



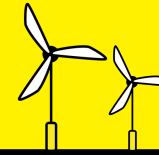
Climate Transition Action Plan

Tiakina te anamata, mā te tūhono i ngā tāngata me ngā wāhi o te inamata.

Taking care of tomorrow: connecting people and place today.



About this Plan



This Climate Transition Action Plan (Plan) establishes ambitious targets for Mercury's transition to a low-emissions, climate-resilient future. Transition planning requirements and guidance are currently emerging and we anticipate that our Plan will continue to evolve and mature as Mercury's strategy adapts to future circumstances, our understanding of future climate scenarios matures, and transition planning requirements become mandatory.

Mercury has used all reasonable efforts in the preparation of this Climate Transition Action Plan to provide accurate information as at 21st August 2023, but cautions reliance being placed on representations that are necessarily subject to significant risks, uncertainties or assumptions, including those described more fully at pages 16 and 17. This report contains forward-looking statements, including climate-related metrics, climate scenarios, estimated climate projections, targets, assumptions, forecasts and statements of Mercury's future intentions. These statements necessarily involve assumptions,

forecasts and projections about Mercury's present and future strategies and the environment in which Mercury will operate in the future, which are inherently uncertain and subject to limitations, particularly as to inputs, available data and information which is likely to change. Mercury has used its best efforts to provide a reasonable basis for forward-looking statements but is constrained by the novel and developing nature of this subject matter. Climate-related forward-looking statements may therefore be less reliable than other statements Mercury may make in its annual reporting.

Descriptions of the qualitative and quantitative current and anticipated impacts and financial impacts of climate change draw on and/or represent estimated figures only. In particular, the risks and opportunities described in this report, and the forecast emissions reductions, may not eventuate or may be more or less significant than anticipated. There are many factors that could cause Mercury's actual

results, performance or achievement of climate-related metrics (including targets) to differ materially from that described, including climatic, Government, consumer, economic viability and market factors outside of Mercury's control.

Terms used in this Plan are defined in the glossary on page 20.

Executive Summary

This is Mercury's first Climate Transition Action Plan. It replaces our Climate Change Strategy and sets out our plan to support Aotearoa New Zealand's energy transition, with ambitious measures and targets aimed at achieving emissions reductions across our business.

Renewable energy for a sustainable future.

We generate electricity from 100% renewable sources: hydro, geothermal and wind and we aim to leverage our renewable energy portfolio to support our customers through the transition to a net-zero future.

Mercury focuses on how we can optimise broader benefits of decarbonisation. This includes sharing the opportunities created by renewable electricity projects in ways that contribute to the well-being and resilience of communities and rohe in which we operate. For example, by using local businesses, getting involved in school programmes, providing scholarships, sponsorships and supporting community led initiatives.

Our support for renewable energy extends beyond our generation assets. We have been strong advocates for the electrification of e-transport including through our 2016 pledge to convert part of our vehicle fleet to electric vehicles and continuing to champion their uptake.

We support our customers to reduce their emissions. We are proud of our 10 year Power Purchase Agreement with Ryman Healthcare that helps underwrite construction of a solar power development in Northland. Our 15 year agreement with Amazon Web Services helps them achieve their target of net-zero carbon by 2040 by utilising half the capacity from our Turitea South wind farm.

We participate in the New Zealand Emissions Trading Scheme (ETS) and surrender carbon emissions units for each tonne of CO₂e emissions associated with our geothermal generation and sales of natural gas. To meet our annual statutory surrender obligations, we purchase carbon units from New Zealand forestry owners under long-term carbon unit offtake agreements.

We are building the path to net zero emissions.

This Plan sets out our strategy towards net zero emissions within the context of New Zealand's energy transition to renewable sources. We outline key aspects of our strategy, our current actions, how we propose to support the energy transition, and the support we will need from Government, customers and other key stakeholders.

Mercury aims to achieve Net-Zero by 2040 – the target year specified by Science Based Targets initiative (SBTi) for electric utilities – ten years earlier than New Zealand's target year of 2050. This requires reducing Mercury's Scope 1 emissions intensity by 70% and reducing Scope 2 and 3 absolute emissions by 90% with any remaining emissions being offset through carbon removals.

We are committed to reducing our own emissions through exploring new technologies such as the reinjection of geothermal non-condensable gases, and also to reducing indirect emissions by working with our suppliers and customers. By targeting these reductions, we aim to help limit warming to no more than 1.5°C, the maximum temperature increase to avoid a climate crisis as defined by the Intergovernmental Panel on Climate Change.

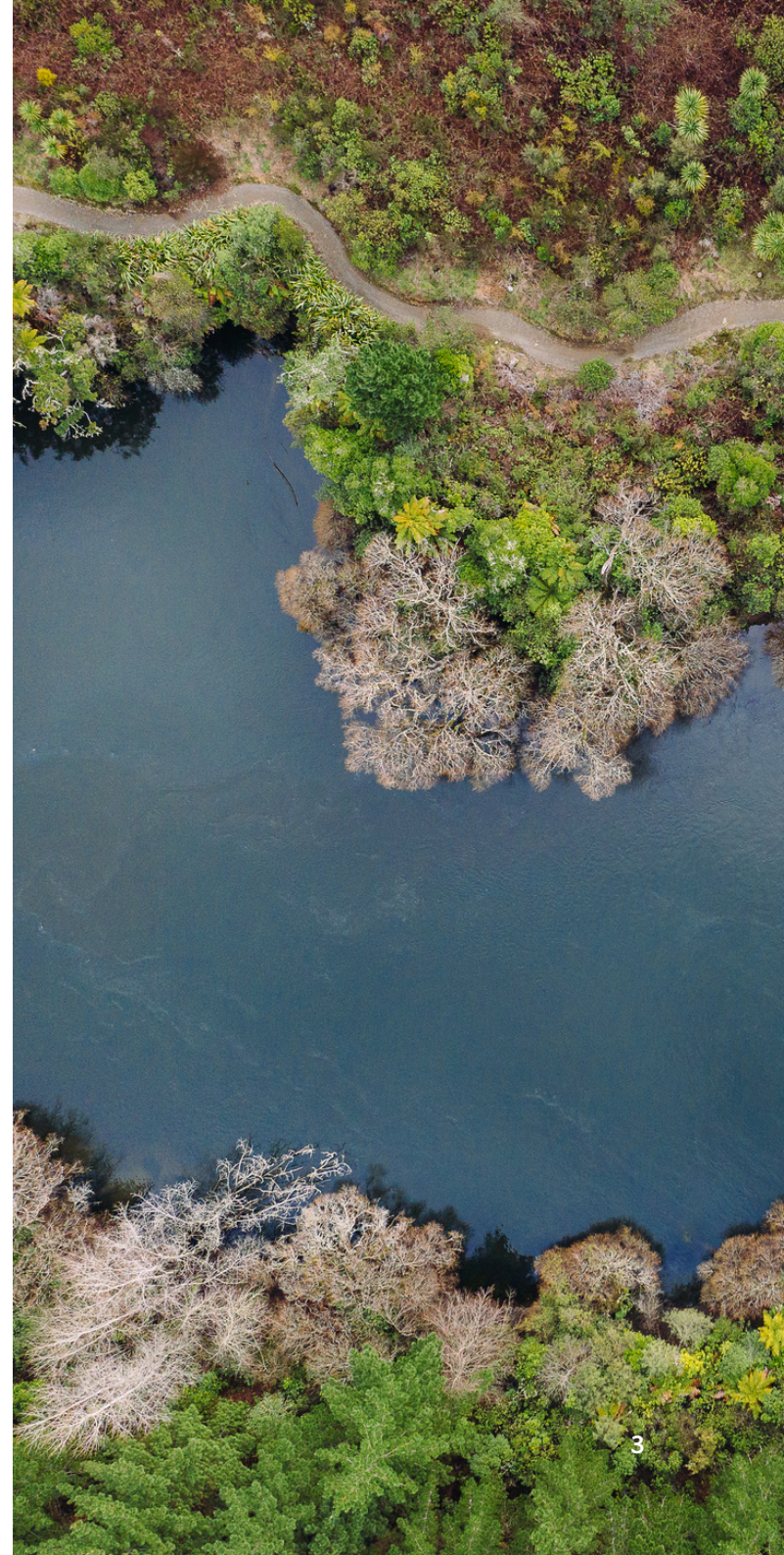
Our targets

Included in this Plan are new near-term and long-term targets for emissions reductions across Mercury towards our Net-Zero ambition.

By 2030, we are targeting a 70% reduction of our Scope 1 emissions intensity (measured in kgCO₂e/kWh) and a 42% reduction in our absolute Scope 3 emissions related to the sale of natural gas – both from our baseline year of 2022.

By 2040, we are targeting a maintained 70% reduction of our Scope 1 emissions intensity (in line with the SBTi power sector emissions intensity requirements) and a 90% reduction in our absolute Scope 3 emissions related to the sale of natural gas from our baseline year of 2022.

These targets will build on our strong performance in emissions reduction - so far we have reduced our absolute generation-related GHG emissions (scope 1) by 60% since 2015.





The changing climate and the energy transition

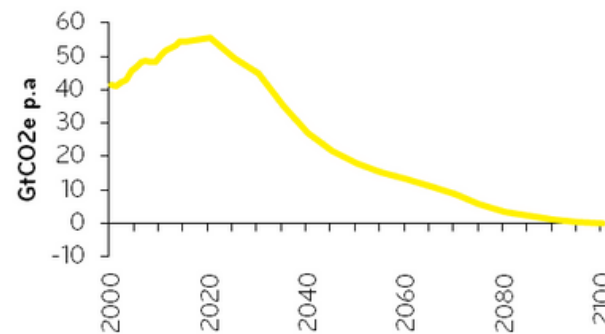
The urgent climate change challenge.

Climate change is a threat to human well-being and planetary health and there is a rapidly closing window of opportunity to secure a liveable and sustainable future for all. Widespread and rapid changes in the atmosphere have already occurred with human-caused climate change affecting many weather and climate extremes in every region across the globe. All global modelled pathways that limit warming to 1.5°C involve deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors.¹

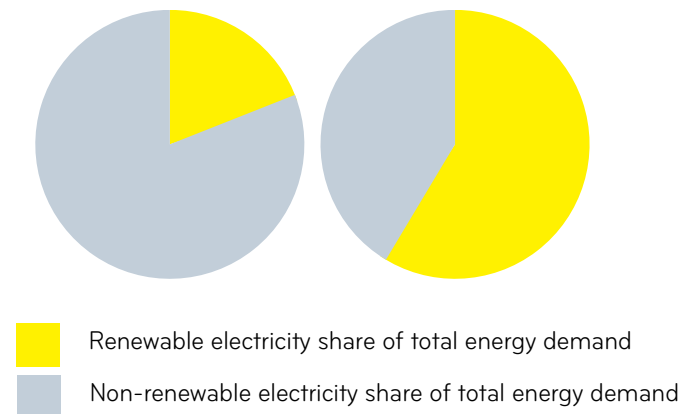
Renewable electricity is a key enabler.

Electrifying transport and heat, and increasing renewable electricity generation, will be the most significant contributors to New Zealand achieving net zero carbon by 2050. Increased electrification and renewable energy is forecast to deliver 70%² of the gross emissions reductions required to achieve New Zealand's net zero carbon target.

Net Global Greenhouse Gas Emissions Pathway
(to Limit Global Warming to 1.5°C)



Projected Total Energy Demand
2020 2050



¹ <https://www.ipcc.ch/report/ar6/syr/>

² <https://www.bcg.com/publications/2022/climate-change-in-new-zealand> - note that this report was commissioned by Mercury and other New Zealand companies, while being completed in a manner to preserve BCG's independence.

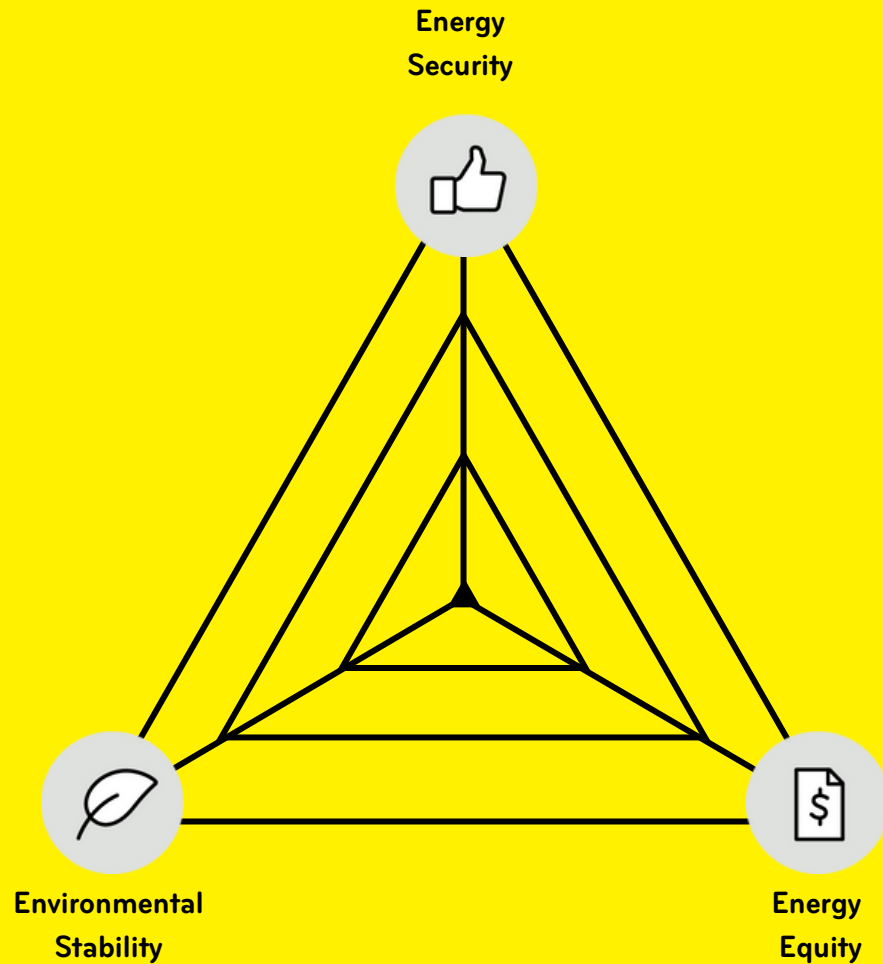
Balancing the trilemma.

The large-scale energy transition required for decarbonisation necessitates finding the right balance in achieving emissions reduction, while maintaining the three aspects of the energy trilemma: energy security, environmental sustainability and energy equity. We are committed to collaborating with our customers, regulators and other stakeholders to embrace innovative technologies to manage grid stability, resilience and efficiency.

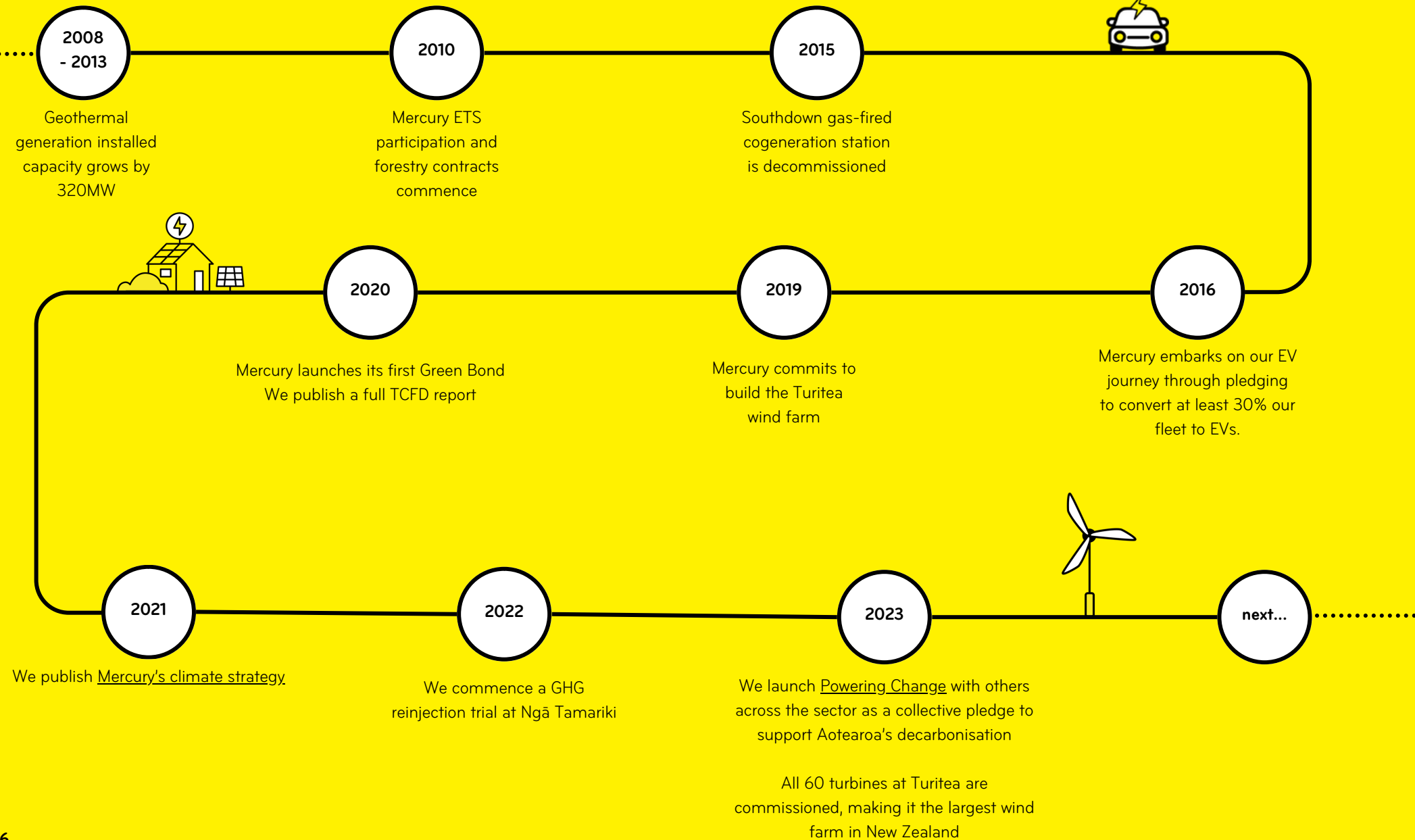
Implementation of the transition needs to happen in ways that deliver affordable, clean energy for everyone. Adoption of new technologies and continuous innovation will provide consumers with product and service options enabling the flexible demand management crucial for driving energy efficiency and an equitable energy transition.

THE ENERGY TRILEMMA.

We believe energy freedom can only be achieved if these three key elements are always considered together



Our Journey



Types of Emissions

How do you measure greenhouse gas emissions?

The following three emissions scopes are internationally recognised categories for measuring the different kinds of greenhouse gas emissions a company produces in its operations and value chain. It includes the following gases measured as carbon dioxide equivalent (CO₂e): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and sulphur hexafluoride (SF₆).

Mercury's emissions profile under these three scopes is:

Scope 1

Direct GHG emissions from sources that are operationally controlled by Mercury



Geothermal fugitive emissions



Mobile combustion (company vehicles)



Stationary combustion (backup generators and other equipment)



SF₆ releases

Scope 2

Indirect emissions from the generation of electricity consumed at Mercury's facilities



Electricity consumption

Scope 3

Other indirect emissions that occur because of Mercury's activities but from sources that are not under Mercury's operational control³



Business travel and accommodation



Transmission and distribution losses from electricity consumption



Gas sales to customers

³ The GHG Protocol specifies 15 sub-categories for Scope 3 emissions. Mercury assesses the materiality of emissions under all Scope 3 sub-categories and discloses emissions under those deemed material as shown above.



Our targets

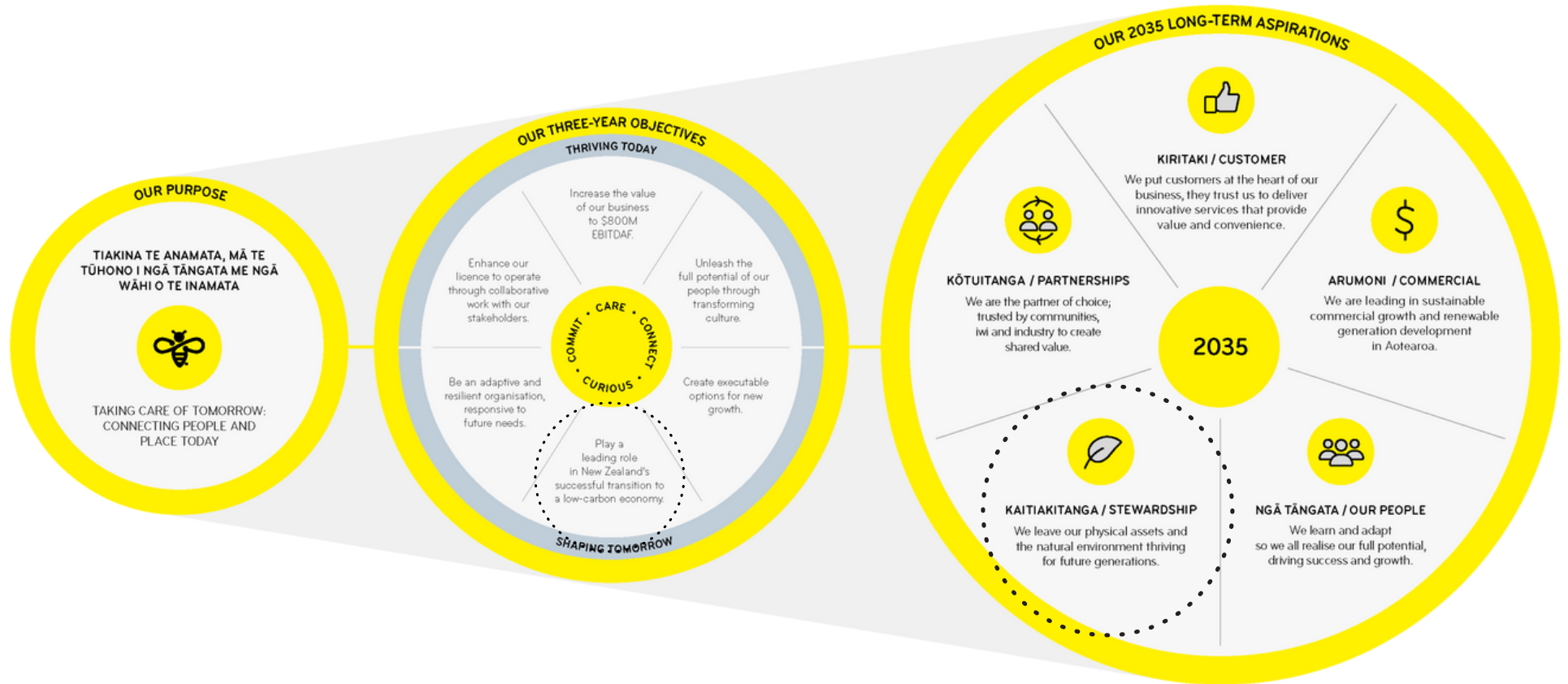
Mercury has committed to set near-term and long-term company-wide emission reductions targets in line with the Corporate Net-Zero Standard established by the SBTi. These targets have been developed in accordance with SBTi guidance and will be submitted for SBTi validation in due course.

(Note that these targets are subject to change through the validation process with SBTi).

	Scope 1 - Reduction in electricity generation emissions	Scope 2 - Reduction in CO2 emissions from the electricity we purchase and use	Scope 3 - Reduction in CO2 emissions from the sale of natural gas
Near-Term: 2030	Reduce Scope 1 emissions from generating electricity by 70% per MWh from a 2022 base year	42% reduction from 2022 baseline	42% reduction from 2022 baseline
Long-term: 2040	Reduce Scope 1 emissions from generating electricity by 70% per MWh* from a 2022 base year	90% reduction from 2022 baseline	90% reduction from 2022 baseline

*Mercury's 2040 Scope 1 emissions intensity target is equivalent to our 2030 Scope 1 emissions intensity target as the targeted 2030 emissions reduction will already reduce Mercury's Scope 1 emissions intensity to the level required by the SBTi for our 2040 target.

Our Strategic Framework



Our Climate Strategy



Our Actions

How are we planning to achieve net zero emissions by 2040?

Reducing our direct emissions:

- Building renewable generation
- Trialling reinjection of our geothermal emissions back to the geothermal reservoirs, alongside geothermal steam and fluid
- Further electrifying our motor vehicle fleet



Reducing our indirect emissions:

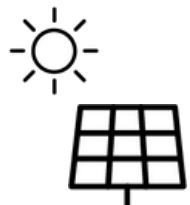
- Informing our customers to support switching from natural gas to electricity, investigating biofuels and other gas alternatives
- Helping our large customers to decarbonise through direct power purchase agreements for renewable electricity
- Using renewable electricity for Mercury's consumption
- Engaging with our suppliers to decarbonise their products and services



Working together

We are working with others to promote decarbonisation within and outside our company – our advocacy includes:

- Accelerating the use of renewable technologies – particularly to help decarbonise end uses
- Supporting the development of smart system technologies to help efficient development and upgrade of our networks and grid
- Public carbon pricing policies – such as strengthening our Emissions Trading Scheme
- Working with others across the electricity system to establish ways to work collectively to support Aotearoa's transition





Our renewable energy advantage

Building renewable generation

As the Climate Change Commission recognised in its final advice to the government in 2022, New Zealand has one of the lowest emissions electricity sectors in the world. This electricity can be used to reduce emissions economy-wide through electrifying transport, process and space heating.

Electrifying the transport and industrial heat sectors by increasing renewable electricity will be one of the most significant contributors to reducing emissions in New Zealand. This electrification can deliver around 70% of the emissions reductions required to achieve New Zealand's 2050 targets.³

As a fundamental element of our strategy, we consider the role that we can play in supporting the decarbonisation of New Zealand. One of our key contributions is through the significant investments we are making in renewable

generation development and in upgrading our existing renewable generation.

Our investment in new geothermal generation from 2008-2013 currently supplies ~6% of New Zealand's annual electricity demand and we have a pipeline of renewable electricity generation projects to help support Aotearoa's decarbonisation journey. In recent years, we have commissioned the Turitea wind farm which, at 222MW, is New Zealand's largest wind farm, and commenced development of the first stage of the Kaiwera Downs wind farm in the South Island.

³<https://www.bcg.com/publications/2022/climate-change-in-new-zealand> - note that this report was commissioned by Mercury and other New Zealand companies, while being completed in a manner to preserve BCG's independence.

New development pipeline

Mercury has an extensive pipeline of new renewable electricity projects that are currently being developed or are in the planning stages. This pipeline includes a range of opportunities with a focus on on-shore wind, geothermal development and capacity projects (e.g. batteries). This growing and diversified pipeline is about ~2,000MW and ~8,000GWh, making it equivalent in size to Mercury's existing generation portfolio.

Projects in construction	Projects consented	Projects actively being developed and secured
43MW / 147GWh	672MW / 2,815GWh	1,285MW / 4,840GWh
WIND 43MW/147GWh	WIND 625MW/2,420GWh	WIND ~1,200MW / 4,100GWh
	GEOTHERMAL 47MW/395GWh	GEOTHERMAL 85MW / 740GWh
		FLEX / CAPACITY >100MW

Investing in upgrades

We are also investing in our existing hydro and geothermal power stations. We are 10 years into a 25 year reinvestment program for our hydro stations that extends out to 2040.

As well as extending the life of these assets, we expect that these investments will increase renewable generation for Aotearoa by about 90GWh across our Karāpiro, Maraetai and Ohakurī stations.

Projects under construction or consented



Reducing emissions from our existing operations

Reinjection of geothermal emissions

~99% of our Scope 1 emissions come from fugitive emissions that occur through geothermal generation. To reduce these emissions, we are and will continue to invest in new technology, seeking to reinject the non-condensable gases that make up geothermal emissions.

This reinjection technology has been trialled at our Ngā Tamariki geothermal plant since 2022 and has caused emissions at that station to decline by ~8,000 tCO₂e per year, about 25% of this station's emissions.

We are carefully studying this trial to understand impacts on the geothermal reservoir, surrounding environment, underground infrastructure, above ground infrastructure and commercial viability. When complete, we plan to increase the reinjection at

Ngā Tamariki and look to expand this to our geothermal plants of a similar type (the geothermal stations at Rotokawa and Mōkai).

We are also investigating how we may approach reinjection at our flash steam stations, Kawerau and Ngā Awa Pūrua. This will require initial research and development investment to understand whether there is a commercially viable approach to reinjection for these plants, that doesn't have an impact on the geothermal reservoir, surrounding environment or infrastructure.

Reinjection of geothermal emissions is a relatively new technology and there is still much to understand. From whether a solution exists for flash plant technology, to capacity in geothermal reservoirs for the emissions to be

reinjected, to the costs of this technology and process.

To implement this technology across the geothermal stations that we operate will mean working closely with our joint venture partners.

For new geothermal development we will consider emissions and reinjection as part of investment decisions.

Reducing emissions from the products we sell

Enabling our customers to decarbonise

The role of gas in New Zealand's energy transition is a key topic currently under discussion and subject to Government decisions.

Gas has the potential to play a key role through the transition in many sectors across New Zealand, including helping to ensure we have a secure supply of electricity as we increase the amount of wind and solar generation in our electricity system.

This is reflected in the Climate Change Commission's 2021 advice to Government (and 2023 draft advice) report, which recommends the development of a plan for managing the diminishing role of fossil gas across the energy system as part of a national energy strategy.

Emissions related to the gas that we sell to our customers make up ~38% of our overall emissions and ~99% of our Scope 3 emissions.

While the role that gas may play in the transition is under discussion, we are taking the following steps to set up for 2040:

- We are reviewing our gas strategy to consider the options available related to gas, with associated impacts.
- We are looking to support the emerging biogas industry through participating in market processes that will aid the further development of capacity.
- We are starting to add to our customer efficiency resources with information about the impacts of natural gas use, aiming to encourage our customers to switch to low-emissions alternatives when their gas appliances reach the end of their useful life.
- We are participating in sector conversations, and engaging with policy makers, about how policy and regulatory settings may evolve and change as the plan for the transition of gas in New Zealand evolves.



Risks to the execution of the plan

Our journey of implementing our strategy and achieving our targets is subject to assumptions, uncertainties and risks that could cause actual outcomes to be different to those included in this Plan to 2040.

Mercury is committed to balancing environmental sustainability with energy affordability and security of supply, and this will influence our decisions on strategy and progress towards our targets. We anticipate that our proposed and actual pathway towards our targets and ambitions will evolve over time as we navigate the transition to a low-carbon energy sector.

RISKS, ASSUMPTIONS AND UNCERTAINTIES WHICH MAY IMPACT OUR ABILITY TO ACHIEVE OUR TARGETS AND AMBITIONS INCLUDE, BUT ARE NOT LIMITED TO:

Technology development and cost

Technology viability, pace of development and cost – particularly the speed and cost of technological advancement, including developments relating to batteries, virtual power plants and biogas at a viable scale may impact our progress towards our targets. Development and advancement by competitors within the market may also impact our targets and timelines.

Policy and regulation

Policy and regulation – climate-related and energy sector regulation and policy is currently evolving and may be inconsistent or impact the timing of key decisions or actions. We will also be dependent on the ability to secure the consents and approvals needed to progress our new renewable generation developments or re-consent existing developments.

Reinjection of geothermal emissions – the technical ability to reinject geothermal emissions is still to be tested. There could be impacts on reservoir health, underground infrastructure or above ground pipeline and station infrastructure. There may also be a limit on the overall capacity of each reservoir for reinjection. The technical solution for reinjection for geothermal stations that use flash plant technology (used at our Kawerau and Ngā Awa Pūrua stations) is currently unknown and needs to be developed within the industry. Even if technically feasible, the costs involved with reinjection may be prohibitive. If reinjection is not feasible for any reason, we anticipate that as part of our decision-making we will consider the pros and cons of geothermal generation as part of New Zealand's electricity mix.

Use of gas by customers – the plan for an equitable transition for the fossil gas sector in New Zealand (known as the 'Gas Transition Plan') is currently under development. This plan is likely to impact the range of options the industry has to support customers to reduce their emissions and the timing of those actions.

Market volatility and security of supply

There could be volatility within the energy market affecting pricing and security of supply as New Zealand moves through the energy transition. Our decisions will be influenced by the need to balance sustainability, affordability and reliability. Geopolitical factors could also impact volatility within the market.

Data quality, changing methodologies and standards

We have relied on a range of inputs to arrive at our targets and the pathway to achieving them. Issues such as lack of reliable emissions data and other important data might affect our path. In addition, the data and methods for setting and measuring performance against climate targets, including carbon accounting, scenario analysis, modelling and climate and ESG disclosure standards are likely to continue to evolve and impact the way we set and report against targets.

Availability of critical skills and resources

We may have difficulties accessing the skills and resources we need to progress towards our goals. This may include constraints in our workforce and our supply chain which may be beyond our control.

Customer preferences

Preferences and demands from consumers may change along with changing responses to demands by competitors.

Partnerships

Realising the technology, policy and market settings that will enable us to reach our goals will require continued engagement from our partners: others in the sector, Government, suppliers, customers and other stakeholders.

New generation development – we anticipate that we will look at opportunities for increased geothermal generation that could increase geothermal emissions. We anticipate taking the emissions impacts into account as part of the overall decision-making for these projects, along with a consideration of how such development (particularly as baseload generation) could support New Zealand's decarbonisation.

We will continue to review these risks, uncertainties and assumptions to take into account changes in the external environment and our internal operations. Our approach to managing them is outlined in the next section ('Governance').

Governance

Board management and oversight

Our Board has responsibility for the strategic direction and operation of Mercury including oversight over this Plan. Responsibilities set out in the Board Charter include:

- establishing clear strategic goals with appropriate supporting business plans and resources
- monitoring strategy implementation, financial performance and the integrity of reporting
- ensuring that effective audit, risk management and compliance systems are in place and monitored

Risk Assurance and Audit Committee

A committee of the Board – the Risk Assurance and Audit Committee (RAAC) supports the Board in overseeing climate-related risks and opportunities. The Board itself has responsibility for climate-related opportunities. Members of the Executive Management Team (EMT) also attend RAAC meetings to ensure appropriate support for the RAAC and facilitate feedback and discussion. The RAAC meets at least quarterly and is responsible for overseeing, reviewing and making recommendations to the Board on our risk management policy and processes, including climate-related risks and opportunities.

Risk Management Framework

Our risk management framework meets New Zealand standard AS/NZS ISO 31000 Risk Management – Principles and guidelines. Our risk management framework helps us to identify different categories of risk: compliance risks, operational risks, reputational risks, financial risks and people risks. Climate-related risks show up across many of these categories and are treated in the same way as other risks across these categories. More information on our risk management framework can be found in our [Corporate Governance Statement](#).

Management's role in assessing and managing climate-related risks and opportunities

The Board delegates to the Chief Executive and the EMT responsibility for developing, and recommending to the Board, strategies to identify, assess and manage climate-related risks and opportunities. The EMT is also charged with fostering improved reporting and disclosure of these risks and opportunities including the identification of metrics and targets. Mercury's management is responsible for ensuring the business is identifying, assessing and managing climate-related risks and opportunities.

Risk Management Committee

Our management operates a Risk Management Committee (RMC) whose mandate is (1) to promote risk awareness and appropriate risk management to all Mercury people; and (2) to monitor and review risk activities as required. Membership of the RMC is the EMT and is chaired by the Chief Executive. The RMC meets prior to every RAAC meeting and reviews Mercury's risks. This includes its approach to climate-related risks and opportunities which is carried out at least annually.

Incentivising our people

The remuneration of the Chief Executive and the EMT is linked to Mercury's strategic objectives, purpose and goals. The Short-Term Incentive (STI) component of remuneration is set as a percentage of the executive's base salary and for FY23 was set at 60% for the Chief Executive and up to 35% for other EMT members.

A proportion (70% for the Chief Executive and 50% for other EMT members) of the STI is related to a shared set of Group Key Performance Indicators (KPIs) which are aligned to our three year objectives. The climate-related objectives and their related KPIs are shown below.

More information on the responsibilities and remuneration of the Chief Executive and the EMT can be found in our [Governance Statement](#) and Remuneration Report.

Three-Year Objective	FY23 KPI	FY24 KPI
Play a leading role in New Zealand's successful transition to a low carbon economy	Progress on future development pipeline	Role in electricity sector transition progress
Create executable options for new growth	Clear path to carbon reduction	Progress non-condensable gas reinjection





Glossary

Carbon dioxide equivalent (CO₂-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. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis
EMT	Mercury's Executive Management Team.
EV	Electric vehicle.
Fugitive emissions	Direct discharges of greenhouse gases that occur during geothermal electricity generation processes.
GHG	Greenhouse gas.
kgCO₂e/kWh	Kilograms of carbon dioxide equivalent per kilowatt hour.
Net zero	Reducing GHG emissions to as close to zero as possible and then implementing methods to absorb the remaining emissions from the atmosphere.
Paris Agreement	Legally binding international treaty on climate change adopted by parties under the United Nations Framework Convention on Climate Change on 12 December 2015. It entered into force on 4 November 2016.
Plan	This Climate Transition Action Plan.

RAAC	Mercury's Risk Assurance and Audit Committee.
RMC	Mercury's Risk Management Committee.
SBTi	The Science Based Targets initiative is an independent body made up of representatives (from the World Resources Institute, the CDP, the World Wildlife Fund and the UN Global Compact), who have created an approach to setting targets that is aligned to what the latest climate science identifies is necessary to achieve the Paris Agreement targets.
Scope 1 emissions	GHG emissions released to the atmosphere as a direct result of our activity. These are sometimes referred to as direct emissions; examples include emissions from geothermal fugitive sources and fossil fuels consumed in company vehicles.
Scope 2 emissions	GHG emissions resulting from purchased electricity we consume to power our offices and operating sites.
Scope 3 emissions	Indirect GHG emissions, other than Scope 2, relating to our value chain from sources that we do not own or control including the use of our sold products such as natural gas and LPG.
TCFD	The G20 Financial Stability Board's Task Force on Climate-related Financial Disclosures.
tCO₂e	One metric tonne of carbon dioxide equivalent.

Electricity Units	
Gigawatt (GW)	One GW = 1,000 MW
Gigawatt hour (GWh)	One GWh = 1,000 MWh
Kilowatt (kW)	One kW = 1,000 W
Kilowatt hour (kWh)	Standard unit of electricity energy representing consumption of one kilowatt over one hour
Megawatt (MW)	One MW = 1,000 kW
Megawatt hour (MWh)	One MWh = 1,000kWh
Watt (W)	A measure of the rate of energy transfer over a unit of time