER Scheme for emissions reporting purposes.

What is abatement catalyst technology?

This technology uses a chemical process that breaks down nitrous oxide 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 nitrous oxide 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 nitrous oxide 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 nitrous oxide abatement program has been enabled by $40.4 million from the Australian Government's Powering the Regions Fund, and $500,000 in funding from the Western Australian Government's Carbon Innovation Grants Program.

Nitric acid ammonium nitrate emissions abatement

Once the additional abatement catalyst is installed in all three nitric acid ammonium nitrate plants, we expect to abate approximately 115,000 tCO_2-e per annum. This represents a 12% reduction relative to our 2020 emissions baseline.





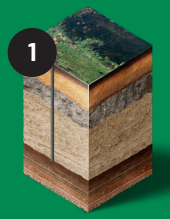
Emissions abatement from sodium cyanide production

We are also installing a more efficient waste gas incinerator in our sodium cyanide production facility, to reduce nitrous oxide emissions. This incinerator is expected to reduce nitrous oxide emissions by around 25,000 tCO_2-e per annum. Construction of this project is underway and due for completion in FY2027.

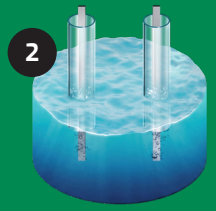
Towards Net Zero

With a clear pathway developed for our nitrous oxide emissions, we are increasingly turning our attention to scalable solutions for our carbon dioxide emissions. By 2030 approximately 95% of our emissions will be carbon dioxide emissions, the majority of which are generated from the production of hydrogen, a feedstock for our ammonia production. This hydrogen is produced from natural gas via a process called steam methane reforming. Hydrogen produced this way is referred to a grey hydrogen.

The two leading solutions to reduce carbon dioxide emissions from hydrogen production:



Carbon capture and storage (CCS):
This involves capturing and permanently storing the carbon dioxide emitted from the steam methane reforming hydrogen production process. Hydrogen produced in this way is referred to as blue hydrogen.



Electrolysis:
This requires replacement of the existing steam methane reforming hydrogen production process with electrolysers that use renewable electricity and water as inputs to green hydrogen.

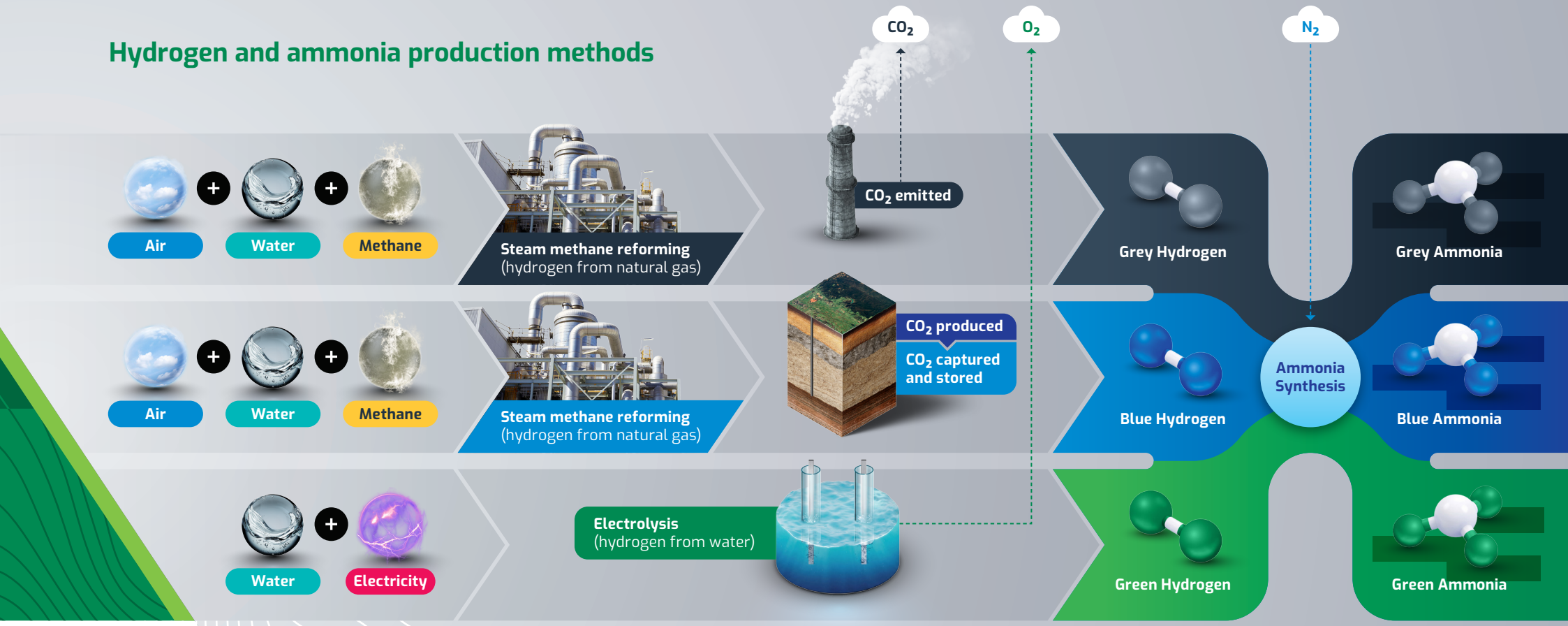
Our analysis of these carbon dioxide abatement options concluded that both blue and green hydrogen production methods are technically feasible and can be operated safely.

While neither solution is commercially viable at present, based on our assessments green hydrogen is considerably more expensive to produce than blue hydrogen. The most commercially viable option is to purchase carbon certificates to offset the carbon dioxide emissions created when producing grey hydrogen.

Our studies have also identified several challenges with green hydrogen. These include the scale and cost of renewable electricity required to power the electrolysers to produce 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 assessment of the attributes of blue and green hydrogen have been informed by feasibility studies conducted as part of the early development phases of two carbon dioxide abatement projects:

Project Cygnus:

Feasibility work on a CCS facility with Mitsui E&P Australia that uses depleted natural gas reservoirs near Dongara, Western Australia for carbon dioxide storage. A successful carbon dioxide injection test has been undertaken and the 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 allocating $11 million to a future front end engineering design study, and Japan's JOGMEC funding of circa $500,000 was used to support feasibility study activities.

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).



Given the cost benefit of blue hydrogen over green hydrogen, we are prioritising CCS as a carbon dioxide 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 carbon dioxide 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.

Understanding Scope 3 emissions



Since 2022, WesCEF has completed the measurement of all material Scope 3 emissions categories.

We now have procedures and processes for calculating and estimating our Scope 3 emissions, with a sound understanding of material 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 commercial challenges of lowering these Scope 3 emissions.



30%
from purchased





Net Zero dependencies

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 Scope 1 and Scope 2 emissions.

We are working to understand and influence these enablers to support our journey towards net zero emissions.

Policy settings as a driver for emissions reduction

The Safeguard Mechanism is a key driver of our approach to emissions reduction, post-2030.

During 2026-2027, the Australian Government is reviewing the Safeguard Mechanism and will provide a response to a 2024 review of carbon leakage risk. Any changes resulting from these reviews may require adjustments to our approach to net zero.

Options to meet declining Safeguard baselines include:

Reduce emissions OR **Purchase carbon credits**

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.



Understanding carbon leakage risk

Carbon leakage refers to shifts in production from countries with more ambitious emissions reduction policies to those with weaker emissions reduction policies.

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 in Australia due to domestic regulatory settings.

This is relevant for WesCEF's 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 producers. 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 that while we currently have a surplus of Safeguard Mechanism Credits, and do not expect to procure additional carbon credits until the mid-2030s, this position is subject to climate policy and technology developments.

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, this includes supporting the deployment of abatement technologies through grants, infrastructure investment and other incentive mechanisms.

Net Zero enablers

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 of carbon dioxide per year.

Naresh Patel

Engineering Manager, WesCEF

Embedding carbon awareness into our commercial culture



Project initiation and approvals:

Requests explicitly require project teams to consider climate change.



Corporate plan:

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



Enterprise risk framework:

Climate-related risks are considered explicitly and as a causal factor in our enterprise risk framework.



Growth guardrail:

We aim to continue growing while also working towards net zero.

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.



Climate governance:

WesCEF is a division of Wesfarmers, a diversified conglomerate listed on the ASX. Management is responsible for developing and implementing climate considerations, while the Wesfarmers Board has ultimate responsibility for climate policy oversight. More information on Wesfarmers and WesCEF's climate governance approaches can be found at **www.wesfarmers.com.au** and **www.wescef.com.au**.



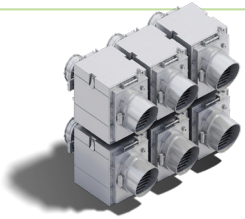
Research

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.

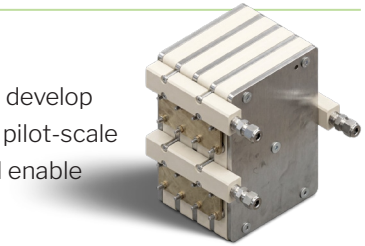


Driving innovation in abatement technology

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 for 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.



Identifying carbon utilisation opportunities

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

We were a major sponsor of CSIRO's 2021 Carbon Dioxide 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.



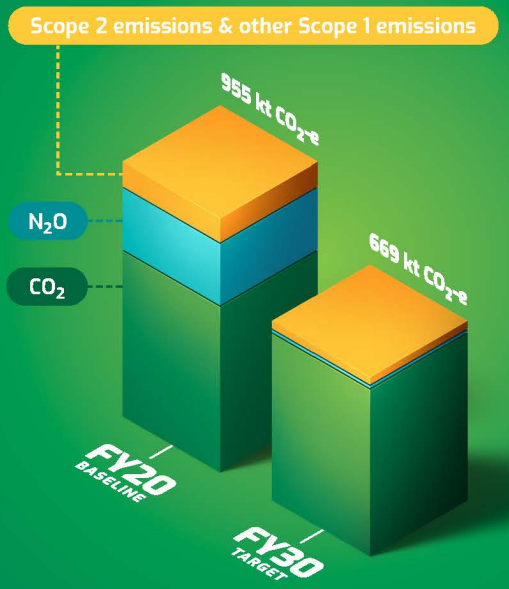
Awards:
Our decarbonisation efforts have been recognised widely by our peers. In 2023, we won Chemistry Australia's inaugural Net Zero Transition Award. In 2025, CSBP Fertilisers won Fertiliser Australia's Platypus Environmental Award for our ammonium nitrate decarbonisation efforts. In 2024 and 2025,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

Towards Net Zero

A 30% reduction in Scope 1 and Scope 2 (location-based) emissions from our 2020 baseline by 2030: **'30 by 30'**

Targeting net zero Scope 1 and Scope 2 (location-based) emissions by 2050[3]

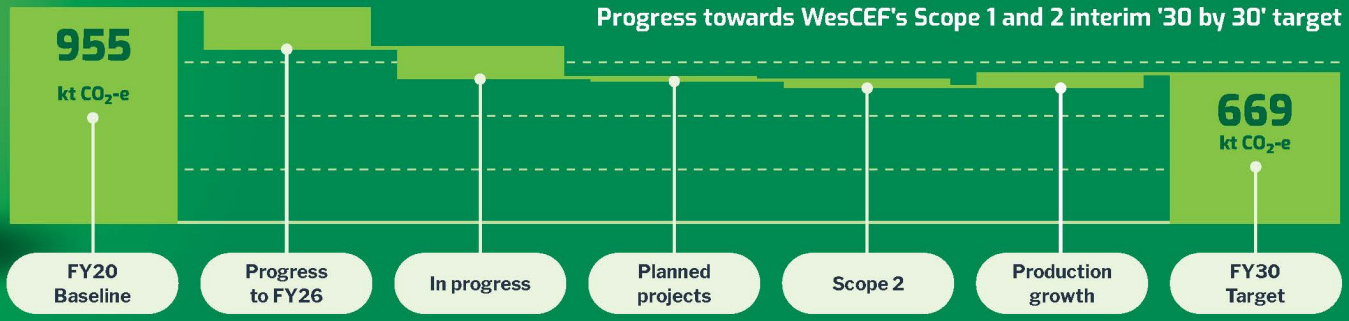
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Our emissions profile by 2030

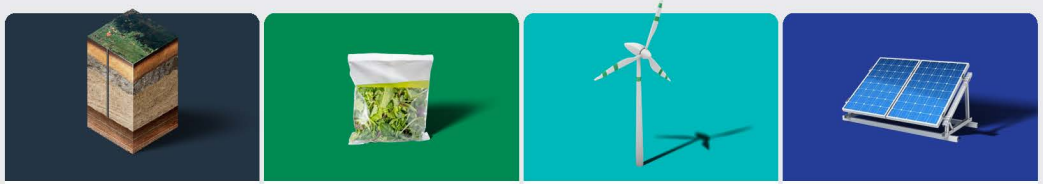
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Post 2030

Technically viable carbon dioxide abatement solutions



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