

## AMPOL AMPCHARGE

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Ampol Limited ACN 004 201 307

Glossary

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Introduction

Managing Director and

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Ampol Group is well placed to successfully navigate the energy transition and play a key role in the broader decarbonisation of transport in Australia and New Zealand.

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### 1. About this document

Our 2023 Climate Report provides an overview of how we are progressing the delivery of our Future Energy and Decarbonisation strategies. It covers the period since the release of the Future Energy and Decarbonisation strategies in May 2021 to end of May 2023.

The following terms are used throughout this document to define the entities to which this information relates:

"Ampol" or "Ampol Group" means Ampol Limited and its controlled entities, and their interests in associates and jointly controlled entities, unless otherwise stated or otherwise clear from the context in which the term is used

"Ampol Australia" means Ampol and its Australian controlled entities, and any joint venture facilities in Australia over which the Ampol Group has operational control

"Z Energy" includes its controlled entities

Ampol acquired 100% of Z Energy Ltd in May 2022. The report includes Z Energy's decarbonisation and energy transition outcomes from that date. This is the first time Ampol and Z Energy are preparing an Ampol Group Climate Report aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework. Ampol Australia's emissions data is included in this report (Scope 1, 2 and 3 emissions) for the 1 July 2021 – 30 June 2022 reporting period which is aligned to National Greenhouse and Energy Reporting (NGER) timelines and reflects emissions reporting within our sustainability reports. Please refer to the Ampol website for further information on Ampol's sustainability reporting including limited assurance over Scope 1 and 2 emissions data. Z Energy's emissions performance is included in this report for the period from 1 April 2022 to 31 December 2022, which is alianed to its FY23 Greenhouse Gas Inventory Report. This report is available on the Z Energy website and includes reasonable assurance over Scope 1, 2 and 3 emissions data.

For future climate reporting, the Ampol Group will seek to consolidate emissions reporting across Ampol and Z Energy. Refer to Ampol (<u>ampol.com.au</u>) and Z Energy (<u>z.co.nz</u>) websites for copies of all documents mentioned in the 2023 Climate Report.

#### Important notice

This report contains forward-looking statements, including, but not limited to, statements regarding the operations of the Ampol Group, supply and demand for commodities, assumed climate scenarios, potential global responses to climate change, government policy, regulatory developments, the development of various technologies and the future plans, strategies and objectives of management. Words such as "likely", "aims", "looking forward", "potential", "anticipates", "expects", "predicts", "plans", "targets", "belives" and "estimates" and similar expressions are intended to identify forward-looking statements.

References in the report to assumptions, estimates, targets and outcomes and forward-looking statements about assumptions, estimates, targets and outcomes, which are based on internal business data and external sources, are uncertain given the nature of the industry, business risks, and other factors. Also, they may be affected by internal and external factors that may have a material effect on future business performance and results. No assurance or guarantee is, or should be taken to be, given in relation to the future business performance or results of the Ampol Group or the likelihood that the assumptions, estimates, targets or outcomes will be achieved. While management has taken every effort to ensure the accuracy of the material in the report, the report is provided for information only to help readers understand Ampol Group's strategy, planning and ambitions in relation to climate change. Ampol Group, its officers and management exclude and disclaim any liability in respect of anything done in reliance on the report.

All forward-looking statements made in this report are based on information presently available to management and the Ampol Group assumes no obligation to update any forward-looking statements. Nothing in this report constitutes investment advice and this report does not constitute an offer to sell or the solicitation of any offer to buy any securities or otherwise engage in any investment activity. You should make your own enquiries and take your own advice in Australia and New Zealand (including financial and legal advice) before making an investment in Ampol Limited shares or in making a decision to hold or sell your shares.

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## 2. Message from our Managing Director and Chief Executive Officer

Ampol Group is committed to reducing its own emissions and to playing an important role in assisting its customers to navigate the energy transition and reduce their transport emissions.

Ampol Group is well placed to successfully navigate the energy transition and play a key role in the broader decarbonisation of transport in Australia and New Zealand. Our unique competitive strengths, that enable our market leading positions today, remain the foundations for the future and are critical to the energy transition. They include:

- the quality of our convenience retail network, which has an important role to play in the roll out of on-the-go electric vehicle (EV) charging;
- our distribution and supply chain capabilities in Australia, New Zealand and internationally;
- our strategic assets which have the potential to be repurposed to play a role in the energy transition and realise longer term value;
- our deep customer base that we will support through the transition, with fleet and onsite solutions to meet their unique needs;
- our ability to manage risk together with our in-house strategic planning capabilities, and;
- our iconic brands, including enabling the launch of our EV charging brand AmpCharge.

In 2021, Ampol released its Future Energy and Decarbonisation Strategies which outlined Ampol's commitment and pathway to reducing our operational emissions (Scope 1 and 2) to be net zero by 2040 in Australia. To meet this ambition, interim targets to 2025 and 2030 were also set. This report provides an update on our progress to date, demonstrating we are on track to meet these interim targets. Our Future Energy Strategy outlined Ampol's ambition to commercially participate in helping our customers embark on the energy transition and reflects Ampol's strategic intentions to introduce low carbon energy solutions for our customers. Our Future Energy Strategy outlines Ampol's intentions with regards to Scope 3 emissions and how we can influence the reduction of these emissions as viable solutions become available. Since 2021, we have undertaken a series of test and learn initiatives as part of the Future Energy strategy and are on track to deliver our commitment to invest a minimum of \$100 million by 2025, deepening our understanding of the possible low carbon transport solutions.

Ampol has already made good progress in developing our understanding of key solutions for transport energy transition. The electrification of passenger and light commercial vehicles has commenced so we are continuing to invest, and with the support of funding from The Australian Renewable Energy Authority (ARENA) and the New South Wales government, are rolling out an on-the-go charging network with a minimum commitment to operate or control up to 500 EV charging bays by 2027. We are building strategic partnerships to accelerate EV solutions, and have launched a collaboration with EVDirect (the Australian importer and seller of BYD vehicles) and Hyundai.

We are also increasing our knowledge of other low carbon solutions for hard-to-abate sectors such as renewable and sustainable aviation fuels. For example, we recently announced the signing of a Memorandum of Understanding (MoU) with ENEOS to explore the production of advanced biofuels at our Lytton refinery in Brisbane, Australia. The study will explore the feasibility of delivering an advanced biofuels manufacturing facility to generate sustainable aviation fuel (SAF) and renewable diesel.

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## 2. Message from our Managing Director and Chief Executive Officer continued

Ampol is committed to reducing its operating emissions and to helping our customers reduce their own emissions. However, we also recognise that our key markets are in the early stages of the transition and that the pace and shape of the transition is both uncertain and likely to vary significantly in each of the markets we serve. This requires us to take a flexible and pragmatic approach, tailoring the level of spend and areas of focus over time and as markets evolve; acknowledging that the likely solutions will not be a one size fits all for our customers.

We acknowledge our social responsibility to address the collective challenges of energy security, energy affordability and energy transition, as well as the commercial risks and opportunities these competing priorities present. We continue to advocate for an orderly transition and explore opportunities that build a strong platform to accelerate the energy transition. At Ampol we can control the decarbonisation of our own operations and we have set targets accordingly. We also recognise that while we can seek to influence and assist our customers to navigate the energy transition there remain significant challenges and uncertainties around the pace and trajectory of the energy transition for the transport sector, which we don't control. These challenges include global supply chain bottlenecks, government investment and policy settings both domestically and internationally and the absence of, or limitations around critical infrastructure to support broad-scale electrification and the energy transition. Rather than set targets for these Scope 3 emissions,

until clarity on these factors emerge, we are focused on pursuing solutions and initiatives within our control and that will enable our customers to transition.

Our view is that our success will be dictated by how we navigate through the transition. This requires Ampol to get the balance right between:

- optimising and delivering on the potential of our core business to ensure we can meet the ongoing needs of our customers;
- investing in and managing the decarbonisation of our own operations; the emissions we can control;
- investing in low carbon transport solutions, at different stages of maturity, with a commitment to further invest where viable solutions are emerging to help our customers transition;
- delivering returns to our shareholders to ensure they support us through the transition;
- partnering and engaging with our customers, government, vehicle manufacturers and other supply chain partners to positively influence enablers to the transition and facilitate the reduction of economy-wide emissions from transport, and;
- leveraging our strategic infrastructure and investigating the potential for repurposing of our assets to enable the energy transition as customer demand for low carbon solutions grows.



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## 2. Message from our Managing Director and Chief Executive Officer continued

#### Undertaking strategic planning to better understand the long-term opportunities pipeline

Since our Future Energy and Decarbonisation strategies were released in May 2021, we have developed in-house modelling capabilities to estimate the impact of various climate change scenarios on the transport sector. This builds on the climate modelling we undertook in 2021. Our own climate modelling suggests that under plausible climate change scenarios:

- electric vehicle penetration will gradually increase from 2025 to become the predominant mode of transport by 2050;
- heavier, long-haul and aviation transport solutions will take longer to emerge and likely require renewable fuels as an interim to longer term solution until hydrogen, as a transport fuel becomes economic;

 due to average vehicle ownership periods (10 years in Australia, 14 years in New Zealand), our scenario modelling shows that our customers' demand for traditional transport fuels will remain robust well into the 2030s. In Australia, for example, we estimate that at least 80–85% of the passenger vehicle fleet will still be powered by traditional fuels well into the 2030s under all modelled scenarios, and:

 cash flows from the core business should remain strong to support investment into the transition while maintaining shareholder returns. Our corporate strategy and strategic planning approach ensures we maintain the required flexibility to respond to changes in policy settings, technology and our customers' evolving needs. We will regularly monitor the signposts for the pace and trajectory of the transition to ensure we continue to invest in decarbonisation of transport at an appropriate pace.

## Established climate governance and risk management including linking to executive remuneration

Beyond our Future Energy and Decarbonisation strategies, Ampol has also conducted a physical climate risk assessment to understand the potential impact on assets and infrastructure across Australia resulting from changing weather conditions. These findings will be used to trigger more detailed on the ground assessments, identification and development of adaptation plans. Finally, we continue to have in place the necessary governance practices to ensure we are making good progress and appropriately managing the risks including linking our climate goals to executive remuneration.

We are proud of the progress we are making to support our customers and the economy-wide decarbonisation of transport. We welcome feedback from our stakeholders on our 2023 Climate Report and are committed to release our next climate disclosure in 2025.

Matt Halliday Managing Director and CEO



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## 3. Ampol Group Highlights 2021–2023

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Reducing operational emissi	ions	Supporting low carbon sol	utions for our customers	Climate modelling and scen	ario analysis
100% of the electricity consumption with large-scale generation	plementing process ficiency initiatives at ttor refinery that will pwcase improvements d subsequent associated hissions reductions.	Launch of AmpCharge EV charging solution, and opening of <b>22 EV charging</b> at 10 EV charging sites across Australia. Ampol has an initial commitment to deliver AmpCharge at more than 100 fast-charging sites with over 300 charging bays to	Strategic partnerships announced in Australia with BYD and Hyundai to support the transition of customers to EVs including providing a range of charging solutions.	Developed our own climate scenario an strategic planning and to navigate our transition as it evolves. Climate governance, risk me	way through the energy
Australian distribution fleet replacement program aimed at driving cost efficiencies and to ~	mmenced a program of tallation of <b>500kWV</b> pacity solar panels per site -90 Retail stores operated by spol in Australia.	be delivered. Memorandum of Understanding (MoU) with ENEOS to explore the production of advanced biofuels at the Lytton refinery in Brisbane, Australia. The study will explore the feasibility of delivering an advanced biofuels manufacturing facility to generate sustainable aviation fuel (SAF) and renewable diesel.	Z Energy partnership with Red Phase to introduce an EV charging solution at Z Waiouru in New Zealand as a test and learn site. Z's roll out of EV charging infrastructure continues with <b>26 charging bays</b> over 10 sites installed to date.	and disclosure Linking climate measures to executive remuneration, comprising 10% of the short-term incentive scorecard.	Completed a physical climate risk assessment to identify risk to Ampol's assets resulting from changing weather conditions in Australia and established an adaptation framework.
LED lighting upgrades in <b>56</b> retail stores across NSW, Victoria, Queensland, South Australia and Western Australia.		Z partnered with Air New Zealand to import approximately <b>1,200,000 litres</b> of SAF as a trial program.	Joined Main Sequence and CSIRO to support the launch of the new Australian clean energy storage start-up Endua.	Climate reporting aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework. An index demonstrating alignment of this report with TCFD can be found in Section 11.	Linking decarbonisation commitments to sustainable financing via a sustainability linked loan and issue of subordinated notes.

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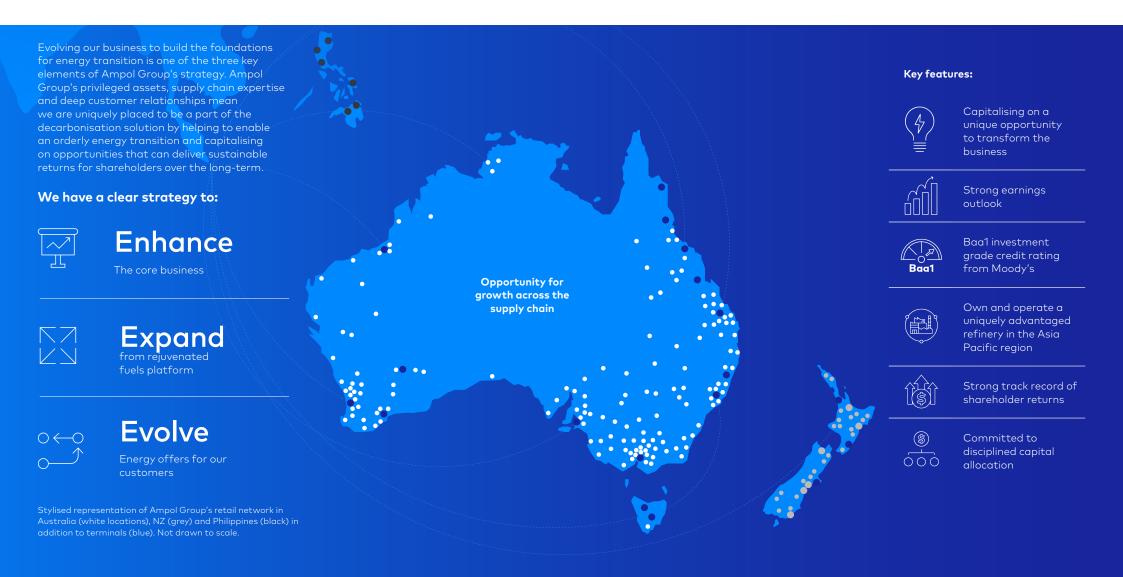
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## 4. Ampol Group's strategy

Ampol Group's strategy is focused around three elements which are underpinned by our market-leading position in transport fuels: strategic assets, customer relationships, and supply chain expertise.



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## 4. Ampol Group's strategy continued

Ampol Group is well positioned to meet our customers' energy needs today and tomorrow.

#### Our unique competitive strengths

Strategic assets	Supply chain expertise	Deep customer base	Iconic brands	Decarbonisation
Portfolio of privileged infrastructure across Australia and New Zealand	Australia's and New Zealand's largest integrated fuel supplier	Significant B2B and B2C customer platforms	Brands that strongly resonate with customers	Seeking to translate our leading position in fuels to low carbon energy solutions
<b>1</b> Refinery, underpinned by Fuel Security Services Payment	24 billion litres Total Group volumes	<b>110,000+</b> B2B and SME customers	Ampol brand is well known to Australians	Set ambition for net zero emissions operations <sup>4</sup> by 2040
6 24 Pipelines Terminals	Managing valuable short position	rt position     ~4,000,000       customers <sup>2</sup> served per week		Commence commercialisation of AmpCharge e-mobility offer
1,800 million litres	6 billion litres Refining production capacity	~38% Leading card offer market share <sup>3</sup>	Z is for New Zealand AMPOL	Continuing with test and learn activity (aggregate spend of +A\$100m to 2025) in Australia
Storage capacity				+NZ\$50 million
<b>2,350</b> Retail sites <sup>1</sup>			Ampol's EV charging brand	spend in New Zealand to 2029. Reduce operational emissions by 42% from 2020 levels in New Zealand
Potential to adapt for alternative uses	Strong manufacturing, distribution, shipping and trading capability	Our energy transition strategy is customer led	Extending our brands into low carbon solutions	Pursuing the opportunity to evolve with our customers as their energy needs change

1. Includes 645 company operated and company controlled Ampol sites in Australia.

2. Across Australia and New Zealand retail operations.

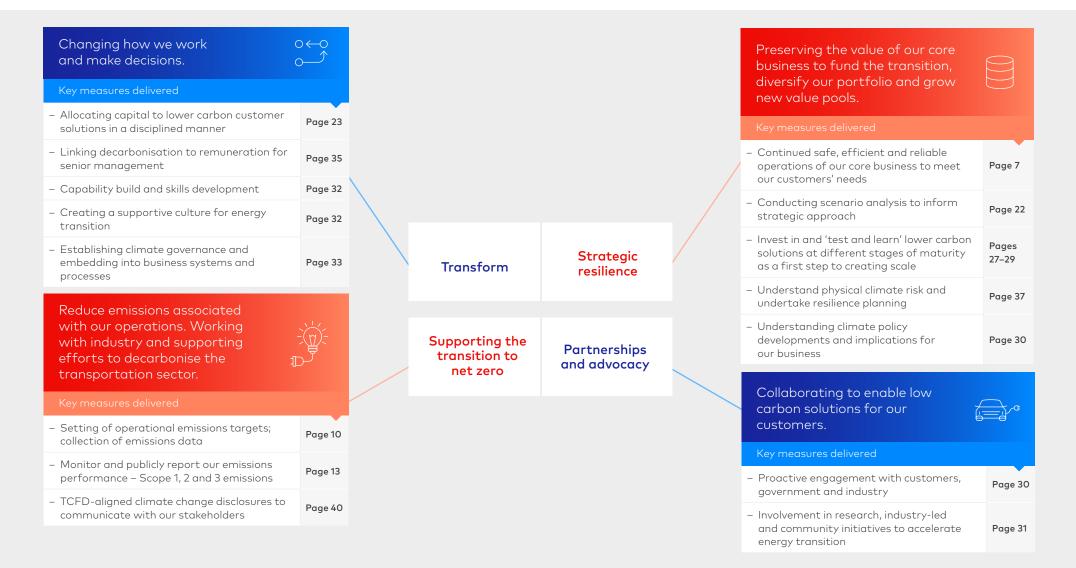
Australian operations. 4. Operations represents Ampol's Scope 1 and 2 emissions in Australia.

3. Refers to AmpolCard market share for the

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## 5. Ampol Group climate change framework and decarbonisation commitments

As part of our strategy and leveraging the strength of our assets and core business, we are building the foundations to transform our business over the long term and evolve to continue to meet our customers' changing energy needs. Our strategic approach to climate change is outlined below, with the dual objectives of building business resilience and seizing the energy transition opportunity. The work we are doing to progress the four pillars below is detailed in this report.



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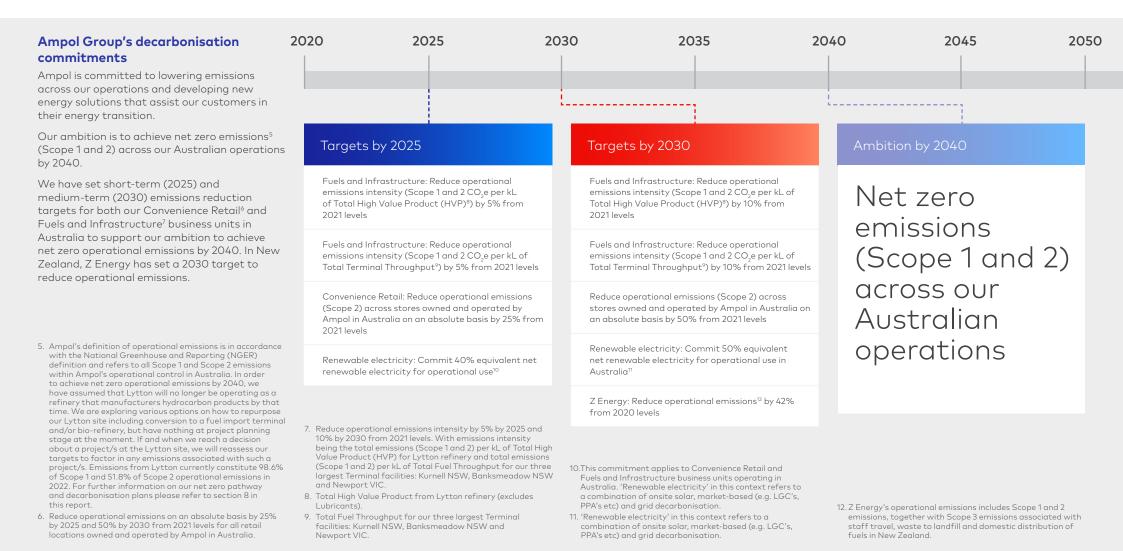
5. Climate change framework and decarbonisation commitments

6. Our emissions profile

8. Our decarbonisation

9. Climate governance

## 5. Ampol Group climate change framework and decarbonisation commitments continued



5. Climate change framework and decarbonisation commitments

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## 5. Ampol Group climate change framework and decarbonisation commitments continued

#### Initiatives relating to Scope 3 emissions

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#### Initiative 1 Initiative 2 These commitments are tangible examples of how Ampol Group can practically assist A minimum investment target of Target the delivery of a network of +NZ\$50m and encourage our customers to transition to low carbon solutions. Our climate modelling (see +A\$100m >30 Page 19) leads us to expect that our existing capital spend in New Zealand transport fuel solutions will be the majority of by 2029 to support future energy by 2025 to support the execution fuel consumed well into the 2030's. The pace at charging bays over 2023/24 and initiatives. Continue to grow Z's which our customers transition to low carbon of our Future Energy Strategy operate or control at least 500 EV charging network by delivering in Australia solutions will be driven by the pace at which AmpCharge or equivalent EV charaina bays across 39 sites by charging bays by 2027 in Australia viable and cost-effective technological solutions the end of 2023 become available and the pace at which they invest in their own transition. External factors such as policy settings and access to supply chain materials will all have a material impact on the pace and form of the energy AMPOL transition with these factors largely outside of Ampol Group's control. As such, while it is ODARY not possible for Ampol Group to set a Scope 3 target we will continue to collaborate with our customers to assist in accelerating their own decarbonisation goals and advocate for an orderly energy transition. FOODARY

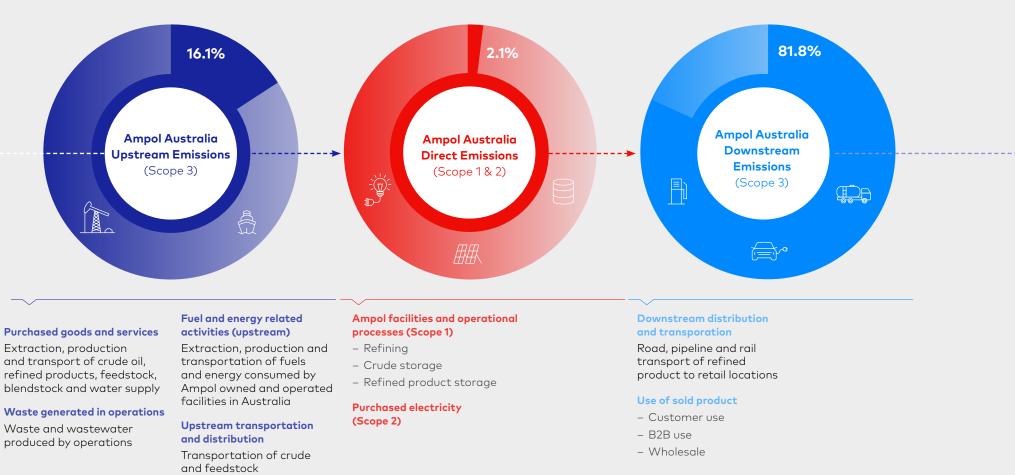
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### 6. Our emissions profile

### In order to take action to decarbonise our business, we are actively understanding emissions across our value chain.

Understanding our emissions profile helps us set appropriate targets and identify what action we can take to reduce emissions. We are committed to transparently communicating our emissions profile to our stakeholders.

#### Ampol Australia emissions value chain



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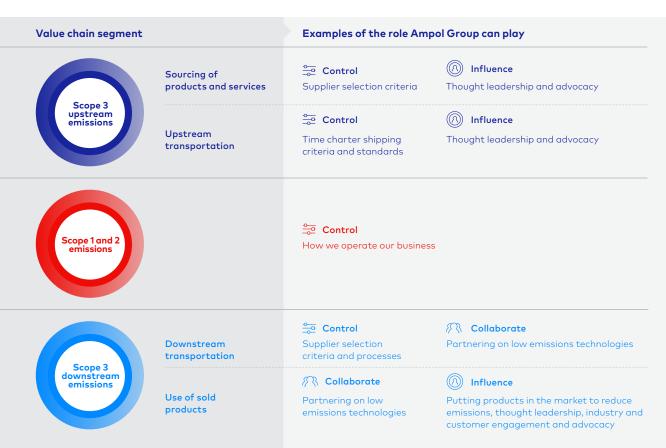
## 6. Our emissions profile continued

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#### Ampol Group's opportunity to act to reduce emissions across the value chain

Ampol Group can leverage its operational control to have a direct impact on its own emissions (Scope 1 and 2 emissions), while influencing and collaborating with customers and value chain partners to drive their own emissions reductions (Scope 3 emissions). This includes engaging with our customers, government, vehicle manufacturers and other supply chain partners.

The below table articulates our opportunity to influence, collaborate and act to drive decarbonisation outcomes.



#### Ampol's Scope 1 and 2 emissions profile for Australia

2019	2020	2021	2022
673,668	576,611	547,064	727,358
646,846	561,618	539,067	717,291
26,822	14,993	7,997 <sup>14</sup>	10,067
230,539	222,097	233,304	243,247
117,603	104,591	104,105	126,091
37,062	29,582	26,823	25,703
75,874	87.924	102.376	91,453 <sup>17</sup>
	673,668 646,846 26,822 230,539 117,603 37,062	673,668         576,611           646,846         561,618           26,822         14,993           230,539         222,097           117,603         104,591           37,062         29,582	673,668         576,611         547,064           646,846         561,618         539,067           26,822         14,993         7,997 <sup>14</sup> 230,539         222,097         233,304           117,603         104,591         104,105           37,062         29,582         26,823

13. Scope 1 (tCO<sub>2</sub>e) figures are calculated between 1 July to 30 June. Scope 1 emissions are calculated in accordance with the Australian National Greenhouse and Energy Reporting Determination 2008.

14.This is a restatement from our 2022 Annual Report of our emissions for the reporting period due to a calculation error.

15. Scope 2 (tCO<sub>2</sub>e) figures are calculated between 1 July to 30 June. Unless specified, Scope 2 emissions are calculated in accordance with the Australian National Greenhouse and Energy Reporting Determination 2008.

- 16. Convenience Retail's increase in emissions over the 2019–2021 period is a result of bringing franchised sites back under operational control.
- 17. 2022 metric also takes into account market-based methods of emission reductions through a renewable energy procurement contract.

Key:	
- <u>○</u>	Control: Where our decisions can have a direct impact on emissions
R	<b>Collaborate</b> : Where we can partner with customers, suppliers and the broader industry to achieve emissions reductions
0	Influence: Where we can put products into the market and engage with customers, agvernment, industry and other stakeholders to drive economy-wide

decarbonisation

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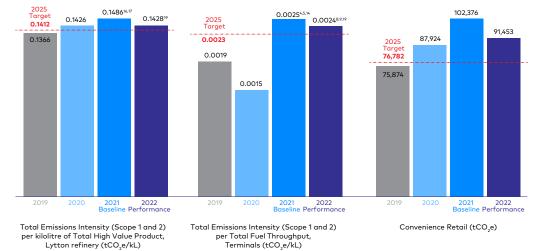
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6. Our emissions profile

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## 6. Our emissions profile continued

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Ampol's emissions performance against 2025 targets for Australia

#### Ampol Scope 3 emissions for Australia

8. Our decarbonisation

The below table reports Scope 3 greenhouse gas emissions produced by Ampol Australia's diesel, petrol and jet fuel products value chain and business operations over the reporting period from 1 July 2021 – 30 June 2022. The organisational boundaries were defined as all the entities Ampol has operational control over. The relevant parties under Ampol's operations, includes all units from cradle to the grave, such as procurement of products, refining of products, distribution to retail sites in Australia and the emissions associated with the use of their products (primarily combustion).

	Ampol's Scope 3 Categories in Australia	tCO <sub>2</sub> e
Upstream 1. Purchased goods and services		6,126,860.6
	4. Upstream transportation and distribution	889,977.7
	5. Waste generated in operations	30,666.6
Downstream	9. Downstream transportation and distribution	53,597.6
	11. Use of sold products	35,598,533.9
Total Emissions		42,699,636.4

Scope 3 emissions in the 2023 Climate Report include upstream and downstream emissions associated with unleaded petrol, diesel and jet fuel products. In Ampol's previous Sustainability Reports, Scope 3 emissions reporting was limited to use of sold products for diesel and unleaded petrol only.

Emissions quantification for gasoline, diesel and jet fuel products sold by Ampol in Australia and has been completed in accordance with the *GHG Protocol Corporate Value Chain* (Scope 3) Standard and the Australian Government's *Climate Active Carbon Neutral Standard for Products and Services*. The quantification has relied upon fuel sales, shipping, truck distribution and pipeline transfer data, the extrapolation of the Lytton refinery performance, and waste/water consumption.

The reduction in our emission performance from 2019 to 2021 can be attributed to COVID-19 where we experienced a significant reduction in throughput and production volumes. Increases in emissions for Convenience Retail over the 2019 – 2021 period is a result of bringing franchised stores under operational control. For further information on our efforts to reduce operational emissions in Australia, refer to Page 26 in this report.

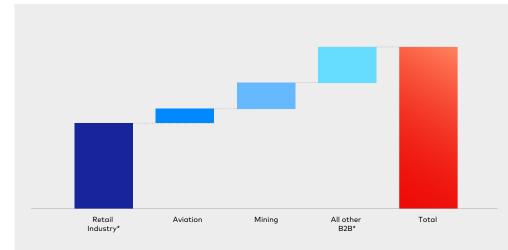
Independent assurance of operational emissions performance in Australia can be found in Ampol's 2022 Annual Report.



### 6. Our emissions profile continued

#### Scope 3 end use of sold products - industry segmentation for Australia

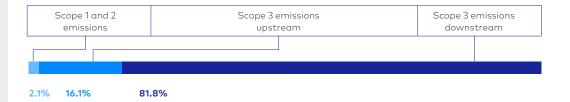
FY2022 Ampol Australia emissions – by industry segment



\* Retail industry relates to all Ampol Australia volume sold to customers through retail locations including COCO, RORO sites and EG sites. 'Other B2B' includes Bulk fuel sales consumed in sectors including road transport, agriculture, construction, and commercial segments.

The majority of Ampol Australia's emissions result from the use of sold products (Scope 3 emissions). Our Australian downstream Scope 3 emissions are most heavily indexed to the retail industry. The retail industry relates to all Ampol volume sold to customers through retail locations, including retails sites not owned or operated by Ampol in Australia. Ampol Australia's downstream Scope 3 emissions also include industry, aviation, mining and other B2B activities.

Total Scope 1, 2 and 3	43,670,241	100%
Total Scope 3	42,699,63622	97.8%
Total Scope 2	243,247 <sup>20,21</sup>	0.6%
Total Scope 1	727,358 <sup>20</sup>	1.7%
Ampol's Total Value Chain Emissions in Australia	Total tCO <sub>2</sub> e	% of Total tCO <sub>2</sub> e



- 20.Scope 1 and 2 (tCO2e) figures are calculated between 1 July to 30 June. Scope 1 and 2 emissions are calculated in accordance with the Australian National Greenhouse and Energy Reporting Determination 2008.
- 21.2022 metric also takes into account market-based methods of emission reductions through a renewable energy procurement contract.
- 22.Total Scope 3 (tCO2e) figure is reflective of the emissions quantification for gasoline, dissel and jet fuel products sold by Ampol in Australia only. Due to the complexities and materiality of some of the GHG Protocol Corporate Value Chain (Scope 3) Standard categories, this figure does not represent the entire value chain of Ampol as an organisation.

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6. Our emissions profile

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## 6. Our emissions profile continued

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#### Z Energy's emissions profile<sup>23</sup>

2022 – 9 months ended 31 Dec 2022	Total tCO <sub>2</sub> e
Scope 1	1,723
Z offices, terminals and retail sites	1,723
Scope 2	2,489
Z offices, terminals and retail sites	2,489
Scope 3	8,983,231
Z offices, terminals and retail sites	1,530
Z Supply	9,829
Z operational emissions (Scope 1, 2 & 3 categories above) <sup>24</sup>	15,570
Flick Electric	20
Joint Ventures	98
Line Losses	234
Z DEC	42
Share of refinery	28,754
International Supply	1,337,695
Use of sold products	7,605,029

Z Energy's Total Value Chain Emissions for 2022 – 9 months ended 31 Dec 2022	Total tCO <sub>2</sub> e <sup>25</sup>	% of Total tCO <sub>2</sub> e
Total Scope 1	1,723	0.02%
Total Scope 2	2,489	0.03%
Total Scope 3	8,983,231	99.95%
Total Scope 1, 2 & 3	8,987,442	100%

23.<u>https://www.z.co.nz/about-z/corporate-centre/#sustainability.</u>

24.Z's FY20 - FY30 carbon reduction target is benchmarked against operational emissions – those domestic emissions of which Z has the most control and or influence over and can therefore take meaningful action to reduce.

25.All numbers are subject to rounding.

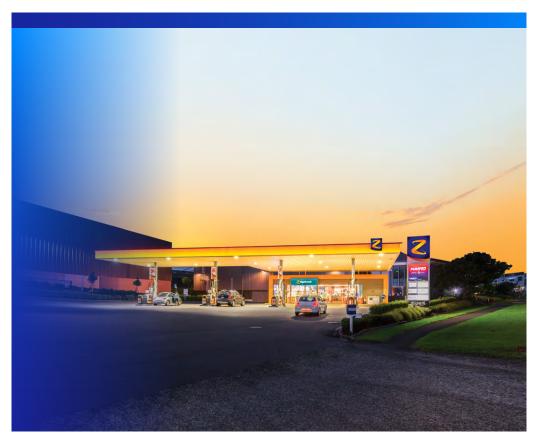
Z's inventory and organisational boundary has been calculated with guidance from the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (GHG Protocol). The GHG Protocol is the widely accepted methodology for organisational carbon accounting and is supported by ISO 14064 (2018).

Z's independently assured FY23 Greenhouse Gas Inventory Report can be found on Z's website.

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#### Australian climate scenarios

We have developed Ampol's Integrated Assessment Model (IAM) to help inform our strategic planning and capital allocation approach in Australia, focusing on three core climate scenarios out to 2050. These climate scenarios correspond to different potential transition pathways for the Australian economy, including the energy mix which will be required, and they are being used to help inform our strategic decision-making, business and capital planning and portfolio optimisation. It allows us to test business resilience, design and shape our strategy, and inform our capital allocation framework.

Introduction

The decision was made to develop our own IAM rather than rely on publicly available climate scenarios like those published by the International Energy Agency (IEA), as this would then provide us with the level of data granularity we require to inform strategic planning and decision-making in a meaningful way. Ampol's IAM was developed using a leading energy system analysis framework that is already employed in Australia and globally.

In building our IAM, we aligned carbon budget assumptions to the Intergovernmental Panel on Climate Change (IPCC) Representation Concentration Pathways (RCPs) and International Energy Agency (IEA) scenarios in order to provide readers with some comparability. The energy transition pathways we have developed considered Australia's future economic activity which drew from IEA's assumptions on Australia's commodity export activity. Least cost low emissions

technology stacks were then developed to meet the requirements of this future economic activity and within the confines of carbon budget assumptions for each climate scenario. In developing the IAM we engaged extensively with industry experts to provide us with an independent view and sufficient challenge to the energy transition pathways we prepared.

Our climate scenarios are not forecasts, but rather are plausible paths that allow us to examine and evaluate the potential risks and opportunities associated with a range of possible outcomes. Analysing factors that are different for each scenario such as technology uptake and regulatory changes contribute to a range of different insights for Ampol to consider. There are inherent limitations with climate scenario analysis, and it is difficult to predict which, if any, scenario might eventuate and the further we project into the future, the wider the uncertainty of potential outcomes. Nevertheless, they play a valuable role in our overall strategic planning cycles and allow us to consider optionality and flexibility to respond to a range of different outcomes. We will continue to refresh the analysis, having regard to key signposts around energy transition pace and direction, with an update to our climate modelling scheduled for 2024.

IAM Climate scenario	Approximate temperature increase by 2100. Representation Concentration Pathway (RCP)	IEA scenario alignment	Description
Steady progress	2.6°C RCP 4.5	STEPS	Represents the current transition of the energy industry under current policy settings and technology trajectories, where the transition from fossil fuels to low emissions fuels is generally led by market forces.
2°C	~1.8°C RCP 2.6	SDS	Government policy and corporate objectives result in a pace of change that goes beyond existing climate policy, setting emissions reduction targets consistent with limiting the global temperature rise to less than 2°C by 2100 over pre-industrial levels. This implies Australia achieves net zero emissions by 2050.
1.5°C	<1.5°C RCP 1.9	NZE50	Government policy and corporate objectives result in a pace of change that goes beyond existing climate policy, setting emissions reduction targets consistent with limiting the global temperature rise to less than 1.5°C by 2100 over pre-industrial levels. This implies Australia achieves net zero emissions before 2050.

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#### Key Australian Climate Scenario Metrics

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As per the Ampol Integrated Assessment Model (2022) the following scenario metrics will be necessary for each of the scenarios to materialise.

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		2030	2040	2050
Steady	EV penetration in passenger vehicles (% stock)	10%	43%	77%
progress	Domestic coal demand (EJ)	1.1	0.3	0.2
	Oil demand (EJ)	2.1	1.5	1.0
	Renewables Generation (EJ)	0.7	1.4	2.1
	Domestic Hydrogen (PJ)	3	18	41
2°C	EV penetration in passenger vehicles (% stock)	15%	55%	>95%
	Domestic Coal demand (EJ)	0.9	0.2	0.2
	Oil demand (EJ)	2.0	1.3	0.7
	Renewables Generation (EJ)	0.7	1.6	2.7
	Domestic Hydrogen (PJ)	8	36	76
1.5°C	EV penetration in passenger vehicles (% stock)	21%	67%	>95%
	Domestic coal demand (EJ)	0.2	0.1	0.1
	Oil demand (EJ)	1.8	1.0	0.6
	Renewables Generation (EJ)	1.4	2.5	5.3
	Domestic Hydrogen (PJ)	21	186	706



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#### Key insights for Ampol

Our climate scenarios indicate that:

- to ensure Australia reaches its net zero target on or before 2050, each sector will be required to decarbonise;
- focusing on transport, under all scenarios, traditional hydrocarbon fuels will remain a strong market well into the 2030s, given the lack of commercially viable substitutes for road freight and aviation fuel;
- from 2025, demand accelerates for EVs in both passenger and light commercial fleets;
- renewable fuels will likely play a more significant role in hard to abate sectors such as mining, aviation and manufacturing with hydrogen unlikely to emerge as commercially viable for transportation until the longer term, and;
- absolute transportation sector emissions will decrease across vehicle classes and modes of transport due to a move to lower carbon alternatives such as EVs, renewable fuels and hydrogen including the fleet growth from higher population. Decarbonisation will be further accelerated through policy initiatives such as the introduction of vehicle standards.

The transportation sector currently accounts for 19% of Australia's, and 17% of New Zealand's total emissions respectively and comprises a complex ecosystem, covering multiple sectors, and servicing diverse needs across both economies. Its stakeholders range from government decision-makers, vehicle manufacturers, energy providers and distributors, through to individual users.

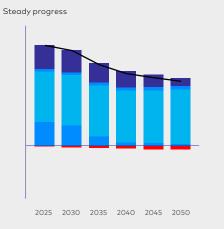
A study by ClimateWorks<sup>26</sup> indicated that, for the transportation sector in Australia to contribute to a net zero emissions economy, a systems-wide approach will need to be taken involving the collaborative efforts of cross-sector stakeholders. Key decarbonisation opportunities include:

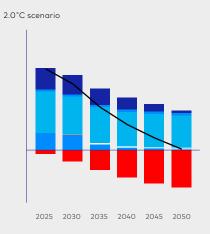
- shifting to lower emissions transport modes and efficient transport networks;
- improving energy efficiency;
- employing zero-emissions fuel sources through renewable powered or fuelled electric, hydrogen and biofuel vehicles, and;
- reducing demand by avoiding transport trips where possible.

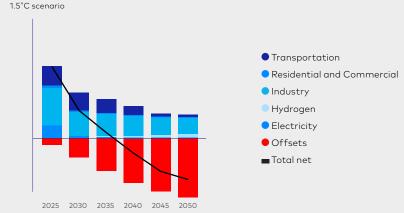
Our climate modelling for Australia reflects these trends, with electrification of passenger and light commercial vehicles and the development and deployment of lower emissions alternatives such as renewable fuels or hydrogen driving decarbonisation across the sector. We anticipate that continued growth in transport demand will result in peak fuel use in the late 2020s across all scenarios in line with population growth.

#### Ampol IAM climate scenarios<sup>27</sup>

#### Australia emissions (MT CO<sub>2</sub>-e)







26. ClimateWorks (June 2020) Moving to Zero - Accelerating the transition to zero-emissions transport. 27. Includes emissions arising from energy, non-energy and fugitive sources.

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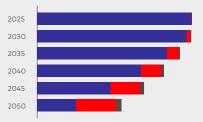
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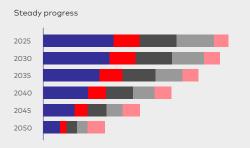
#### Australia road transport consumed energy (PJ)







Australia transportation sector emissions\* (MT  $CO_2$ -e)



2.0°C scenario







2.0°C scenario

1.5°C scenario



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Our climate scenarios indicate that EV fleet penetration will gradually increase from 2025 to become the predominant mode of transport by 2050. EV penetration in Australia is estimated to be between 10% to 20% by 2030, largely driven by the price parity between EVs and Internal Combustion Engines (ICE) vehicles with government and corporate fleets likely to be the 'first movers' in electric vehicle adoption.

Introduction

#### Decarbonisation challenges

Both Australia and New Zealand, as signatories to the Paris Agreement, have set Nationally Determined Contributions (NDC) including setting 2030 targets to meet net zero emissions ambitions. To meet 2030 targets and longer-term net zero emissions ambitions, it is anticipated that different sectors will decarbonise at different rates. In Australia, power generation is expected to decarbonise at an accelerated rate, with harder to abate sectors, like transportation, decarbonising at a slower pace due to the lack of commercially viable substitutes as well as other market challenges.

A number of challenges have been identified that limit broad decarbonisation in the shorter term. These include:

- the immaturity of low carbon technology supply chains and enabling infrastructure impacting commercial viability, competitiveness and willingness to pay;
- grid capacity and transmission challenges associated with electrification:
- long capital cycles associated with asset renewal and switching to lower emissions alternatives;
- capital risk profiles in the absence of policy settings;
- low emissions technology subsidies and funding offered in other jurisdictions that direct capital flows away from Australia and New Zealand:
- current global energy market supply constraints and volatility, with geopolitical factors and economic headwinds further exacerbating challenges, and;
- access to critical skills and supplies to accelerate the energy transition.

Ampol's view is that a new partnering capability across the value chain will be required to accelerate decarbonisation of the transport sector involving collaborations with Original Equipment Manufacturers (OEMs), EV charging providers, customers, financiers, energy providers and distributors and engagement with all levels of government. In addition, government policy alignment will be required to de-risk capital deployment to scale technologies and the supporting infrastructure, all of which will take time to evolve and mature to support energy transition.

#### Ampol Group strategic planning approach

To assess and understand the potential strategic implications of our climate scenarios on Ampol, we have undertaken scenario analysis to explore at a high level the resilience of the Ampol Group strategy (Australia, New Zealand and International) and identify potential longer-term value creation opportunities. This work was conducted in conjunction with a third-party consultant with input and support from the Ampol Leadership Team and Board. A framework has been developed to guide our scenario analysis work including the assumptions to be used and the strategic implications that need to be assessed. Further work will need to be done to further inform capital allocation and our business planning.



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#### Approach to scenario analysis

The foundation of Ampol Group's scenario analysis was our IAM climate scenarios, as outlined above together with scenarios based on those developed by the New Zealand government's Climate Change Commission. These were used to develop a range of potential volume trajectories for our core fuel and convenience business units - Fuels and Infrastructure Australia, Lytton refinery, Fuels and Infrastructure International, Convenience Retail and Z Energy over the period from 2023 to 2050. In addition to volume trajectories, for each business unit we selected appropriate key variables that would impact financial performance under differing competitive and industry dynamics to create a range of outcomes for each climate scenario

While the scenarios analysis was conducted out to 2050, our primary focus was to 2030 as this is far enough ahead to provide divergent scenarios to inform our strategic planning while not so far ahead as to be unreliable. This period is also appropriate to allow Ampol to derive meaningful conclusions for translation into strategy.

The analysis was primarily focused on the strategic implications of the climate scenarios and exploring value creation pipeline opportunities.

#### Scenario analysis – Key insights for the Ampol Group

- with continued robust demand expected for our core transport fuel products well into the 2030s, Ampol expects continued robust earnings and free cashflow generation for this period from the core business;
- while greater uncertainty exists beyond mid-2030s, and actual outcomes will be dependent upon a whole of economy response, Ampol expects to continue to be able to generate free cashflow, even as volume declines accelerate;
- within the core fuels and convenience business, Ampol has a number of credible levers to manage its portfolio appropriately as volumes decline to ensure continued positive free cashflow delivery. Financial levers available to mitigate volume decline include network and asset rationalisation, productivity enhancements and reduced capital spend as assets are retired, while the industry in both Australia and New Zealand has a track record of adjusting gross margin to ensure cost recovery as costs increase or fuel demand declines:

- these factors support Ampol being able to pursue its dual ambitions of delivering shareholder returns, as well as disciplined investment in its Future Energy Strategy, and;
- the varying pace of technological substitution for Ampol's fuel products informs our strategic decisions in Future Energy. EVs are a proven technology albeit with uncertainty over pace of adoption in Australia and New Zealand.

In contrast, there is greater uncertainty over the technological pathway to address hard-to-abate products such as diesel and aviation fuel. As a result, Ampol is taking a careful approach in these segments of executing select pilot projects in technologies such as advanced biofuels and investigating the commercial viability of hydrogen distribution. This creates the flexibility for Ampol to recalibrate its focus as greater certainty emerges over specific pathways

This work also helped us to explore upside value creation opportunities including those beyond energy transition, for example leveraging our Retail assets to build our Quick Service Retail (QSR) offering; this opportunity could enhance dwell time for sites where we are installing EV charge bays.



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#### Setting signposts and ongoing strategic planning

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Our IAM will continue to be used to test our assumptions and long-term view of energy transition and help us assess Australia's energy transition and decarbonisation pathway. We have identified energy transition signposts to continue to assess the energy transition and decarbonisation trajectory Australia and New Zealand is on, together with any significant deviation from our climate scenarios. We will review our IAM assumptions on a routine basis to ensure they remain valid and continue to provide valuable strategic planning insights. Please refer to our climate scenario metrics on Page 18 which we will use as the basis for signposts to assess direction of travel for each of our climate scenarios.

#### **Capital allocation**

#### Our capital allocation approach for the Ampol Group

We will need to make clear, deliberate and disciplined capital allocation decisions, prioritising shareholder returns as we strive to get the balance right between core business optimisation and targeted investment in the energy transition, integrating climate risk and decarbonisation considerations into investment decisions at the group level. Our balance sheet is well placed to support continued returns to shareholders and appropriate investment in both the core business and the energy transition. The learnings from our Future Energy trials in Australia and New Zealand reinforce that the Ampol Group has an important role to play in the energy transition requiring a measured approach to meet the needs of our customers as they evolve.



### **Capital Allocation Framework** Stay-in-business capex - Focused on safety and reliability of supply - Investments to support decarbonisation 2. Optimal capital structure - Adjusted Net Debt/EBITDA<sup>28</sup> target of 2.0x - 2.5x - Where Adjusted Net Debt > 2.5x EBITDA, debt reduction plans become a focus 3. Ordinary dividends - 50% - 70% of RCOP NPAT excluding significant items (fully franked) 4. - Where clearly accretive to Where Adjusted Net Debt < 2.0x</li> shareholder returns EBITDA (or sufficient headroom exists within the target range) - Investments to support the energy transition - Ampol is committed to maintaining a strong investment grade credit rating; currently

- Baa1 from Moody's Investors Service
- Ampol's Capital Allocation Framework provides a balance between ensuring a safe and sustainable business, maintaining a strong balance sheet, returning capital to shareholders and investing in future value-accretive growth opportunities
  - · Shadow carbon price incorporated into Ampol's investment decision making process
- Growth capex for projects linked to future energy will be return seeking, although longer payback periods are expected

28. Adjusted net debt includes net borrowings, lease liabilities (in accordance with AASB 16) and hybrid equity credits (as an offset). Last twelve months EBITDA for Ampol includes adjustments for changes to RCOP methodology and discontinued operations.

29. Compete for capital based on risk-adjusted returns to shareholders.

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#### Use of a shadow carbon price

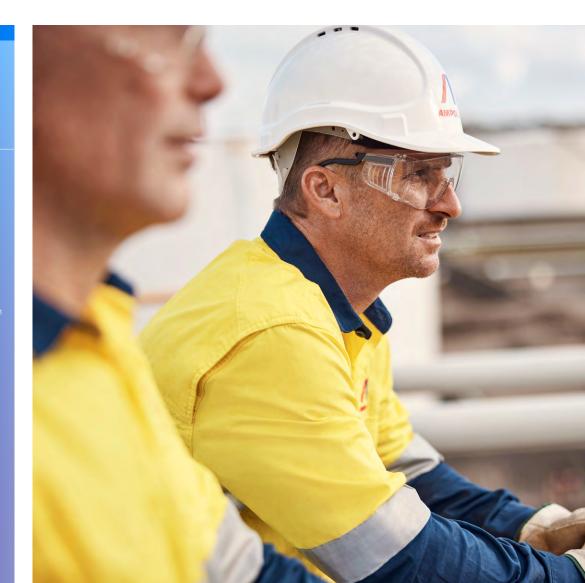
Ampol uses an internal decision-making framework for reviewing and assessing material investments and business cases being considered by our Investment Committee. An element of this framework is the alignment with our Decarbonisation Strategy, which includes the potential impacts on operating costs arising from existing and future potential carbon pricing regulation. We assess these potential impacts (positive or negative) through an internal shadow carbon price for Scope 1 and 2 emissions by applying costs to the carbon emissions for significant capital investments, where applicable. Ampol's internal shadow carbon price is set with reference to external benchmarks and is reviewed on a quarterly basis.

## 

#### Case study: Approach to sustainable financing

Ampol is continuously looking for new avenues to connect our decarbonisation commitments to our financing strategies. In June 2022, we executed \$150m of sustainability-linked hybrid notes with a first optional redemption date of 2028. The net proceeds from this issuance are being used for general corporate purposes in line with our Capital Allocation Framework. This is the second sustainable financing initiative undertaken by Ampol, with a sustainability-linked loan successfully issued in December 2021. These sustainable financing arrangements support Ampol's commitments to sustainability across our Australian business and are linked to our publicly disclosed Australian interim decarbonisation targets for 2025. In addition, the 2022 hybrid is also linked to the sustainability performance target of operating or controlling at least 500 AmpCharge or equivalent EV charging bays by December 2027.

The sustainability-linked hybrid debt instrument is an important aspect of our evolving capital structure.



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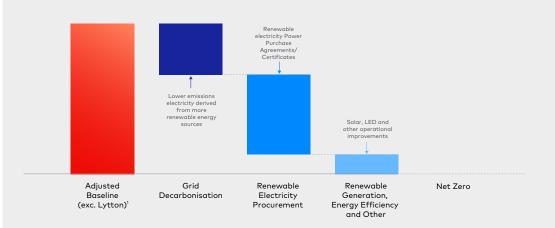
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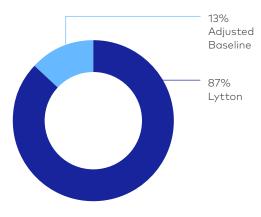
Our ambition is to achieve net zero operational emissions in Australia by 2040<sup>30</sup>. We have set short-term (2025) and medium-term (2030) emission reduction targets for both our Convenience Retail and Fuels and Infrastructure business units in Australia to support our ambition to achieve net zero operational emissions by 2040<sup>31</sup>. We have defined a pathway to meeting our ambition which includes a range of energy efficiency and renewable energy projects and includes the assumption that Lytton will no longer be operating as a refinery by 2040 which would reduce Ampol Australia's Scope 1 and 2 emissions by approximately 87% (refer to Footnote 5 on Page 10).

We have developed decarbonisation management plans which outline our approach and initiatives we will implement to meet our decarbonisation 2025 targets and have established a Decarbonisation Project Review Board (PRB), chaired by our Chief Financial Officer and comprising members of the Ampol Leadership Team. The PRB meet guarterly to monitor decarbonisation projects and progress, and forecast and monitor emissions reductions including what will be required to meet our safeguard mechanism liability. Our decarbonisation approach to operational emissions involves prioritising least cost abatement opportunities. We are also prioritising energy and process efficiency opportunities and renewable energy initiatives over other decarbonisation approaches like the purchase of offsets.

#### Operational decarbonisation pathway to 2040



#### Share of Ampol's Scope 1 and 2 emissions profile for Australia in 2022



30. Ampol's definition of 'operational emissions' is in accordance with the National Greenhouse and Energy Reporting (NGER) definition and refers to all Scope 1 and Scope 2 emissions within Ampol's operational control in Australia

31. The relevant target for the Convenience Retail business unit is to reduce operational emissions on an absolute basis by 25% by 2025 and 50% by 2030 from 2021 levels for all retail locations owned and operated by Ampol in Australia. The relevant target for the Fuels and Infrastructure business unit is to reduce operational emissions intensity by 5% by 2025 and 10% by 2030 from 2021 levels. With emissions intensity being the total emissions (Scope 1 and 2) per kL of Total High Value Product (HVP) for Lytton refinery and total emissions (Scope 1 and 2) per kL of Total Fuel Throughput for our three largest Terminal facilities: Kurnell NSW, Banksmeadow NSW and Newport VIC.

While the above chart excludes Lytton from the baseline, there are a range of initiatives in the near-term pipeline that will assist Ampol Australia in meeting 2025 and 2030 emission reduction targets set for Fuels and Infrastructure and the refinery in particular. Refer to the following page which provides an overview of current Lytton decarbonisation initiatives.

Note 1. 2021 baseline adjusted to account for the decrease in emissions from reduced terminal throughput as well as network changes (new/closed sites) in Convenience Retail.

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#### Decarbonisation initiatives Ampol are delivering to reduce operational emissions in Australia

## Powering Western Australian retail operations with a renewable energy contract

Introduction

Ampol has partnered with Alinta Energy, an Australian electricity provider, to power the majority of our Western Australian Retail operations through a procurement contract offsetting 100% of the electricity consumption with renewable energy certificates for a two-year period. Yandwin Wind Farm, a large-scale wind farm north of Perth, is where the certificates are accredited to for our purchased renewable energy.

#### Solar roll out in our retail network

Ampol has commenced additional installation of solar in our Retail network in conjunction with our AmpCharge EV charging rollout. The business is installing ~5MW of solar panels (~50kW capacity per site) with the solar energy generated at our Retail sites supporting electricity requirements of our stores and EV charging. The renewable energy generated via these solar panels will be supplemented with electricity from the arid.

#### Retail energy efficiency program

An energy efficiency work program has been developed for our Convenience Retail business including installing LED lighting, exploring improvements across air conditioner and refrigeration and a decarbonisation-focused store design. We are rolling out LED lighting across our retail network in Victoria and NSW and are delivering a frontline employee engagement program to encourage energy smart behaviours.

#### Carbon data management system

Ampol is establishing an Australian carbon data management and reporting system to assist with our carbon accounting and emission reporting requirements such as NGERs, as well as our annual sustainability and decarbonisation performance reporting. The system enables emissions data to be accurately captured, and ensures the integrity of the data through internal verification and validation checks. It is a valuable system for Ampol that streamlines and unifies our data management. Z Energy already has a similar carbon data management system in place to track and report emissions.

#### Lytton process efficiency

Lytton refinery is progressing efficiency improvements and initiatives. In 2022, we deployed a software tool enabling us to better monitor and identify when maintenance and cleaning of the crude unit pre-heat exchanger needs to be carried out. The software tool also aids with the management of fouling, the build-up of unwanted material deposits, and the associated energy loss. In early 2023, we will be able to fully understand the impact the software system is having on efficiency improvements and subsequent emissions reductions.

Other process efficiency projects that have progressed in 2022, but are at different stages of implementation and completion include the replacement of economisers on two boilers, as well as the reconfiguration of the prefractionator tower (a distillation tower) in the feed section of the reformer unit. Both these projects have a target completion date of 2024.

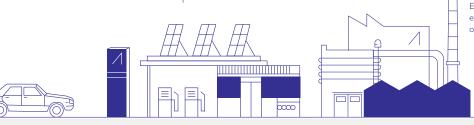
## Reducing energy use through our fleet operations

In 2021 our depot operations business commenced a fleet replacement program aimed at driving cost efficiencies and improving environmental performance and emissions reduction outcomes. Existing fleet are being replaced with modern, diesel engine technology and truck configurations are being optimised to deliver an emissions reduction benefit.



## Z Energy's progress to reduce operational emissions in New Zealand

Z has committed to a science-based target of 42% reduction in operational emissions by 2030 from a 2020 baseline. Delivery against this target is on track and emissions reduction initiatives implemented in the nine months to December 2022 include increasing the proportion of hybrid and electric vehicles within Z's corporate fleet. Transport emissions from heavy vehicles remains Z's hardest to abate operational emissions source. Z is working with MOVe its domestic fuel haulier on its shared commitment for continual reduction of emissions and adopting science-aligned targets. Z Energy voluntarily offsets those operational emissions it is unable to avoid by purchasing credits from international projects with high environmental integrity and that contribute to Z's sustainable development goals. A total of 16,000 tonnes of CO<sub>2</sub>e were offset for the nine months from 1 April to 31 December 2022.



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#### Responding to the introduction of the safeguard mechanism

Ampol recognises that the safeguard mechanism is an important tool to deliver emissions reductions consistent with meeting Australia's Nationally Determined Contributions (NDCs) under the Paris Agreement, whilst also driving the transformation of Australia's economy and competitiveness in a decarbonising global economy. Ampol supports an orderly and phased approach to introducing the safeguard mechanism, allowing time for facilities in hard-to-abate sectors to adjust given limited commercially-viable technologies currently available. We acknowledge that decarbonisation of the industrial sector is possible, but that this will take time and requires the collaborative efforts of multiple stakeholders including government.

Lytton refinery is a safeguard liable facility, and Ampol has already started taking action to decarbonise in order to meet 2025 and 2030 targets Ampol has set. Ampol is continuing to explore decarbonisation initiatives that could be implemented to meet it safeguard mechanism liability as well as look to purchase offsets if required.

#### Supporting our customers' decarbonisation goals

We know we need to evolve alonaside our customers as they seek to meet their own decarbonisation ambitions, recognising the complexity of the overall task and the time that it will take to deliver. Throughout 2022 we made significant progress in deepening our knowledge around the key focus areas of EV charging, electricity, renewable fuels and hydrogen. We are focused on identifying viable commercial opportunities and appropriately pacing initial investment given the uncertainty over the energy transition pathway, and as the economics and policy approach around the various technologies continues to evolve. Ampol is committed to the journey of energy transition and the early steps we are taking demonstrate the important role we can play in providing solutions to our customers. As always, we will remain disciplined in assessing returns from our investments in this area, recognising they will be longer dated, and involve partnerships, including with governments, where we maintain strong relationships.

#### Launching of Ampol's electric vehicle charging brand

In May 2022, Ampol announced the launch of AmpCharge, our electric vehicle charging brand, and opened our first charging site at the Ampol site in Alexandria, New South Wales, in August 2022. With battery electric vehicles the likely solution for passenger and light commercial vehicles, and in partnership with ARENA and the NSW Government through funding agreements, we have committed to rolling out

over 300 EV charging bays (across over 100 EV charging sites) by the end of 2024. We are offsetting the electricity consumed through our ARENA funded AmpCharge EV chargers by surrendering large-scale generation certificates (LGCs) to cover the electricity usage for these charging sites.

As our customers' needs expand, and the future of powering mobility becomes more complex, Ampol is well placed to make it simpler for customers. Ampol aims to power customer journeys through a combined fuel offer, with ongoing liquid fuels which they will need for some time to come, as well as electricity at their home and on-the-go, so we can serve customers "at the start, during and end of their journey". To support this goal, Ampol applied for, and received, a retail energy authorisation from the Australian Energy Regulator, and commenced a pilot for a small group of employees to test Ampol's value proposition. With our employee pilot now complete we have commenced offering Ampol Energy to customers in south-east Queensland



#### EV fast charging public network rollout has commenced

Ampol is moving with purpose to build a strong public charging network across Australia and New Zealand, to meet customer charging needs

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AmpCharge bays delivered in Australia to end of May 2023, across 10 sites renewable energy and 4 states certificates

100% of the energy used for ARENAfunded EV charaina sites offset with

150kW DC

fast charging capability in Australia

~291,000 kWh

of electricity consumed by customers in Australia to end of May 2023

## 30 mins

average charge session time in Australia

27kWh average charge session size in Australia

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Introduction

#### **Electrification of transport in** New Zealand

Z Energy's EV charging network is expanding with a dedicated Z EV Charging App to enable customers to easily find and pay to charge their vehicles, with 20% of Z's retail service stations planned to have EV charging bays by the end of 2023. Z Energy is partnering with EV charging technology company Red Phase to introduce the first super-high-capacity EV charging site at Z's Wajouru retail service station site. This site (in the Central North Island) suffers from electricity supply constraints and this project will serve as a demonstration project for how a new technology solution can

deliver high-speed charging while reducing impacts on the electricity network. We expect to learn from this demonstration project whether there is commercial opportunity across other parts of the Z network using this technology. Z is committing some investment to this demonstration which also involves a partnership with local electricity network operator, Powerco. This new system will provide four EV charging bays at Waiouru - a major highway location for travellers. Each EV charging bay will deliver up to 200kW.

#### Next generation fuels

Ampol has announced the signing of a Memorandum of Understanding (MoU) with ENEOS to explore the production of advanced biofuels at the Lytton refinery in Brisbane, Australia. The study will explore the feasibility of delivering an advanced biofuels manufacturing facility to generate sustainable aviation fuel (SAF) and renewable diesel. Initial work will consider the use of agricultural, animal and other waste feedstocks prevalent in the Queensland market and seek to leverage the use of existing refinery manufacturing and distribution infrastructure to produce biofuels for domestic use and for the export market where possible.

The project will leverage each company's strengths, bringing Ampol's existing refining and distribution infrastructure and knowledge about Australia's aviation and broader transport fuels market, together with ENEOS' expertise in refining technology, energy transition and leadership in the Japanese aviation and broader transport fuels market.

In September 2022, Z imported 1.2 million litres of SAF for Air New Zealand. This is enough fuel to power approximately 400 flights between Wellington and Auckland. The imported SAF was sourced in conjunction with Neste and delivered into Channel Infrastructure's fuel import terminal at Marsden Point and then via pipeline to Air New Zealand at Auckland Airport. One of the primary purposes of the import was to begin to test the supply chain, which worked well. Z is committed to continuing to source and import increasing volumes of SAF in line with its customers' requirements.



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## 8. Our decarbonisation pathways and plans continued

Introduction

#### Hydrogen

The technology pathway to decarbonise heavy vehicles, trains and large commercial shipping is still unclear. Hydrogen presents a potential opportunity for zero emissions in heavy transport, where payload and high utilisation of assets are key to efficient operations. In the transport sector, we see earlier adoption most likely in buses, waste collection fleets, and potentially cement mixers where there is a back to base style operation. These are easier to manage from a refuelling perspective with a known demand profile to which refuelling assets can be matched.

#### Hydrogen opportunities for Ampol

#### Production

Leverage third party hydrogen production projects that will produce hydrogen at scale and at low cost base. This allows Ampol to keep hydrogen costs down and achieve supply reliability.

#### Supply Chain

Linking existing third party hydrogen production projects together by creating a distribution supply chain. Leveraging existing investment and scale keeps costs down and allows Ampol to create Inks to domestic mobility.

#### Infrastructure

Ampol existing retail network and infrastructure is well positioned to support H2 adoption, although forecasted demand will inform where and when to prioritise investment of infrastructure.





## Case study:

In May 2021, we announced our flow and materials corrosion, and building and testing an electrolyser based on CSIRO's design fundamentals. At the start of 2022, the team had produced a scalable been laying the groundwork for what will be Endua's initial sales pipeline. In 2022, the by automating their test rig and enhancing their in-house manufacturing capabilities. of these units with customers to act as an important next step for Endua.

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## 8. Our decarbonisation pathways and plans continued

#### Customer, industry and government engagement

Introduction

Ampol have launched 'Decarbonisation Conversations', a targeted engagement program with our B2B customers to further develop our understanding of our customers' needs and decarbonisation requirements. We are also raising awareness of Ampol's Future Energy and Decarbonisation Strategies and how we can support customers now and into the future via various industry forums and trade shows.

We work closely with all levels of government to not only inform them of the objectives of our Future Energy and Decarbonisation Strategies, but to also explore partnership and knowledge sharing opportunities. This includes monitoring of policy developments, like the introduction of the safeguard mechanism, fuel emissions standards and mandatory climate disclosure regimes in both Australia and New Zealand and making policy submissions and engaging with government where relevant. Ampol continues to monitor climate-related policy and regulatory developments and assesses implications for the business, including incoming mandatory climate disclosure requirements for both Australia and New Zealand.

## Case study:

Ampol participated in the 'Fully Charged' show in 2023, the world's largest energy and electric vehicle trade show. Ampol collaborated with BYD to showcase electric vehicle and EV charging solutions. Participation in the trade show provided us with an opportunity to highlight how industry is working together to support energy transition and customers to find the right solution to meet their future mobility needs.

AMPOL Australia's own  $\triangle \langle \rangle$ 

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#### **Australian Climate Leaders Coalition**

Introduction

Ampol is one of the founding members of the Australian Climate Leaders Coalition (CLC). The CLC is a network that is comprised of cross-sectoral Australian corporate Chief Executive Officers that are committed to supporting the Paris Agreement and Australia's commitment to it, including the objective to keep global warming to well below 2 degrees above pre-industrial levels. Ampol has been actively involved in recent initiatives including the recent development of the Scope 3 Roadmap – practice steps that can be taken to address Scope 3 emissions which will require a shift in systems thinking and a new kind of collaboration across value chains. Read the Roadmap here: <u>https://www.climateleaders.</u> org.au/publications/scope-3-roadmap/.

#### New Zealand Climate Leaders Coalition

Z Energy is a founding member of the New Zealand Climate Leaders Coalition and former CEO Mike Bennetts was the founding Convenor until he stood down in June 2022, however Z remains part of the Steering Committee. The group is a CEO-led community of close to 100 organisations leading the New Zealand response to climate change through collective, transparent and meaningful action on mitigation and adaptation. The Climate Leaders Coalition released a new Statement of Ambition in mid-2022. Z Energy satisfied the requirements of the previous 2019 Statement of Ambition and is currently assessing whether we can fully meet the requirements of the new statement within the three-year timeframe (by 2025). Z intends to remain a member of the Coalition until a decision on whether it can transition to the new statement is made in September 2023.



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## 8. Our decarbonisation pathways and plans continued

Introduction

#### Building employee capability and culture for energy transition Future Energy Development (FED) Talks

In 2022, Ampol launched 'FED Talks', monthly presentations given by our own in-house experts on a range of topics including e-mobility, climate change, carbon, battery storage, hydrogen and energy markets. The talks aim to inspire innovation, encourage curiosity as well as build the knowledge necessary for the energy transition. The presentations are shared across the Ampol Group. In addition to this, we hold regular 'Lunch and Learn' sessions open to all employees to raise awareness and increase understanding on a range of topics including sustainability and decarbonisation.

#### **Ampol Sustainability Ambassadors**

In 2022 we created an employee-led program bringing together like-minded people across our business to advocate and help guide the conversation on environmental sustainability throughout our workplaces in order to help us power change for the better. Some of the initiatives delivered in 2022 included a panel discussion with two of CSIRO's mission leads on decarbonisation and ending plastic waste, as well as an initiative led by our Ambassadors during National Recycling Week to support the recycling of batteries, printer cartridges and soft plastics. As of 31 December 2022, there are over 100 employees across Ampol registered as Sustainability Ambassadors and represented in all areas of our business in Australia and Singapore.

#### Employee engagement at Z Energy

Z Energy actively supports employees to reduce their emissions through active and sustainable transport options such as the provision of dedicated cycling facilities at main office locations and encouraging Mevo car-share over taxis in Auckland and Wellington. In 2022 Z launched a partnership with local start-up, Hitch, to bring their product the Accelerate App to all staff, helping Z Energy staff to understand and reduce commuting-related emissions over the next 12 months, and encouraging fun and competition along the way.

Z Energy now has 25 electric (12 BEV and 13 PHEV) vehicles and 17 hybrid vehicles as part of its corporate fleet which combined represents 73% of the total fleet.



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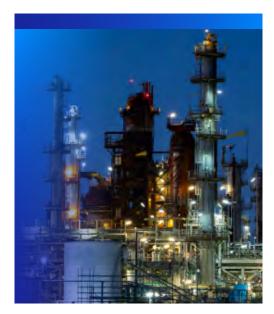
## 9. Climate governance

Introduction

#### Managing climate risk is a priority for the Ampol Group

Our Climate Change Position Statement, located on the Ampol website, outlines our principles surrounding climate risk and our approach to enhancing resilience, supporting our customers, and reducing the carbon intensity of our operations.

As an organisation, we support the Paris Agreement's long-term goal of limiting the increase in the global average temperature to below 2°C above pre-industrial levels, and we recognise the transport fuels industry will need to transform to achieve it.



The principles underpinning our approach to climate change include:

- an orderly, just transition to a net zero emissions economy is required to meet the Paris Agreement goals. Australia's economic prosperity and emissions reduction are complementary goals;
- addressing climate change creates opportunities for our business. Leveraging our key strengths, including our capabilities and assets, we will transition with our customers:
- climate change risk has financial implications. As scientific knowledge, policy and technology continues to evolve, we review and embed climate considerations into our financial and strategic planning processes;
- working collectively with our customers, government, and other industry parties to identify, enable, and advocate for decarbonisation pathways, and;
- being transparent about how we are addressing climate impacts across our business, together with how we are helping our customers to meet their energy transition commitments.

#### Our climate governance approach

The Ampol Board has established four standing committees with the Safety and Sustainability Committee having the highest level of direct responsibility for climate risk. The Safety and Sustainability Committee meets four times a year and its remit includes assisting the Board in overseeing and assessing the appropriateness of plans to mitigate sustainability risks including climate change. The Safety and Sustainability Committee Charter is available on the Ampol website. The Board reviews its composition annually, including the mix of skills, experience, expertise and diversity of Directors and the Board, to ensure it can effectively discharge its obligations. Details of the skills, experience, expertise and committee membership of each director is contained in their biographies included within the Annual Report and made available on our website. The current Board skills matrix is set out in the 2022 Corporate Governance Statement available on the Ampol website.

At the management level, responsibility for the risk associated with climate change has been assigned to the Managing Director and CEO. The Managing Director and CEO chairs the Strategic Risk Committee which comprises the Ampol Leadership Team together with the Head of Sustainability and Climate Change, General Manager Risk and Audit and Head of Strategy and Corporate Development.

The Strategic Risk Committee meets quarterly to focus on:

- overseeing the identification, quantification and management of climate-related risks;
- designing, executing and integrating climate scenario analysis into strategic planning and capital allocation;
- integrating climate-related risks further into capital investment and business case frameworks, and;
- monitoring and internal reporting of external climate change developments (regulatory, technological, market) relevant to Ampol supporting climate disclosures, reporting and engagement with external stakeholders.

At the management level, governance arrangements have also been put into place to oversee the execution of the Future Energy Strategy, including monthly and guarterly business review meetings which are chaired by the Executive General Manager, International and New Business

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## 9. Climate governance continued

Introduction



#### **Ampol Board oversight**

The Ampol Board meets at least seven times a year and its responsibilities include approving Ampol's systems, policies and processes, and overseeing performance of Ampol in relation to climate-related risks and opportunities. In 2022, key climate-related matters presented at Ampol Board meetings included progress on e-mobility initiatives and future energy, the electricity purchasing strategy, the issue of A\$150m of sustainability-linked hybrid notes, the revised qualitative risk appetite statement for business transformation and the business plan having regard to future energy initiatives.

Climate-related topics such as e-mobility, future energy and decarbonisation initiatives, scenario planning and a deep dive into business transformation risk were also included at the Board strategy workshops. A workplan has been agreed to address Ampol director development in climate-related risks and opportunities.

The role of the Safety and Sustainability Committee is to assist the Ampol Board by reviewing, advising and making recommendations to the Ampol Board on the systems, policies, processes and performance of Ampol relating to climate-related risks and opportunities. The Safety and Sustainability Committee meets at least four times a year. In 2022, key climate-related matters presented at Safety and Sustainability Committee meetings included the climate measures in the Ampol scorecard, progress of the physical climate risk assessment, a deep dive into climate change risk, a refresh of Ampol's sustainability strategy

and this Climate Report. The Safety and Sustainability Committee have committed to a set of eight climate-governance principles, as recommended by the World Economic Forum's Climate Governance Initiative (CGI). The principles are intended to enable non-executive directors to gain climate awareness and skills, embed climate considerations into Board decision-making, and understand and act on the risks and opportunities that climate poses to the long-term resilience and business success of their companies, while also taking into account all stakeholders. A workplan has been agreed to address director development in climate-related risks and opportunities.

The People and Culture Committee assists the Ampol Board to fulfil its corporate governance responsibilities in relation to Ampol's remuneration framework, by regularly monitoring performance against the Board-approved Ampol scorecard which includes climate measures from 2022.

The Chair of the Ampol Board attends committee meetings in an ex-officio capacity. All Directors of the Ampol Board receive committee papers, and are invited to attend meetings of committees of which they are not members.

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## 9. Climate governance continued

#### Z Energy Limited Board oversight

In May 2022, Z Energy Limited (Z) became a wholly owned subsidiary of Ampol Limited. A new Z Board has been established to oversee Aotearoa New Zealand operations. Z management has engaged with the Z Board to review and agree how the Z Board will meet its obligations to manage climate risk. The Z Board has also committed to a set of eight climate-governance principles, as recommended by the World Economic Forum's Climate Governance Initiative (CGI).

#### Linking climate to remuneration

The Ampol Board has strengthened the link between executive remuneration and the delivery of our Future Energy and Decarbonisation Strategies, with measures to reduce operational emissions and those associated with the products we sell to customers now representing 10% of the short-term incentive scorecard. In 2023, the 10% component applied to remuneration will be paid with respect to assessing progress against:

- 2025 Scope 1 & 2 emissions targets for Retail and Fuels and Infrastructure and abatement projects including renewable energy, process and energy efficiency improvements;
- energy efficiency, supply chain optimisation, renewable energy and behaviour change initiatives delivered to progress Z's 2030 carbon target, and;
- Scope 3 emissions intensity reduction goals including targeted e-mobility, hydrogen and biofuels initiatives.

For further information on how we are linking climate to remuneration, please refer to our Remuneration Report within Ampol's 2022 Annual Report.

#### Industry associations

To help better inform our decision-making, we participate in several industry forums to contribute towards policy dialogue and development. This participation allows us to share ideas and experiences with our peers, and to help us to identify strategies to pursue opportunities and address the challenges our industry faces.



The Ampol Group participate in many cross-industry associations and other business forums, including:

- Australia Climate Leaders Coalition
- Australian Hydrogen Council
- Australian Industry Greenhouse Network
- Australian Industry Group
- Australian Institute of Petroleum
- Business Council of Australia
- Bioenergy Australia
- Carbon Market Institute
- Clean Energy Council
- Electric Vehicle Council
- Gas Energy Australia
- Global Compact Network Australia
- New Zealand Climate Leaders Coalition
- Sustainable Business Council (New Zealand)
- Sustainable Business Network (New Zealand)
- Bioenergy Association of New Zealand/ NZ Business Energy Council
- NZ Business and Parliamentary Trust

Ampol is continuously reviewing and assessing its industry association memberships and affiliations to ensure strong alignment with our position and ambitions surrounding climate change. In 2022, we conducted a review of our industry associations to gauge each association's purpose, our engagement with the association, and the association's alignment with our Climate Change Position Statement. This review did not identify any material inconsistency between Ampol's climate position, and the position taken by industry associations of which we are currently members. If any inconsistency was to occur, Ampol is committed to active engagement with industry associations to seek common ground and to publicly disclose the outcomes of this engagement including a suspension of membership if required.

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## 10. Climate risk assessment and management

Introduction



#### Our risk management framework

The Ampol Board is responsible for overseeing the Ampol enterprise risk management framework. Similarly, the Board is also accountable for ensuring that the framework is effectively identifying and assessing and managing the risks that arise. Our enterprise risk management framework corresponds with the ISO 31000:2018 Risk Management Standard and the fourth edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations.

Climate change was identified as one of the 16 most material risks for Ampol in 2020 as part of a materiality assessment undertaken at that time, with climate change seen as having the potential to materially impact Ampol's operations, performance, assets and relationships with stakeholders. The Board has approved a climate risk description, appetite level and qualitative risk appetite statement. Quantitative risk thresholds have been set which form the basis for risk reporting, escalation and response with regard to the Board's appetite for climate-related risk. A comprehensive risk review is undertaken by management for climate-related risks on an annual basis and presented to the Board's Safety and Sustainability Committee. This risk review assesses the effectiveness of controls put into place and proposes any risk treatment actions. Management sets annual sustainability plans, which include climate-related activities. Progress against these plans is reported to the Ampol Leadership Team and the Board's Safety and Sustainability Committee on a quarterly basis.

#### Sources of climate risk for the Ampol Group

We have prepared a consolidated list of sources of climate change risk that are specific to, and have the capacity to impact, Ampol Group's business activity and our stakeholders. We have also outlined the key controls that are relevant to each of the risk sources.

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Sources of risk	Time horizon*	Controls
Demand for fossil fuel product and asset redundancy	Medium to long term	Scenario analysis and resilience testing Corporate Strategy Customer, industry and government engagement
Access to up-to-date information on climate change risks	Short term	Emerging issues and policy development monitoring Corporate governance processes
Government policy and regulation	Short term	Advocating for consistent governance policy and regulation consistent with Paris goals Government and industry engagement
Access to capital and investor sentiment	Short to medium term	Engagement with financial stakeholders Shadow carbon price Climate disclosures aligned with TCFD
Climate litigation and activism	Short term	Corporate governance processes Climate disclosures aligned with TCFD
Customer perception and loyalty, employee satisfaction	Short term	Sustainability Strategy and reporting Sustainability employee engagement program
Physical climate impacts such as increased severe weather events	Short to long term	Physical climate risk assessment and adaptation framework Emergency response procedures

\* Short term is 0–3 years, medium term is 4–10 years and long term is 10+ years.

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Introduction

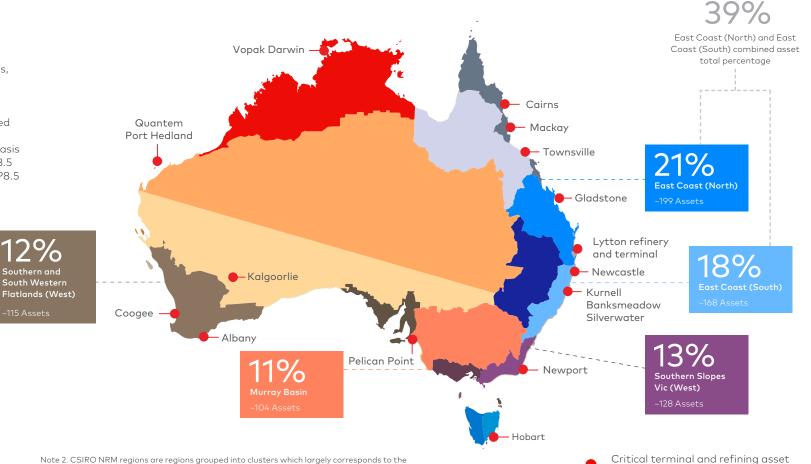
#### Managing physical climate risk

Ampol has conducted a physical climate risk assessment to understand the potential impact on assets and infrastructure across Australia resulting from changes in weather conditions. The process assessed the risk and potential impact of physical climate risks, cyclones, flooding, storms and bushfires on assets and critical infrastructure in high-risk geographical areas for Ampol. Three IPCC climate scenarios were considered - Representation Concentration Pathways (RCPs) 2.6, 4.5 and 8.5, with a greater emphasis placed on a high-emissions scenario of RCP8.5 across the 2030 and 2050 time horizon. RCP8.5 was largely employed to assess Ampol's resilience against a worst-case and high emissions scenario.

#### NRM clusters and sub-clusters

- Central Slopes
- East Coast (North)
- East Coast (South)
- Monsoonal North (East)
- Monsoonal North (West)
- Murray Basin
- Rangelands (North)
- Rangelands (South)
- Southern Slopes (Tas East)
- Southern Slopes (Tas West)
- Southern Slopes (Vic West)
- Southern Slopes (Vic/NSW East)
- Southern and South Western Flatlands (East)
- Southern and South Western Flatlands (West)
- Wet Tropics

#### Ampol assets in relation to Natural Resource Management (NRM) clusters and subclusters



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Note 2. CSIRO NRM regions are regions grouped into clusters which largely corresponds to the broad scale similarity in past climate conditions, biophysical factors and broad patterns of climate change.

locations (owned/joint/leased assets)

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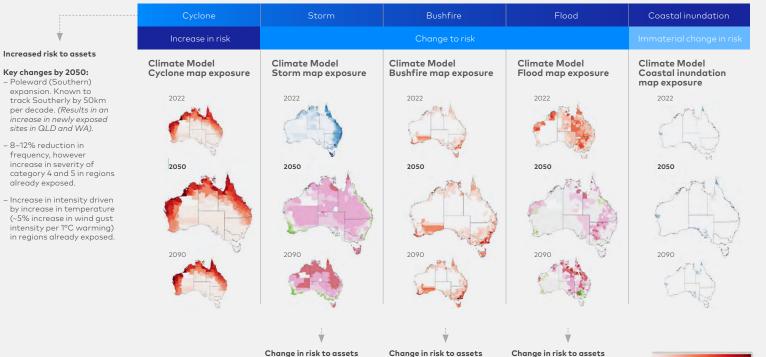
#### Key insights under a high-emission scenario of RCP 8.5 by 2050

Introduction

Under the RCP8.5 scenario, Queensland and Western Australia are at risk of being most exposed to cyclones, which are also modelled to have the greatest increase in intensity of all climate variables assessed.

Ampol's asset network is impacted by cyclones between 2030 and 2050. In particular, Lytton refinery, Lytton terminal and lubricants facilities are assets that are newly exposed to the climate risk, and it is anticipated that the risk for Mackay terminal will increase.

#### Current climate trajectory closer to RCP 8.5 a 2–3°C warming by 2050



Key changes by 2050:

- In areas already exposed

and severity driven by

and increase in frequency

warmer and drier climate.

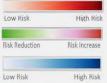
## Key changes by 2050:

- 20% reduction in East Coast Low frequency.
- In areas already exposed and increased intensity in hourly extreme rainfall.

(driven by fluvial (riverine) flooding)

#### Key changes by 2050: Projected increase in risk

through Pluvial flooding (surface water or flash flooding) due to increase in rainfall intensity from storms.



- Annual recurrence interval (ARI) of floods increase from ~20-25 to ~16 to 20

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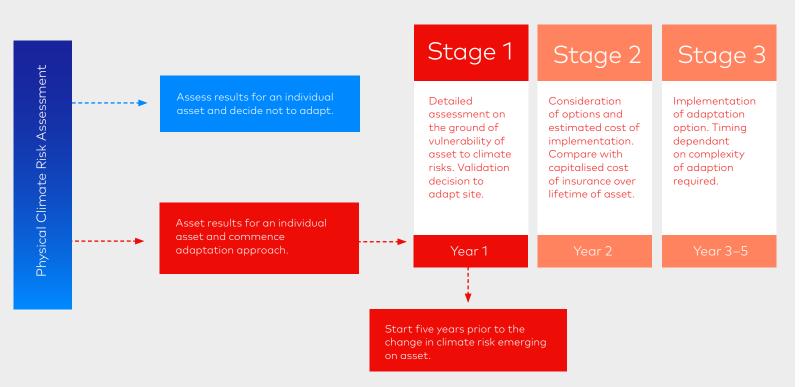
## 10. Climate risk assessment and management continued

#### Our next steps and adaptation approach

Introduction

Ampol has developed an adaptation framework, segmented into three stages over a five-year period. Findings from the risk assessment will be used to trigger more detailed on the ground assessments, identification, development and implementation of adaptation plans.

The key information and outputs that arose from the physical climate risk assessment will be integrated into Ampol's risk framework, Operational Excellence Management System (OEMS) and the broader business for consideration in business planning and long-term strategic direction.



#### Z Energy's response to physical climate risk

Understanding the financial impact to Z Energy from identified physical risks requires a thorough knowledge of the predicted changes to weather and climate in the short, medium and long term. Z Energy is working with engineering and environmental specialists Pattle Delamore Partners Ltd (PDP), to understand the severity of exposure to physical risks, both in terms of physical damage to assets and disruption to the supply envelope. The impact from the most material physical climate hazards is being assessed across three timeframes (2025, 2030 and 2040) including a best case (RCP2.6), worst case (RCP8.5) and mid-point (RCP4.5) climate scenario, utilising the latest sea-level rise projections from NZ SeaRise coupled with flood risk data.

Quantification (e.g. potential damage costs) of the physical impacts from these hazards is being conducted across Z Energy's asset portfolio working with PricewaterhouseCoopers to analyse historic weather-related damage and climate projection data supplied by PDP and applying frequency-severity statistical models to develop a quantitative risk model out to 2040. Preliminary results have provided insights that will be integrated into asset management plans and identified where more detailed information is required to assess the likely impacts across our most strategic assets in the terminal network.

$\triangle$ < >	Introduction	Climate Reporting	Glossary		2	2023 Climate Report – Ai	mpol Limited 40
		5. Climate change framework and decarbonisation	6. Our emissions profile	7. Climate scenarios, strategic planning and capital allocation	9. Climate governance	10. Climate risk assessment and management	11. Task Force on Climate-related Financial Disclosures (TCFD) Index

## 11. Task Force on Climate-related Financial Disclosures (TCFD) Index

Alignment with Relevant Task Force on Climate-related Financial Disclosures (TCFD) framework

Recommended Disclosure	References	Response	Recommended Disclosure	References	Response
overnance – How we are in	ternally governing and manag	ing our climate risks and opportunities		minimise and mitigate the act y and financial planning	ual and potential impacts of climate change on ou
<ul> <li>a) Describe the board's oversight of climate-related risks and opportunities.</li> <li>b) Describe management's role</li> </ul>	and Decarbonisation A Strategy, op Page 28 TI 2023 Climate Report, fr Governance and Climate ris Risk Management re Section, Page 34 TI 2022 Ampol Annual por Report, re Pages 18,61 ag 2022 Corporate TI Governance Statement, di Pages 7–10 TI Covernance Statement, no Ampol Future Energy and Decarbonisation re	The Board approves and has direct oversight of Ampol's overarching strategy and financial and operational performance. The Board approves the overall risk management framework which incorporates non-financial risks such as environmental, safety and reputational risks. The Board incorporates climate-related risks as part of strategy and investment discussions, risk management and monitoring and performance against external sustainability commitments. The Board approves sustainability policies and disclosures, including the Sustainability Report. The Board has established four standing	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	2022 Corporate Governance Statement, Page 15 2023 Climate Report Governance and Climate Risk Management Section, Page 36 2022 Ampol Annual Report, Page 61 Ampol Future Energy and Decarbonisation Strategy	Climate change is a risk that has been identified to be material for Ampol. The Ampol Risk Management Framework (ARMF) outlines the sources of climate change risk and the key controls that are implemented to manage them. Ampol regularly reviews and assesses the material risks within the ARMF, as well as conducting deep dives on each risk. A description of the risks associated with climat change are included in this report. Climate change also presents opportunities for Ampol as identified in our Future Energy Strategy and this report.
		committees, including Audit, Human Resources, Nomination and Safety and Sustainability. The Safety and Sustainability Committee holds the highest direct responsibility for climate change. The MD and CEO has been assigned responsibility for climate change risk at a	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	2023 Climate Report, Scenario analysis and capital allocation, Page 22 Physical Climate Risk and Adaptation, Page 37	Ampol has undertaken scenario analysis and modelling for both transitional and physical climate risks to understand the risks and opportunities of climate change on the compar and its assets under plausible, future scenarios. This work was done to inform strategic planning
in assessing and managing climate-related risks and opportunities.	Strategy, Page 28 2023 Climate Report, Governance and Climate Risk Management Section, Page 33 2022 Ampol Annual Report, Pages 18,61	management level. A Strategic Risk Committee has been established by the Leadership Team to oversee identification, quantification and management of climate-related risks. This includes integration of climate scenario analysis into strategic planning, decision making, capital allocation and investments, monitoring of external climate change developments, and supporting reporting requirements.	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	2023 Climate Report Climate Scenarios, Strategic Planning and Capital Allocation section on Pages 22-23 Our Decarbonisation Pathways and Plans Section in the Climate Action Report, Pages 25-28	We have developed an Integrated Assessment Model (IAM) to inform our approach, focusing on three core climate scenarios for how the Australian transport sector could transition. Our strategic planning approach allows our business to estimate how we are positioned for different climate futures in the medium to longer term and is being used to help inform our strategic decision making. The key findings from our scenario analysis shows that under all scenarios over the

Leveraging our commercial strengths we have launched a range of energy transition opportunities including the introduction of AmpCharge, our electric vehicle fast-charging infrastructure.

medium-term traditional fuels will remain a strong market well into the 2030's given the lack of commercially viable substitutes in particular

for diesel and jet fuel.

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## 11. Task Force on Climate-related Financial Disclosures (TCFD) Index continued

Recommended Disclosure	References	Response	Recommended Disclosure	References	Response
<b>Risk Management –</b> How we opportu		d managing our climate-related risks and		etrics captured and targets e entified climate-related risks	established to ensure continuous progress against and opportunities
a) Describe the organisation's processes for identifying and assessing climate-related risks.	2023 Climate Report, Climate Scenarios, Strategic Planning and Capital Allocation section, Pages 22–23; Governance and Climate Pick Managament	To assess and understand the potential implications of transitional risk on Ampol, we have undertaken scenario analysis using our IAM to inform strategic planning and identify potential value creation opportunities. This work was conducted in conjunction with a third-party consultant with input and orderscenario the	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and rick management	2023 Climate Report, Our Emissions Profile Section in, Pages 12–16 2022 Ampol Annual Report, Page 39	As outlined in both our 2022 Ampol Annual Report, and within the Emissions Profile section of our Climate Report, the emissions metrics we capture are used to assess our climate-related risks and opportunities and inform our actions and strategic direction.
	ation's     Statement     our principles surrounding climate risk and our       es for     Ampol Future Energy     approach to enhancing resilience, supporting		In Australia, we calculate and capture our Scope 1 and 2 emissions (tCO <sub>2</sub> e) in accordance with the Australian National Greenhouse and Energy Reporting Determination 2008 and distinguish according to 'Lytton refinery (excluding Lubricants)', 'Terminals, lubricants and others', and 'Convenience Retail'.		
<ul> <li>b) Describe the organisation's processes for managing</li> </ul>				We estimate our Scope 3 emissions across the value chain using the GHG Protocol (Scope 3) Standard.	
climate-related risks. Strategy, Page 28 2023 Climate Report; Governance and Climate Risk Management Section, Page 36 Section, Page			We also capture emissions intensity for Lytton refinery (excluding Lubricants) and our three largest Terminal facilities (Kurnell NSW, Banksmeadow NSW and Newport VIC), as well as our absolute emissions for all Ampol owned and operated Convenience Retail locations in Australia.		
		change risk that are specific to and have the			In New Zealand, we calculate Scope 1, 2 and 3 emissions across the value chain.
		2023 Climate Report, Our Emissions Profile Section, Pages 12–16 2022 Ampol Annual Report, Page 39	Ampol's emissions data is included in this repor (Scope 1, 2 and 3 emissions) for the 1 July 2021- 30 June 2022 reporting period which is aligned to National Greenhouse and Energy Reporting (NGER) timelines and reflects emissions		
c) Describe how processes for identifying, assessing, and managing how climate-related risks are integrated into the organisation's overall risk management. 2023 Climate Report; Governance and Climate Risk Management Section, Page 36 Section, P	I risks. including limited assurance Z Energy GHG Inventory including reasonable including reasonable including assurance over emissions data.	reporting within our Sustainability Reports. Please refer to the Ampol website for further information on Ampol's sustainability reporting including limited assurance over Scope 1 and 2 emissions data.			
	Management Framework corresponds with the ISO 31000:2018 Risk Management Standard and the ASX Corporate Governance Principles and Recommendations. Climate change has been identified as a material risk for Ampol. It was identified through a materiality assessment that was undertaken		assurance	Z Energy's emissions performance is included in this report for the period from 1 April 2022 to 31 December 2022, which is aligned to its FY23 Greenhouse Gas Inventory Report. This report is	
		risk for Ampol. It was identified through a			available on the Z Energy website and includes reasonable assurance over Scope 1, 2 and 3 emissions data.

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5. Climate change framework and decarbonisation commitments

6. Our emissions profile

7. Climate scenarios, 8 strategic planning and capital allocation

8. Our decarbonisation nd pathways and plans

arbonisation 9. Climate governance ys and plans

overnance 10. Climate risk assessment an management 11. Task Force on Climate-related Financial Disclosures (TCFD) Index

## 11. Task Force on Climate-related Financial Disclosures (TCFD) Index continued

Recommended Disclosure	References	Response
c) Describe the targets used by the organisation to manage climate-related	2023 Climate Report, Decarbonisation commitments, Page 10	We have established an overarching ambition to achieve net zero emissions (Scope 1 and 2) across our Australian operations by 2040. We have also set interim targets in Australia that are consistent with this objective for 2025 and 2030.
risks and opportunities and performance against targets.		By 2025, within our Fuels and Infrastructure division, we have set a target to reduce operational emissions intensity by 5% from 2021 levels. Within the Convenience Retail division, we have set a target to reduce operational emissions on an absolute basis for retail stores owned and operated by Ampol by 25% from 2021 levels. We have also committed to 40% equivalent net renewable electricity for operational use in Australia.
		By 2030, within the Fuels and Infrastructure division, we have set a target to reduce operational emissions intensity by 10% from 2021 levels. Within the Convenience Retail division, we set a target to reduce operational emissions on an absolute basis for retail stores owned and operated by Ampol by 50% from 2021 levels. We have also committed to 50% equivalent net renewable electricity for operational use in Australia.
		In New Zealand, Z Energy has committed to reduce operational emissions by 42% from 2020 levels.
		We have also identified initiatives relating to Scope 3 emissions:
		<ul> <li>A minimum investment target of A\$100m by 2025 to support the execution of our Future Energy and Decarbonisation Strategies in Australia</li> </ul>
		<ul> <li>NZ\$50m spend in New Zealand by 2029 to support decarbonisation initiatives</li> </ul>

- Continue to grow Z's EV charging network by delivering charging bays across 39 sites by the end of 2023
- Deliver a network of >300 EV charging bays over 2023/24 and operate or control 500 AmpCharge or equivalent EV charging bays by 2027 in Australia

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#### 12. Glossary and reporting terms

Introduction

Ambition	To seek a certain outcome for which the pathway to achieving this is uncertain. Efforts will be pursued towards addressing the ambition subject to certain assumptions and conditions.	Emissions	Aggregation of greenhouse gas emissions into carbon dioxide equivalent emissions including carbon dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), Nitrous Oxide (N <sub>2</sub> O), Hydro fluorocarbons (HFCs) and Sulphur hexafluoride (SF.) and	Net zero	Net zero refers to a state in which greenhouse gas emissions going into the atmosphere are balanced by removal out of the atmosphere. Ampol's net zero ambition includes operational emissions within Australia and assumes Lytton	
Ampol Australia	Ampol and its Australian controlled entities, and any joint venture facilities in Australia over which the Ampol Group has operational control.	EV charging	Perfluorochemicals (PFCs). A location that hosts EV charging bays. In		refinery will no longer be operational by 2040. It includes the use of carbon offsets if required.	
Ampol or Ampol Group	Ampol Limited and its controlled entities, and their interests in associates and jointly controlled entities, unless otherwise stated or otherwise clear from the context in which the term is used.	site	Australia and New Zealand the Ampol Group is rolling out EV charging across retail networks and 3rd party sites. An EV charging site may have multiple EV chargers and EV charging bays.	Operational emissions	Operational emissions for Ampol refers to Scope 1 and 2 emissions from operated assets within Australia. Ampol's definition of operational emissions is in accordance with the National	
Carbon dioxide equivalent (CO <sub>2</sub> e)	The universal unit of measurement to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of carbon dioxide.	EV charging bay	A parking spot in which a customer can charge their EV. The number of EV charging bays represents the total number of EVs that can charge across the network at a point in time.		Greenhouse and Reporting (NGER) definition. Operational emissions for Z Energy refers to Scope 1 and 2 emissions from operated assets within New Zealand as well as Scope 3 emissions associated with staff travel, waste to landfill	
Carbon offsets	The purchasing of a carbon credit to compensate for the greenhouse gases that have been emitted.	Fuels and Infrastructure	An Ampol business unit comprising operations in Australia including Lytton refinery, terminals,		and domestic distribution and storage of fuels in New Zealand.	
	Carbon credits may be generated through projects in which greenhouse gas emissions are avoided, reduced, removed from the atmosphere or permanently stored. Carbon credits are created and independently verified in accordance with a voluntary program or under a regulatory	Future Energy and Decarbonisation Strategies	depots and distribution. A Strategy document released by Ampol in May 2021 and available on the Ampol website. The document set out targets to reduce operational emissions in Australia as well as the energy transition opportunities Ampol would	Paris Agreement	The Paris Agreement is an agreement between countries party to the United Nations Framework Convention on Climate Change (UNFCC) to strengthen efforts to combat climate change adapt to its effects, with enhanced support to assist developing countries to do so.	
Climate scenarios	program. Climate change projections based on standardised scenarios describing plausible concentrations of future atmospheric greenhouse gas emissions. Commonly used and accepted	GHG Protocol	explore include electrification, hydrogen and other low carbon products. A Corporate Accounting and Reporting Standard, which provides requirements and guidance for companies and other organisations preparing a	Paris Agreement goal	The goal of the Paris Agreement is to hold global average temperature increase to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.	
	climate scenarios include those developed by the International Energy Agency (IEA) including the Stated Policies Scenario (STEPS), Net zero Emissions by 2050 Scenario (NZE).	Low carbon solutions	corporate-level emissions inventory.         Energy products and services that reduce emissions compared to a fossil fuel baseline.	Renewable diesel	Renewable diesel is an advanced biofuel made from a range of waste and purpose grown biomass sources. Unlike first generation biodiesel	
Convenience Retail	An Ampol business unit comprising operations in Australia including the owned and operated retail network of 645 stores.	Nationally Determined Contributions (NDCs)	As part of the Paris Agreement, an NDC is a climate action plan to cut emissions and adapt to climate action, Each party (country) to the Paris Agreement is required to establish an NDC and		which requires blending with conventional fuels or modification of vehicle engines to run 100% biodiesel, renewable diesel can directly substitute conventional diesel and does not require blending.	
Downstream emissions	Scope 3 emissions associated with the distribution and use of sold products.	(1003)	update it every five years.			

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## 12. Glossary and reporting terms continued

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Replacement Cost Operating Profit (RCOP)	A non-International Financial Reporting Standards measure and is unaudited. It is derived from the statutory profit adjusted for inventory (gain)/losses as this presents a consistent basis of reporting as the commonly used within the global downstream oil industry.	Scope 2 emissions	Greenhouse gas emissions released to the atmosphere from the indirect consumption of an energy commodity. For example, 'indirect emissions' come from the use of electricity produced by the burning of coal in another facility.	Total Terminal Throughput	Is the total kilolitres of High Value Product passed through Banksmeadow Terminal, Penrhyn Road Banksmeadow NSW, Newport Terminal, Douglass Parade, Newport VIC and New South Wales Fuels Refinery, located at Solander Street and Sir Joseph Banks Drive, Kurnell, NSW.
Representation Concentration Pathway (RCP)RCPs try to cap over time, and in how concentrat atmosphere wil of human activi a very high conc in the atmosphe a temperature i	RCPs try to capture how the climate may change over time, and involve making predictions of how concentrations of greenhouse gases in the atmosphere will change in the future as a result of human activity. The pathways range from	Scope 3 emissions	Indirect greenhouse gas emissions other than scope 2 emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business. Some examples are extraction and production of	Total value chain emissions	Total emission (Scope 1, 2 and 3 emissions) across the full life cycle of business processes and products including sourcing, production, operations, consumption and disposal/recycling processes.
	were adopted by the Intergovernmental Panel on Climate Change (IPCC) to present its findings.       Aviation (SAF)         aguard e facility       A facility captured under the Australian Federal Government's Safeguard Mechanism.		purchased materials, transportation of purchased fuels, use of sold products and services, and flying on a commercial airline by a person from another business.	Upstream emissions	Scope 3 emissions associated with the purchase and supply of goods and services including the extraction, production and transportation of crude and refined products.
		Aviation Fuel	SAF is a biofuel used to power aircraft that has similar properties to conventional jet fuel but	Z Energy	Z Energy Limited includes its controlled entities.
Safeguard liable facility		(SAF)	with less emissions. The reduction in emissions compared to conventional jet is dependant on the feedstock and technologies used to produce it.		
	The Safeguard Mechanism applies to facilities in Australia with Scope 1 emissions of more than 100,000 tCO <sub>2</sub> e.	Target	An intended outcome where we have identified one or more pathways for delivering that outcome subject to certain assumptions and		
Scenario	A process that allows a company to understand		conditions.		
analysis	and quantify the risks and uncertainties it may face under different climate scenarios. It helps in decision-making and supports strategic planning. It is a highly analytical and model-based process that uses a range of financial assumptions. Undertaking financial scenario analysis forms part of the TCFD framework.	Task Force on Climate-related Financial Disclosures (TCFD)	A framework to help companies and other organisations to effectively disclose climate-related risks and opportunities. It seeks to standardise the approach for reporting entities, thereby providing stakeholders with clear, comparable and consistent information.		
Scope 1 emissions	Direct greenhouse gas emissions released to the atmosphere as a direct result of an activity, or series of activities, at a facility level. Scope 1 emissions are sometimes referred to as direct emissions.	Total High Value Product	Is the total kilolitres of jet fuel, unleaded petrol, premium unleaded petrol, super premium unleaded petrol and ultra/extra low sulfur diesel produced through Lytton refinery located in Lytton, Queensland which is owned and operated by the Group.		

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