



TCFD Report 2020

TASKFORCE ON
CLIMATE-RELATED
FINANCIAL DISCLOSURES
REPORT

Our response to climate change

In this report we address the key topics recommended by the Task Force on Climate-related Financial Disclosures (TCFD). These are: strategy, governance, risk management and the metrics and targets we use to measure and manage our climate performance.

The impact of climate change

The biggest direct impact of global warming on Australian Ethical's business is its effect on our investment portfolios. The prospects and value of the businesses we invest in are exposed to risks and opportunities flowing from the many effects of climate change.

Physical impacts like sea level rise and extreme weather are already changing where and how buildings and infrastructure can be safely built. Increased flood and fire risk affects insurance costs, and whether property is insurable at all. Changes in temperature and rainfall are affecting the productivity and viability of different types of agriculture.

Government climate policy action and inaction can radically alter the prospects of companies' products and technologies. A price on carbon and higher clean air standards will favour renewables over fossil fuels. Tougher emissions restrictions on new vehicles will help hybrid and electric over conventional vehicles.

Consumer climate action also affects business values when consumption choices favour businesses helping to reduce greenhouse gas emissions and shun big contributors to global warming.

We've summarised the timing of key climate impacts in the table below. Although some more severe consequences of climate change may arise only in the longer term, the regulatory and consumer action taken in the short term can accelerate both positive and negative impacts on the value of investments.

Beyond more immediate impacts on more climate exposed industries like energy and agriculture, climate change has flow-on effects across the economy. With strong, well planned climate action, the growing availability of cheap and decentralised clean energy will invigorate many existing industries and enable new ones. But if we are slow to act, growing inequality and the displacement of people from areas hardest hit by the physical and economic effects of climate change will cause widespread social and economic disruption.

Timing of climate impacts

Short-term 0-3 years	Nearer term physical impacts of temperature increase such as more extreme weather, fires, drought and flooding; and flow-on effects on climate sensitive sectors such as agriculture. Changes in customer demand due to evolving expectations for climate action by business. Changing government energy and climate policies and regulation such as tougher emissions standards and carbon pricing.
Medium-term 3-10 years	In addition: Progressive physical impacts of temperature increase such as increases in sea level, and consequential technological, supply chain and other business and social disruption, including impacts on human health and well-being. Growing pressure on threatened species. Disruption of global trade from international disagreements about climate action and inaction; and from changing patterns of production and demand and growth.

Long-term	In addition:
10-100+ years	Social, political and economic disorder from climate harm suffered by people (including their displacement) and from increased inequality because different groups and countries suffer more harm than others. Disrupting effect of potential and actual conflict between countries.

The importance of a 1.5 °C limit on warming

The [2018 report](#) of the Intergovernmental Panel on Climate Change (IPCC) made it clear that every bit of warming matters as we move beyond the current level of temperature increase (1°C above pre-industrial levels). Up to 90% of coral reefs will disappear by 1.5 °C, and over 99% will be gone at 2 °C. Warming beyond 1.5°C increases the risk of irreversible changes, whereas the changes which keep warming under 1.5°C will deliver a more sustainable and equitable society.

Our strategic investment response to climate

Our [Ethical Charter](#) applies to all our investment strategies and products. It requires us to assess short, medium- and long-term impacts on people, animals and the environment. This guides us to invest in a way which minimises dangerous climate change. We aim to drive change in three main ways:

1. our investment choices
2. our advocacy and engagement on climate action and policy, and
3. reducing and offsetting our own operational emissions

Key features of our approach related to climate risk and opportunity are:

Investment screening

Investors can help limit global warming if they only choose companies with strategies aligned with limiting warming to below 1.5 °C. By shifting capital from fossil fuels to renewables, investors help to bring down the price of renewable energy, they encourage investment in more flexible electricity grids and energy storage, and they contribute constructively to a sensible public discussion about energy policy. These investors, particularly universal investors like super funds, are also acting in the financial interests of their customers, because we believe that sustainable, risk-adjusted returns will be better in a low-warming world than a high-warming one.

In our day-to-day investing, climate change is the top factor we consider when applying our Ethical Charter to companies because of its wide-ranging implications for people, animals and the planet. We don't invest in companies assessed to be obstructing the objectives of the Paris climate agreement to limit global warming to well below 2°C and to pursue a limit of 1.5°C. The way this test is applied depends on the company and its sector. For example:

Energy: We seek out investment in clean energy solutions like energy efficiency, renewable energy and energy storage. Current investment include wind, solar, hydro and geothermal energy, battery storage, LED lighting, insulation, and clean energy technology start-ups (though the Artesian Clean Energy Seed Fund). We don't invest in oil, gas or coal companies, but we will invest in a transition company like Contact Energy which in the last financial year generated 83% of its electricity from hydro and geothermal renewables. Contact has invested to grow its geothermal capacity to reduce the need to fall back on gas when low rainfall reduces hydro-power generation.

Financial services: We expect large banks to align their business lending activities with the objectives of the Paris Climate Agreement. To assess this alignment, we look at:

- bank lending to the fossil fuel and energy sector, including emissions-related lending restrictions

- bank lending to renewable energy, energy storage and activities which reduce energy usage or store carbon (e.g. green buildings, low-emissions transport and reforestation)
- bank support for green financing by others, for example by arranging the issue of green bonds
- bank support for (or obstruction of) government climate policy aligned with the Paris Agreement.

We also assess the alignment of other large financial institutions to the objectives of the Paris Climate Agreement. This year we divested from Marsh & McLennan after they provided services for the Adani Carmichael mine and they refused to rule out providing advice for similar projects in the future.

Food sector: We avoid investment in current systems of commercial animal agriculture including meat, dairy, eggs and seafood. We focus on investment in lower emissions plant-based protein and nutrition. A key consideration is the higher emissions of animal protein compared to plant-based protein. The World Resources Institute assesses that “beef requires 20 times more land and emits 20 times more greenhouse gas emissions per gram of edible protein than common plant proteins, such as beans”. Through the Morrison & Co Growth Infrastructure Fund, we invest in the groundbreaking Sundrop Farms greenhouse tomato. Sundrop grows 17,000 tonnes of truss tomatoes a year in arid conditions in South Australia, supplying over 15% of Australia’s tomatoes. The facility uses sea water which is desalinated with power from a concentrated solar power tower system.

Transport sector: We avoid investment in conventional cars and trucks and in air travel because of their high emissions intensity compared to rail, ships and buses and other forms of public transport. While we’ll invest in low emissions transport like rail, we may also exclude businesses for climate considerations. We don’t invest in Australian Rail Track Corporation (ARTC) and Aurizon because of their considerable fossil fuel freight revenue and network expansion to service new fossil fuel infrastructure.

Real estate sector: We will not invest in general purpose residential, office or commercial property portfolios where they demonstrate below average environmental sustainability, with energy efficiency being a key factor.

Retailing sector: We avoid investment in retailers which fail to demonstrate credible action to manage negative impacts on people, animals and the environment in (1) the products they make available (2) their sales and marketing, and (3) their supply chain.

Mining sector: Minerals will only be assessed as positive under our Ethical Charter if they are ‘1.5°C aligned’ i.e. the continued extraction and use of the mineral is aligned with the transition to a world which limits warming to 1.5°C. Our current mining investments are limited to lithium mining.

Across sectors: Companies in any sector may be excluded for obstructing the Paris agreement objectives where they are assessed to be obstructing informed climate policy debate; they specialise in servicing the fossil fuel sector; or they show general disregard for energy efficiency in their operations where they are involved in production of emissions intensive products and services.

For example, we previously invested in Darling Ingredients for its production of biofuels, its manufacture of some sustainable food ingredients, and its transformation of inedible by-products of the meat industry into usable ingredients and so reducing methane emissions by diverting them from landfill. We divested from the company this year because of its support for animal agriculture through its animal feed and food processing business. We do not invest in animal agriculture because of the higher emissions and environmental footprint of animal-based nutrition over plant based nutrition; the animal welfare harms of commercial animal agriculture; and the suitability of plant based diets for the nutritional needs of most people. We were particularly concerned that Darling Ingredients has published misleading information suggesting that meat consumption is not contributing to global warming, including seeking to discredit the [2019 EAT-Lancet report](#) about the warming implications of different diets.

Influencing companies

We engage with companies to influence better management of the climate impacts of the way the company's products and services are produced, supplied, consumed and disposed of. We encourage better measurement and reporting of direct and indirect greenhouse gas emissions; emissions reduction target setting; and analysis of the resilience of the company's business strategy to different climate scenarios. We aim to reduce companies' contribution to global warming as well as reducing climate-related harm to their business prospects. Through engagement we also build our own understanding of climate-related risk.

We exercise our influence through private engagement, voting at company meetings, public praise or criticism, shareholder resolutions and divestment.

The most effective climate response requires strong action by all of government, business and citizens. We therefore scrutinise lobbying or other action by companies which undermines sensible public climate policy. Sadly, many companies and their industry associations have encouraged climate disinformation and made political donations which have helped to derail constructive climate debate and policy. To combat this, we again this year supported shareholder resolutions calling for greater transparency about corporate climate change positions. We continue to focus on areas where a company is a member of an industry association which lobbies for policy which contradicts the member company's own stated position.

This year we co-filed a second climate shareholder resolution arranged by Market Forces for insurer QBE. We called on QBE to phase out oil and gas exposure in its underwriting and investment activities, a logical extension of its commitment to eliminate thermal coal after we co-filed a similar resolution last year. At QBE's annual general meeting we pressed the board on whether the company will include specific climate criteria for new oil and gas projects.

Further details of our company climate engagement and advocacy are included in our engagement reporting [here](#).

Investment industry influence

By sharing experience of investment climate opportunities and challenges we learn from other investors and encourage broader investor support for strong climate action. We are active participants in the climate focussed work of the Investor Group on Climate Change and Responsible Investment Association of Australasia.

We also participate in the work of FAIRR, a global network of investors focussed on sustainable food and representing \$20.3 trillion in assets under management. This year FAIRR has been engaging with some of the largest purchasers of beef about deforestation in Australian beef supply chains and the need for a transition toward more sustainable plant-based proteins. We supported letters coordinated by FAIRR to Chipotle, Domino's, McDonald's, Restaurant Brands International, Wendy's and Yum! Brands calling on the companies to do more to address environmental impacts in their meat and dairy supply chains. We participated in a FAIRR panel discussion to help raise investor awareness of the many sustainability challenges facing sustainable food production and consumption.

Public climate voice and policy advocacy

Investment decisions affect cost of capital, but often the most powerful impact of ethical and responsible investing is the public praise and disapproval associated with decisions to invest in sustainable businesses and to divest from or criticise unsustainable ones. The balanced voice of long-term investors is needed alongside voices of business and civil society (which are often more narrowly focussed). It can inform and influence government and business directly, and it can inform and influence citizens and consumers who hold government and business to account.

Through policy submissions, consultation with government and our public voice we aim to encourage more effective climate policy, including better energy policy, carbon pricing and corporate climate disclosure. Australian Ethical communicates continuously with a variety of

audiences about climate, including calls for climate action in mainstream and social media, as well as more technical perspectives in finance industry media and public policy submissions to government. Our message is consistent though tailored. For non-specialists we develop clear and engaging content with a call to action. Our [Good Money magazine and blog](#) includes a strong climate focus, with coverage this year including deforestation in Australia and the Amazon.

We made a submission to this year's review of Australia's federal environmental and biodiversity protection laws. We called for much clearer recognition of the national environmental significance of climate change and land clearing.

Further details of our government policy submissions and engagement are [here](#).

Investment portfolio management

Our assessment of investment opportunity and risk is informed by our ethical assessment of the climate impacts of companies and industry sectors and the way their products and services are produced, supplied, consumed and disposed of. This feeds into our buy, sell and portfolio management decisions. For example, company prospects and valuations in the energy sector are affected by our assessment of the future regulatory environment for the sector.

Targets

In 2014 we set a target for our investments of net zero emissions by 2050, which is aligned with reduction needed to achieve a 1.5°C warming limit. In 2015 we committed to define a trajectory for emissions reduction aligned with the Paris Agreement, to be verified by the Science Based Targets initiative (SBTi). We expect the SBTi science-based methodology for investor portfolios to be finalised this year, which will allow us to apply that methodology to assess nearer term 1.5°C aligned targets for our investments, including an earlier net zero target.

Measurement, transparency, accountability

We measure and report annually on our climate performance, including the emissions intensity of our share investments (carbon footprinting), our operational carbon footprint, the extent of our investment in renewables, and the alignment of share investments in the power sector with the changes needed to limit warming in accordance with the Paris Climate Agreement. This helps us test the effectiveness of the application of our Ethical Charter to manage climate risk and opportunity, as well as our progress towards our net zero emissions target for our investments. The latest results are included in this report.

We do not currently model the impact of different emissions and temperature increase scenarios on the value of our investment portfolios. Our ethical investment approach recognises the power which investors have to help positively shape the future. By shifting capital from fossil fuels to renewables, investors help to bring down the price of renewable energy and encourage investment in more flexible electricity grids and energy storage. They are also acting in the financial interests of their clients because we believe that risk-adjusted returns will be better in a low-warming world than a high-warming one.

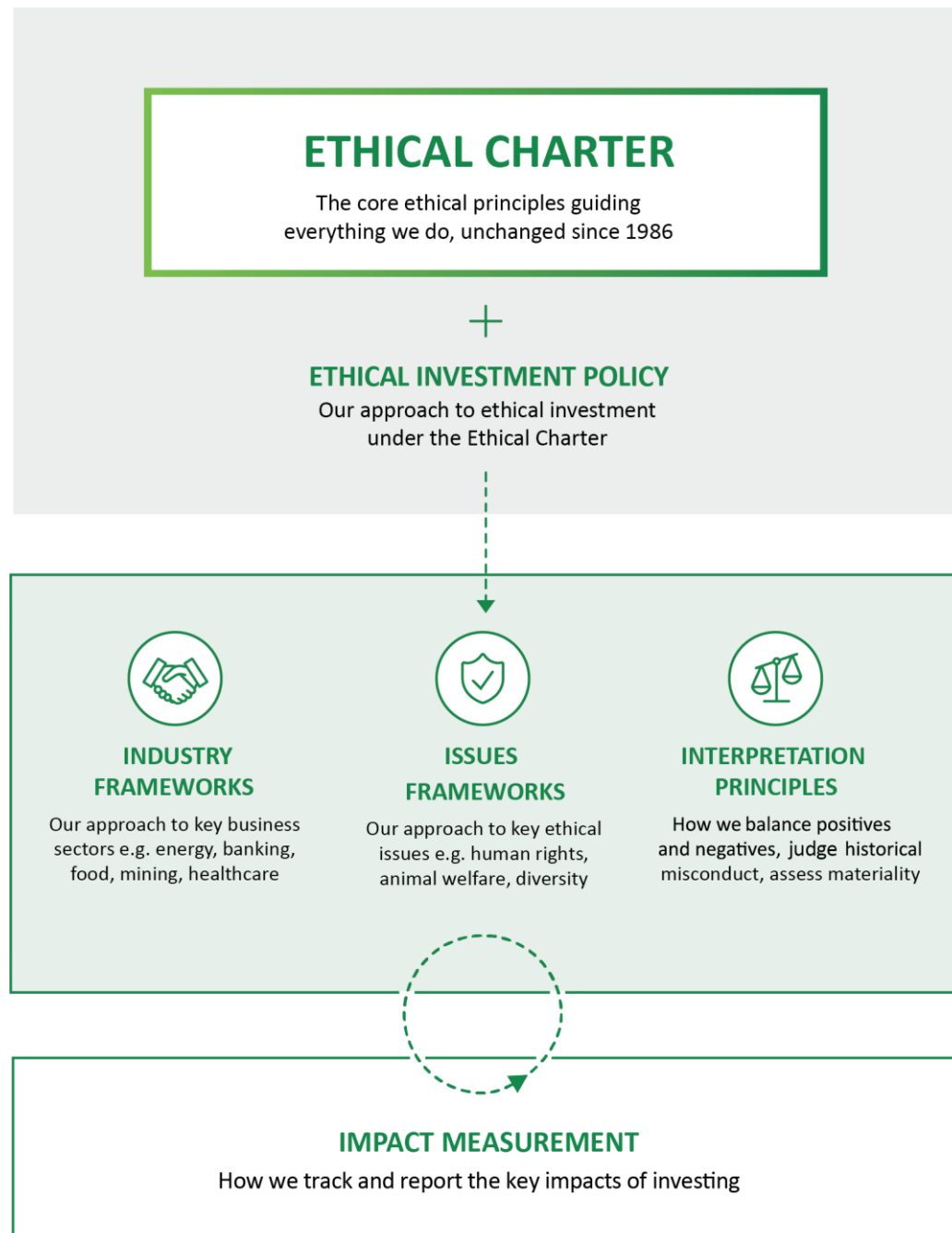
Governing climate-related decision making

Our approach to ethical investment is governed by our [Ethical Charter](#). The Charter principles are applied using our ethical frameworks, policies and measurement systems. These require detailed assessment of the impacts of climate change on people, animals and the environment, which in turn affects the way we invest including through negative and positive screening, engagement and advocacy, and climate performance measurement and reporting.

Our Chief Investment Officer and Head of Ethics Research are responsible for implementation of our Ethical Charter across our investment activities. They approve new and updated ethical frameworks, which include our climate-related ethical screening criteria for emissions intensive sectors. The

Board of directors has oversight of our ethical frameworks, with quarterly reporting to the Board of changes to frameworks and critical ethical issues.

Working with the investment team, our ethics research team applies our Ethical Charter on a day to day basis in our investment activities. The ethics team monitors existing and emerging ethical risks (including climate-related risks) using diverse company, industry, government, responsible investment, scientific, civil society and news sources.



Climate risk management

We identify, assess and manage material climate-related investment risks through our ethical investment process. For example, our investment screening and company engagement guides us to sectors and companies which are aligning their businesses with the transition needed to limit global warming to 1.5°C. These companies are better positioned to manage many climate-related risks, such as the risk of introduction or increase in carbon pricing. However, the effects of climate change will be felt across the economy and society. Higher global warming threatens to disrupt trade and financial markets and carries significant risk of loss to all investment portfolios.

Our ethics research team monitors existing and emerging climate-related risks using diverse information sources. The team monitors developments in scientific understanding of the rate and impacts of global warming; in domestic and international climate policy and regulation; and in technological innovation in climate mitigation and adaptation.

The ethics team assesses whether these developments require review of our existing ethical assessments of companies and industry sectors, including our company engagement priorities. As an example of this process, our periodic ethical review of a carbon intensive sector like the energy sector takes into account changes in renewable energy and energy efficiency and storage technologies and their social and environmental impacts; changes in levels of atmospheric carbon; changes in scientific understanding of the pace, extent and impacts of global warming; changes in energy infrastructure such as the grid; and changes in energy market supply and demand. Consequential changes to our ethical framework for the energy sector and engagement objectives are prepared by the ethics research team and reviewed and approved by the Chief Investment Officer and Head of Ethics Research. These changes may include additional investment exclusions or inclusions (e.g. a change in our screening of biofuels), or a change in our engagement and advocacy objectives and priorities for companies in the sector. The changes to our energy sector framework may then have flow on effects to other frameworks (e.g. to the way we assess the alignment of banks' lending with the Paris Agreement under our banking framework).

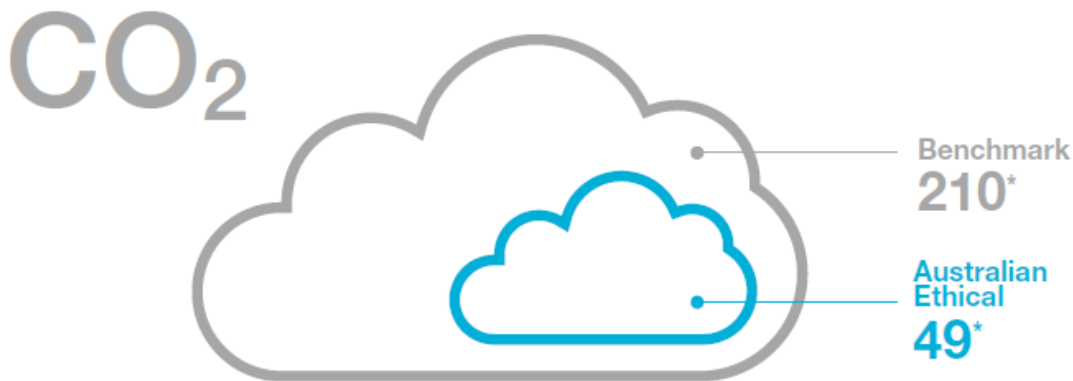
The current focus of our ethical screening and engagement is the need to reduce emissions to limit dangerous climate change (mitigation of climate change). It is also crucial that companies have business models, strategies and assets which are adaptable and resilient to the physical impacts of current and future climate change. We report next:

- The carbon footprinting and power generation metrics which help us test the effectiveness of our management of the mitigation dimension of climate risk and opportunity.
- The action being taken by our real estate and infrastructure managers to address climate physical risks and opportunities.

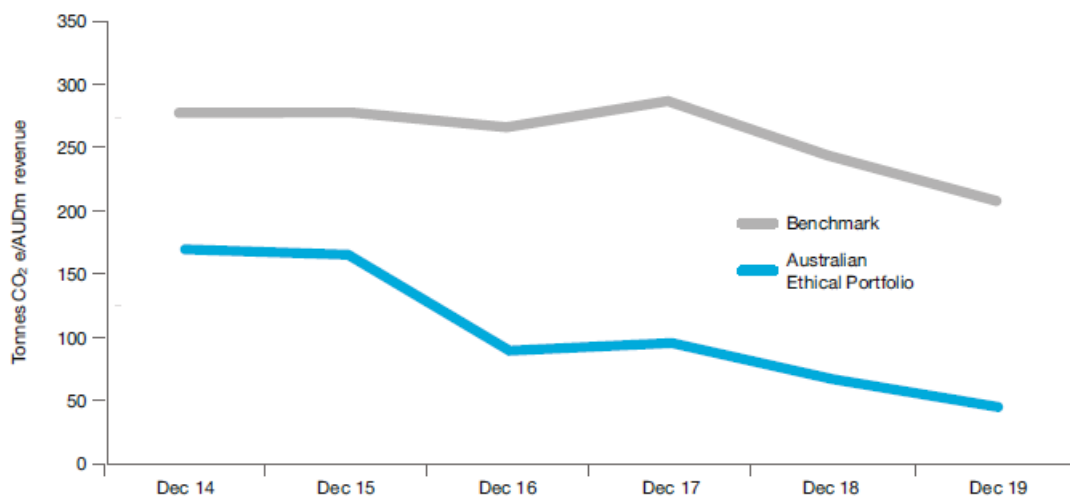
We have asked KPMG to provide limited assurance over key sustainability disclosures in our TCFD reporting. KPMG's assurance opinion is available [here](#).

The carbon footprint of our investments

The carbon footprint of our investments is one way to check the effectiveness of our ethical investment approach to manage climate risk and to support the transition to a net zero-emissions economy and society. The carbon footprint of our share investments (tonnes CO₂e/A\$m revenue) reduced again this year and is now just 25% of the share market benchmark i.e. 75% lower than the market. The emissions intensity of our share investments reduced by 30%, and the benchmark by 15%, translating into the further improvement in our relative intensity compared to the market.



We assess the carbon footprint of our share investments based on the carbon intensity of the companies we invest in (tonnes CO₂e/A\$m revenue). This is calculated from direct and some indirect emissions (Scope 1 & 2 emissions) of the companies relative to their revenue. (*[Assured by KPMG](#)).



This chart shows the carbon intensity of our share investments as at the end of each calendar year compared to the Benchmark. The Benchmark is a blended benchmark of the S&P ASX 200 Index (for Australian and New Zealand share holdings) and MSCI World ex Australia Index (for international fund share holdings).

Why is our carbon footprint low?

A range of factors contribute to our lower carbon footprint. We have lower investment in high emissions industry sectors such as mining and traditional energy, and higher investment in lower emission sectors such as information technology (IT) and communications.

We do also have higher investment in the high emissions 'Utilities' sector. But because our utilities investments include lower carbon renewables companies like Infigen Energy and Meridian Energy, our overall investment in this sector lowers our footprint compared to the benchmark.

Fossil fuel reserves

Carbon footprinting doesn't capture all important climate risks. Fossil fuel reserves aren't included while they remain in the ground, but they will frustrate all efforts to limit global warming if they are extracted and burned. To supplement our carbon footprint comparison, the following table shows how our zero investment in fossil fuel reserves compares to the share market benchmark.

Fossil fuel reserves per A\$1 million invested

	Our share investments	Share market benchmark
Thermal coal reserves	Zero	2,650 tonnes
Gas reserves	Zero	2,000 barrels of oil equiv.
Oil reserves	Zero	1,130 barrels of oil equiv.
Potential emissions from fossil fuel reserves	Zero	6,000 tonnes CO2 equiv.
From thermal coal, oil sands, shale oil and shale gas	Zero	4,830 tonnes CO2 equiv.

Who are the largest emitters in our portfolios?

Even for low carbon portfolios like ours, analysing our investment carbon footprint is important to check the ethical rationale for our investment in any higher emissions companies. The table below lists our ten most carbon intensive companies and why we still invest in them under our Ethical Charter, even though they are involved in energy intensive activities such as managing waste and operating data centres.

Company	Sector	Country	Carbon Intensity*	Positive under Ethical Charter
Pilbara Minerals Limited	Materials	Australia	3,746	Lithium for lithium ion batteries for electric vehicles and storage
Covanta Holding Corp	Industrials	USA	2,330	Waste treatment, recycling and disposal, including energy generation from waste incineration
Orocobre Limited	Materials	Australia	1,691	Lithium for lithium ion batteries for electric vehicles and storage
NextDC Limited	Info Tech	Australia	1,577	IT servers and data centre infrastructure. They are energy hungry but overall help efficient use of resources.
Ausnet Services Limited	Utilities	Australia	1,262	Electricity network infrastructure needed for the transition to 100% renewables. They are emissions intensive because of the energy lost (as heat) when electricity passes through the networks.

Spark Infrastructure	Utilities	Australia	1,112	Water and waste management and treatment
Veolia Environment SA	Utilities	France	1,032	Water and waste management and treatment
Digital Realty Trust, Inc.	Real Estate	USA	781	Data centres
Contact Energy Limited	Utilities	New Zealand	600	Renewable electricity (hydro and geothermal)
Owens Corning	Industrial	USA	587	Insulation and other building materials

*t CO₂e / A\$m revenue

Carbon footprinting methods and limitations

Company carbon data often includes estimates and errors, and so footprint calculations need to be used with caution. There are also different measurement methodologies, and different carbon metrics which can be used to assess carbon footprint, each with different strengths and weaknesses. There is more information in the [Supplementary Information](#) at the end of this report, and also [here](#).

Our renewables investment for a zero emissions world

We monitor our investment in renewable power generation and our contribution to the massive global shift to renewables required to limit warming to 1.5°C. Our analysis this year showed that our share investment in renewable power generation is proportionately about 5 times that of the global share market.

We also look at how quickly the renewable generation companies we invest in are growing their renewables capacity compared to future emissions reduction scenarios. In the past two years the projected increase in solar, wind, geothermal and hydro generation was aligned with the two most ambitious International Energy Association scenarios. However, this year the analysis showed no renewables capacity growth looking out over the next five years. There are many factors which affect company decisions about when and where to invest in new power generation. Government climate policy is critical, with renewables investment in Australia constrained by continuing government failure to implement a carbon pricing mechanism to reduce the uncertainty companies face when making longer term investment decisions. Expected energy demand is also important and influenced by things like increasing energy efficiency and fluctuating economic conditions.

Contact Energy has been investigating development of a new Tauhara geothermal power station which it has assessed as New Zealand's best option for new, renewable, baseload electricity generation. However, after significant investment in appraisal and preparation, the company 'paused' the \$550 million project because of the planned closure of an aluminium smelter which will significantly reduce nearer term energy demand.

How we measure this

We used analytic tools from the European 2° Investing Initiative ('2ii') for this review of our renewable power generation investment, applying the tools to our share investments as at the end of 2019. The emissions reduction scenarios used were the [International Energy Agency \(IEA\) Sustainable Development Scenario \(SDS\)](#) and the more ambitious [Beyond 2 degrees Scenario \(B2DS\)](#).

The SDS is a scenario of transformation of the global energy system to achieve three key objectives: to limit global warming to well below 2°C; to provide universal access to modern energy by 2030; and to dramatically reduce premature deaths from air pollution. The B2DS is a more aggressive energy emissions reduction scenario to limit future temperature increases to 1.75°C by 2100. We

look forward to testing our investments against the 1.5°C scenario currently under development by the IEA.

The resilience of our real estate and infrastructure investment

Real estate and infrastructure are exposed to a variety of risks associated with the physical impacts of different levels of global warming. Greater extremes of heat and cold raise operating costs and in some cases will threaten operational viability. Increased frequency and severity of wind, fire, storms and flooding mean many assets will suffer significant damage more often, increasing repair costs and the need for additional investment to protect them. In most cases harm to property will be accompanied by higher probability of harm to people and animals, raising the importance of action and investment to safeguard against that harm. Where the likelihood of harm and cost of protection becomes too great, some buildings and infrastructure will no longer be capable of fulfilling their original function. And some of these will become liabilities rather than assets, with owners required to dismantle or decommission them.

Insurance may provide some short-term protection, but insurance costs will continue to increase. In some cases, risks will be so extreme that insurance will become unaffordable, or simply not available at any price.

Property investors face various challenges in assessing the physical climate risks of their portfolios. These risks, and the options for managing them, vary significantly across different types of buildings and infrastructure and the function and location of those assets. For example, the impact of temperature extremes and weather will differ markedly between residential and industrial property, and between different regions. Even while extreme cold events will reduce in most places, they will increase in some locations.

It is positive to see some datasets and tools becoming available which use asset-level data to provide insight into risk exposures across multiple properties, regions, climate scenarios and time frames. We intend to investigate these either for our own use or for use by the external managers of our real estate and infrastructure investments. We rely heavily on the management of climate-related risks by these managers and describe some of their specific work on resilience below.

Healthcare Wholesale Property Fund (HWPF)

HWPF invests in healthcare property, with assets including the Calvary Adelaide Hospital and the North Shore Health Hub in Sydney (under construction). Our investment in HWPF, managed by Dexus, represents about 2% of Australian Ethical's assets under management.

Dexus describes their climate change strategy in their 2020 [Toward Climate Resilience report](#). Their transactional due diligence considers climate-related impacts like increased flood and sea level rise risk over future decades. They look for opportunities to both promote the resilience of their property portfolio and to unlock value through enhancement of sustainability performance. Dexus identifies portfolio "hotspots" for physical climate impacts, including storms, heatwaves and rainfall, and engages with site operations teams about property-level vulnerability to climate risks and hazards. Responses include property-level adaptation plans; expanded heating, ventilation and air conditioning design parameters for greater and more frequent temperature extremes; business continuity enhancements; and climate-related Work Health and Safety risk management.

Investa Commercial Property Fund (ICPF)

ICPF invests primarily in Sydney and Melbourne office property and has a 5-star GRESB sustainability rating (Global Real Estate Sustainability Benchmark). Our investment in ICPF represents about 3% of Australian Ethical's assets under management.

Over 2018 and 2019 Investa collaborated with twenty institutional investors from eleven countries to evaluate and test methodologies for scenario-based analysis of their portfolios in line with the TCFD recommendations. Three climate scenarios of 1.5, 2 and 3°C of temperature rise were analysed, and demonstrated the contribution of Investa's carbon reduction targets and performance to help respond not only to the rising cost of emitting carbon and stricter building codes, but also to growth in the energy needed to cope with rising temperatures and temperature extremes. The analysis only represents a starting point, with Investa committed to enhancing its analysis of specific physical impacts such as increased river flooding. Further details of Investa's analysis are reported [here](#).

Morrison & Co Growth Infrastructure Fund (MGIF)

MGIF invests in unlisted infrastructure with a growth and sustainability approach. We were a foundation investor along with the Clean Energy Finance Corporation (CEFC), and our investment represents about 0.25% of Australian Ethical's assets under management.

MGIF's initial investments include the Sundrop tomato farm and Flow Systems water treatment and energy business. This year Morrison & Co have prepared a GRESB infrastructure sustainability submission for MGIF as well as supporting Sundrop and Flow with their individual submissions. The GRESB assessment results will be available in November 2020.

Agriculture accounts for more than a quarter of global greenhouse gas emissions and is one of the most vulnerable sectors to climate change. Impacts for many regions include greater variability in yields and lower yield growth rates. Physical factors include heatwaves, floods, bushfires and water scarcity. Although designed for climate change resilience, Sundrop Farms is not immune to the physical impacts of warming, with yields affected by extreme heat over the last summer. Sundrop already uses a solar tower (with 23,000 mirrors pointed at it) to power the plant growing systems and to heat and cool greenhouses. Seawater is desalinated using evaporation powered by the solar tower, and further investment is planned in a reverse osmosis water treatment system for further desalination and better recycling of recirculated water.

GRESB portfolio analysis of our listed real estate investments

We invest in a wide range of listed real estate investment, development and management companies which meet our requirements for the way they manage the environmental footprint of their properties. Many of these companies (about 80%) report to GRESB (Global Real Estate Sustainability Benchmark), and this year we analysed the GRESB assessment of the companies'

reporting about management of physical risk. When companies report to GRESB, they currently have the option whether to respond to supplementary questions related to physical risk. About 50% of our investees reported that they have:

- a systematic process for assessing physical environmental risk
- implemented resilience-related strategies for their properties
- climate risk and resilience goals
- measured resilience-related performance.

This compares to figures of about 20% for the global universe of listed real estate entities which report to and are assessed by GRESB.

Our operational emissions

The biggest influence Australian Ethical can have to limit global warming is through our investment screening, engagement and advocacy described above. It's also important that we pay attention to our day to day operational emissions, through measurement, reduction and offsetting.

This year we conducted a detailed review of our operational carbon footprint, which included engaging consultants Pangolin Associates, specialists in operational carbon footprinting and reporting. In previous years we have focussed on the emissions from our electricity use and business travel. This year we have significantly expanded what we measure and report, to include emissions from food and drink, furniture and IT equipment, external IT support, staff commuting to and from work, and traditional (non-digital) advertising. There's a detailed breakdown with all additional inclusions in the [Supplementary Information](#) at the end of this report.

As a result of extending what we measure and include, our reported operational footprint of 450 tonnes CO₂-equivalent is about four times larger than previous years. This gives a more realistic picture of our operating emissions and highlights the opportunities we have to reduce emissions in the way we operate including in our choice of products and services. We will keep the scope of our footprinting under review in future years, including how we capture our marketing activity. Although many do not include advertising in their operational footprint, we consider advertising an integral part of growing our business for the benefit of all stakeholders. This year we estimated emissions from more traditional forms of advertising using generic emissions factors, which were applied to our spending on this type of advertising. However, we excluded emissions related to online advertising because we did not identify a reasonable basis for estimating those emissions. We will monitor the development of estimation methodologies and data for future years.

Reducing emissions

We limit our operational emissions in a number of ways. We purchase renewable electricity for our directly metered office power. We consider climate performance in our selection of suppliers of products and services. We continue to explore further action we can be taking, and the expansion of our emissions measurement will contribute to our understanding of where we can have the greatest impact. The disruption caused by the current pandemic has also highlighted opportunities to limit business and commuting travel emissions through increased use of online meeting technologies and more flexible work practices. At the same time, we will need to consider management of additional employee home emissions from increased work at home.

Offsetting emissions

We continue to offset our reported operational emissions. Carbon offsetting plays an important role for companies on the journey to net zero by 2050, provided they recognise the imperative to minimise emissions as much as possible before offsetting what remains. When offsetting our operational emissions, we look for opportunities for carbon abatement which also deliver additional benefits to people, planet and animals.

This year we offset our FY20 operational footprint primarily through carbon credits from the West Arnhem Land Fire Abatement (WALFA) project, run by an Aboriginal-owned, not-for-profit carbon farming business. The WALFA project supports Traditional Owners in utilising customary fire knowledge to accomplish largescale fire management on country. Our Foundation provides funding to the [Mimal Land Management Aboriginal Corporation](#) (Mimal) women’s program via the Karrkad Kanjdji Trust, and Australian Ethical are proud to further support Mimal’s work through the procurement of their carbon abatement services. Ranger programs and the income they generate from offsetting programs have wide reaching benefits, not just for the climate but for all communities and people involved, as well as preserving species, land and culture.

We have also used Kariba REDD+ carbon credits remaining from previous years. The Kariba REDD+ project helps promote the independence and wellbeing of communities in Zimbabwe including to help prevent further land clearing.

This year we increased our carbon offsetting by an amount equivalent to three times the FY20 emissions from shared building electricity. We did this because we did not measure shared building electricity in previous years.

Breakdown of our operational carbon footprint

Our operational footprint is much larger this year because of the additional inclusions discussed above. The detailed breakdown is included on the following page.

Big contributors to our expanded footprint included changes to our office fit-out to accommodate additional employees within our Sydney office and the upgrading of laptops for many staff. We account for the full life-cycle emissions of this new furniture and equipment as we acquire them (rather than accounting for emissions over their life).

There were also significant emissions from our advertising (discussed above) and external IT assistance (who support the work of our internal IT staff).

Category	FY17	FY18	FY19	FY20
Scope 1 & 2 emissions (tonnes of CO ² emissions pa)	41.5 ¹	50.11 ¹	50.23 ¹	0 ¹
Operational Scope 3 (tonnes of CO ² emissions pa)	36.6 ¹	36.5 ¹	54.69 ¹	449.5 ¹
Full scope emissions per full time equivalent employee	1.6 ¹	1.5 ¹	1.6 ¹	6.9 ¹
Full scope emissions intensity (total per A\$ million revenue)	2.8 ¹	2.4 ¹	2.6 ¹	9.0 ¹
Full scope emissions per A\$ billion funds under management	36 ¹	31 ¹	31 ¹	111 ¹
Offsetting of reported operational emissions	100%	100%	100%	100% ¹

1. Previous years’ figures are not directly comparable with this year’s figures because we have expanded the categories of emissions reported this year as discussed above. Previous years’ emissions were limited to directly metered electricity and business travel. Also we incorrectly reported our purchase of renewable electricity under Scope 2 emissions, whereas this year our Scope 2 (and Scope 1) emissions are correctly reported as zero.

Supplementary information

Operational carbon footprint breakdown

Table 2.1 Summary of CO₂-e emissions for Australian Ethical					
Activity Sector	Activity/Service	Activity Data	Units	Emissions (tCO₂-e/yr)	Percentage
Utilities	Renewable Electricity	62,368.0	kWh	0.0	0.0%
	Grid Electricity (Base Building)	45,802.9	kWh	41.2	9.2%
	Telecommunications	73,032.8	\$	11.5	2.6%
	Water	0.4	ML	0.3	0.1%
	Sewage	0.3	ML	0.2	0.1%
Equipment	IT Equipment	170,392.1	\$	30.4	6.8%
	100% Recycled Paper	279.4	kg	0.6	0.1%
	Carbon Neutral Paper	215.9	kg	0.0	0.0%
	Merchandising	2,979.6	\$	1.8	0.4%
	Staff Clothing	994.5	\$	0.1	0.02%
	Office Furniture	222,950.9	\$	52.3	11.6%
Employees	Employee Commute	199,654.0	passenger.km	16.5	3.7%
	Working From Home	35,195.9	h	10.7	2.4%
Flights	Business Flights	207,922.3	passenger.km	35.9	8.0%
Transport Fuels-SCOPE 3	Privately owned/controlled	1,323.0	L	3.2	0.7%
Third Party Services	Cleaning Services	48,691.2	\$	6.9	1.5%
	Hire Car	1,779.7	\$	4.2	0.9%
	Postage	8,839.9	\$	13.3	2.9%
	Couriers	1,651.6	\$	2.5	0.5%
	Printing & Stationery	32,448.0	\$	23.5	5.2%
	Domestic Hotel Accommodation	129.0	occupancy.nights	8.5	1.9%
	International Hotel Accommodation	13.0	occupancy.nights	0.2	0.04%
	Advertising	549,871.8	\$	73.3	16.3%
	Taxis & Ride Sharing	38,664.5	\$	3.4	0.8%
	IT Support	256,697.8	\$	42.7	9.5%
	Buses	1,363.6	\$	2.8	0.6%
	Cloud Software	107,440.1	\$	17.8	4.0%
	Other Software	2,021.3	\$	0.3	0.1%
	Public Transport	488.6	\$	1.0	0.2%
Food & Beverage	Bakery	2,096.0	\$	0.7	0.2%
	Dairy	30,051.0	\$	18.4	4.1%
	Other Foods	23,094.0	\$	18.6	4.1%
	Drinks (Beer)	3,082.0	\$	0.8	0.2%
	Drinks (Wine & Spirits)	8,346.0	\$	1.3	0.3%
	Drinks (Soft drinks)	130.0	\$	0.03	0.01%
Synthetic Gases	Refrigerant	0.6	kg of Refrigerant	0.9	0.2%
Waste	Waste-landfill	2.9	t	3.5	0.8%
	Recycling	1.8	t	0.0	0.0%
Gross Total¹				449.5	100.0%

Investment portfolio carbon footprinting methods and limitations

Investment carbon footprint metrics need to be used with caution. Company carbon data often includes estimates and errors. Companies make different decisions about what they do and don't include when measuring and reporting their operational footprints. There are also different portfolio measurement methodologies, and different carbon metrics which can be used to assess carbon footprint, each with different strengths and weaknesses. We discuss some of these limitations and the choices we have made for this report.

What's not included

Current carbon footprinting methods don't generally take into account emissions produced or emissions saved from the use of a company's products. One reason is difficulties in fairly allocating the emissions or emissions savings between the many companies involved in production and use of the products. For example, how should the emissions from the burning of coal be allocated between the coal miner, the coal fired electricity generator and the businesses using that electricity?

The same double counting issues apply to products that result in emissions reductions ('avoided emissions'), for example solar panels which over their life can reduce emissions by displacing other sources of electricity production like fossil fuels. These emissions savings are much more relevant to our ethically screened investment portfolios. It's important to calculate and allocate these savings, to help us better understand what emissions savings our investments are supporting.

We explored these issues and potential solutions in our [Emissions Crediting Project](#) several years ago. We are now seeing the development of new carbon datasets and tools which can be applied at a portfolio level to investment portfolios to calculate Scope 3 emissions and emissions savings. We plan to trial these as they evolve.

Carbon footprinting methods

We assess our share investment footprint based on the carbon intensity of the companies we invest in. The carbon intensity is calculated from direct and some indirect emissions (Scope 1 and 2 emissions) of the companies relative to their revenue. The carbon footprint for 2014 to 2017 was assessed by S&P Trucost. This year and last year we used tools and data provided by MSCI ESG Research LLC. The December 2019 carbon footprint data is based only on the companies for which MSCI ESG Research provide carbon data (86% of our share investments and over 99% of the Benchmark, by market value).

Although we have used different data providers, we consider the comparison with previous years to be meaningful because there is general alignment between the methodologies and data sources used by MSCI ESG Research and S&P Trucost. However, there are differences in data, estimates and company coverage which affect direct comparability. More information on carbon footprinting methodology and metrics is available [here](#).

Although we have used company research data and tools provided by MSCI ESG Research, MSCI ESG Research is not responsible for the way we have used their data and tools to calculate the carbon footprints.¹

¹ In particular, MSCI ESG Research (1) retains copyright in all its data; (2) does not warrant or guarantee the originality, accuracy and/or completeness of their data; (3) makes no express or implied warranties of any kind, and disclaims all warranties of merchantability and fitness for a particular purpose; (4) has no liability for any errors or omissions in connection with their data or for our reporting and use of their data; and (5) without limiting any of the foregoing, has no liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Choice of carbon footprint metric

Since we first used Trucost to footprint our investments we have used the carbon intensity metric 'tonnes CO₂e/A\$m revenue' to report our carbon footprint. This was Trucost's preferred primary metric and we consider it remains appropriate, including for continuity of reporting and ease of explanation. The TCFD reporting recommendations compare five different footprint metrics [here](#). They recommend 'weighted average carbon intensity' as an alternative to the 'carbon intensity' metric we have used, however they identify strengths and weaknesses for all the carbon metrics.

Choice of benchmark for comparisons

For our investment carbon footprint comparison, we use as a market benchmark a blended benchmark of S&P ASX 200 Index (for Australian and New Zealand share holdings) and MSCI World ex Australia Index (for international fund share holdings). For our international equities holdings, the MSCI World ex Australia Index is our stated investment benchmark for international fund share holdings. For our Australian equities funds we have various investment benchmarks including the ASX 200, ASX 300 and ASX Small Industrials. We have selected the ASX200 for our investment footprint reporting because it is the most well-known benchmark and representative of the 'mainstream market'.

Currency considerations

The carbon intensity output of the MSCI carbon footprinting tool is expressed per US\$ revenue. Where a company reports its revenue in a non-US\$ currency, MSCI convert the revenue to US\$ using the exchange rate as at the end of the company's financial year. We report the carbon intensity of our investment portfolio tonnes CO₂e emissions per A\$m revenue. For conversion to A\$ we have used a calendar year average exchange rate as published by the Australian Taxation Office.

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