

Climate-related disclosures

2023 highlights

2.4%

reduction in Group greenhouse gas emissions



First ore

mined at Covalent lithium project, supporting the transition to a low-emissions economy



37MW

capacity from 165 rooftop solar systems, with 43 installed during the year



As a large, diversified organisation, we understand that Wesfarmers plays an important role supporting global efforts to transition to a low-emissions economy.

Our approach

At Wesfarmers, our focus on managing the impacts of climate change aligns with our purpose. We recognise climate change is a material risk to our divisions and we work in a disciplined way to manage our exposures to climate change, invest in opportunities and support the global goal of transitioning to a low-emissions economy.

Climate change impacts our operations, team members, supply chains, customers and the communities where we operate.

The divisions have long been managed with climate and carbon awareness, focusing on reducing operational (Scope 1 and Scope 2) greenhouse gas emissions. During the year, we implemented strategies to further embed climate-related considerations into our strategic planning processes and continued to invest in decarbonisation initiatives.

Our divisions have begun engaging across their global value chains, to address climate risks and opportunities and to mitigate Scope 3 emissions. During the year, we focused on improving the quality of our Scope 3 emissions inventory. For further information, see page 81.

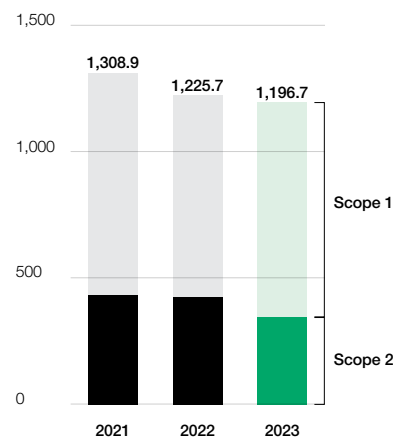
We continue to monitor and report on our climate-related performance and progress against greenhouse gas emissions reduction and net zero Scope 1 and Scope 2 targets. Since 2018, we have structured our climate disclosures using the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), under the four reporting pillars of governance, strategy, risk and opportunities, and metrics and targets. Our disclosures have evolved as our response to climate change has matured.

We recognise the link between climate and nature and during the year completed a pilot to test and learn from the framework being developed by the Taskforce on Nature-related Financial Disclosures (TNFD), to better understand the Group's nature impacts and dependencies.

Further information on Wesfarmers' approach to climate is available at www.wesfarmers.com.au/sustainability

Group greenhouse gas emissions

1,196.7 kilotonnes CO₂e



Our reporting boundary is based on operational control as defined by the *National Greenhouse and Energy Reporting Act 2007* (Cth). Scope 2 emissions are stated using market-based accounting, in accordance with the World Resource Institute's Greenhouse Gas Protocol Scope 2 guidance. Supplementary location-based data can be found from page 185 and at www.wesfarmers.com.au/sustainability

Governance

Effective governance is central to our approach to managing climate change including climate-related risks and opportunities. Climate change is recognised as a material risk across the Group.

Wesfarmers Board

The Wesfarmers Board has ultimate responsibility for overseeing the Group's approach to managing climate-related issues. The Wesfarmers Board considers and endorses the Group's approach to managing climate-related risks and opportunities, the Wesfarmers Climate Policy (Climate Policy), divisional emissions reduction and renewable electricity targets, strategic climate-related decisions and public disclosures. Climate change risk management is a standing item in the divisional reporting framework and in FY2023, the Wesfarmers Board reviewed the Climate Policy, strategic initiatives, performance against the Climate Policy including divisional targets and other climate-related issues. Through the Audit and Risk Committee, the Wesfarmers Board receives updates at least twice annually on diverse climate-related issues.

Climate Policy

The Climate Policy establishes the minimum standards to manage climate-related risks and opportunities for the Group. The Climate Policy is reviewed annually to ensure that it remains relevant and reflects changing circumstances. During the year, it was amended to address emerging climate-related risks and opportunities. While most divisions are advanced in their implementation of the Climate Policy, our newest divisions, Wesfarmers Health and OneDigital, are making progress implementing the policy. The Climate Policy is available at www.wesfarmers.com.au/cg

Leadership framework

The Wesfarmers Leadership Team and divisional leadership teams lead the implementation of climate-related strategies, review new and emerging climate-related risks and opportunities, engage diverse stakeholders and share expertise. Each divisional board and management team is responsible for identifying and managing material risks and opportunities relevant to its businesses, in accordance with the Group's Risk Management Framework and Risk Appetite Statement.

Through the annual strategic planning process, each division forecasts emissions and details decarbonisation strategies in its corporate plan, for consideration and approval by the Wesfarmers Board. Implementation of climate-related programs is generally coordinated through sustainability or climate teams, with support from Corporate Affairs, Finance, Risk, Environment and Operations teams.

The Wesfarmers Corporate Office convenes a quarterly Carbon and Energy Forum for the Group, involving Group and divisional subject matter experts with day-to-day responsibility for the coordination and management of climate-related programs. These forums provide our businesses with an opportunity to share knowledge to accelerate progress.

Executive remuneration

The Wesfarmers Board, through the Remuneration Committee, takes account of various environmental, social and governance considerations (including climate) when determining the remuneration of Key Management Personnel. It also makes recommendations to the Board regarding performance goals linked to the Climate Policy including divisional emissions reduction targets. Further information on the Group's Key Executive Equity Performance Plan (KEEPP) can be found in the remuneration report.

Internal shadow carbon price

Since 2014, Wesfarmers has incorporated an internal shadow carbon price into capital allocation and capital expenditure decisions, through the Wesfarmers Project Expenditure and Disposals Policy. The internal shadow carbon price assigns a value to emissions over the life of an investment. It ensures that investment decisions apply a cost to projects with associated emissions and supports investments that reduce emissions. Regular reviews are undertaken of the internal shadow carbon price to ensure it remains appropriate and reflects potential future carbon costs. Further information on the Wesfarmers shadow carbon price is at www.wesfarmers.com.au/sustainability/our-priorities/climate-change-resilience/shadow-carbon-price

Responsibilities

Corporate office

- Establishes the Climate Policy which sets minimum standards for the Group
- Convenes and facilitates cross-divisional collaboration and expertise
- Reviews the shadow carbon price
- Supports Group-wide climate scenario analysis and reporting
- Coordinates corporate plan, incorporating divisional emissions forecasts and decarbonisation strategies

Wesfarmers Board, supported by the Audit and Risk Committee and Remuneration Committee

- Approves the Climate Policy and carbon price
- Provides governance over climate-related risks and determines risk appetite
- Sets performance goals and remuneration
- Approves strategies in corporate plans

Divisional responsibilities

Boards and audit, risk and compliance committees

- Provide governance over divisional climate-related risks and support the prioritisation of opportunities
- Monitor climate-related performance and implementation of climate-related strategies

Senior management

- Detail strategy and risks/risk management in corporate plans, for implementation
- Provide and manage resourcing to support climate-related strategies
- Report through divisional and Group governance structure

Carbon and energy teams

- Implement the Climate Policy
- Maintain systems for monitoring and reporting
- Implement strategies and actions
- Participate in the quarterly, cross-divisional Carbon and Energy Forum

Our strategy

We recognise our climate-related responsibilities and that climate resilience will deliver long-term value for our shareholders, including as we invest in opportunities aligned with the transition to a low-emissions economy. The Group continues to work in a disciplined way to embed carbon awareness into our culture, operations and strategy.

With the diversity of businesses across the Group, our divisions have a mix of decarbonisation strategies and transition plans. Consistent with Wesfarmers' model of divisional autonomy, divisional strategies are underpinned by the Climate Policy, with each division developing its own strategy that reflects its emissions profile. For the Group's operational (Scope 1 and Scope 2) emissions, Scope 1 emissions are material for WesCEF and Coregas, and Scope 2 emissions are more material for other divisions. Where relevant, divisional strategies are aligned, connected and scaled.

During the 2023 financial year, the divisions progressed the actions identified in prior years, to build climate resilience and create long-term value. While taking actions to support their decarbonisation, Kmart Group, Bunnings and Officeworks collaborated on renewable electricity procurement and knowledge sharing. Scenario analysis continued to help us understand Group risks and opportunities, and the divisions continued to incorporate energy efficiency and climate-resilience into facility design, to mitigate future physical risks. Our divisions also deepened their understanding of Scope 3 emissions and continued to consider, and to invest in growth opportunities in new industries, including adopting circular business models.

Focus areas for our divisions include reducing operational Scope 1 and Scope 2 emissions, mapping and reducing Scope 3 emissions, investing in growth opportunities and developing partnerships in the transition to a low-emissions economy.

Climate scenario analysis

Climate scenarios provide insights into different plausible climate futures.

Climate scenario analysis helps to challenge and develop our understanding of the implications of different climate futures for our businesses and stakeholders.

It supports the development of our strategy (responding to climate-related risks and opportunities) and the assessment of our climate resilience, across different climate scenarios.

Importantly, climate scenario analysis must be treated with caution.

Climate scenarios are not forecasts, rather they are based on climate and socio-economic models. Future climate outcomes may differ from scenarios for many reasons including changes in policy, the market and technology.

Accordingly, care should be taken when considering forward-looking statements associated with climate scenario analysis (including around strategy and the impact or effectiveness of strategy).

Our enablers

Building climate resilience requires an integrated and disciplined approach, to develop and implement strategies that address complex and interconnected issues

Our focus is on embedding climate considerations into our businesses with responsibilities across the Group to lead, support and deliver measures that embed carbon awareness

Lead

Wesfarmers Leadership Team, including divisional Managing Directors, sets the Group vision and targets to support a culture of climate resilience

Support

Corporate Office establishes and supports policies, climate governance, knowledge sharing and risk management

Deliver

Divisions integrate climate-related considerations into their strategic plans and operations

Our transition levers

Across the Group, we have identified five transition levers to support the divisions to deliver their climate strategies and transition plans

1. Embed climate resilience

Integrate the management of climate-related risks and opportunities into our culture and strategies

2. Leverage data and digital

Implement systems and solutions to support the use of data and digital strategies to inform decision-making

3. Mitigate physical impacts

Continue to reduce our emissions, understanding and managing our response to the physical impacts associated with climate change

4. Focus on supply chains

Collaborate and build strength in supply chains, to address the complexity and challenges of decarbonising global value chains

5. Invest for the future

Identify and pursue opportunities that support our growth as we transition to a low-emissions economy

Our progress and focus areas

Our operational Scope 1 and Scope 2 market-based emissions in the 2023 financial year were 2.4 per cent lower than the prior year. We continue to make good progress reducing our Scope 2 emissions, while our Scope 1 emissions increased as WesCEF's ammonia production normalised after a planned shutdown in the prior period.

With our commitment to reducing our operational emissions, Bunnings, Kmart Group, WesCEF, Officeworks and Industrial and Safety have set interim and net zero operational Scope 1 and Scope 2 emissions targets.¹

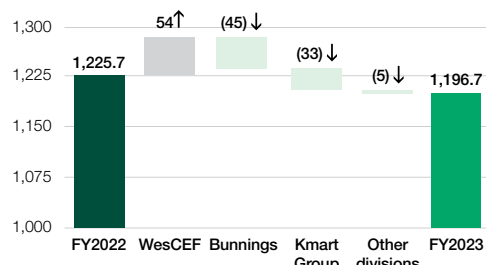
Group performance

During the year, Group Scope 1 and Scope 2 market-based emissions were approximately 1,196.7 kilotonnes of carbon dioxide equivalent (CO₂e), a 2.4 per cent reduction relative to FY2022.

Scope 1 emissions increased by 6.3 per cent to approximately 845.9 kilotonnes of CO₂e, due to WesCEF's ammonia production normalising after a significant planned ammonia plant shutdown in the prior period.

Scope 2 market-based emissions decreased by 18.4 per cent to 350.8 kilotonnes of CO₂e, achieved through continued energy efficiency measures, rooftop solar electricity generation and renewable electricity procurement, principally led by Bunnings. Our businesses also benefited from lower electricity emission factors, which reflects an increase in renewable electricity in the grid.

Group Scope 1 and Scope 2 market-based emissions (kilotonnes CO₂e) and main divisional contributions in FY2023.



Scope 1 – Reducing our direct emissions

Our Scope 1 direct emissions arise from our operations through industrial processes, combustion of fuels and use of refrigerants. Some divisions operate in sectors that are hard to abate, and decarbonisation requires the development and commercialisation of low-emissions technologies.

Operational Scope 1 emissions

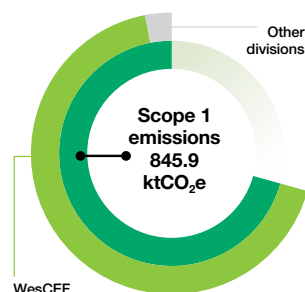
Scope 1 emissions account for approximately 71 per cent of the Group's total operational emissions.

WesCEF contributes around 96 per cent of the Group's Scope 1 emissions. These emissions arise predominantly from the manufacture and processing of ammonia, ammonium nitrate, sodium cyanide, liquefied natural gas (LNG) and liquefied petroleum gas (LPG), producing nitrous oxide, carbon dioxide and methane.

The other divisions contribute the remaining four per cent which arise largely from the use of fuels in vehicles, natural gas for heating and refrigerants in cooling systems.

Across the Group, capital investments, partnerships, new technologies and energy substitutions will be required to reduce our Scope 1 emissions. WesCEF's net zero roadmap is central to reducing the Group's Scope 1 emissions.

Scope 1 emissions by division

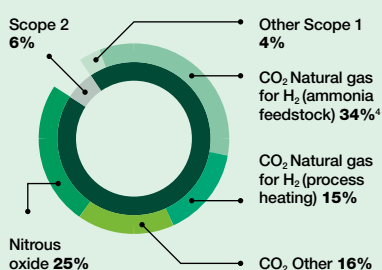


WesCEF net zero roadmap^{2,3}

Phase 1 – prior to 2020

WesCEF implemented technology solutions to avoid over 40 per cent of its operational emissions, principally from nitrous oxide catalytic abatement.

FY2020 baseline emissions by source



Phase 2 – 2020 to 2030

In this phase, WesCEF is focused on achieving its interim 30 per cent emissions reduction target by FY2030. This FY2030 target is relative to an FY2020 baseline and incorporates abatement already achieved.

Meeting the FY2030 target is expected to be largely achieved through additional investment in catalytic abatement in its nitric acid plants.

Phase 2 will also involve actions that reduce Scope 2 emissions, and seek to establish foundational partnerships to support the scale-up of low-emissions technologies required to meet its 2050 net zero roadmap.

Phase 3 – 2030 to 2050

WesCEF will focus on deploying low-emissions ammonia technologies, as ammonia accounts for more than half of WesCEF's emissions. This is expected to include electrolysis and carbon capture, utilisation and storage (CCUS).

In setting its net zero targets, WesCEF has assumed that these technologies continue to advance and become commercially viable and capable of operating at scale, well before 2050. WesCEF also assumes government policy remains supportive of climate action. Around ten per cent of WesCEF's remaining emissions may require the use of carbon offsets, if no commercially viable technological solutions emerge.

¹ Baselines of our targets may be adjusted for significant changes to our businesses including material acquisitions, divestments or changes to greenhouse gas reporting methodologies. Wesfarmers Health and OneDigital are currently in the process of establishing baselines to support future targets.

² Further information on WesCEF's net zero roadmap is available at <https://Wescef.com.au/Wescefs-roadmap-to-net-zero/>

³ The assumptions underpinning WesCEF's targets will be regularly tested to ensure that they are reasonable. Adjustments to targets will be made as required, if the technologies do not advance at the required pace.

⁴ This is high purity CO₂ and presented net of volumes captured and sold to third parties.

Scope 2 – Reducing our indirect emissions from electricity use

Scope 2 indirect emissions arising from electricity use are the principal emissions source for most of our businesses. Our Scope 2 reduction strategies include on-site operational solutions which are within our control (including energy efficiency, climate resilient design and behind-the-meter electricity generation) and off-site procurement solutions (such as renewable electricity purchased from third parties).

Operational Scope 2 emissions

Scope 2 market-based emissions account for approximately 29 per cent of the Group's operational emissions and relate to the use of grid-supplied electricity.

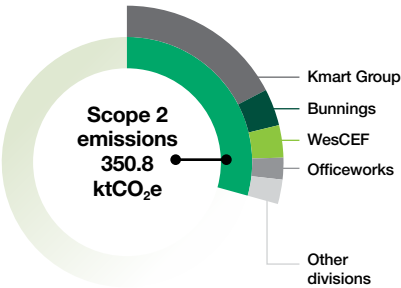
Bunnings, Kmart Group and Officeworks contribute approximately 80 per cent of the Group's Scope 2 market-based emissions. Recognising the importance of transitioning to renewable electricity to meet their net zero targets, these divisions have committed to sourcing 100 per cent renewable electricity by the end of 2025. Their Scope 2 market-based emissions are expected to

be substantially reduced as they progress towards these renewable electricity targets.

The divisions continue to focus on deploying operational solutions such as more efficient new store formats, building management systems, LED lighting and efficient heating and cooling.

Where feasible, Bunnings, Kmart Group and Officeworks expect to increase their investment in on-site solar photovoltaic (PV) systems and to procure additional offsite renewable electricity (through power purchase agreements, GreenPower and renewable energy certificates).

Scope 2 market-based emissions by division



Bunnings' hundredth on-site solar PV system

During the year, Bunnings celebrated the installation of its hundredth on-site solar PV system at its Palmerston Warehouse in the Northern Territory.

Since 2014, Bunnings has progressively installed on-site solar PV systems across its Australian network to support the decarbonisation of its operations by generating renewable electricity on-site.

In 2020, Bunnings, with Kmart Group and Officeworks, adopted a target to use 100 per cent renewable electricity by the

end of 2025 across its operations. This target is expected to be achieved through a combination of strategies, with on-site solar PV systems playing an important role. Each installation provides up to 30 per cent of each store's energy needs.

Across the Bunnings network, solar PV systems cover around 310,000 square metres of rooftop space, and annually generate the equivalent electricity required to power over 7,000 Australian households for one year.

Becoming more energy efficient with onsite solutions

Improve energy efficiency of existing stores and facilities

Opportunities exist to improve the energy efficiency of the divisions' stores and facilities. For example, the divisions retrofit and optimise operating conditions by introducing building management systems, LED lighting, and efficient heating and cooling systems.

Efficient new stores and facilities

The divisions adopt sustainable design principles for new stores and facilities to materially improve energy efficiency, reduce emissions and deliver cost savings. For example, Bunnings' new store format can deliver emissions efficiencies of around 30 per cent.

Generate electricity to reduce grid-electricity use

The divisions invest in behind-the-meter electricity generation from renewable and waste-heat sources to power their operations. Generally, this is on-site solar, although WesCEF generates electricity through waste heat recovery.

Transitioning to offsite renewable electricity

Power Purchase Agreements

The divisions source renewable electricity and their associated large-scale generation certificates (LGCs) through power purchase agreements and other wholesale agreements with electricity retailers and/or generators.

GreenPower

The divisions source renewable electricity through retail products such as GreenPower to meet electricity needs in those markets where there are limited options including for some of their small sites.

Renewable energy certificates

Unbundled renewable energy certificates including LGCs and New Zealand Energy Certification System certificates are expected to be required, as part of our overall portfolio of off-site procurement solutions.

Divisional progress against Scope 1 and Scope 2 targets¹

		kilotonnes CO ₂ e			
Bunnings Group Scope 1 and Scope 2 net zero by 2030 100 per cent renewable electricity by the end of 2025	259.7				
	Baseline FY2018	110.3	104.9	59.9	
Bunnings achieved a 42.9 per cent emissions reduction relative to FY2022, and a 76.9 per cent emissions reduction relative to its FY2018 baseline. Bunnings continues to exceed its interim 2025 emissions reduction target of 10 per cent and has made significant progress towards its Scope 1 and Scope 2 net zero target. During the year, Bunnings sourced 64.4 per cent of electricity from renewable sources.					
Kmart Group² Scope 1 and Scope 2 net zero by 2030 100 per cent renewable electricity by the end of 2025	330.8				
	Baseline FY2018	262.5	250.9	218.1	
Kmart Group achieved a 13.1 per cent emissions reduction relative to FY2022, and a 34.1 per cent emissions reduction relative to its FY2018 baseline. Kmart Group exceeds its interim 2025 target of 20 per cent and is making progress towards its Scope 1 and Scope 2 net zero target. During the year, Kmart Group sourced 18.6 per cent of electricity from renewable sources.					
WesCEF³ Scope 1 and Scope 2 net zero by 2050 Interim target – 30 per cent reduction by 2030	955.5				
	Baseline FY2020	668.8	873.9	795.4	849.5
WesCEF's emissions increased 6.8 per cent in FY2023 and are 11.1 per cent below its FY2020 baseline. The increase relates principally to increased ammonia production in FY2023, due to a significant planned maintenance shutdown in FY2022, as carbon dioxide is generated as a byproduct of ammonia production. Consistent with its net zero roadmap, during the year, WesCEF advanced partnerships with Mitsui, APA and Jupiter Ionics.					
Officeworks Scope 1 and Scope 2 net zero by 2030 100 per cent renewable electricity by the end of 2025	49.1				
	Baseline FY2018	34.4	30.8	27.1	
Officeworks achieved a 12.0 per cent emissions reduction relative to FY2022, and a 44.8 per cent emissions reduction relative to its FY2018 baseline. Officeworks exceeds its interim 2025 emissions reduction target of 25 per cent and is making good progress towards its Scope 1 and Scope 2 net zero target. During the year, Officeworks sourced 23.8 per cent of electricity from renewable sources.					
WIS⁴ (excluding Coregas) Scope 1 and Scope 2 net zero by 2035 Interim target – 45 per cent reduction by 2025	14.8				
	Baseline FY2018	8.1	11.0	10.3	9.6
WIS (excluding Coregas) achieved a 6.8 per cent reduction in emissions relative to FY2022, and a 35.1 per cent emissions reduction relative to its FY2018 baseline. This has been achieved through the implementation of energy efficiency measures at its branches, site consolidations and procurement of renewable electricity in New Zealand.					
Coregas⁴ Scope 1 and Scope 2 net zero by 2050 Interim target – 30 per cent reduction by 2035	16.1				
	Baseline FY2022	11.3	16.4	16.1	17.6
Coregas' Scope 2 emissions increased 25.9 per cent in FY2023 due to increased electricity usage as a result of increased production of gases to meet business demand. This increase was moderated by a reduction in Scope 1 emissions due to efficiencies in its logistics network which reduced fuel usage. Coregas' emissions intensity based on revenue has continued to decline.					
Health Yet to establish net zero target			13.8	11.6	
			FY2022	FY2023	
Our newest divisions, Wesfarmers Health and OneDigital, have not yet established net zero targets, and are focused on establishing representative baselines to inform future decarbonisation strategies and pathways. FY2022 Health emissions have been estimated for comparison purposes.					
OneDigital (including Catch) Yet to establish net zero target			3.0	2.9	
			FY2022	FY2023	
OneDigital's emissions are principally associated with Catch. OneDigital (excluding Catch) emissions only relate to electricity use in its offices.					

¹ Baselines were generally set in 2019, based on the Scope 2 location-based accounting method and have not been restated using the Scope 2 market-based accounting method as they were not materially different during the baseline year.

² FY2022 has been restated to exclude Catch. FY2021 includes Catch.

³ WesCEF's 2020 Scope 1 and 2 location-based emissions baseline is 955.5 ktCO₂e, and differs from the reported value of 983.3 ktCO₂e due to adjustments for the current global warming potentials of relevant greenhouse gases.

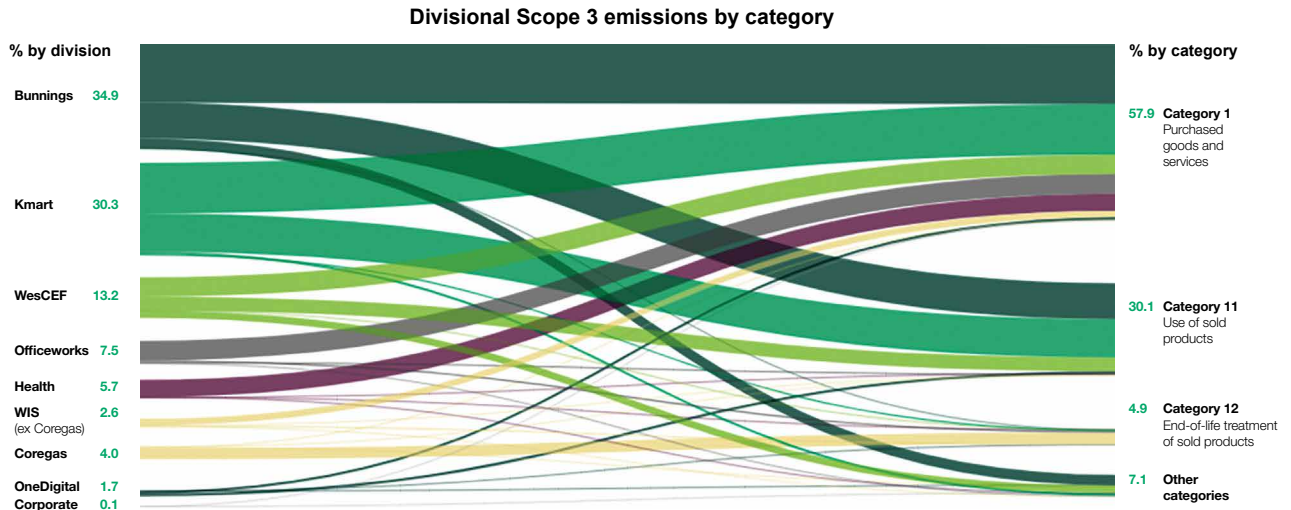
⁴ Interim and net zero targets assume that emission reduction technologies relating to distribution assets (including heavy vehicle distribution) will continue to develop in the coming years, and that in time they will become commercially viable and operate at scale to meet these targets. Baselines may be updated in the event of significant portfolio changes and changes to greenhouse gas emission reporting protocols including changes in reporting (including operational control) definitions. Should changes to baselines occur, then adjustments may be made to interim Scope 1 and 2 emissions reduction targets or may be made to the net zero targets.

Scope 3 - Mapping and reducing our value chain emissions

Scope 3, or value chain, emissions are indirect greenhouse gas emissions that arise from activities upstream and downstream of the divisions' operations and outside their direct control. They represent the Scope 1 and Scope 2 emissions of their direct and indirect suppliers, customers and team members.

Our businesses have diverse and complex global value chains, and Scope 3 emissions are a material source of our total emissions inventory. During the year, our Scope 3 emissions were approximately 37.3 megatonnes of CO₂e, or 31 times our operational emissions.

The following chart details Scope 3 emissions, by division (on the left) and by Scope 3 emissions category¹ (on the right). As shown, Bunnings and Kmart Group have the largest Scope 3 emissions profiles, and the most material categories are Category 1 (purchased goods and services), Category 11 (use of sold products) and Category 12 (end-of-life treatment of sold products), making up almost 93 per cent of Group Scope 3 emissions.



Most material Scope 3 categories across the Group

Cat 1	Purchased goods and services
Cat 11	Use of sold products
Cat 12	End-of-life treatment of sold products

Other categories

Cat 2	Capital goods	Cat 6	Business travel	Cat 10	Processing sold products
Cat 3	Fuel- and energy-related emissions	Cat 7	Employee commuting	Cat 13	Downstream leased assets
Cat 4	Upstream transportation and distribution	Cat 8	Upstream leased assets	Cat 14	Franchises
Cat 5	Waste generated in operations	Cat 9	Downstream transportation and distribution	Cat 15	Investments

¹ There are 15 Scope 3 categories listed in the WRI's Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard.

Scope 3 emissions inventory

Bunnings and Kmart Group are the largest contributors to our Scope 3 emissions, accounting for 65.2 per cent of Group Scope 3 emissions.

Scope 3 emissions are predominantly linked to the production of goods in our supply chains, the use of products by the divisions' customers and the end-of-life treatment of products. These emissions are outside the divisions' direct control but sit within their global value chains. The volume of Scope 3 emissions relates principally to the volume of goods sold by our businesses.

Our divisions' initial focus is on Category 1 and Category 11.

Category 1 — Purchased goods and services: This category is the largest contributor to Group Scope 3 emissions and totalled 21.6 megatonnes of CO₂e during the year. Emissions in this category result from upstream activities related to the extraction, manufacture and

production, of goods and services that our businesses purchase.

Category 11 — Use of sold products: This category contributed 11.2 megatonnes of CO₂e to our emissions inventory. Emissions in this category arise from customers' energy consumption when using our products and includes electricity used for electrical goods or energy used to launder apparel. Emissions may also arise from the combustion of fuels or the release of greenhouse gases into the atmosphere, such as nitrous oxide from fertilisers.

Our progress

Engaging and supporting suppliers, customers and others in the divisions' value chains to decarbonise will be important to achieve a reduction in Scope 3 emissions.

Several divisions across the Group have begun this process, with an initial assessment of supplier emissions profiles.

Bunnings have assessed that around half of their Scope 3 emissions come from twelve product categories. Kmart Group gathered energy data from 172 supplier sites, highlighting opportunities for future engagement with suppliers.

WesCEF has commenced supplier engagement with a focus to initially improve its supplier-specific emissions data.

Bunnings and Officeworks currently operate recycling programs to support the recovery of raw materials from products at end of life, which also deliver Scope 3 reduction benefits. Other strategies, such as more sustainable product ranges and product repurposing and repairing, can reduce Scope 3 emissions by extending product life and reducing upstream demand for resources.

As we better understand the impact of these strategies, we expect to measure associated Scope 3 emissions avoided.

Scope 3 management focus areas

Value chain decarbonisation requires a collaborative, whole-of-economy approach. It is essential to understand where our emissions are concentrated, to help focus our efforts.

As suppliers and customers implement their own decarbonisation initiatives, Scope 3 emissions will reduce. With only indirect influence over these emissions, decarbonisation across the divisions value chain remains challenging. We are focused on three key areas of Scope 3 management.

Improving the quality of our Scope 3 data

Calculating Scope 3 emissions is complex and we use the spend-, activity-, supplier- and life cycle-based Scope 3 emissions evaluation methods. In recent years, the divisions have deepened their understanding of their Scope 3 emissions inventory, which is helping to establish the foundational data to support engagement with their value chains. We expect to quantify and disclose emissions avoided associated with Scope 3 actions, as the divisions continue to iterate and mature their approach to Scope 3 data.

Engaging with suppliers

For the Group, Category 1 — Purchased goods and services is the most material Scope 3 category. Some of the divisions have begun engaging with suppliers to understand and support their emissions reduction opportunities and initiatives.

Supporting our customers

With customers, opportunities exist to support efficient and extended product use and responsible disposal at end of life, to deliver Scope 3 emissions improvements. Bunnings and Officeworks operate large recycling programs to support the recovery of embedded resources in products at end of life.



CSBP Fertilisers research delivers Scope 3 emissions benefits

In 2023, CSBP Fertilisers celebrates its centenary of agricultural trials and research in Western Australia (WA). With its track record of driving innovation, CSBP Fertilisers has contributed to improved productivity among WA growers, supporting the success of the local agriculture industry.

With its introduction of Urea Sustain, a coated nitrogen fertiliser, CSBP Fertilisers has helped to optimise nutrient absorption by crops and lower the risk of nutrient loss to the environment. Products like Urea Sustain can improve emissions intensity of crop production, contributing to the long-term sustainability of this key WA export industry.

In 2022, a CSBP trial in Three Springs, WA, demonstrated that relative to conventional urea, application of Urea Sustain increased wheat production by approximately 25 per cent, and reduced the emissions intensity of crop production by approximately 20 per cent. CSBP Fertilisers' field research team is undertaking further trials to demonstrate the effectiveness of Urea Sustain in a range of soil types and geographical regions.



Kmart Group takes key steps to reduce Scope 3 emissions

With more than 90 per cent of Kmart Group's emissions outside its operations, obtaining accurate Scope 3 data among suppliers is an important first step to long-term emissions reduction.

Kmart Group is a member of the Sustainable Apparel Coalition (SAC), a global, multi-stakeholder non-profit alliance for the fashion industry, focused on sustainable production.

In 2011, SAC launched the Higg Index, an assessment tool to standardise the measurement of value chain sustainability including the measurement of Scope 3 emissions.

Energy use in fabric production, dyeing and finishing is a significant source of Scope 3 emissions in the apparel sector.

Using the Higg Index, Kmart Group gathered energy use data from 172 wet processing facilities in its value chain.

This identified that very few facilities use renewable energy, highlighting an opportunity for improvement.

By gathering data from suppliers, Kmart Group can identify and transparently report on Scope 3 decarbonisation strategies.

With time, as it improves its understanding of its value chain emissions, Kmart expects to evaluate its approach to supplier and materials selection and product design to reduce Scope 3 emissions.

Growth opportunities for Wesfarmers

As the world decarbonises, there will be investment opportunities to support Wesfarmers' long-term performance. These may include opportunities for new industries, businesses, products and services.

Evolving our product range to address changing customer preferences.

For WesCEF and Coregas, there may be opportunities for products such as low-emissions ammonia and hydrogen. For our other businesses, there may be opportunities to adopt circular business models including to increase the use of recyclable and recycled inputs and to improve product reuse.

Investing in adjacent businesses

There may be opportunities to invest in businesses that are adjacent or aligned to our divisions, such as Officeworks' investment in Circonomy which supports circular business models.

Investing in new industries

There may be opportunities to invest in new industries that support a low-emissions economy. To support electrification and growth in electric vehicles, Wesfarmers has made significant investments in lithium production through the Covalent lithium project.



Wesfarmers' Covalent lithium project

The future demand for lithium is driven by a 100-fold increase in the adoption of electric vehicles. Electric vehicles powered by low-emissions electricity are the largest decarbonisation opportunity for land-based transport.

Covalent Lithium is a 50/50 joint venture between Wesfarmers and SQM. Together, Wesfarmers and SQM are investing over \$2 billion in the joint venture, which is expected to produce battery-quality lithium hydroxide in Australia in 2025.

Since the final investment decision was taken in 2021, Covalent Lithium has managed the construction of a mine and concentrator at Mt Holland, 400 kilometres east of Perth. When fully operational, the mine and concentrator are expected to produce approximately 380,000 tonnes of spodumene concentrate each year.

The bulk of the spodumene concentrate will be refined at an integrated refinery, being built at Kwinana, near WesCEF's existing operations. Construction of the refinery is continuing with first production of lithium hydroxide expected in the first half of calendar 2025. When fully operational, the refinery is expected to produce 50,000 tonnes of battery-grade lithium hydroxide each year which is enough to power one million electric vehicles.

In December 2022, the first lithium ore was mined at Mt Holland. This first ore was crushed in May 2023, and spodumene concentrate production is expected to commence late 2023, for sale in the 2024 financial year.

To capitalise on the high demand for lithium, Covalent Lithium is currently undertaking a feasibility study to double the production capacity at the Mt Holland mine and concentrator.

Partnerships in the transition

Partnering and collaborating with suppliers, customers, industry, governments and others will be essential to support the development of emissions reduction technologies, examine circular economy business models and reduce Scope 3 emissions across our value chains.

For WesCEF, partnerships will initially support the decarbonisation of its industrial processes, as emissions reductions from those processes will require new technologies to be deployed at scale.

For our other divisions partnerships will primarily support Scope 3 emissions reduction initiatives, as these emissions occur across complex global value chains.



WesCEF's partnerships and collaboration

By partnering and collaborating with organisations that face similar decarbonisation challenges and ambitions, WesCEF is helping to advance the development of solutions in difficult-to-abate, emission intensive operations.

In industry, WesCEF has partnered with Mitsui & Co. Ltd on carbon capture and storage and low-carbon ammonia, and with APA Group to assess the feasibility of transporting hydrogen along the southern portion of the Parmelia Gas Pipeline. WesCEF is also part of a consortium developing breakthrough green ammonia technology, led by Jupiter Ionics.

WesCEF sponsored CSIRO's CO₂ Utilisation Roadmap in 2021 and is a member of the Australian Industry Energy Transitions Initiative and the Australian Hydrogen Council.

These partnerships with industry, research organisations and governments are central to WesCEF's decarbonisation journey, helping to develop and test emerging technologies for commercial-scale adoption, in Phase 3 of its decarbonisation journey from 2030.

Risks and opportunities

Climate-related risks and opportunities are managed as part of the Wesfarmers Group Risk Management Framework. We recognise that the transition to a low-emissions economy presents both business risks and opportunities which support future growth.

The Group Risk Management Framework provides a consistent methodology for identifying, evaluating and managing material risks. It supports appropriate escalation and reporting processes for risks across the Group.

Climate-related risks are business risks and are included in our Group Risk Profile. Climate-related risks are addressed in the Group's risk appetite statements, which are regularly assessed to ensure accuracy and respond to changing circumstances. The Wesfarmers Audit and Risk Committee and Wesfarmers Board regularly review the Group Risk Profile and climate-related risks are updated at least annually. For further information on Wesfarmers' approach to risk management see page 94 of this annual report.

Acute and chronic physical risks

Under all three climate scenarios (see opposite), physical climate risks may directly impact our businesses, through damage to assets, infrastructure or supply chains in regions where we operate.

In recent years, our divisions, communities and team members have experienced the physical impacts of climate change, with increased frequency and intensity of extreme weather events such as floods, fire and storm surges. In certain locations, these events have disrupted store networks and supply chains, causing physical damage, including losses and infrastructure damage, along with indirect adverse impacts on team members and local communities.

Although impacts vary across geographic regions, the modelling generally shows that with every degree of warming, there will be a disproportionate change in magnitude, intensity and frequency of individual and concurrent extreme weather events. This could increase the frequency and intensity of physical impacts across our businesses.







Transitional risks and opportunities

We anticipate a range of transitional risks and opportunities, with the transition to a low-emission economy. Transitional risks stem from changes in policy, regulation, technology, reputation and markets, to enable, and as a result of the transition to a low-emissions economy. Our exposures depend on the speed of the transition, with aggressive mitigation (1.5°C) and current pledges (2°C), likely to have the most material transition risk impact on our businesses, as a result of more rapid shifts in policy, regulation, technology, reputation and markets.

Across the Group, our exposure to transitional risks will be uneven. For our industrial businesses (WesCEF and Coregas), changes to policy, regulation, markets and customer expectations, and emerging technologies may significantly impact our operations. For our retailers, transition risks include policy and regulatory change regarding products, impacts in upstream (including raw materials) suppliers and shifting stakeholder perceptions.

Our industrial businesses have opportunities to invest in emerging and future industries, such as hydrogen, low-emissions ammonia and lithium. For our retailers, opportunities include circular business models and products with enhanced sustainability attributes.

Physical risks under 1.5°C, 2°C and 4°C climate scenarios¹

	1.5°C 2°C 4°C	Extreme heat (by 2030) Between 7 and 10 additional hot days over 35°C across northern Australia
	1.5°C 2°C 4°C	Droughts and long-term rainfall deficits (by 2030) 2.8% to 4.3% longer dry spells across Victoria and New South Wales
	4°C	Bushfires (by 2030) for Approximately 7 additional severe fire weather days in Queensland, New South Wales and Victoria
	1.5°C 2°C 4°C	Floods (by 2030) 7.0% to 10.7% increase in extreme rain days and between 3.1% and 4.0% increase in extreme rain intensity across southern Australia
	2°C 4°C	Storm surge (by 2050) 1-in-100-year present day storm surge (up to 2m) occurring every year in key ports servicing our supply chain in Indonesia, Malaysia and Sri Lanka
	4°C	Cyclones (by 2050) More intense category 5 cyclones in the North Atlantic (+11.3%), North-East Pacific (+22.6 per cent) and North and South Indian Oceans (+4.5 to +5.3 %)

Scenario analysis

Every two years, we use scenario analysis to evaluate and respond to physical and transitional climate risks and opportunities across our operations and value chains. We use climate scenario analysis to assess resilience under different future global warming scenarios.

In early 2022, we assessed our exposure under three warming scenarios (1.5°C, 2°C and 4°C) and across two time horizons (2030 and 2050). These climate scenarios represent, respectively, three corresponding pathways of global climate action (aggressive mitigation, current pledges, and no climate action).

¹ IPCC AR6, World Climate Research Programme Coupled Model Intercomparison Project (Phase 6), Voudoukas et al. (2018), NASA Earth Data Knutson et al. (2020) and Copernicus Fire Weather Index Abatzoglou et al. (2019).

Acute and chronic physical risks

Description and impact	Response and potential mitigation strategies
Damage to physical assets and store network disruption	
Scenario: 2°C and 4°C Time horizon: Current to short (1 to 5 years) Financial impact: Direct costs	
<p>Wesfarmers is exposed to increased risk from extreme wet conditions including more frequent and intense flooding, storm surge and more tropical cyclones, especially across northern and eastern Australia and New Zealand.</p> <p>Increased intensity and frequency of extreme wet conditions may disrupt and damage our physical assets and store networks.</p> <p>A rise in the frequency of hot days (over 35°C) and drought, particularly in 2°C and 4°C scenarios, may impact the reliability and performance of our assets, reducing efficiency and increasing operational costs, and may impact sales in certain businesses (including CSBP Fertilisers).</p> <p>Climate-related claims may lead to increased insurance premiums for certain locations.</p>	<ul style="list-style-type: none"> - Redesign or retrofit stores and warehouses to adapt to increasing extreme weather conditions. Our divisions give careful consideration to store locations for new stores and for store renewals. - Invest in measures to maintain adequate comfort for team members and customers. - Invest in omnichannel capabilities, to meet customer needs if our physical store network is disrupted. - Ensure that we undertake a detailed assessment of our approach to insurance taking into account potential climate impacts in our risk assessments.
Acute weather events may disrupt Wesfarmers' supply chain	
Scenario: 2°C and 4°C Time horizon: Short (1 to 5 years) to medium (5 to 15 years) Financial impact: Direct and indirect costs	
<p>Wesfarmers' divisions and supply chains could be exposed to increased hot days (over 35°C) across most of Australia. Relevant regions that are most vulnerable to severe dry spells (approximately 100 days) and frequent hot days are WA (in Australia), India, the Middle East, the Mediterranean and Pakistan (internationally).</p> <p>Flooding, storm surge and cyclone events may result in disruptions to our freight networks and supply chains, due to flooding, coastal inundation from storm surges and tropical cyclones affecting port, road and rail operations. These could result in transport delays and supply chain bottlenecks.</p> <p>Longer and more intense dry spells or wet weather events can affect the quality and yield of raw materials in our supply chains (especially impacting our retail businesses). For WesCEF and Coregas, this may also impact the demand for their products.</p>	<ul style="list-style-type: none"> - Diversify supplier base and geographic sourcing regions. - Hold additional inventory to help buffer delays from disruption. - For Bunnings, Kmart Group and Officeworks, deploy strategies to reduce dependence on virgin raw materials, with greater use of recycled raw materials and by reducing reliance on raw materials that are more likely to be impacted by climate change. - For WesCEF, it may be important to identify alternative markets which are less impacted by the physical impacts of climate change (for products like fertilisers). - Collaborate and build partnerships (within supply chains) to help suppliers build their own climate resilience.
Impacts on the health, safety and wellbeing of team members and the communities in which we operate	
Scenario: 2°C and 4°C Time horizon: Medium (5 to 15 years) Financial impact: Direct and indirect costs	
<p>As a very large employer, the physical and psychological health, safety and wellbeing of our team members is a critical business issue.</p> <p>Environmental hazards such as heat stress and related illnesses, and poor air quality and flooding may impact team members' wellbeing, productivity and business performance.</p> <p>Our suppliers, customers and local communities may also be impacted by environmental hazards.</p>	<ul style="list-style-type: none"> - Continue to invest in energy management systems to support team member and customer comfort. - Continue to improve the design of our stores and other facilities including their energy efficiency. - Adapt shift hours, introduce additional breaks, implement further automation and adopt other measures to help manage heat stress at our distribution centres and manufacturing facilities. - Assess new store locations and designs, taking into account future climate scenarios.

Transitional risks and opportunities

Description and impact	Response and potential mitigation strategies
Changing preferences of customers	
Scenario: 2°C and 4°C Time horizon: Medium (5 to 15 years)	Financial impact: Direct costs
<p>Changing customer preferences and expectations may impact existing product ranges as customers favour lower-emissions, circular, locally sourced and more sustainable alternatives.</p> <p>For some products and market segments, customers may be unwilling to pay higher prices for these features.</p> <p>OPPORTUNITY – Leverage our scale and expertise to respond to emerging customer needs, by leading the development and offering of more sustainable, low-emissions products.</p>	<ul style="list-style-type: none"> - Adjust product and service ranges to reflect emerging customer needs and offer more sustainable products and services. - Explore new markets and investment opportunities that support a low-emissions economy such as low-emissions hydrogen, ammonia and lithium. - Seek partnerships and invest in new technologies that accelerate the transition to a low-emissions economy.
Carbon policies and pricing impact our competitiveness	
Scenario: 1.5°C and 2°C Time horizon: Short (1 to 5 years)	Financial impact: Direct and indirect costs
<p>Policies and strategies which accelerate decarbonisation may add to manufacturing cost. Access to some products may also be limited as regulations may impact on their availability or the availability of certain raw materials.</p> <p>This risk extends to our value chains as products with high emissions footprints or long transport distances may become more expensive, impacting margins.</p> <p>If imports are not subject to similar policies, these policies may disproportionately impact our competitiveness.</p>	<ul style="list-style-type: none"> - Implement an internal shadow carbon price on investments which attaches a cost to emissions, in the absence of regulatory pricing. - Adopt emissions reduction and net zero targets, consistent with the Climate Policy. Depending on timeframes, this action may mitigate possible future exposure to direct carbon pricing. - Advocate and engage with policymakers to support policies which maintain our competitiveness against imports. - Diversify our supplier base and our geographic sourcing regions to manage our exposures.
Stranded assets in the global transition to a low-emissions economy	
Scenario: 1.5°C and 2°C Time horizon: Long (15+ years)	Financial impact: Indirect costs
<p>Emissions intensive operations may be at risk of becoming stranded or obsolete, if they are not able to cost-effectively transition or decarbonise, as policies and regulations change to accelerate the transition to a low-emissions economy. Certain existing technologies may also become less competitive.</p> <p>The development of emerging solutions such as CCUS may be difficult or face challenges or take time (including to overcome regulatory issues or provide access to pipelines), potentially delaying their deployment further exacerbating these risks.</p> <p>OPPORTUNITY – Partner and invest in emerging markets for low-emissions ammonia and hydrogen and lithium, leveraging our expertise to support the global transition to a low-emissions economy.</p>	<ul style="list-style-type: none"> - Collaborate with partners to repurpose existing assets, to support emerging solutions such as CCUS. - Investigate the introduction of low-emissions hydrogen and ammonia into WesCEF's existing production processes. - Explore new investment opportunities aligned with new products, markets and industries aligned with the transition to a low-emissions economy. - Continue to progress to achieve net zero targets and apply our internal shadow carbon price on all new capital expenditures to mitigate potential exposures.
Erosion of our reputation	
Scenario: 1.5°C and 2°C Time horizon: Short (1 to 5 years) to medium (5 to 15 years)	Financial impact: Direct and indirect costs
<p>There may be a risk of negative and unfavourable impacts on our reputation due to our exposure to emissions intensive or hard-to-abate businesses or fossil fuel consumption, with increasing scrutiny for greater action at greater pace.</p> <p>OPPORTUNITY – Invest for the future in low-emissions technologies, and resources for the energy transition.</p>	<ul style="list-style-type: none"> - Set emissions reduction and net zero targets to decarbonise our operations and assess our impact and ability to influence our value chains. - Regularly disclose our performance with best practice standards and frameworks to provide our stakeholders with consistent, comparable and transparent information on our climate-related issues. - Proactively leverage our expertise, and financial capability to partner, and invest for the future in low-emissions technologies, solutions and resources.