



Ampol Limited

Future Energy and Decarbonisation Strategy





Introduction

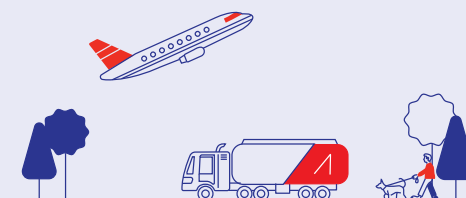
Highlights

A Future Energy Strategy has been developed which has identified opportunities in electrification, hydrogen and other new products and solutions. An investment target has been set to a minimum

\$100m
spend to 2025

We recognise that energy transition is underway, presenting an opportunity for the business to evolve with our customers as their energy needs change

We aim to develop leading decarbonisation solutions for our customers to meet their own emission reduction targets



We have become founding members of the Australian Climate Leaders Coalition, advocating for a net zero emissions economy by 2050

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We have set an ambition to reach net zero emissions on an absolute basis across operations by 2040 with operational emissions reduction* targets consistent with this objective for 2025 and 2030

By 2025

Fuels and Infrastructure
Reduce operational emissions intensity** by 5% from 2021 levels

Convenience Retail
Reduce operational emissions on an absolute basis by 25% from 2021 levels

Renewable energy
Commit to 40% equivalent net renewable electricity for operational use

By 2030

Fuels and Infrastructure
Reduce operational emissions intensity** by 10% from 2021 levels

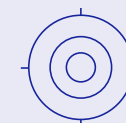
Convenience Retail
Reduce operational emissions on an absolute basis by 50% from 2021 levels

Renewable energy
Commit to 50% equivalent net renewable electricity for operational use

By 2040

Net zero emissions operations

(Scope 1 & 2)



* Scope 1 and Scope 2 emissions from our operational assets.

** CO₂e per kl of High Value Product (HVP).



Message from the CEO

Future Energy and Decarbonisation Strategy

Ampol is committed to reducing its carbon footprint and finding and developing new energy solutions that assist our customers in their energy transition

We understand that the energy transition will be a journey for our organisation and for our customers. As Australia's largest fuel supplier, we have an important role to play and are uniquely positioned to create a pathway for our customers through this journey. We will continue to provide energy for transport mobility as we have for over 100 years and strive to make it more efficient as we develop new solutions for the future.

Our integrated supply chain capabilities and privileged assets, Australian brand, customer relationships and industry knowledge, when combined with our financial strength, set us apart in the transport fuels market. The flexibility to repurpose our market leading infrastructure and networks for multiple uses will support the most efficient pathway for our customers' decarbonisation needs.

These strengths are unique and highlight both the significant transformational opportunity that the energy transition presents for Ampol, as well as our right to participate.

Our position on climate change is clear and well-established. As an organisation, we support the Paris Agreement's long-term goal

of limiting the increase in the global average temperature to well below two degrees Celsius above pre-industrial levels, and we recognise the transport fuels industry will need to transform to achieve it. This will require very significant levels of investment and will give rise to considerable opportunities for Ampol.

Ampol is targeting reaching net zero emissions across our operations by 2040 and we have set operational emissions reduction targets consistent with this objective for 2025 and 2030. We have defined a pathway for achieving our goals and we have a track record of taking action to reduce emissions associated with our operations, including optimising our assets through energy efficiency and renewables projects.

Outside our operations, we will work in partnership with customers and host governments to develop new solutions by leveraging our strengths. These solutions will help our customers reduce emissions from their use of energy products, while building new earnings streams and reshaping our core business to deliver sustainable returns for our shareholders over the long-term.

We will extend our customer value proposition and target new opportunities in electricity, hydrogen, gas, biofuels and carbon mitigation. We will pursue these opportunities in areas that are close to our core capabilities and assets and do so with technology and industry partners to give us the best chance of success.

We will concentrate our focus and continue to evolve through our targeted participation, and as future customer needs and the pathway for transition becomes clearer. We will also execute with discipline to ensure we both protect and grow shareholder value.

To achieve a net zero emissions economy, a range of lower emissions transport fuels solutions will be required, reflecting Australia's dispersed geography and strong base of transport and other heavy industries. Ampol will continue to work with local, state and federal governments to bring our unique perspective in advocating for policies that support an orderly transition to a net zero economy.

This document sets out the foundations of how we will help shape the energy transition and continue to reduce our own carbon footprint. It includes our targets,

strategic actions and enablers to the successful delivery of this strategy, along with some initial case studies that demonstrate how execution is already underway.

We recognise that we will need to remain dynamic in our approach as the expectations and needs of customers, host governments and other partners change. Ampol will continue to be transparent, regularly reviewing our performance through strong oversight and governance to ensure we can deliver on our commitments.

We look forward to your feedback as we continue to execute in the years to come.



Matthew Halliday
Managing Director and
Chief Executive Officer





Our business at a glance

We are Australia's market-leading fuels and retail business, underpinned by strategic infrastructure and customer positions

In 2020 we launched our new company purpose – *Powering better journeys, today and tomorrow* – which means focusing on delivering sustainable value for our shareholders, our customers, our people and the communities within which we operate.

Underpinning our purpose is our corporate strategy framed by three aims and utilising our key strengths.

Figure 1: Our corporate strategy

Purpose

Powering better journeys, today and tomorrow

Strategy

Enhance

the core business



Bring back Ampol

Bring back an iconic Australian brand and reinvigorate our people and customer connection

Further cost savings

Take further action on costs to mitigate demand impacts and reinforce competitive position

Continued operations at Lytton

Deliver safe, reliable and efficient refining operations to maximise value from a highly strategic and well-located asset

Improve retail network

We have released significant capital, with further potential to improve returns

Restore F&I Australia ROCE

Our market leading position provides resilience, but we will take action to further strengthen our infrastructure and focus on capital effectiveness and cost efficiency

Expand

from rejuvenated fuels platform



International earnings growth

Leverage our scale and capabilities to accelerate our growth in regional markets

Shop earnings growth

Leverage our strength in retail fuel to capture opportunities from the evolving behaviours and expectations of our customers

Evolve

energy offer for our customers



Build foundations for energy transition

Transition with our customers, focusing on a targeted set of energy and decarbonisation themes with clear linkages to our capabilities and assets

Strengths

Strategic assets

Deep customer base

Supply chain expertise

Iconic Australian brand





Our business at a glance

Continued

Ampol is a unique business possessing four key strengths that underpin our purpose and strategic aims

Figure 2: Our key strengths

Strategic assets

We operate a portfolio of highly strategic assets with privileged infrastructure located across key demand centres and Australia's largest branded retail network with over 1,900 sites nationwide.

Portfolio of privileged infrastructure:

1.5bl
liquid fuels storage capacity in highly strategic locations

Potential to adapt for alternative uses

Australia's largest branded retail network at
~1,925
sites

Valuable strategic partnerships with industry leaders including Woolworths

Supply chain expertise

Our supply chain reliability and value creation is underpinned by our infrastructure, manufacturing and distribution capabilities which together allowed us to safely and reliably deliver over 20 billion litres of fuel to customers in 2020.

Australia's largest integrated fuel supplier:

21bl
Australian and International volumes*

16bl
Manage valuable Australian short position*

Strong manufacturing, distribution, shipping and trading capability

Growing presence in international markets (bought or sold cargoes from 19 countries in 2020**)

Deep customer base

Our deep customer base is diversified across both wholesale and retail channels, supported by the market's leading card offer with 38% market share, and a retail network with over 3 million customer transactions each week. The strength of connection with customers is further evidenced by the 19-year average supply relationship with our top 20 wholesale customers.

Significant B2B and B2C customer platforms:

Over
80k
business accounts

Over
3m
weekly Convenience Retail customers

~19yr
average historical supply relationship with top 20 B2B customers***

Leading card offer with
~38%[^]
market share

Iconic Australian brand

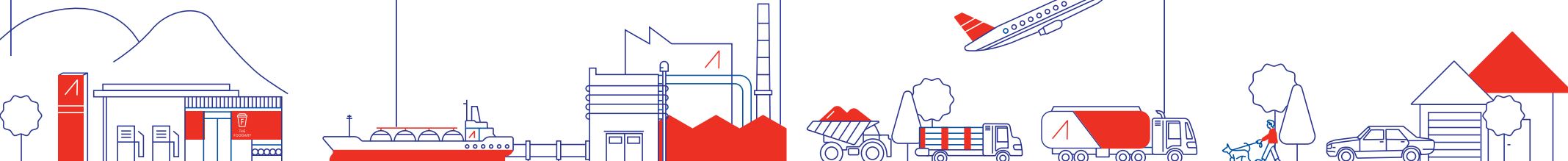
Our Ampol brand is one that strongly resonates with Australians, with the potential to deepen the connection with our customers and the communities in which we operate.

Ampol brand strongly resonates with Australians

Market leader in Australian transport fuels (largest wholesale supplier, with 28% market share in 2019)

~168^{^^}
stores have been rebranded to Ampol

Relentless focus on safety and reliability



* 2019 volumes (pre COVID-19).

** As of 31 December 2020.

*** Based off 2019 analysis.

[^] Based on ACA Research 2019.

^{^^} As at 30 April 2021.



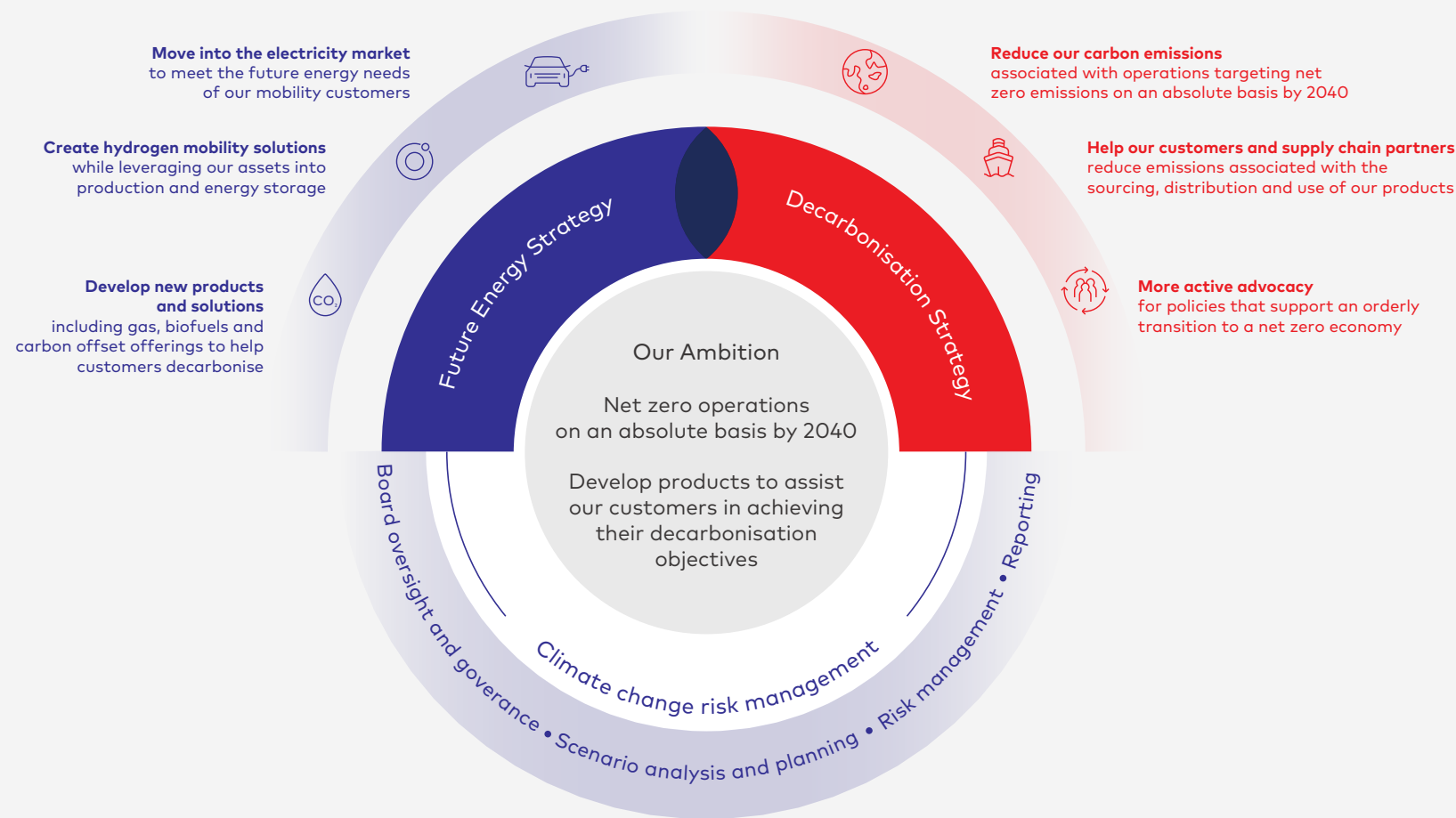
Our business at a glance

Continued

Our strategy brings together our approach to meeting our customers' future energy needs, decarbonisation efforts and climate risk management practices

Our Future Energy and Decarbonisation Strategy sets out the foundations for delivering against the Evolve pillar of our corporate strategy; leveraging the strengths of our assets, customer connections, capabilities and brand.

Figure 3: Future Energy and Decarbonisation Strategy



Net zero operations on an absolute basis by 2040



Our business at a glance

Continued

We have undertaken work to better understand the carbon emissions associated with our business across the value chain

We have recently prepared a Scope 3 emissions baseline to better understand the full extent of the carbon emissions associated with our business. This work has informed us that the large majority of our emissions are Scope 3, in particular emissions arising from the combustion of the products we sell to our customers (comprising 77% in our 2019 baseline year).

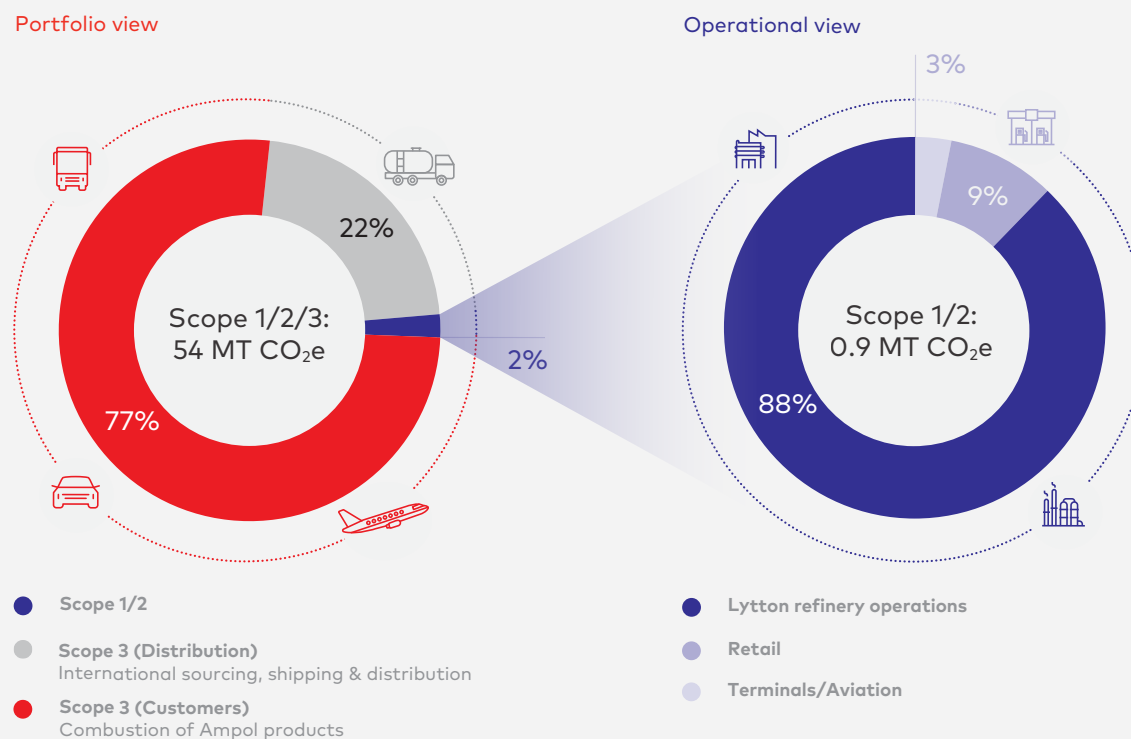
Scope 1, 2 and 3 emissions

Scope 1: All direct emissions from an organisation's owned or controlled sources, e.g. use of gas at our refinery

Scope 2: Indirect emissions from the generation of purchased energy, e.g. using grid power at our operations

Scope 3: All other indirect emissions that occur in the value chain of an organisation and in the use of the products it sells, e.g. the sale of petroleum products we sell

Figure 4: Our baseline carbon emissions



Source: Scope 1 & 2 as per Ampol National Greenhouse Energy Reporting. Scope 3 as calculated by South Pole 2021. Baseline year is 2019.



Climate scenarios

We have completed climate scenario analysis which considered two potential scenarios of the development of the future energy mix

Key takeaways:

Australia is currently a significant hydrocarbon economy, being one of the world's top exporters of coal, minerals and LNG.

However, energy transition is underway and accelerating with increasing pressure on governments, policy makers and investors to significantly reduce emissions.

Under both scenarios, we see an increased renewables penetration supporting greater electrification in the Transport, Industrial and Residential, Commercial and Agriculture sectors. This would eventually displace CO₂ emissive fuel sources such as coal, gas and oil.



From this analysis, we have identified several insights which Ampol will act on:

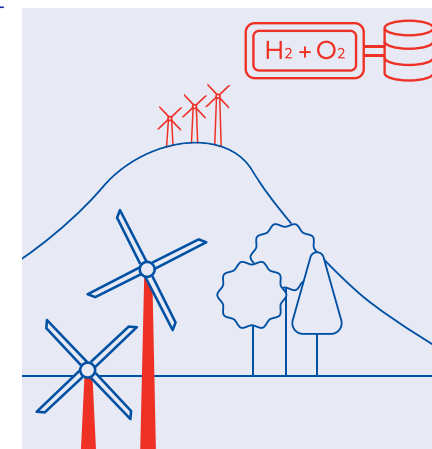
The energy transition for the transport sector is likely to be slower in Australia compared to some other countries. Analysis shows customer demand for transport fuels remaining robust until at least 2030.



Gas, biofuels and carbon offsets will be key transitional products and services as mobility energy decarbonises.

The development of an Australian hydrogen export market will accelerate after 2030 to facilitate the commitments of global trading partners, particularly those with capacity constraints in renewable generation.

Over the longer term, hydrogen will be increasingly taken up for domestic mobility and energy storage uses. Given that the development of hydrogen technologies is in the early stages, hydrogen markets will likely take time to materialise, but are expected to become a substantial part of the energy mix after 2040.



Australian transport sector oil demand under both scenarios shows a gradual decline until 2035 but demand will be increasingly displaced over the longer term due to EV penetration, fuel efficiency and other fuel sources.



Over the medium term, battery electric vehicles will displace internal combustion engines, accelerating rapidly after 2030 to become the primary mobility energy source by 2050.



Overview

Undertaking climate scenario analysis allows our business to better understand how we are positioned for different climate futures

Undertaking climate scenario analysis allows our business to estimate how we are positioned for different climate futures in the medium to longer term. In building a better understanding of the possible risks and opportunities posed by energy transition, we are able to respond and implement measures to build business resilience in the longer term.

Scenario analysis is not forecasting, but rather it is the preparation of hypothetical constructs 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, contributes to a range of different insights for Ampol to consider.

There are inherent limitations with scenario analysis and it is difficult to predict which, if any, scenario might eventuate. In addition, the further we try to project into the future the wider the uncertainty we face.

Ampol engaged Wood Mackenzie to support our climate scenario analysis. We took a four-step approach as outlined in the figure to the right, and with consideration of the Task Force on Climate-related Financial Disclosures (TCFD) framework. This work builds on our climate scenario analysis work conducted in 2019, and as described in our 2019 Sustainability Report.

For this work we have formulated two climate scenarios and utilised Wood Mackenzie datasets to best meet our needs to understand potential energy trends within the Australian context.

Although publicly available scenarios such as those published by the International Energy Agency (IEA) have limited applicability to the Australian transport fuels context, the underlying assumptions we have used for our analysis are broadly similar to a number of IEA scenario assumptions so as to provide readers with some comparability.

Our work focused on Australian transitional risks as we considered this the most material financial risk to our current business. We will consider physical climate-related risks and other regions where we operate as part of future climate scenario analysis work.



Our 2019 Sustainability Report is available [here](#).

Figure 5: Our approach to climate scenario analysis



1. Macro outlook

Analysis of high-level energy transition trends both globally and within the Australian context with a focus on technology and policy implications

Consideration of other external scenario references such as those developed by the International Energy Agency



2. Sectoral outlook

Analysis of sectoral and industry specifics within the Australian context, including assessment of potential levers including carbon policies and commerciality



3. Demand analysis

Assess implications for Australia for both scenarios, establish key assumptions for each scenario



4. Modelling and outputs

Model scenarios using key assumptions for analysis



Overview

Continued

We selected two climate scenarios to assess:

"Status Quo" scenario

Extrapolation of current policy and technologies across the commodities and industries and consistent with a ~3°C global warming view.

Key themes

Conventional fossil fuels preferred to ensure economic efficiency and resilience

Gradual changes to climate policy

Infrastructure development lags due to a focus on early returns and investment risks

Uncertain commercial viability of new energy sources drives market inertia to investment

Broadly similar to the IEA's Stated Policies Scenario (STEPS)

2°C scenario

A potential pathway that limits the cumulative emissions to less than 2°C. Under this scenario, the more rapid decarbonisation of power and electrification across multiple sectors drive emissions to reach net zero in Australia by 2050.

Key themes

Step-change push toward the electrification of multiple sectors reaching net zero by 2050

Governments proactively support investment in new energy technologies

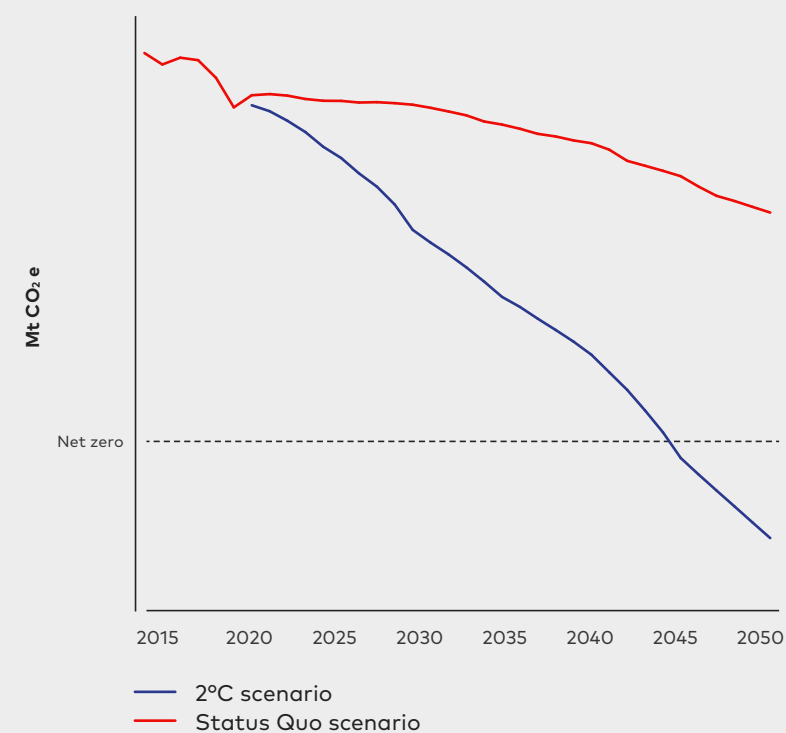
Close public-private collaboration

Companies prioritise future market growth to support early stage investments in new technologies

Industry leaders launch pilots to test viability and scalability

Broadly similar to the IEA's Sustainable Development Scenario (SDS)

Figure 6: Decarbonisation pathways*



* Wood Mackenzie analysis considers only direct fuel emissions. Differences from other projections may reflect the inclusion of fugitive emissions from various sources.

The foregoing information was obtained from Climate Scenario Analysis and TCFD Support™, a product of Wood Mackenzie.



Scenario parameters

We identified the following indicators and assumptions as being necessary for each of the scenarios to materialise

		2020	2025	2030	2040	2050
"Status Quo" scenario	EV* penetration in passenger vehicles (%)	0%	0%	1%	14%	50%
	Coal demand (Thousand PJ)	2.0	1.9	1.9	1.6	1.1
	Oil demand (Thousand PJ)	1.9	2.2	2.2	2.0	1.6
	Renewables generation** (Thousand PJ)	0.3	0.4	0.5	0.8	1.1
	Clean hydrogen (Thousand PJ)	0.0	0.0	0.0	0.0	0.0
	Carbon emissions (MT***)	393	400	396	351	269
2°C scenario	EV* penetration in passenger vehicles (%)	0%	4%	13%	41%	72%
	Coal demand (Thousand PJ)	2.0	1.2	0.4	0.1	–
	Oil demand (Thousand PJ)	1.9	2.0	1.8	1.2	0.7
	Renewables generation (Thousand PJ**)	0.3	0.4	0.9	2.4	3.8
	Clean hydrogen (Thousand PJ)	0.0	0.01	0.4	3.1	7.6
	Carbon emissions (MT***)	393	346	249	102	-114

* EV includes PHEV, EVs and FCEV.

** Renewables generation includes renewables, hydro and other solid fuels as fuel inputs into power generation.

*** Wood Mackenzie analysis considers only direct fuel emissions. Differences from other projections may reflect the inclusion of fugitive emissions from various sources.
The foregoing information was obtained from Climate Scenario Analysis and TCFD Support™, a product of Wood Mackenzie.



Outcomes of scenario analysis

Analysis shows that when compared to the primary energy mix at the global level, Australia currently has a higher dependence on conventional fossil fuels. This is primarily due to the abundance of our coal supply and the greater transport demand given Australia's geographical context.

At the sectoral level, Australia's transport sector consumes a larger portion of energy (32%) compared to what is consumed at a global level, again reflecting Australia's greater transport demand.

Our analysis shows that Australia's domestic energy mix will evolve differently under each climate scenario. Under the 2°C scenario, oil demand shows a gradual decline until 2035 with demand being increasingly displaced through electrification and efficiency gains particularly in the transportation sector. Electricity is increasingly supplied through a combination of renewables and storage.

Gas remains an important transitional energy source under both scenarios to meet Power, Industrial and Residential, Commercial and Agricultural (RCA) demand.

Under the 2°C scenario, clean hydrogen accounts for a large proportion of Australia's export market by 2050, displacing other higher emission commodities.

As a result of the evolving energy mix, decarbonisation is achieved through electrification supplied through increasing penetration of renewable energy sources, energy efficiency and low carbon hydrogen production.

The quantity of primary energy demand for the transport sector remains relatively unchanged for both scenarios out to 2050, albeit the sources of energy continue to evolve. Oil demand remains resilient until after 2035 under both scenarios, declining in the longer term primarily due to EV penetration and fuel efficiency improvements in the passenger sector.

Under the 2°C scenario, oil will be further displaced in the commercial freight sector by hydrogen and fuel efficiency.

Jet fuel remains robust post 2040 under both scenarios, underpinned by strong growth in aviation travel. Substitution with sustainable aviation fuel and technology changes are only likely to be material after this period.

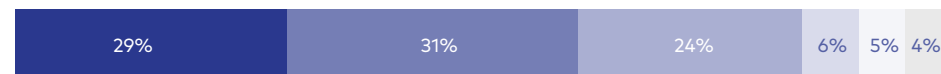
Figure 7: Australian primary energy mix

Primary Energy Mix – Australia vs. Global

Australia



Global

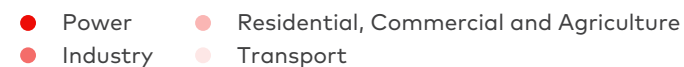


Sector Energy Consumption – Australia vs. Global

Australia



Global



* Other Solid Fuels includes Biomass.

The foregoing information was obtained from Climate Scenario Analysis and TCFD Support™, a product of Wood Mackenzie.



Outcomes of scenario analysis

Continued

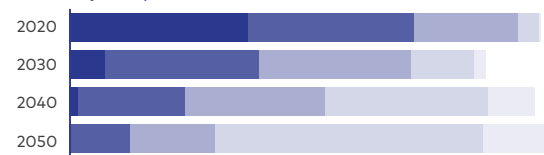
Figure 8: Evolution of Australian energy mix over time

Future Energy Mix*

Status Quo (~3°C case)



~2°C trajectory



● Coal ● Gas ● Other Solid Fuels
● Oil ● Renewables

Future Sector Energy Consumption*

Status Quo (~3°C case)



~2°C trajectory



● Power ● RCA ● Clean Hydrogen
● Industry ● Transport

Energy Trading Mix**

Status Quo (~3°C case)



~2°C trajectory



● Coal ● Gas ● Oil ● Clean Hydrogen

Figure 9: Evolution of the transport sector energy mix

Status Quo (~3°C case)***



● Oil ● Electricity ● Other

~2°C trajectory***



● Oil ● Electricity ● Hydrogen ● Other

* Total primary energy demand shown before conversions and losses. Clean Hydrogen produced through renewables at zero emissions.

** Positive trade = exports, negative trade = imports. Supply of demand for trade not shown.

*** Total primary energy demand shown before conversions and losses. The foregoing information was obtained from Climate Scenario Analysis and TCFD Support™, a product of Wood Mackenzie.



Future Energy and Decarbonisation Strategy

Energy transition represents an opportunity for Ampol to translate our market-leading position in transport fuels into a strong position in energy

Positioning Ampol for energy transition

Energy transition is underway and accelerating with increasing pressure on governments, policy makers and investors to significantly reduce emissions. An accelerated transition dictated by both policy and technological innovation will have a profound impact on the energy mix, shifting rapidly from fossil-fuel based systems toward electrification from zero-emissions sources (e.g. renewables, biofuels).

This change is being driven, in part, by consumers and commercial enterprises who are actively driving emissions reductions in the products and services they consume or produce.

Ampol is already seeing the early signs of this change occurring in the transport sector, for example:

- Some customers with emissions reduction targets are considering now how to solve their transport fuels emissions reduction requirements.
- Electric vehicle penetration amongst consumers is growing rapidly, albeit from a small base.
- Original Equipment Manufacturers (OEMs) are making their longer-term vehicle manufacturing intentions clear.

We believe energy transition represents an opportunity for Ampol to translate our market-leading position in transport fuels into a strong position in energy. We will pursue this by transitioning with our mobility customers to serve their energy needs, both now and into the future.

There are two key components of the Future Energy and Decarbonisation Strategy:

Future Energy Strategy

To pursue the opportunities arising from energy transition we have developed the Future Energy Strategy, which leverages our core assets and capabilities to establish attractive positions in new energy products and services. This will allow Ampol to continue to deliver current product solutions for customers as well as transition with them as their energy needs evolve. We believe this will give us greater optionality in the near-term and allow us to build a portfolio of positions as the energy transition pathway becomes clearer.

Decarbonisation Strategy

We have developed a strategy to address the emissions associated with our operations (Scope 1 & 2), together with emissions associated with our supply chain and customers' combustion of Ampol products (Scope 3). The strategy sets an ambition to reach net zero emissions on an absolute basis across operations by 2040, with operational emissions reduction targets consistent with this objective for 2025 and 2030.

We believe our Future Energy and Decarbonisation Strategy represents a future opportunity for our business, but also acts in the best interests of our shareholders, our customers, our people and the communities within which we operate.



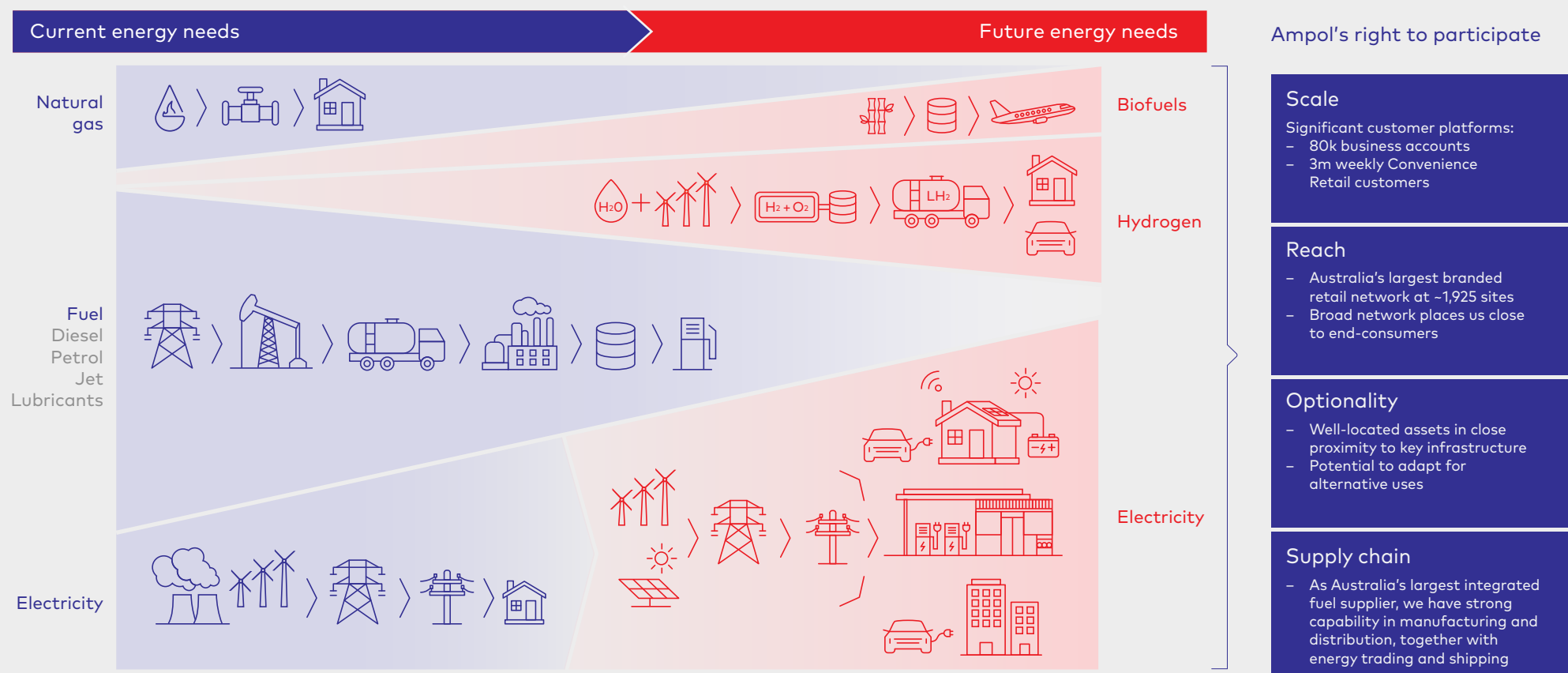


Positioning Ampol for energy transition

Continued

The pace of energy transition is uncertain; consequently the business must be prepared for a fast transition, while not over-spending in a slow transition

Figure 10: The evolution of our customers' energy needs*



* Not drawn to scale.



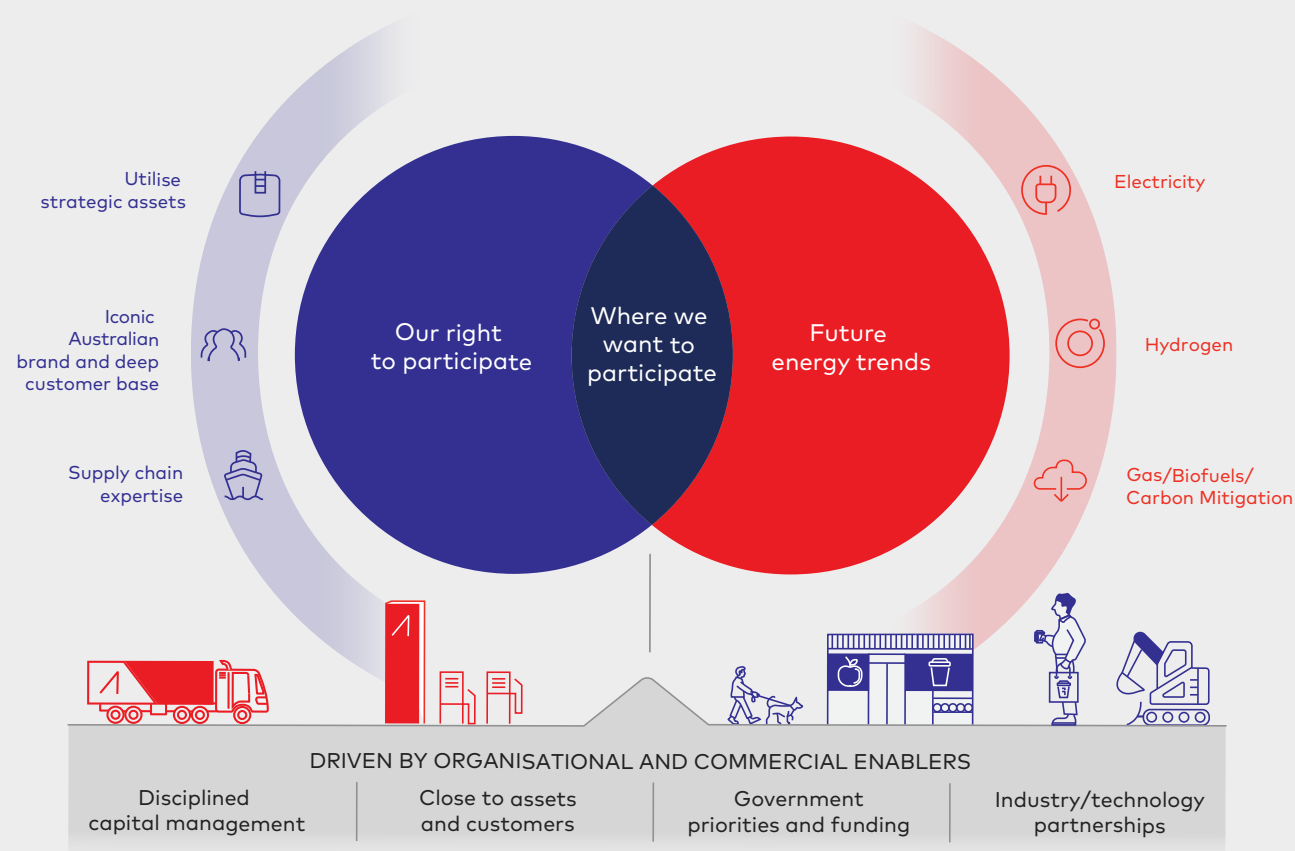
Our right to participate in opportunities emerging from energy transition

We believe that climate change represents the biggest challenge of our generation, and together with energy transition, presents both challenges and opportunities for the long-term prosperity of the Australian economy and the communities within which we operate. Over the next 30 years, we expect that significant investment and policy support will be required to achieve decarbonisation targets. Globally, it is estimated that the investment of US\$2.7 trillion per annum will be required to limit warming to 2°C by 2050¹. This includes:

- Conversion of fossil-fuel generation to renewable generation and nuclear power
- Broad electrification of mobility due to fleet replacement, charging capacity, transmission and distribution network enhancement and distributed energy investment
- Hydrogen manufacturing, distribution capability, refuelling networks, firming renewable energy capacity and fleet replacement

1. Based on IPCC estimates for 2016–2050 total annual average investment (2010 basis) to reach 2°C scenario.

Figure 11: Positioning for energy transition



Our right to participate in opportunities emerging from energy transition

Continued

We believe that Ampol's strengths grant us a 'right to participate' in opportunities arising from energy transition. The combination of our existing assets and infrastructure, capabilities and brand will be key in supporting the transition and allow us to create new customer value propositions aligned with their decarbonisation goals. We see clear opportunities to leverage these strengths including:

- Our strong relationships with mobility customers will provide a natural starting point to move into the electricity market to serve their future energy needs. It is important to establish customer solutions ahead of energy needs moving away from traditional fossil fuels
- Repurposing of existing industrial land and assets (including Kurnell and Lytton) for manufacturing, storage and distribution of new energy solutions
- Drop in and transitional solutions to existing supply chains such as gas and/or biofuels

- Evolving our retail network, Australia's largest, as customer needs change
 - Working with our significant B2B customer platform to develop and build new solutions
- The development of this strategy leverages our understanding from the climate scenario analysis to form a perspective of the future pathways of the energy mix. As a result, we will pursue opportunities in electricity and hydrogen markets as well as transitional products and solutions (such as gas, biofuels and carbon credits) as extensions to our existing portfolio.

Figure 12:
Our right to participate in opportunities emerging from energy transition





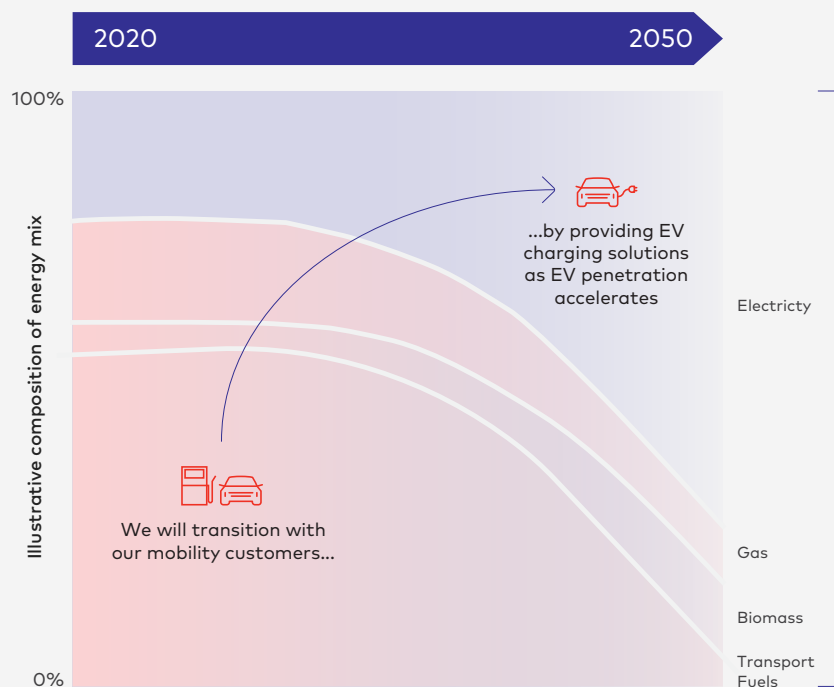
Future Energy Strategy

Our Future Energy Strategy outlines our approach to transition with our customers to serve their future energy needs

In electricity, the business will transition with our mobility customers across commercial, industrial and consumer by establishing an EV charging service offering. The business will adopt a phased and risk-managed approach to achieve this aspiration by initially creating solutions for our future mobility customers' EV charging needs 'at-forecourt', 'at-home' and 'at-destination'.

Figure 13: Our approach to participate in electricity markets

As Australian energy markets transition, we will move with our existing mobility customers to fulfil their future electricity needs



* Source: Based on McKinsey's "Fuel Retail in the Age of New Mobility" paper. We have used ROW data as a proxy.



- EV charging will occur at each stage of the mobility customers daily journey, whether that be at-home, at-work, in-the-depot, at-destination or on-the-go.
- Ampol is committed to participating in EV charging at all phases:
 - As Australia's largest fuel retail network, we have the unique opportunity to build a public 'on-the-go' EV charging network that is attractive for both Ampol and our customers.
 - We will look to move with mobility customers by establishing positions in both 'at-destination' and 'at-home' EV charging.

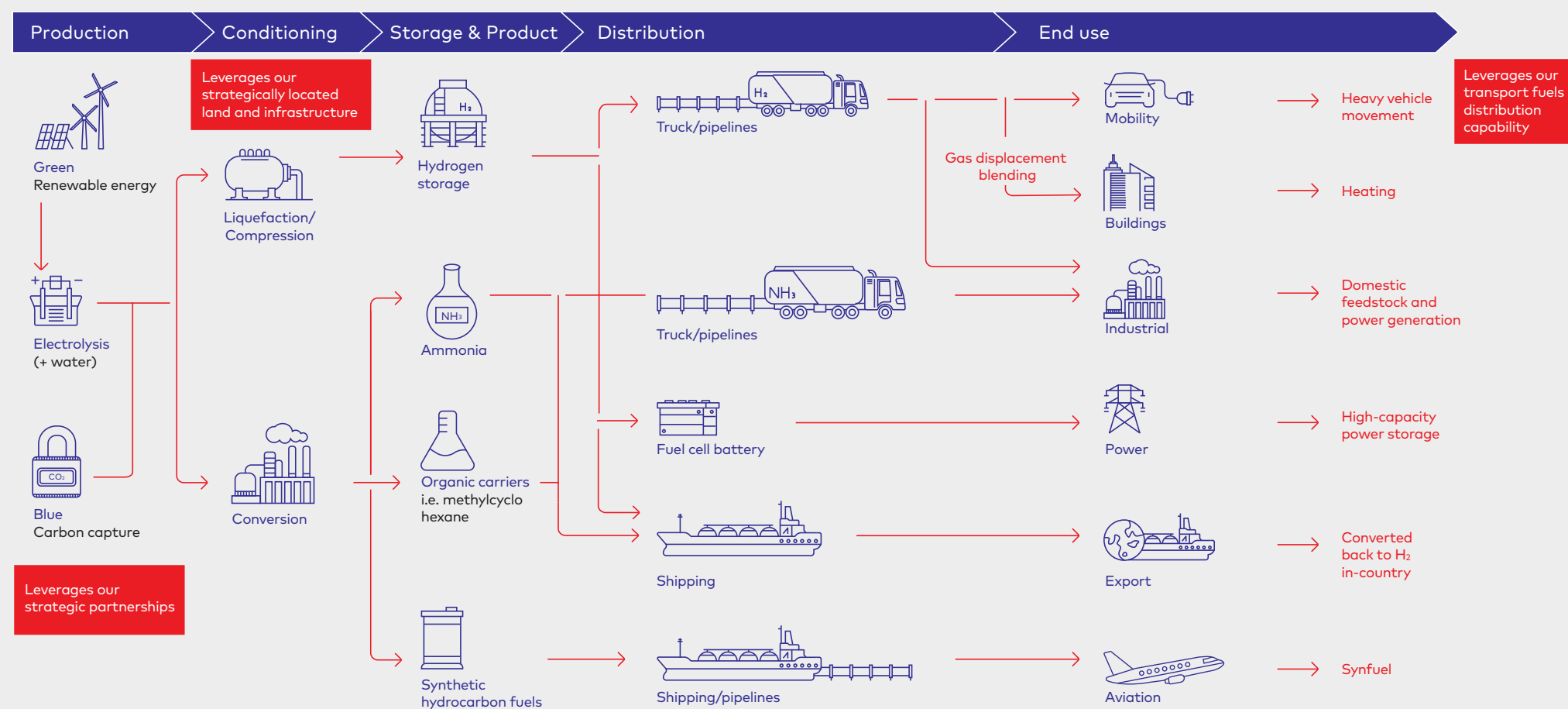


Future Energy Strategy

Continued

Over the longer term, Ampol will target earnings by establishing our participation in the nascent but emerging hydrogen value chain. Initially, the business will target 'first-mover' opportunities in commercial distribution and storage opportunities for heavy vehicle movement, both in 'hub-spoke' and via a commercial network business model.

Figure 14: Opportunities to participate in the hydrogen value chain



Future Energy Strategy

Continued

While advances in EVs and hydrogen will drive the electrification of mobility over the medium-to-long term, the uncertain pace of technological development and adoption means our customers will require a portfolio of solutions to support each stage of their decarbonisation journeys. To support our customers' decarbonisation goals in the short-to-medium term, we will look to increase the role of transition fuels and solutions in providing practical options to reduce emissions associated with their energy use. We have identified three extensions to our product and service portfolio:

Gas: Leveraging our existing physical supply and trading capability to participate with customers to improve the economics of diesel-displacement in transport and remote power generation.

Biofuels: Working with our road freight, aviation and marine customers to investigate the role of biofuels in decarbonising long journey transport.

Carbon Mitigation: Development of a certified carbon neutral product offering, together with the building of carbon trading capability.

As Australia's leading transport fuels business we are uniquely positioned to commercialise these solutions, given our ability to integrate transition fuels into the existing liquid fuel supply chain and end-use infrastructure with minimal modification. This allows us to protect the long-term value and viability of both Ampol's and our customers' infrastructure while still reducing emissions.

To support the Future Energy Strategy, Ampol will need to deploy material resources and capital over the coming years, and as a result, this will form a key part of our capital allocation framework. We have allocated a minimum of \$100m investment by 2025 to support the development of future energy and decarbonisation solutions.

Our investments in future energy will be return seeking, however we expect payback periods to be longer given the uncertain pace and development of energy transition. As a result, we will adopt a phased and risk-managed approach so that we can invest in a balance sheet efficient manner.

- Core principles of our approach include:
- Targeted investment in future energy opportunities in conjunction with our customers to create profitable solutions and propositions and commercialise over time.
 - Seeking strategic and financial partnerships with government and other co-investors where possible to share risk and source capability.
 - Prioritising options which leverage our core assets and capabilities.
 - Active engagement with customers, industry and government to develop solutions that are closer to commercial/technical feasibility.
 - Establish partnerships with key entities like vehicle manufacturers and technology providers to develop sustainable market share as solutions move to scale.
 - Staffing a dedicated team of cross-functional capabilities tapped into the broader organisation to seek out opportunities to invest in lower carbon energy solutions.
 - Establishing a set of relevant investment criteria to allocate capital in a disciplined fashion.

Figure 15: Future energy and decarbonisation is part of our capital allocation framework





Case studies

We are building partnerships as part of our participation in electricity and hydrogen



Case study 1

Tesla Virtual Power Plant pilot

- Ampol is working with Tesla and Enerven to pilot a virtual power plant (VPP) that can reduce our Scope 2 emissions and create new earnings opportunities over the longer term through aggregated participation in the electricity market and network services. The project involves the installation and connection of solar panels and Tesla Powerwall batteries at retail sites, capturing energy that will initially be used to reduce emissions and operating costs.
 - This infrastructure has the long-term potential to power and accelerate the development of electric vehicle charging to customers across Ampol's retail network and to generate new earnings opportunities by trading electricity to third parties. One option is to use the aggregated capacities of multiple sites to provide grid stabilisation services to network operators.
 - Ampol has signed an agreement with Enerven to install the technology at three trial sites in South Australia.
- Should the trial be successful and the solution scalable, Ampol will examine the possibility of a broader rollout and the establishment of its own registered VPP.
 - The pilot installation at each retail site will be created through the installation of between 6–9 Tesla Powerwalls and between 55–99 kW of solar panels. At the three trial sites, the infrastructure will reduce electricity consumption by between 30 and 60 per cent and reduce carbon emissions by between 22 and 41 tonnes per year.
 - This opportunity aligns with Ampol's intention to move into the electricity market to meet future energy needs of our mobility customers. We will use our assets to reduce costs and emissions and to monetise distributed energy resources for electricity price risk management, while testing the potential cost and customer opportunity through the integration of EV charging.

Combined solution to extract value

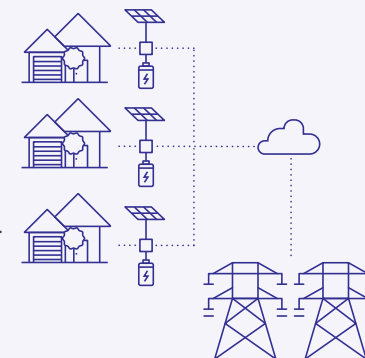
Energy Storage Systems ('Hardware')

- A well-designed and optimised energy storage system (ESS), such as Tesla Powerwalls, can deliver multiple benefits, i.e. 'stacking services'.
- Extracts value from 'behind-the-meter' services (demand charge reduction) and 'VPP-enabled' market-facing or network-initiated activities (wholesale electricity arbitrage and FCAS).

1. Frequency control ancillary services.

Virtual Power Plant ('Software')

- Cloud-based network of Distributed Energy Resources (DER) (i.e. solar + battery) working together as a single power plant by:
 - Aggregating capacities of DERs to form a power generation asset.
 - Orchestrating power generation, storage and use across several sites enabling the monetisation of our generated electricity.





Case studies

Continued



Case study 2

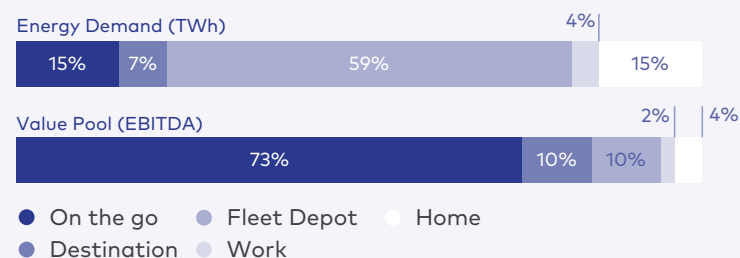
Ampol EV charging network opportunity

Opportunity

- Ampol is developing a strategy to transition with our mobility customers by providing an electric vehicle charging service at our retail sites.
- The roll out of a national network over time will leverage Ampol's experience with previous trials and its significant geographical footprint. Our national network of retail sites, along Australia's major highways and close to existing high-traffic road infrastructure, makes us uniquely placed to play a key role in the delivery of EV charging.
- Our initial rollout will help develop Ampol's internal capabilities in electric vehicle fast-charging and establish our credentials to pursue further opportunities as we scale the network to help support the energy transition.
- Ampol already has 10 EV charging stations across five sites, delivered in partnership with EVIE Networks, in Avenel, Taree, Seven Hills, Dandenong and Macksville, with Cockburn and Werribee to be added in 2021.
- Over the long-term we will look to develop our own charging network and build our capabilities, leveraging our current fleet vehicle and card business strength into the EV market.
- E-mobility infrastructure is a central pillar to capturing Ampol's existing customer base as they transition to future energies, providing a window to 'at-home', 'at-destination' and 'at-forecourt' electricity and charging offerings that Ampol will develop in the years ahead.

Our network/forecourt will play an important role

Share of EV charging demand and earnings*



* Source: Based on McKinsey's "Fuel Retail in the Age of New Mobility" paper. We have used ROW data as a proxy.



Case study 3

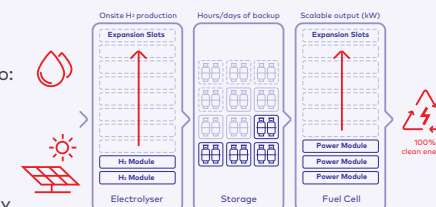
Energy storage solutions

Opportunity

- Ampol is focused on delivering energy storage solutions for customers and sees hydrogen edge-of-grid back up power as a good first application with a broader ambition to move into residential and other light industry applications.
- Ampol is partnering with an early-stage Australian developer of hydrogen-based microgeneration and storage technology. The technology has potential to deliver energy solutions that are economically and functionally competitive with diesel generators.
- The technology will help Ampol offer diesel customers a low carbon alternative to remote diesel generation and has potential broader application in the residential and industrial sectors.
- Ampol is well positioned to leverage this new technology through our existing customer base and to work with our partners to explore broader applications in other parts of the economy.

Overview of technology

- The Australian company is developing a hydrogen-based standalone microgeneration power systems that will aim to:
 - Capture renewable energy at time of generation
 - Store energy as hydrogen gas over long durations
 - Generate electricity on demand, using the H₂ as fuel
- Target applications include edge-of-grid and off-grid energy resources, backup power systems, distributed industrial assets, grid-independent sites and deep storage at sites (i.e. outside the bounds of Lithium-ion battery capacity)



The microgenerators are configurable subsystems – scalable in H₂ production rate, power output and energy storage size



Case studies

Continued



Case study 4 Green hydrogen plant pilot

Opportunity

- Ampol has executed a Head of Agreement with Fusion Fuel Green PLC to develop a green hydrogen production plant at our Lytton refinery site in Queensland.
- With strong customer relationships, privileged infrastructure positions and transport fuel market leadership, we have a role to play in the emerging hydrogen industry.
- The plant, which will feature a number of units, will be commissioned over the next 12 months.
- The HoA provides Ampol with a significant test and learn opportunity to better understand hydrogen technology, as well as how to develop scalable, low cost, hydrogen projects.
- This is a unique new technology solution for the generation of green hydrogen, potentially at a lower/ comparable cost to conventional methods.
- Various channels of distribution will be explored as part of this pilot, including use at the refinery and use as a transport fuel.
- The Lytton site provides a perfect location for this pilot given available land, existing skills and expertise located at the refinery, access to distribution channels and the ability to tie in to key utilities.
- It is an opportunity to engage customers on hydrogen supply and remote generation opportunities.

Fusion Fuel Green PLC's core technology

1. CPV Solar Tracker

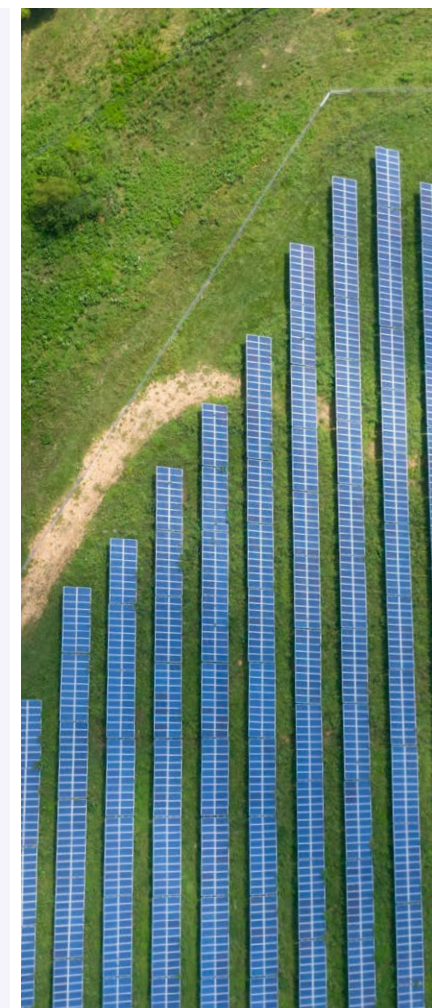
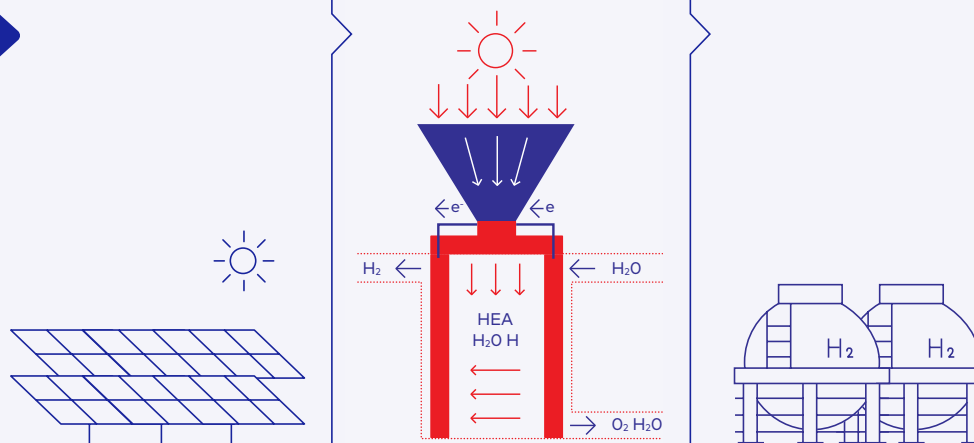
- MagP Product
- Exclusive to Fusion Fuel

2. Photon Electrochemical Hydrogen Generator

- Fusion Fuel's electrolyzer

3. Hydrogen Tanks

- Open market products





Decarbonisation Strategy

We have identified five decarbonisation goals to guide our approach, together with actions to 2025 to enable our efforts and improve our emissions performance over time

Our goals

- 1 Reduce carbon emissions associated with our operations, targeting net zero emissions on an absolute basis by 2040
- 2 Help our customers reduce emissions from their use of energy products
- 3 Increase our investment in lower carbon energy over time
- 4 Collaborate with our supply chain partners to reduce emissions associated with our industry
- 5 More active advocacy for policies that support a net zero economy

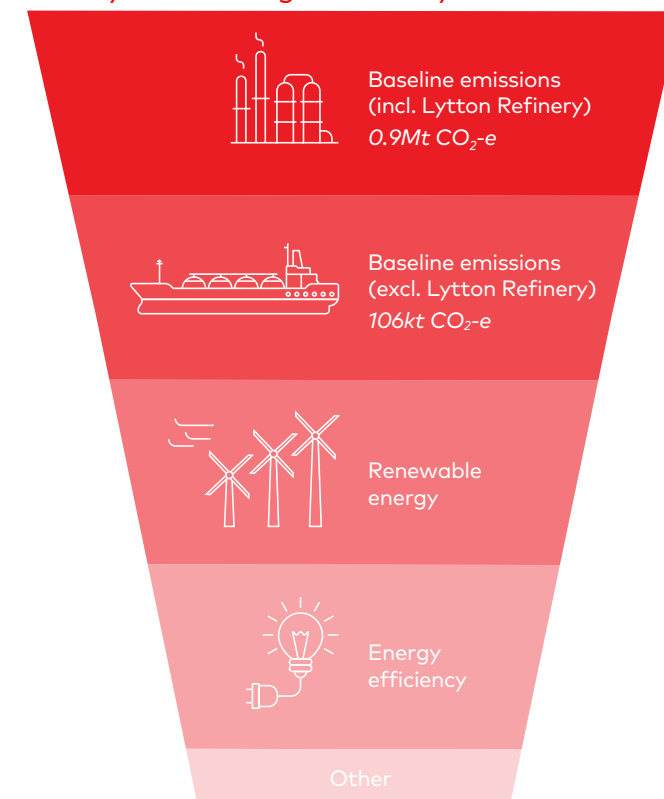
Our Scope 1 & 2 emissions reduction targets

By 2025	Fuels and Infrastructure Reduce operational emissions intensity^ by 5% from 2021 levels	Renewable energy Commit to 40% equivalent net renewable electricity for operational use
	Convenience Retail Reduce operational emissions on an absolute basis by 25% from 2021 levels	
By 2030	Fuels and Infrastructure Reduce operational emissions intensity^ by 10% from 2021 levels	Renewable energy Commit to 50% equivalent net renewable electricity for operational use
	Convenience Retail Reduce operational emissions on an absolute basis by 50% from 2021 levels	
By 2040	Net zero emissions operations (Scope 1 & 2)	

[^] CO₂e per kl of High Value Product (HVP).

We have defined a pathway to achieve our goal of net zero emissions from our operations by 2040, including setting short and medium-term targets. Our targets will be achieved through a mix of energy efficiency, behind the meter solar and corporate Power Purchase Agreement arrangements. Our pathway assumes that Lytton refinery will no longer be operational by 2040.

Pathway to achieving net zero by 2040*



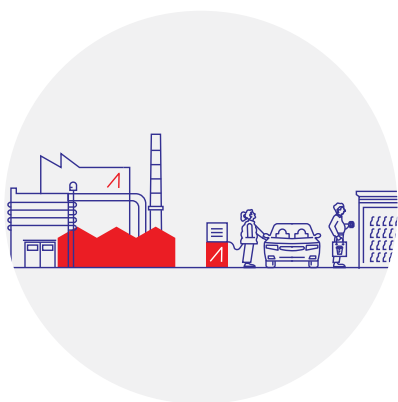
* Not drawn to scale.



Decarbonisation Strategy

Continued

We have a track record of taking action to reduce emissions associated with our operations, as well as working with our customers to support their sustainability goals



Optimising our assets through energy efficiency

We have continued to deliver projects that optimise our energy use. In 2019, Lytton refinery commenced a three-year program to upgrade the analysers on its furnaces. The upgraded analysers can more accurately track oxygen levels, thereby reducing heat loss levels and operational energy requirements. For our Convenience Retail sites, we incorporate sustainability design principles into store fit-outs including insulation and thermally efficient glazing, together with energy and water efficient fittings. We undertake retrofits of existing sites to improve energy efficiency, including installing LED lighting and placing doors on open refrigeration units, reducing energy consumption by an estimated 25–30% per site.



Renewable energy for operational use

In 2017, we piloted the installation of photovoltaic (PV) panels at two of our retail sites in Western Australia. The trial found that using PV delivered a carbon emissions reduction of over 20% at each site. Since the pilot, we have rolled out the installation of PV panels at 58 of our retail sites in Western Australia. This project is delivering cost efficiencies and avoiding an estimated 1,800 tonnes of carbon emissions per year.



Partnering to bring sustainable aviation fuel to market

In 2018, Ampol's Lytton refinery worked in partnership with the Virgin Australia Group to trial the delivery of sustainable aviation fuel through Brisbane Airport's general fuel supply system. Working in partnership with the Queensland Government, Brisbane Airport Corporation, US-based biofuel producer Gevo Inc, together with supply chain partners Ampol and DB Schenker, sustainable aviation fuel was procured and blended with traditional jet fuel for supply into the fuel infrastructure at Brisbane Airport.



Enhancing the performance of liquid fuels

We continue to work with our customers to improve the performance and efficiency of our fuels and develop new premium fuel products to meet their needs. We have been at the forefront of introducing fuel additive technology into the Australian market and we continue to evaluate new advances in fuel additives to assist customers in increasing their fuel efficiency whilst restoring lost power, thereby ensuring vehicles continue to operate effectively in the Australian environment. Comprehensive testing by Ampol has confirmed that the ongoing use of Amplify Diesel HD can deliver up to a 3.9% fuel efficiency improvement and up to a 4.1% emissions reduction.



Decarbonisation Strategy

Continued

We have identified actions out to 2025 to meet the decarbonisation goals we have set ourselves

Our goals (Scope 1 & 2)

- 1 Reduce carbon emissions associated with our operations targeting net zero emissions on an absolute basis by 2040

Actions to 2025

- Setting of business unit energy efficiency targets and implementation of associated delivery plans
- Trialling of lower carbon intensity fuels for operational use
- Procurement of renewable energy for operational use either via a Power Purchase Agreement and/or continued on-site renewable energy roll out
- Setting carbon performance standards in alignment with established industry frameworks for major projects

Reduction/mitigation opportunities

- Energy efficiency at Lytton refinery and across the retail network
- Renewable energy use
- Power storage
- Fuel switching

Our goals (Scope 3)

- 2 Help our customers reduce emissions from their use of energy products

Actions to 2025

- Piloting of a certified carbon neutral offering for customers
- Further roll out of EV charging stations
- Build carbon trading capability to access commoditised carbon trading markets
- Establish metrics to measure the carbon intensity of the products we sell to customers over time

Reduction/mitigation opportunities

- Certified carbon neutral product
- Carbon trading/credit offering
- Supporting electric mobility

- 3 Increase our investment in lower carbon energy over time

Actions to 2025

- Allocate a minimum of \$100m to 2025 for future energy and decarbonisation projects
- Further integration of climate considerations into Ampol's capital allocation and business case frameworks
- Staffing a multi-disciplinary Future Energy team
- Development of an Integrated Assessment Model to establish views on the Australian energy system, mix and transition to support strategic planning and climate risk management

Reduction/mitigation opportunities

- Energy storage (e.g. lithium ion and H₂ batteries)
- Clean hydrogen production and distribution
- Blending and distribution of biofuels

- 4 Collaborate with our supply chain partners to reduce emissions associated with our industry

Actions to 2025

- Collaborate with our supply chain partners to set net zero emission goals

Reduction/mitigation opportunities

- Fuel efficiency
- Fuel switching



Economy wide

- 5 More active advocacy for policies that support an orderly transition to a net zero economy

Actions to 2025

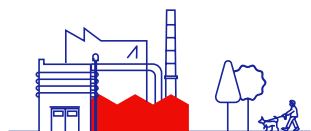
- Ongoing participation and advocacy via a range of industry networks including the Australian Climate Leaders Coalition



Climate risk management

Our approach to climate change considers the risks and opportunities posed by a transition to a low carbon economy together with our strategic objectives to deliver continued value to our customers and shareholders

Figure 16: Climate risk management principles



We have reviewed our 2019 Climate Change Position Statement with consideration of an evolving external environment including emerging scientific knowledge, policy and regulatory changes, technology developments and stakeholder expectations. Our refreshed Climate Change Position Statement sets out our commitment to managing our business in alignment with the Paris Agreement and the need to transition to a net zero emissions economy by 2050.

Our commitment

We are committed to managing our business consistent with the Paris Agreement. This includes how we operate our assets, work with our customers to help them decarbonise and collaborate with our supply chain partners.

Our principles underpinning climate change

An orderly 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.



We work collectively with our customers, government and other industry parties to identify, enable and advocate for decarbonisation pathways.



We are 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 Change Position Statement is available [here](#).



Oversight and risk management

Oversight

The Board approves and oversees Ampol's overall strategic direction and financial and operational performance. This includes approving Ampol's overall risk management framework taking into account non-financial risks such as environmental, safety and potential reputation risks. Climate-related risks are discussed at the Board level including as part of strategy and investment discussions, risk management oversight and monitoring and performance against external sustainability commitments. The Board also approves sustainability policies and disclosures such as the Sustainability Report.

The Board has established four standing committees: Audit, Human Resources, Nomination and the Safety and Sustainability Committee. The committee with the highest level of direct responsibility for climate change is the Safety and Sustainability Committee, which operates under a formal charter and comprises four non-executive and independent directors. The Safety and Sustainability Committee meets

four times a year and its remit includes overseeing and assessing the appropriateness of plans to mitigate sustainability risks including climate change.

The Board is composed of members with a broad spectrum of skills, experience, expertise and diversity, with six directors possessing climate change skills and experience.

At the management level, responsibility for the risk associated with climate change has been assigned to the Executive General Manager, Growth and Development.

The Ampol Leadership Team has established a Strategic Risk Committee to oversee the identification and management of potential financial risk exposures for the business, including those resulting from climate-related risk.

Strategic Risk Committee focus areas include:

- Overseeing identification, quantification and management of climate-related risks
- Design, execution and integration of climate scenario analysis into strategic planning and capital allocation decision-making

- Further integration of climate-related risks into capital allocation, investment and business case frameworks
- Monitoring and internal reporting of external climate change developments (regulatory, technological, market) relevant to Ampol
- Supporting climate change disclosures, reporting and engagement with external stakeholders

Risk management

The Ampol Board oversees our enterprise risk management framework and is responsible for satisfying itself that management has developed and is implementing an effective risk management system. Our enterprise risk management framework is supported by a three lines of

defence governance structure that aligns with the *ISO 31000:2018 Risk Management* standard and the *ASX Corporate Governance Principles and Recommendations*.

The Board has identified climate change as a material risk relevant to Ampol and have approved a climate risk description, appetite level and qualitative risk appetite statement. Quantitative risk thresholds are being prepared which will 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 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.

Figure 17: The Board has established four standing committees



Audit



Human Resources



Nomination



Safety and Sustainability

- Highest level of direct responsibility for climate change
- Operates under a formal charter. Comprised of three non-executive and independent directors, meeting four times a year
- Remit includes overseeing and assessing the appropriateness of plans to mitigate sustainability risks including climate change



Further details on the Safety and Sustainability Committee can be found in the Committee Charter located [here](#).



Oversight and risk management

Continued

2019 – 2021 Climate Change Risk Strategy

In 2019, we prepared a three-year Climate Change Risk Strategy which seeks to operationalise our Climate Change Position Statement and address the risks and opportunities posed by climate-related risk. We acknowledge that our approach must inform and fully integrate with our corporate strategic objectives. In addition, given that this area continues to rapidly evolve, we expect to regularly review our approach so that it considers emerging scientific knowledge, policy and regulatory changes, technology developments and stakeholder expectations.

We will undertake a detailed review of our Climate Change Risk Strategy in 2021, so it remains relevant and as we continue to mature our approach. We will publish and provide updates on key aspects of our Strategy in 2022.



The three key pillars of our approach are outlined on this page with progress against each of these areas outlined in our 2020 Sustainability Report available [here](#).

Figure 18: Pillars of our Climate Change Risk Strategy

 Reducing risk	Introduction of internal carbon price for investment and strategic decision making
	Incorporate climate risk considerations into business planning and strategic decision-making processes
	Enhance transparency and reporting on climate-related risks and opportunities
	Embed physical climate risk considerations into our planning processes
	Active engagement with stakeholders including meeting with shareholders to explain our approach
	Gaining climate risk insights to better understand potential vulnerabilities to our business strategy including policy, market and technology developments
 Enhancing value	Development of a Future Energy Strategy focusing on business portfolio diversification opportunities including alternative fuels and the broader energy sector
	Consideration of ESG/climate change performance metrics for relevant personnel as part of broader remuneration strategy
 Corporate responsibility	Reduce operational carbon emissions through energy efficiency programs
	Introduce more renewable energy for operational needs
	Advocate for a long-term policy framework that supports an effective transition to a low carbon economy

Reporting

Ampol will continue to prepare external disclosures such as the Annual and Sustainability Reports and Climate Change Position Statement in accordance with the Task Force on Climate-related Financial Disclosures (TCFD).

We will continually evolve our disclosures in relation to climate change risk management.



Important notice

This report contains forward-looking statements relating to operations of Ampol Limited that are based on management's own current expectations, estimates and projections about matters relevant to Ampol's future financial performance. Words such as "likely", "aims", "looking forward", "potential", "anticipates", "expects", "predicts", "plans", "targets", "believes" and "estimates" and similar expressions are intended to identify forward-looking statements.

References in the report to assumptions, estimates and outcomes and forward-looking statements about assumptions, estimates 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.

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