

Auckland Transport

Climate Transition Plan 2025



Contents

Summary	3
Foreword	6
Guiding principles	7
AT’s Climate Transition Plan	8
The importance of our plan	10
Contributing to the Climate Transition Plans of others	11
Our Inputs	12
Integrated climate scenarios	13
Climate risks	18
Risk identification and assessment	21
Long-term strategies and plans	22
Our approach	26
Climate transition goal and objectives	27
Greenhouse gas emissions	28
Operational emissions	31
Embodied emissions	37
Adaptation	40
Nature positive	43
Taking the people with us	45

Decision-making for the future	46
Managing uncertainty	48
Governance	51
Synergies and trade-offs	51
Financing the transition	52
Holding to account	57
References	61





AT Climate Transition Plan 2025

Our ambition

A resilient and sustainable transport system. Minimising our impact on the natural environment and human wellbeing by protecting our waterways and the air that we breathe, improving social and economic equity and restoring biodiversity as part of how we deliver infrastructure and services.

Our purpose

We tiaki all those who use transport in Tāmaki Makaurau

Our targets

50%

emissions reduction against 2021/22 baseline

By 2031

**Net
zero**

By 2050

Climate-related Financial Disclosure

An annual climate statement which discloses information about the effects of climate change on the organisation. Reporting is a legislative requirement against Climate-related Disclosure Standards (NZ CS 1), issued by the External Reporting Board (XRB).

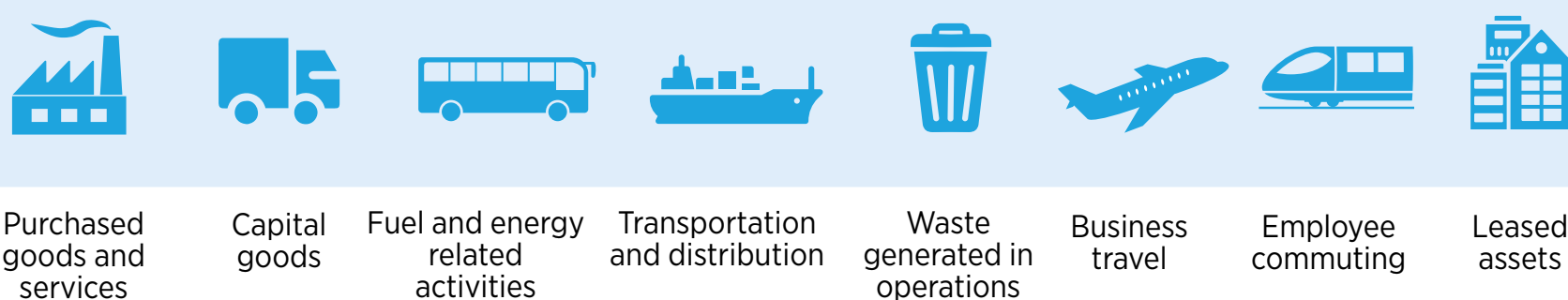
Scope 1: Direct



Scope 2: Indirect



Scope 3: Indirect



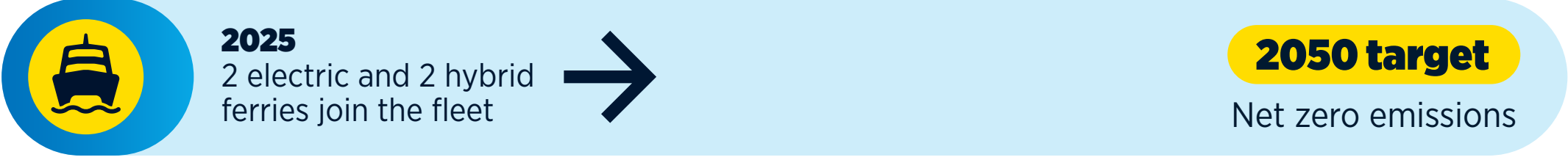
Climate Transition Plan

This plan aligns with our climate-related financial disclosure boundaries. These boundaries are limited to the embodied and operational emissions associated with AT's assets, services and activities; and exclude wider regional emissions such as the enabled and avoided emissions associated with the activities of others.

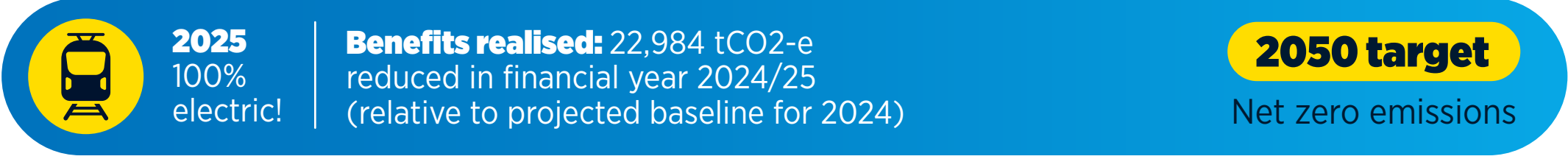
Electric buses



Low emission ferries



Electric trains



LED streetlights



Governance & Strategy

Recognising the challenge of decision-making under uncertainty, we are embedding climate impact preparedness and resilience considerations through our strategy and governance decision-making processes.

Our objectives

-  Our operational and embodied emissions are reduced
-  We actively work towards opportunities to contribute to an economy-wide climate transition
-  Auckland's transport network and AT's activities are increasingly resilient to the physical impacts of climate change

-  The physical and transition-related impacts of climate change are well understood and effectively managed
-  Decision making at all levels and across all business units reduce AT's vulnerability to climate related shocks and align with limiting total warming to 1.5°C

-  AT's suppliers maintain responsible and ethical business practices and supply chains
-  Human rights risks within AT's supply chain are understood and managed effectively

Environmental action

We have established a framework to deliver our long-term approach, with actions over the next ten years, to protect and restore our natural environment.



AT has a set 5 key targets through our environmental action plan. The KPIs for each target are reported on annually.

Delivery of Hikina te Wero: Environment Action Plan 2021-2030

Adaptation planning

33% of assets reviewed annually against site specific signals, triggers and thresholds, reported quarterly.

All planned works led by AT to align with the AT Climate Change Technical Policy to ensure resilience to the average weather conditions expected in the future.

Ensuring climate impact preparation and resilience planning are embedded throughout the asset management lifecycle.



25% assets assessed for climate vulnerability.

100% assets assessed for climate vulnerability.

Delivery of the Climate Adaptation Action Plan 2025

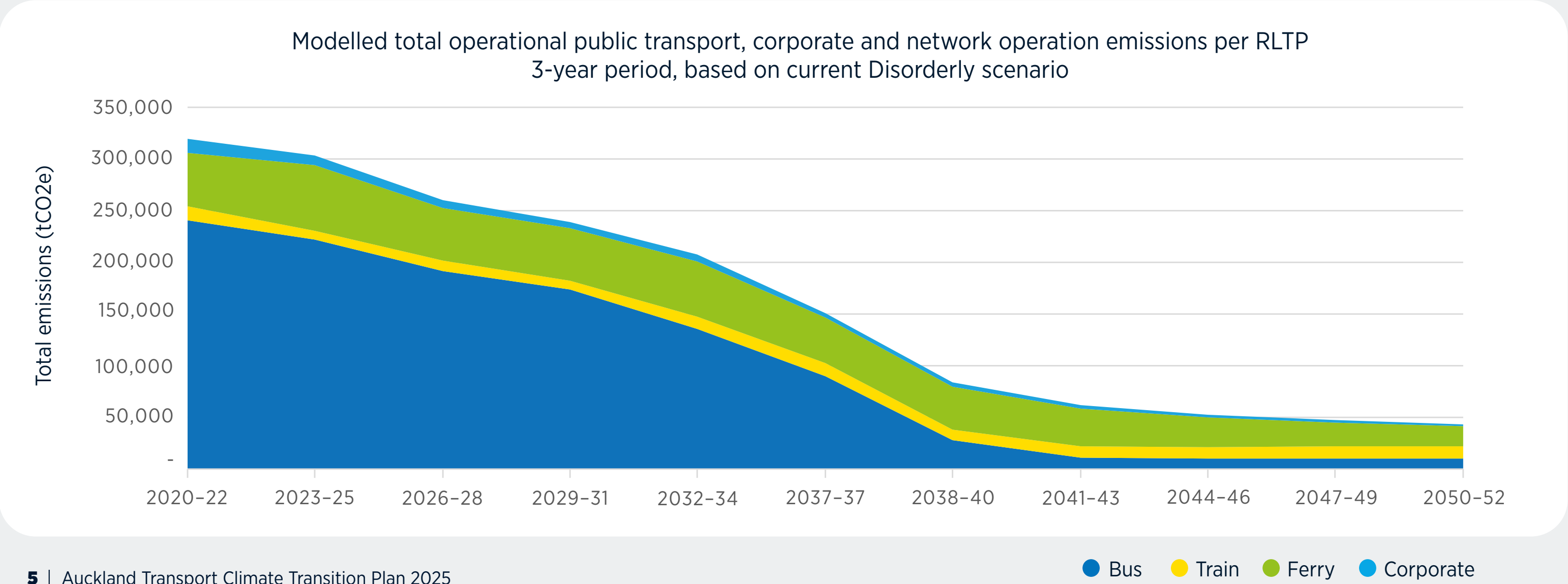
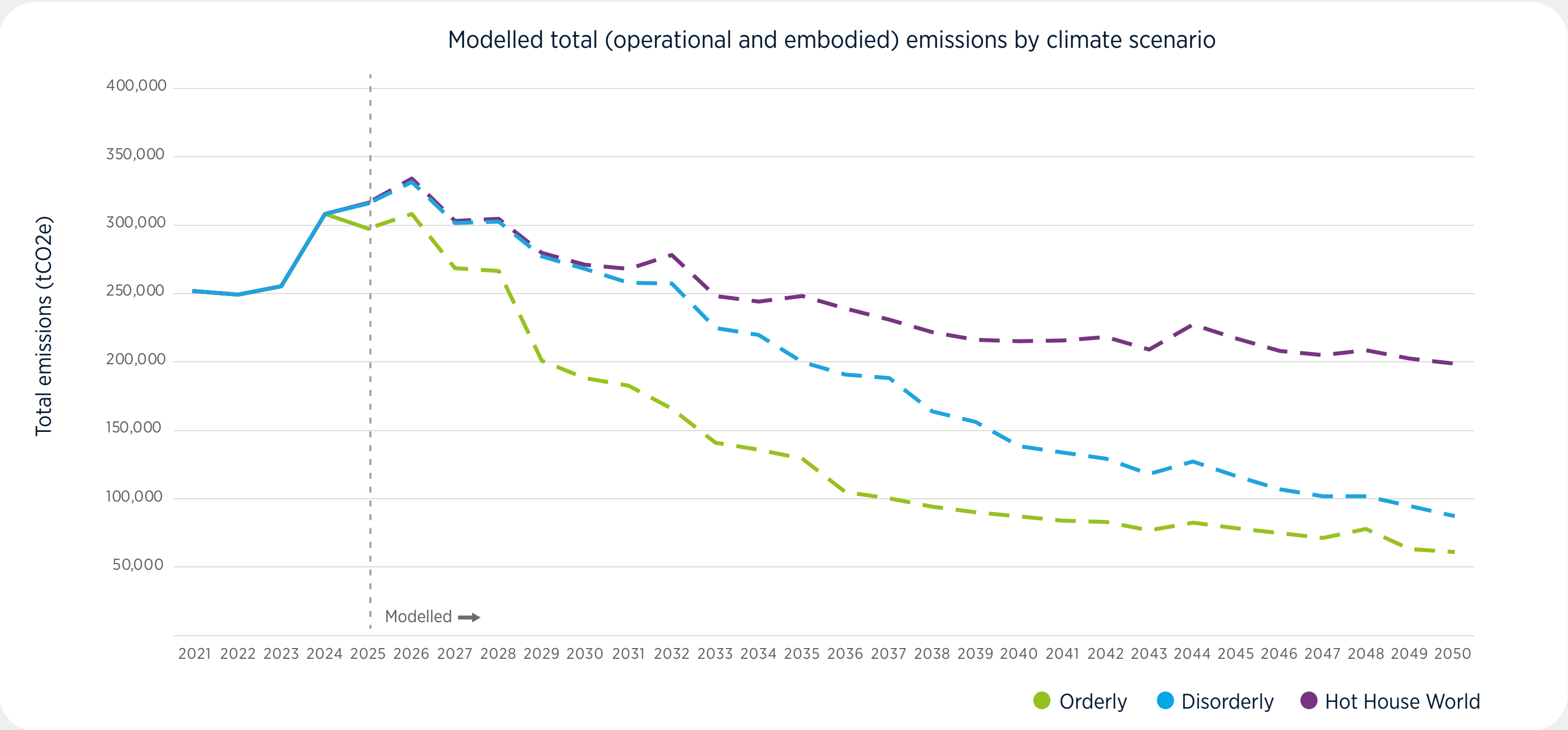
Engagement with supply chain

We work directly with suppliers to support environmental and emissions objectives, supplier diversity, and protect against human rights abuses in our supply chain.



of our suppliers have signed our Supplier Code of Conduct, which aligns with our Sustainability Strategy.

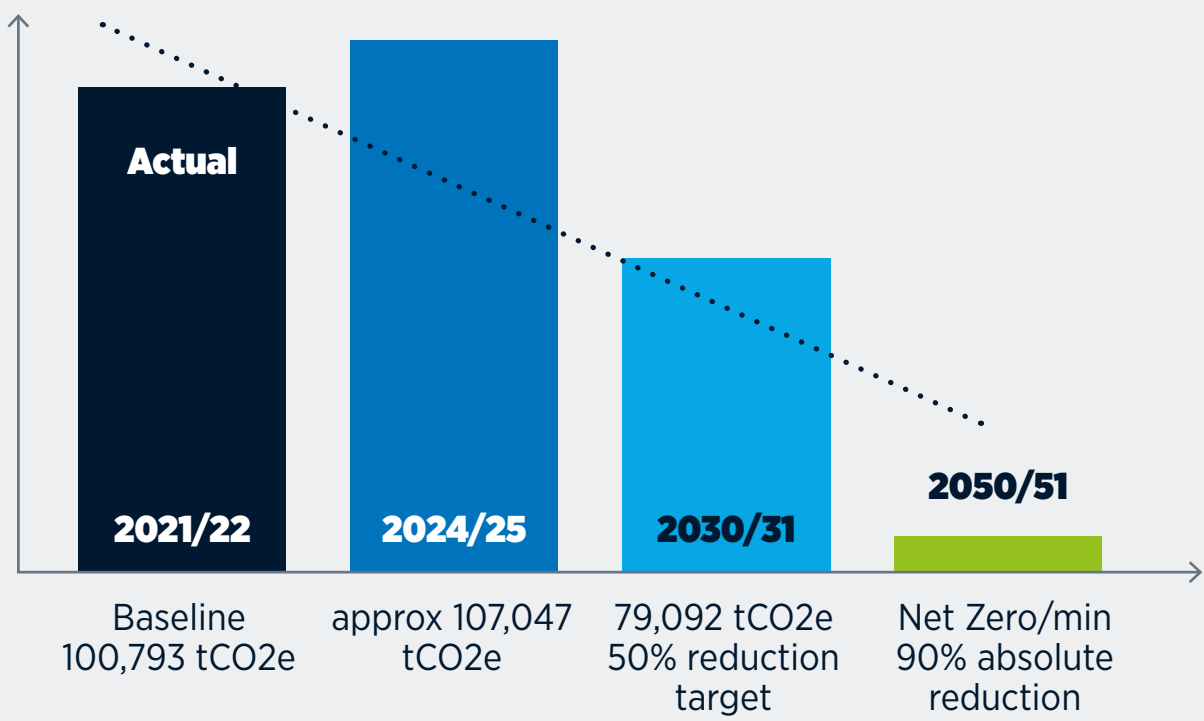
Delivery of the Sustainable Procurement Action Plan 2025-2034



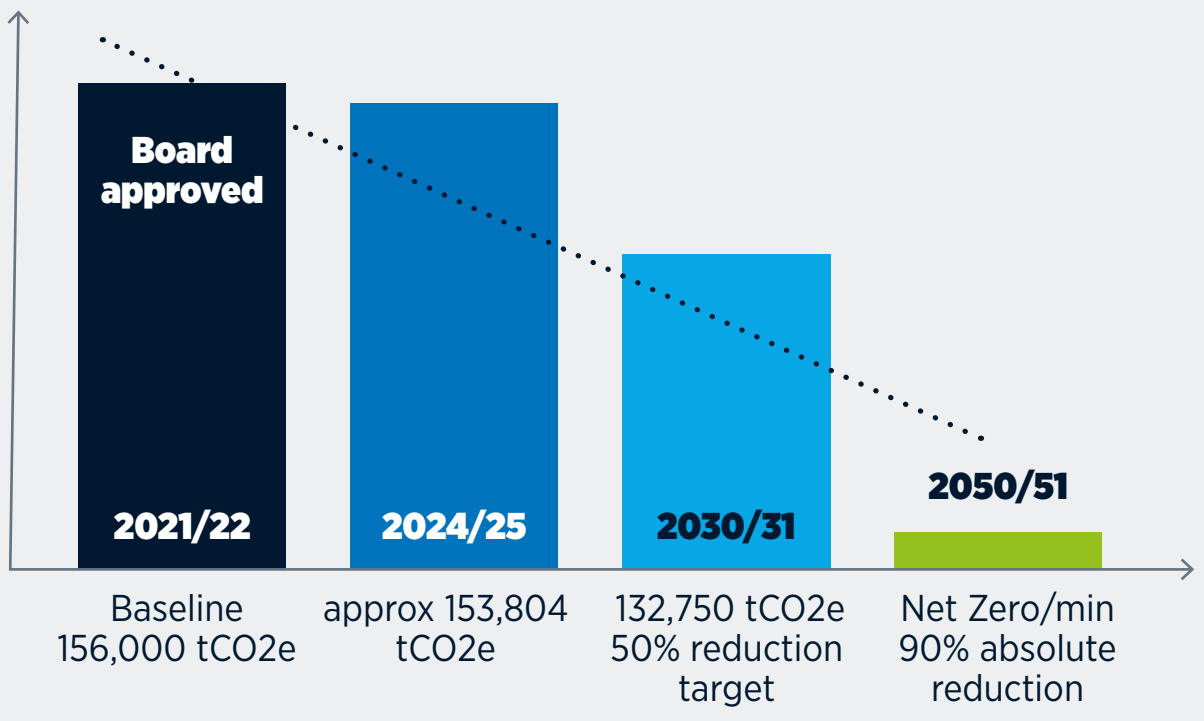
Our activities

- Continuous improvement in reducing emissions across our operations, including public transport services and facilities, recognising our baseline year was a Covid year and emissions increases are expected as public transport bounces back, before bus electrification puts us on track for our 2030 emissions target.
- Decarbonisation of infrastructure through design, delivery and maintenance, and the uptake of low-carbon products.

Operational emissions



Embodied emissions



Foreword

This document outlines our Climate Transition Plan, in compliance with the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021.

Our plan outlines Auckland Transport's organisational emissions reduction targets, objectives and activities. It relates specifically to the emissions that are within our boundary as set for our climate-related financial disclosure reporting, using international standards and protocols for greenhouse gas accounting. This technical boundary is different to the more general way emissions are usually discussed in public sector organisations.

Our commitment to preparedness, resilience, and innovation drives us forward as we navigate the path to a low-emissions, climate-resilient future. Together, we will make Auckland a better place for generations to come.

Embracing our role as thoughtful stewards of Auckland's transport systems means preparing for a low-emissions economy and prioritising

resilience across our networks, assets, and services. Our transport network must be resilient, or utilities and emergency services will struggle to deliver life-saving services, and people won't be able to travel. Our mission is critical.

We also acknowledge that Auckland's transport network is key to supporting other organisations to also transition to a low-emission economy and become resilient to the impacts of the changing climate, and we welcome a collaborative approach with our partners, operators, and communities.

In this pivotal moment, we recognise the imperative to be prepared, embracing the challenges and opportunities which lie ahead. Our focus is on the performance of our network and services, to ensure our customers can move and connect.

Dean Kimpton
Chief Executive, Auckland Transport



Guiding principles

The principles which guide our climate transition decisions and actions have been drawn from the **Mana Whenua Kaitiaki Forum Strategic Plan 2030, Hīkina te Wero** and **Auckland Transport’s purpose and story.**



Whakapono

We act with integrity in all we do, connecting people and places to improve the lives of Aucklanders.



Kotahitanga

We have a collective voice and approach, fostering our relationships while drawing on knowledge and the past to inform the future.



Te ao Māori

We integrate te ao Māori into everything we do, valuing Auckland’s biodiversity to protect and restore the mauri of our harbours and streams.



Equitable transport future

We will prioritise a just and equitable transition to a low carbon transport future.



Thoughtful stewardship

We prioritise resilience across our networks, assets and services, embracing our role as tiaki of Auckland’s transport system.

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AT's Climate Transition Plan

AT's Climate Transition Plan

The Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021 requires Climate Reporting Entities (CRE) to make climate-related disclosures in line with New Zealand Climate Standards 1 (CS 1). As a listed issuer of debt on the New Zealand Stock Exchange, the Auckland Council Group (ACG) is a CRE and must prepare an annual climate statement in line with these legislative and regulatory obligations.

As part of the ACG, AT must also provide information for climate statements which comply with CS 1. This includes the provision of a Climate Transition Plan that is **“... an aspect of an entity's overall strategy that describes an entity's targets, including any interim targets, and actions for its transition towards a low-emissions, climate-resilient future”**.¹

This Climate Transition Plan provides information for investors, partners, stakeholders, and the residents of the Auckland region, to understand AT's climate risks and the activities AT undertakes to manage those risks. During our transition to a low emissions future, we will also incorporate adaptation planning to ensure the resilience of Auckland's transport system.

Auckland Transport's approach includes reducing greenhouse gas emissions, optimising energy use, and investing in resilient infrastructure. These measures are crucial for ensuring the continuity of services and safeguarding the community against the impacts of climate change.

As this is the first AT Climate Transition Plan, the emissions modelling represents plausible future pathways under different assumptions, rather than definitive predictions. The emissions modelling is utilised to understand the potential range of emissions outcomes and the resilience of different strategies under varying conditions.

Ongoing efforts to refine data, assumptions, forecasts, and update key inputs like climate scenarios, will be needed to ensure ongoing accuracy and reduce future uncertainties. This will enhance the robustness of AT's climate-related decision-making and help identify areas where interventions may need to be adjusted or accelerated.

¹ Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (NZ CS 1), 2022.



The importance of our plan

With the physical impacts of climate change increasing in frequency and intensity, we anticipate disruptions to our operating environment. This plan considers how AT will respond to climate-related risks and opportunities, and achieve our purpose of a low-emissions, climate-resilient transport network, as well as how we could capitalise on new opportunities within our value chain.

This plan is an entity-focused, strategic document which outlines the organisation's pathway to a low-emissions future. It is designed to guide internal decision-making, operational changes, and investment priorities, rather than addressing broader external areas of concern such as government policies, market forces, or community-driven initiatives.

While this plan acknowledges the wider climate context, its scope is defined by focusing on AT's direct responsibilities and areas of control and influence. Noting the significant extent to which central government and council policy decisions impact our ability to deliver against our ambitions, external channels of concern remain outside the scope of this document.

This plan aligns with our climate-related financial disclosure boundaries. These boundaries are limited to the embodied and operational emissions associated with AT's assets, services and activities; and exclude wider regional emissions such as the enabled and avoided emissions associated with the activities of others.



Contributing to the Climate Transition Plans of others

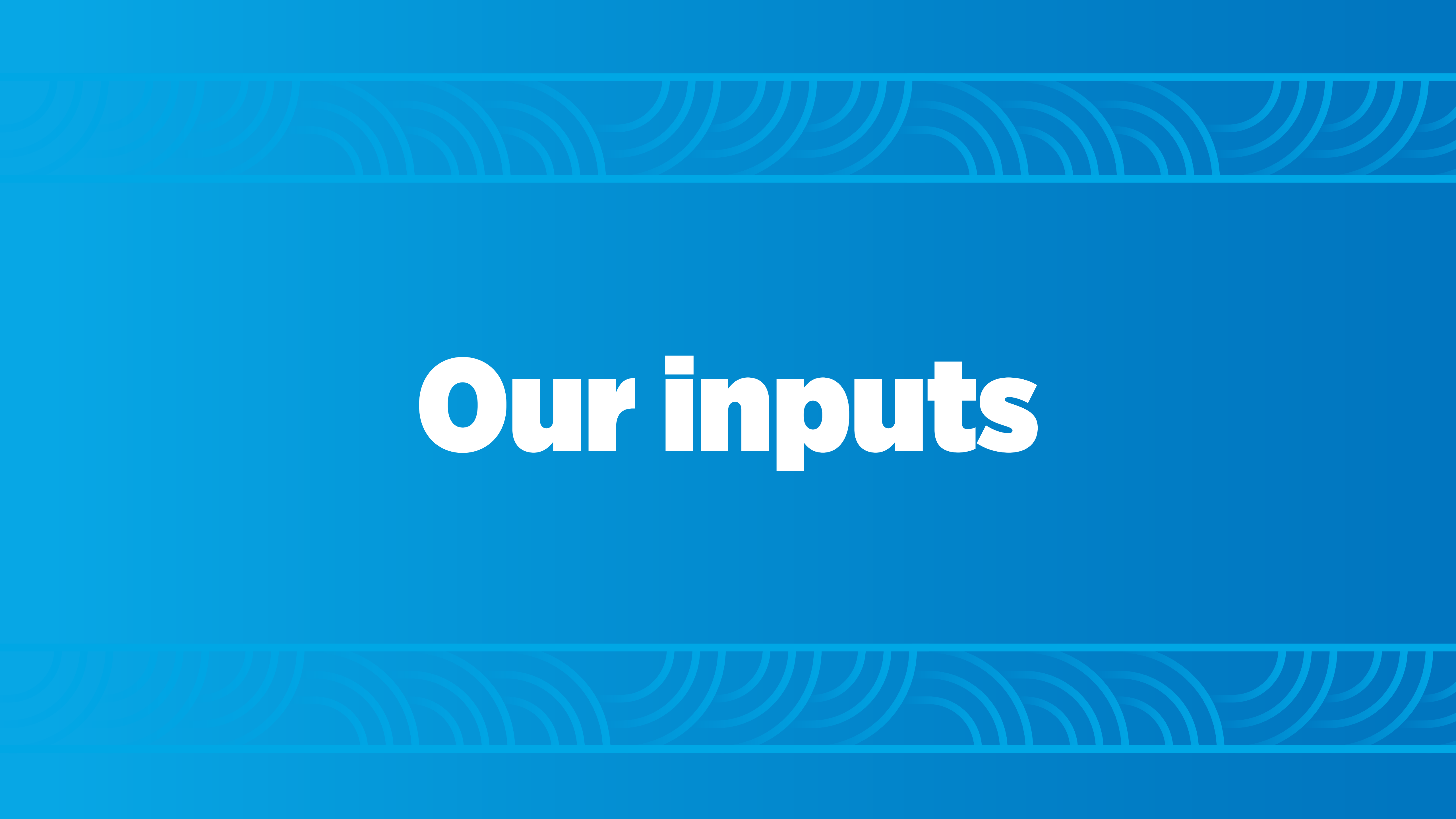
As part of the ACG, AT contributes its Climate Transition Plan to an Auckland Council Group Climate Transition Plan led by Auckland Council.

As a lifeline utility entity,² AT also supports regional and national climate planning processes to address climate challenges at multiple levels of governance. Our transport network is a key component of the resilience plans of other organisations, including other lifeline organisations with critical assets which require security of access during civil defence emergencies.



Figure 1: Inter-relationship between climate transition planning processes

² Civil Defence Emergency Management Act 2002.

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Our inputs

Integrated climate scenarios

AT has developed three integrated climate scenarios to explore and identify climate-related risks. AT’s integrated climate scenarios align with New Zealand’s Nationally Determined Contribution under the Paris Agreement, New Zealand’s First and Second Emissions Reduction Plans, and Auckland Council’s Auckland Climate Plan.³

The framework informing these scenarios references and combines existing pathways and policy assumptions,⁴ with time horizons aligned to national and regional transport plans.⁵ The framework also aligns with the Network for Greening the Financial Systems (NGFS) and CS 1.

While the AT scenarios are in alignment with ACG scenarios, they incorporate a greater focus on the impacts of climate change on the transport network and public transport services.

³ Aotearoa New Zealand’s First Emissions Reduction Plan, 2022; Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan, 2020; Aotearoa New Zealand’s Second Emissions Reduction Plan, 2024.

⁴ Reference scenarios include: NGFS; RCP; SSP; CCC; SPANZ; XRB.

⁵ National Land Transport Programme 2021–2024, 2021; Auckland Regional Land Transport Plan 2021–2031, 2021.

Scenario drivers

Four key areas drive the differences between AT’s climate scenarios and they relate to external forces to which AT may need to respond. **These are:**

 Policy	Government (central and local) climate-related decisions, commitments, and policies have significant ability to transform AT’s operating environment.
 Economic	Changes in funding, costs and supply chain capacity influence AT’s ability to build, operate, and maintain infrastructure.
 Technological	Advancements in technology challenge AT to adapt and align with new innovations.
 Social	Diverse views among Auckland residents, mana whenua, and stakeholders drive AT to navigate social and relational expectations.

Operating environment by 2050		What would AT look like in this environment
Orderly scenario		
SSP1 – 2.6 Sustainability 0.3°C to 1.8°C Physical risks: Moderate Transition risks: Low- Moderate	Policy reaction to reduce emissions Immediate and smooth Climate technology change Fast Carbon dioxide removal Medium Regional policy variation Medium An ambitious and coordinated transition aligned with a 1.50°C warming trajectory. The physical impacts of climate change are limited – and affordable – relative to other plausible scenarios. We avoid a tipping point in our climate system, beyond which greenhouse gas emissions would lead to a shutdown of large ocean circulation systems and massive permafrost melting. The urgency and pace of change is highly disruptive.	Trusted leadership • Alignment with central government • A transformation of AT’s business/operating model • Embed relationship management and authentic consultation to continually enhance stakeholder outcomes • Focus infrastructure projects on resilience • Develop trusting public-private partnerships • Understand the direct (and indirect) social, cultural and environmental impacts, as well as financial, before projects go ahead.
Disorderly scenario		
SSP2 – 4.5 Middle of the Road 0.7°C to 3.3°C Physical risks: Moderate Transition risks: High	Policy reaction to reduce emissions Delayed Climate technology change Slow then fast Carbon dioxide removal Low use Regional policy variation High variation Delayed action, followed by sudden and uncoordinated transformation, landing at <2.0°C. Extent of climate related physical impacts is substantial but largely manageable through to the end of the century. Adaptation costs place significant strain on New Zealand’s economy and society. It is more likely than not that we have avoided a tipping point in our climate system.	Prepared, self-reliant leadership • AT leads the decarbonisation of transport • After a slow start, AT builds its reputation for effective climate action • Progress becomes harder the longer AT delays • Energy security essential • AT builds collaborative and resilient relationships with key suppliers, reducing the vulnerability of its value chain to future shocks.
Hot House World scenario		
SSP4 – 6 Inequality 1.2°C to 4.3°C Physical risks: Extreme Transition risks: Low, then high	Policy reaction to reduce emissions Unambitious policies leading to uncontrolled warming of >3°C Climate technology change Slow change Carbon dioxide removal Low use Regional policy variation Low variation The physical impacts of climate change grow through to mid-century. From 2050 onwards, their scope, scale, and ferocity accelerate. We have almost certainly surpassed a tipping point in our climate system.	Unsupported and unable to lead • Under this scenario, AT does not receive support to provide effective climate leadership. Instead, AT receives insufficient funding and policy support • Climate impacts are higher and the network is prone to disruption, undermining public confidence in public transport • Auckland’s transport system is not resilient to the impacts of climate change and has failed to make meaningful contributions to national emissions reduction targets • AT may have reduced status and powers.

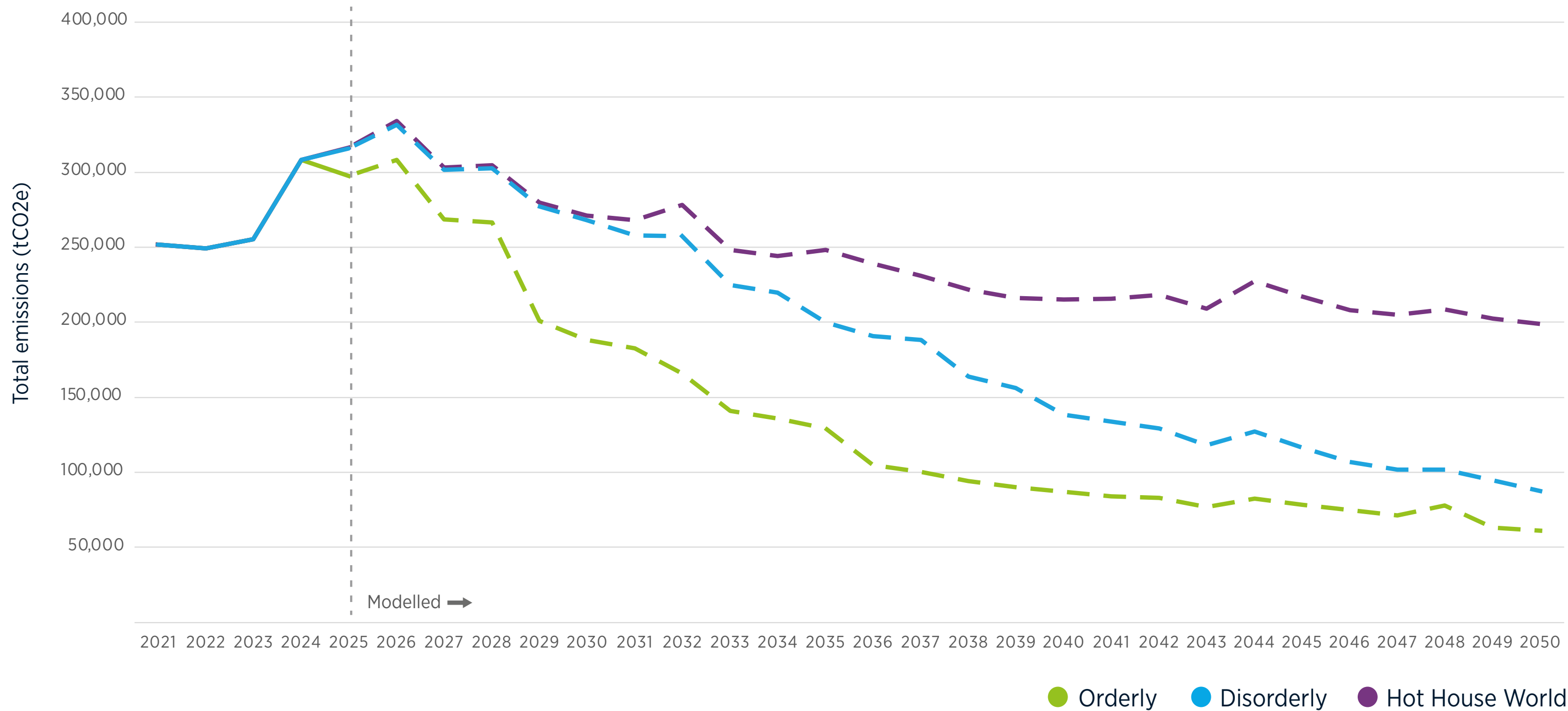
Figure 2: Summary of AT integrated climate scenarios

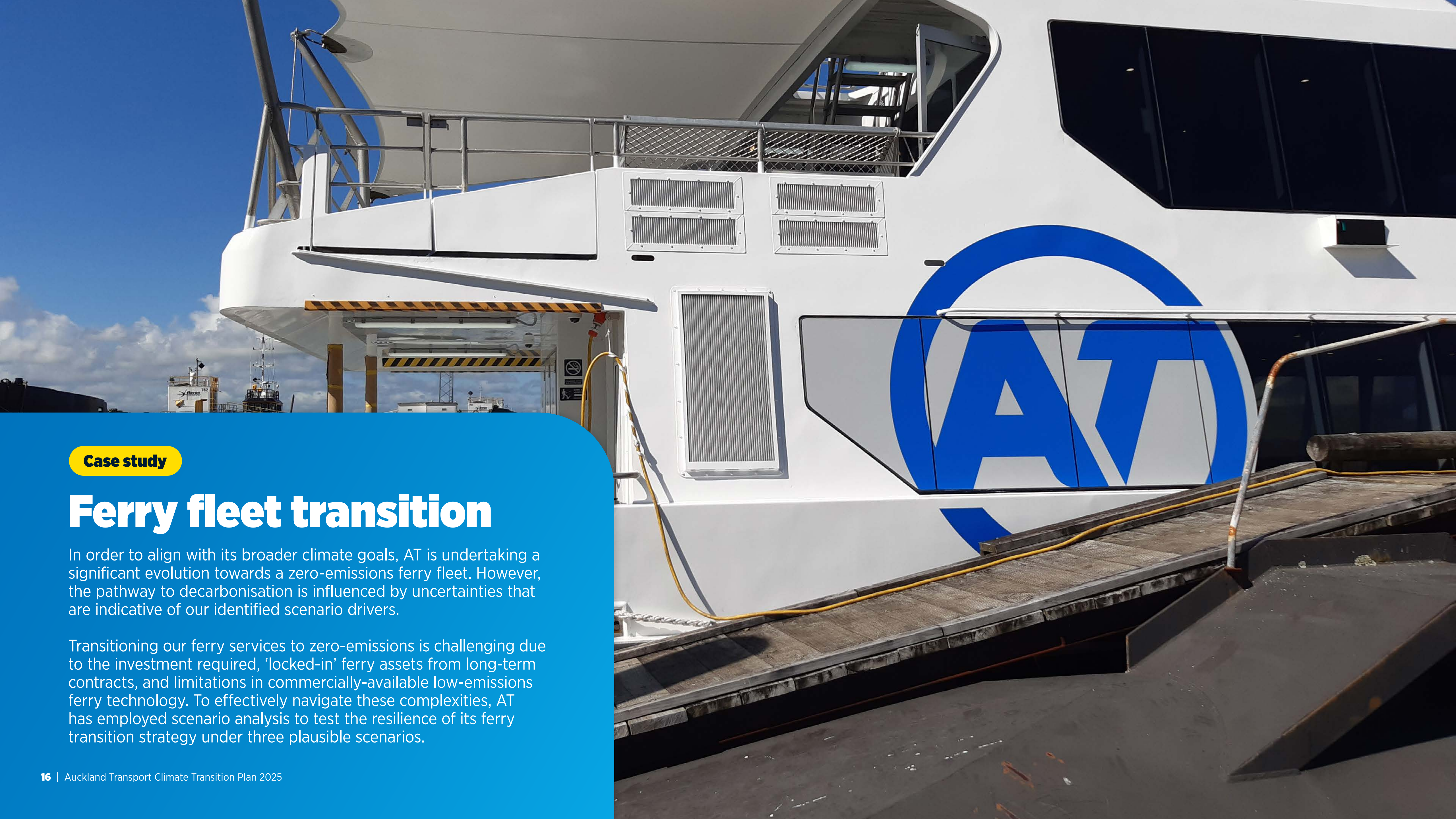
Linking strategy with scenario analysis

The three climate scenarios correspond to plausible future pathways AT may need to navigate. The scenarios are used to assess the organisational resilience of AT’s transition under varying conditions. AT cannot ‘pick’ which climate scenario to proceed with, as the scenarios are used to test the resilience of AT’s transition towards net-zero.

We have modelled our current emissions reduction progress and extrapolated the data out to 2050 using our integrated scenarios. Our modelling suggests our Current Ambition and activities align with a **Disorderly scenario**. With an increased funding and policy ambition, our current trajectory could move closer towards an **Orderly scenario** forecast. If the opposite were true, and our ambition decreases, we potentially align with a **Hot House World scenario** where the negative impacts for AT grow in scope, scale and ferocity.

Figure 3: Modelled total (operational and embodied) emissions by climate scenario





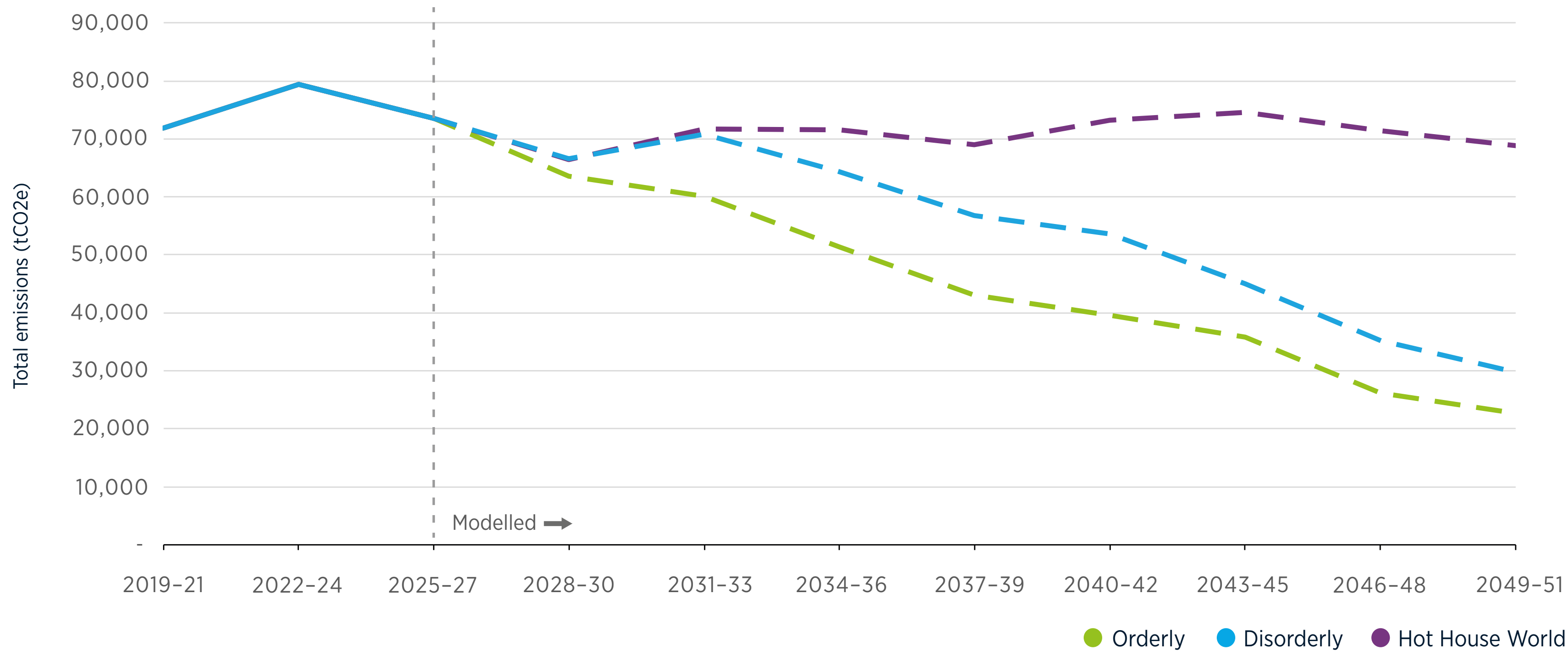
Case study

Ferry fleet transition

In order to align with its broader climate goals, AT is undertaking a significant evolution towards a zero-emissions ferry fleet. However, the pathway to decarbonisation is influenced by uncertainties that are indicative of our identified scenario drivers.

Transitioning our ferry services to zero-emissions is challenging due to the investment required, 'locked-in' ferry assets from long-term contracts, and limitations in commercially-available low-emissions ferry technology. To effectively navigate these complexities, AT has employed scenario analysis to test the resilience of its ferry transition strategy under three plausible scenarios.

Figure 4: Modelled annual public transport ferry emissions by climate scenario



The analysis in **Figure 4** shows in the Orderly scenario and current Disorderly scenario, substantial emissions reductions are possible, albeit at different speeds, depending on policy and funding decisions related to the adoption of electric and hybrid ferries. In contrast, the Hot House World scenario results from insufficient funding and support leading to minimal decarbonisation. This scenario sees policy and funding constraints persist and the fleet remaining dominated by diesel vessels. These projections highlight the critical role of investment and policy support in accelerating fleet electrification.

Using scenario analysis, the ferry fleet looks different under different scenarios:

Orderly

Under this scenario, by 2050 the fleet would be dominated by electric ferries, with few hybrids and diesels still in use.

Disorderly

Under this scenario, the number of electric and hybrid vessels is balanced. There are more new and second-hand diesels in the fleet through the 2030s and 2040s than the Orderly scenario.

Hot House World

In this scenario, there are a few new hybrids procured, but most of the fleet are new and second-hand diesels. This is reflected in the Figure 4, where the Hot House World scenario results in limited decarbonisation.

Climate risks

Our key risk

Climate Change is a key risk in AT organisational risk categories and is separate from Environment risks. In 2019, the AT Board approved the overall climate risk as:

The risk of events leading to the failure to appropriately respond to or prepare for the impacts of transition to, adaptation for, and mitigation of climate change.

This includes impacts on:



AT's physical assets
Technology and road network



Operational activities
Public transport services



AT staff and customers
Through health, safety, and wellbeing frameworks



Climate risk categories

AT’s climate-related risks fall into two categories: physical risks and transition risks. To ensure both these types of climate risks effectively ‘roll-up’ into ACG risks for administrative and reporting purposes, a consolidation and alignment process was completed in 2023.

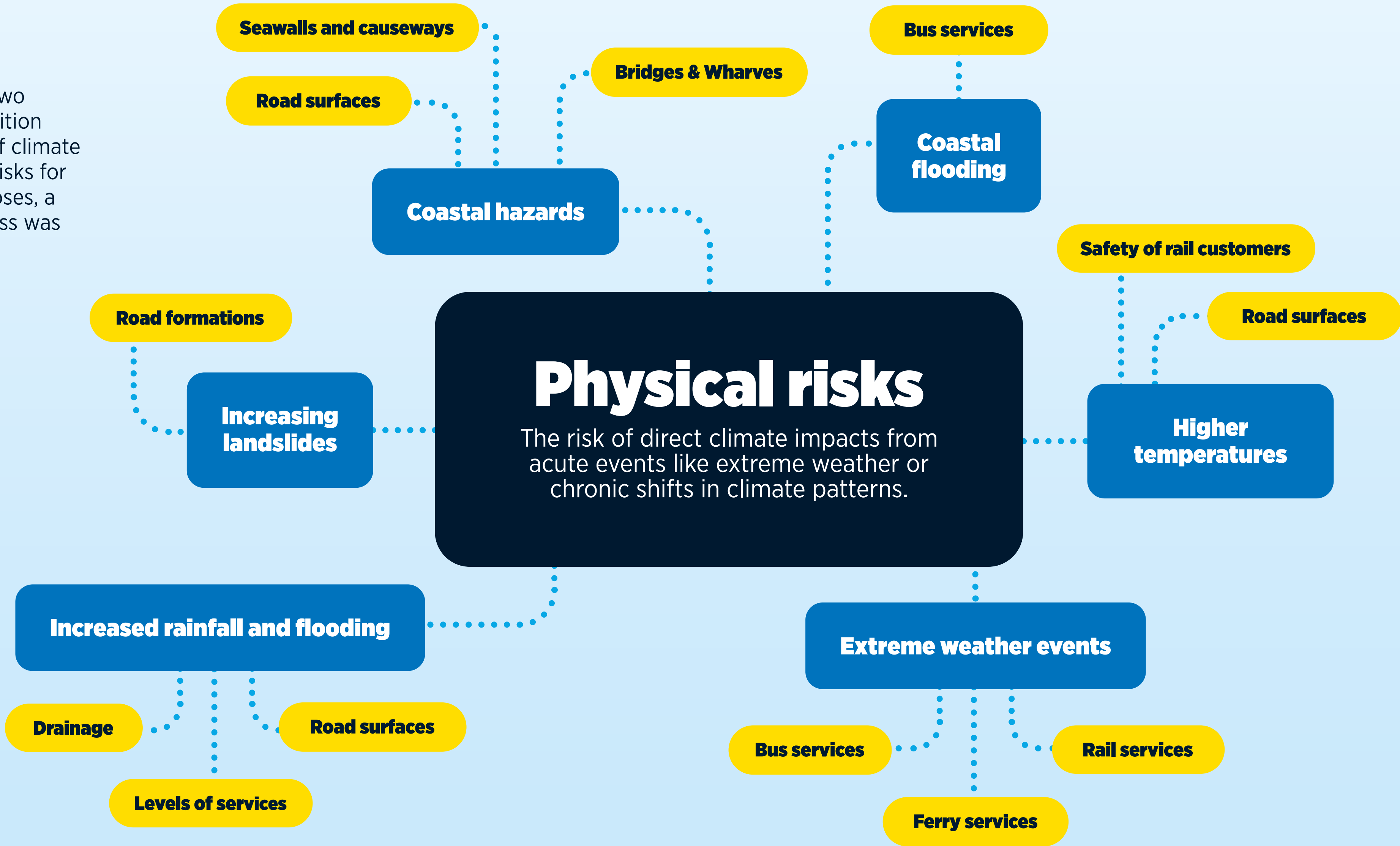


Figure 5: AT key physical risks



Figure 6: AT key transition risks

Risk identification and assessment

AT’s climate-related physical risks were identified and assessed in 2021, and transition risks in 2022. Through this process, 170 physical risks and over 40 transition risks were identified specific to Auckland Transport. Key physical and transition risks were revised again in 2023 to ensure alignment with the ACG climate risks, and to ensure continued accuracy of prioritisation and management.

Critical physical and transition risks are integrated into and managed via the organisational risk management system. Key Risk Indicators are monitored and reported against quarterly. This is overseen by the Head of Risk and Assurance, within the Finance & Corporate Services division.

Controls and mitigations for physical and transition risks are developing in an ongoing process of continuous improvement. These include a Climate Change Technical Policy⁶ and a GIS-layered Adaptation Portal with AT’s critical assets and all known climate hazards. AT has also progressed development of signals, triggers and thresholds (STATs) for its roading assets. The developed STATs are collated through conditions assessment reports for assets and uploaded to an Adaptation Portal for monitoring.

This work informs AT’s Transport Asset Management Plans and subsequent funding, asset management, forward works programmes and transition planning decision-making processes.



⁶Climate Change Technical Policy, 2024.

Long-term strategies and plans

Regional specific plans and policies	
2018	Auckland Plan 2050
2019	Auckland Council declares a Climate Emergency
2020	Auckland Council adopts Te Tāruke-ā-Tāwhiri (Auckland Climate Plan)
2022	Council creates a pathway to reduce transport emissions (TERP)
2024	• AT Sustainability Strategy 2024 • Auckland Council Long-term Plan 2024-2034

International & national level agreements/policy	
2015	The Paris Climate Agreement is signed to limit warming to 1.5°C
2019	The ‘Zero Carbon Act’ is passed to meet net zero by 2050
2020	The NZ Government declares a Climate Emergency
2022	• Te hau mārohi ki anamata (Emissions Reduction Plan) • NZ’s First National Adaptation Plan 2022

AT Sustainability Strategy 2024-2031⁷

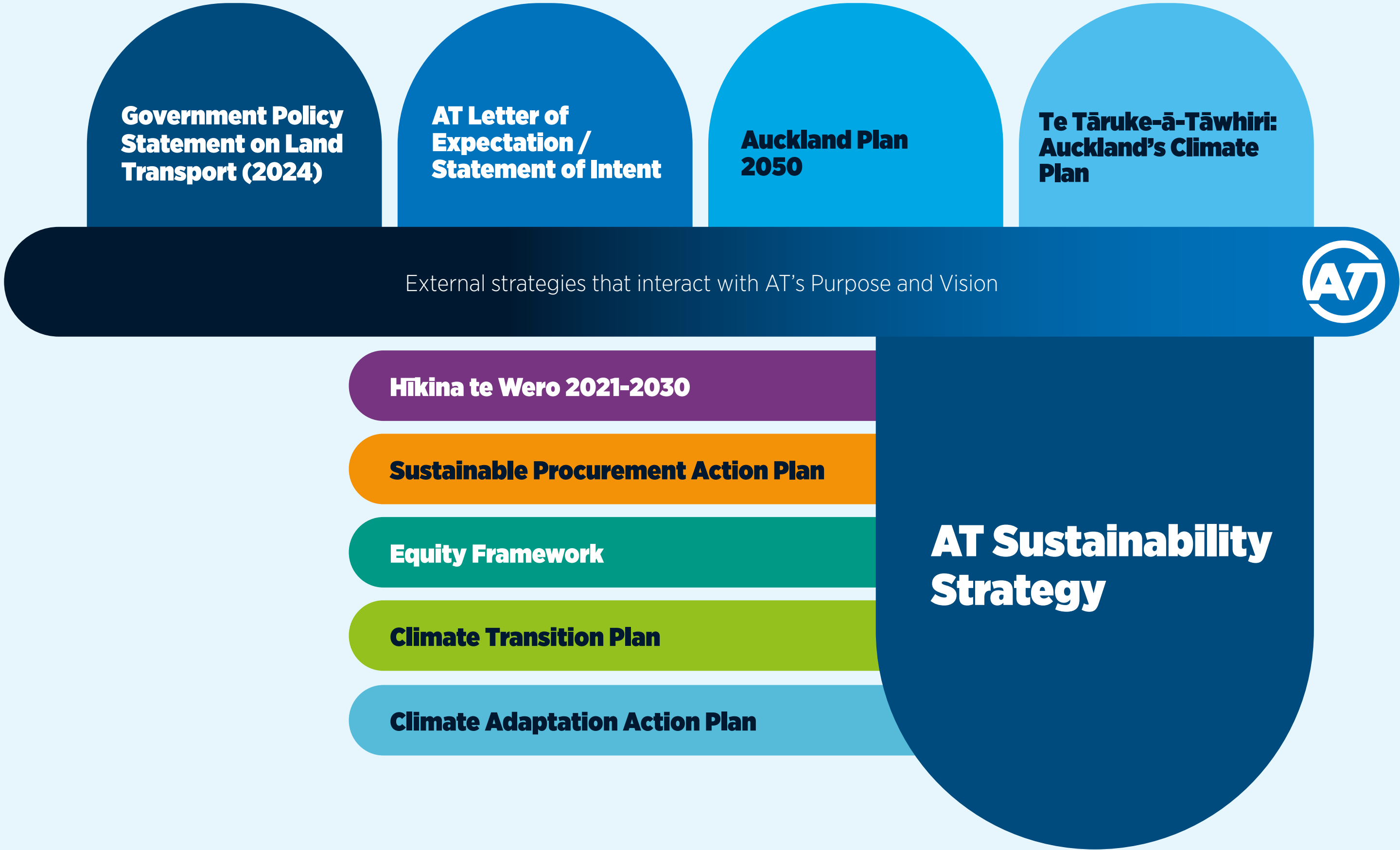
Our Ambition: “A resilient and sustainable transport system. Minimising our impact on the natural environment and human wellbeing by protecting our waterways and the air that we breathe, improving social and economic equity and restoring biodiversity as part of how we deliver infrastructure and services”.⁷

The AT Sustainability Strategy defines climate change, environment, and social/economic goals, objectives and targets which are being embedded into AT’s organisation systems and management of the transport network.

Sitting under the strategy are five plans, including this Climate Transition Plan, which detail the actions AT will take to achieve the goals and objectives of the Sustainability Strategy.

⁷ Auckland Transport Sustainability Strategy, 2024.

Sustainability Strategy Cascade



Our **Sustainability Strategy** commits AT to the following emissions reduction targets, against 2021/2022 baselines.

- 2031**
- Operational emissions are reduced by 50% overall by 2031/32.
 - Embodied emissions are reduced 50% by 2031/32.

- 2050**
- Net zero operational and embodied emissions by 2050.

Auckland Council Long-term Plan 2024-2034⁸

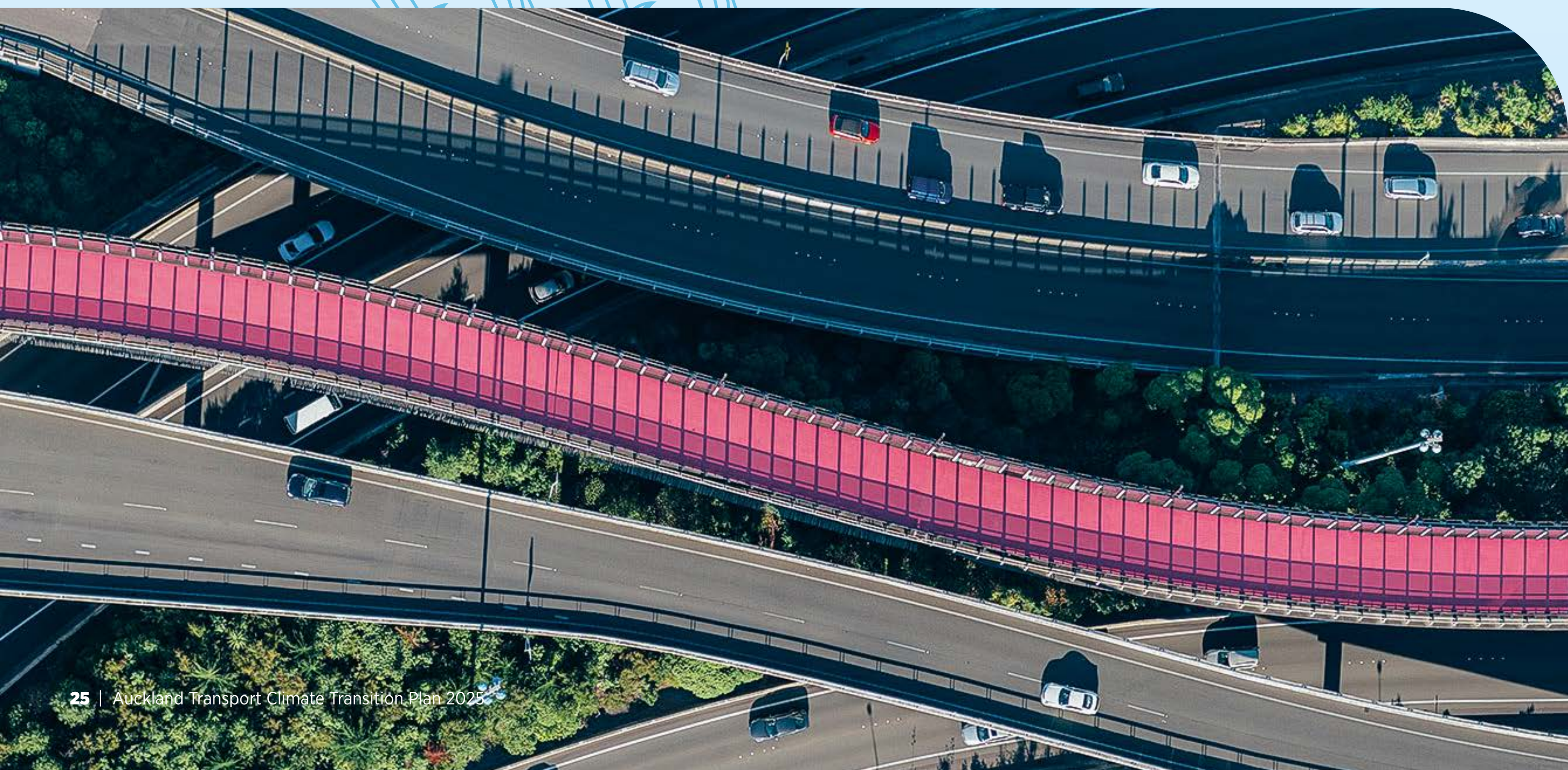
The Auckland Council Long-term Plan 2024-2034 sets a strategic direction for reducing transport emissions, enhancing sustainability and advancing the region’s climate transition. The plan prioritises a shift towards a more efficient, low-emission transport system by expanding public transport services, accelerating the transition to low-emissions vehicles, and promoting active transport modes. It integrates climate resilience into infrastructure planning and ensures urban development aligns with emissions reduction goals. There is a focus on reducing vehicle dependency through improved accessibility and connectivity and the plan reinforces Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan. The approach of this plan supports long-term sustainability by embedding emissions reduction and climate adaptation into the city’s transport and urban planning framework.

New Zealand’s First National Adaptation Plan 2022⁹

Aotearoa New Zealand’s First National Adaptation Plan sets out a strategic framework for building climate resilience across communities, infrastructure, ecosystems, and the economy. It outlines measures to reduce climate risks, enhance adaptive capacity, and integrate climate considerations into decision-making. The plan provides important direction on ensuring long-term transport resilience, integrating adaptation into infrastructure planning, and aligning transport investments with future climate scenarios.

⁸ Long-term Plan 2024-2034, 2024.
⁹ Aotearoa New Zealand’s First National Adaptation Plan, 2022.





Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan¹⁰

In 2019, Auckland Council declared a Climate Emergency and adopted Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan in 2020. This plan aims to cut regional greenhouse gas emissions by 50% by 2030 and reach net zero by 2050. The plan emphasises transforming transport by promoting alternative transport modes and low-emission vehicles.

Auckland Plan 2050¹¹

The Auckland Plan 2050 outlines a strategic vision for a more accessible, efficient, and sustainable transport system which supports Auckland's long-term growth and resilience. It emphasises the need to address climate change by reducing transport emissions and embedding sustainability into infrastructure and urban development. By aligning transport planning with land use, economic growth, and environmental goals, the Auckland Plan 2050 aims to create a more liveable, low-emissions future for the region. emissions within our inventory.

¹⁰ Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, 2020.

¹¹ Auckland Plan 2050, 2018.

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Our approach

Our approach

AT takes responsibility for our own readiness to respond to the impacts and opportunities associated with the changing climate. We recognise the transport network is a key component of other organisations’ transition planning and aim to ensure the network and our services are resilient to climate hazards, so others can keep moving, even in adverse conditions. As part of our culture of continuous improvement, we look for further initiatives to meet our 2050 ambitions.

Climate transition goal and objectives

Our Goal:

AT has the right systems and processes in place to support and deliver its Sustainability Strategy.

AT has two Climate Transition objectives with relevant indicators of success.¹²

These objectives are:

- 1 The physical and transition related impacts of climate change are well understood and effectively managed.
- 2 AT’s systems and processes ensure that decision making at all levels and across all business units reduce AT’s vulnerability to climate-related impacts and are in-line with international and domestic policy settings that aim to limit total warming to 1.5°C.

¹² Auckland Transport Sustainability Strategy, 2024.

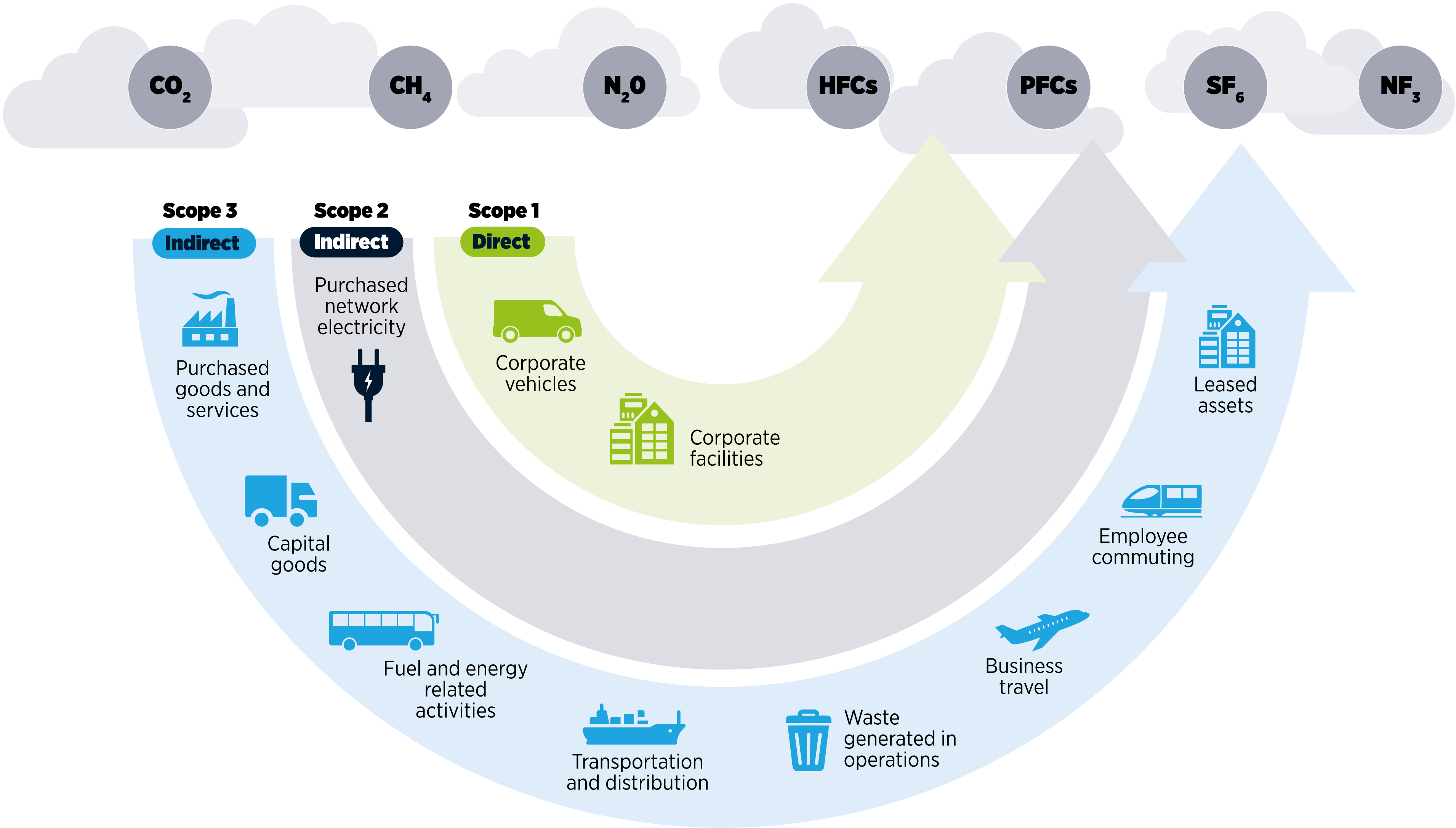


Greenhouse gas emissions

Global greenhouse gas (GHG) emissions must drop rapidly to avoid the worst impacts of our changing climate. The longer we delay, the more drastic our actions will need to be to manage physical and transition impacts. The extreme weather events of 2023 show the need to be prepared and improve the resilience of transport assets and services.

Our GHG emissions inventory meets international standards such as the Greenhouse Gas Protocol and ISO 14064-1:2018, and is the basis of our annual climate related financial disclosure.

Figure 7: Depiction of organisational emissions



We measure our GHG emissions using New Zealand and international standards. This includes an analysis of over \$2 billion of spend to check we report everything of significance.

Our largest emissions sources fall under two categories:

- 1 Embodied emissions (GHG emissions from construction and maintenance of our roads, buildings and other structures)
- 2 Public transport (GHG emissions from operating our bus, train, and ferry services)

More information about our annual reporting of emissions (including methodologies, boundaries, and targets) can be found in the Climate Financial Disclosure section of our Annual Report.¹³ Our reporting and emission reduction progress are audited and verified annually by Toitū Envirocare.¹⁴ Every year this reporting becomes more robust as we identify, measure, and include additional sources of emissions.¹⁵

Previous activities have already made significant emissions reductions. We reduce operational emissions and energy use with continuous monitoring and targeting, and efficiency measures across our network of facilities and assets. Over the past 4 years, we have retrofitted 98% Auckland’s streetlights with energy efficient LED lights and control them with an optimum dimming profile to further reducing the energy use.

¹³ Pūrongo ā-tau: Annual Report, 2024.
¹⁴ Organisation Assessment Report, 2024.
¹⁵ Auckland Council Annual Report: Volume 4: Climate Statement, 2024.

Looking out to 2050, our current initiatives, such as the electrification of buses, trains and ferries, may get us up to 85% of the way to our net zero target for operational emissions. Design changes, building smarter, and increasing use of low carbon materials will help us achieve our embodied emissions targets. Additional projects for accelerating decarbonisation between now and 2050 will reduce emissions further.

While our initiatives will get us most of the way towards our targets, we expect 10–12% of our operational emissions to be ‘locked-in’ emissions from earlier carbon-intensive technological systems, assets, and infrastructure, which have ‘locked-out’ lower-carbon alternatives. Examples of AT’s locked-in emissions include embodied emissions from 7,500 km of roads; facilities/assets which have not been constructed to be low-emission, and any diesel ferries we buy over the next 10 years. These will be locked into higher emissions for the lifespan of each asset and service.

To avoid additional locked-in emissions, we aim to limit how many new technologies, structures, assets, and services are high risk for ‘locking-in’. However, processes to assess the risk of ‘lock-in’, and the financial liability for ‘unlocking’, are yet to be built into decision making processes for new investments and contracts for both AT and our funding partners (NZTA and Auckland Council).

We will also investigate further initiatives to meet our targets including:

- Security of access to renewable electricity
- Our ability to accelerate the decarbonisation of public transport
- New low-carbon construction materials
- Opportunities for insetting
- Opportunities for financial products based on sustainability outcomes



98%

of Auckland’s streetlights now have energy efficient **LED lights**



Offsetting

Some emissions in our inventory cannot be mitigated without significant funding for low-emission infrastructure. While we are committed to substantial emissions reductions, and to insetting where possible, our preference is to consider offsets after achieving a 90% absolute reduction.¹⁶

Internal carbon pricing

Our internal (shadow) price of carbon for capital expenditure is based on Treasury advice, which includes three levels of pricing calculated out to 2050.¹⁷ At its highest, this is anticipated to rise to \$149 per tonne of carbon dioxide equivalent (CO₂e) by 2030 and \$232 by 2050.

An internal carbon price of \$131/CO₂e has been applied in 2024 and is reviewed annually. This provides an alternative view of capital expenditure in business cases with the benefits and risks associated with GHG emissions 'priced in' and acts as a form of carbon sensitivity analysis when making capital expenditure investment decisions in our operations.

¹⁶ Auckland Transport Sustainability Strategy, 2024.

¹⁷ Information on the Shadow Price of Carbon (OIA-20210278), 2022.

Operational emissions

Operational emissions target:

Reduce operational emissions by

50%

By 2031
(relative to 2021/22)

And achieve

net zero

By 2050¹⁸

Our operational emissions relate to those emitted directly or indirectly and include corporate activities, operational activities of ATs assets and public transport services provided by AT or through operators. They exclude embodied, enabled, avoided and upstream emissions.

96% of our operational emissions are associated with public transport services, with another 3% related to the operation of assets and facilities we own and are mostly related to electricity use. Our workplace and corporate activities like business travel, corporate fleets, and corporate

building are responsible for less than 1% of our operational emissions.¹⁹ We are in a process of continuous improvements to reduce the emissions associated with these elements.

As expected, in FY24 our operational emissions increased by 9% relative to our baseline year FY22. The increase was due to a rebound in our public transport services after Covid-19 (15% more service distance than FY22), partially offset by having more electrified buses in operation.

As seen in Figure 8: Modelled operational emissions targets by climate scenario

This figure displays the sum of public transport, corporate, and network operation emissions alongside the 2031 and 2050 targets. It excludes upstream energy and embodied emissions; public transport facility infrastructure emissions; and the embodied emissions associated with buses, trains, and ferries.

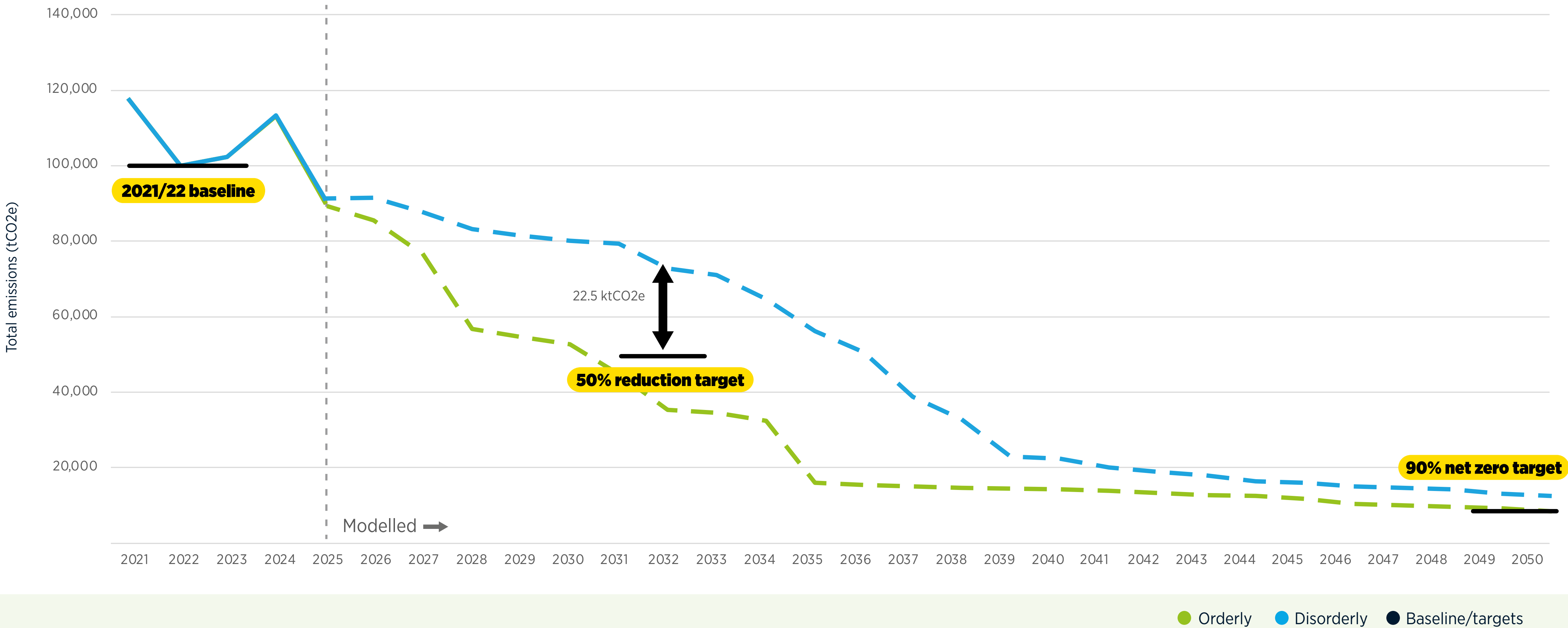
- Our operational emissions trajectory indicates emissions will remain high alongside increasing public transport patronage for FY25 and FY26, then gradually reduce as we bring more electric buses into service.
- The forecasted gap between our 2031 reduction target and our Disorderly scenario modelling is equivalent to 22,500 tCO₂e. For comparison, this equates to the emission reductions that could be achieved through the complete decarbonisation of the ferry fleet.
- Our ability to increase our emissions reduction activities is reliant on the policies of our funding partners, central government, NZTA and Auckland Council. Their support is committed every three years through the process of developing a National Land Transport Plan (NLTP) and significantly impacts progress towards achieving our operational emissions target.

See graph on following page ↓

¹⁸ Auckland Transport Sustainability Strategy, 2024.

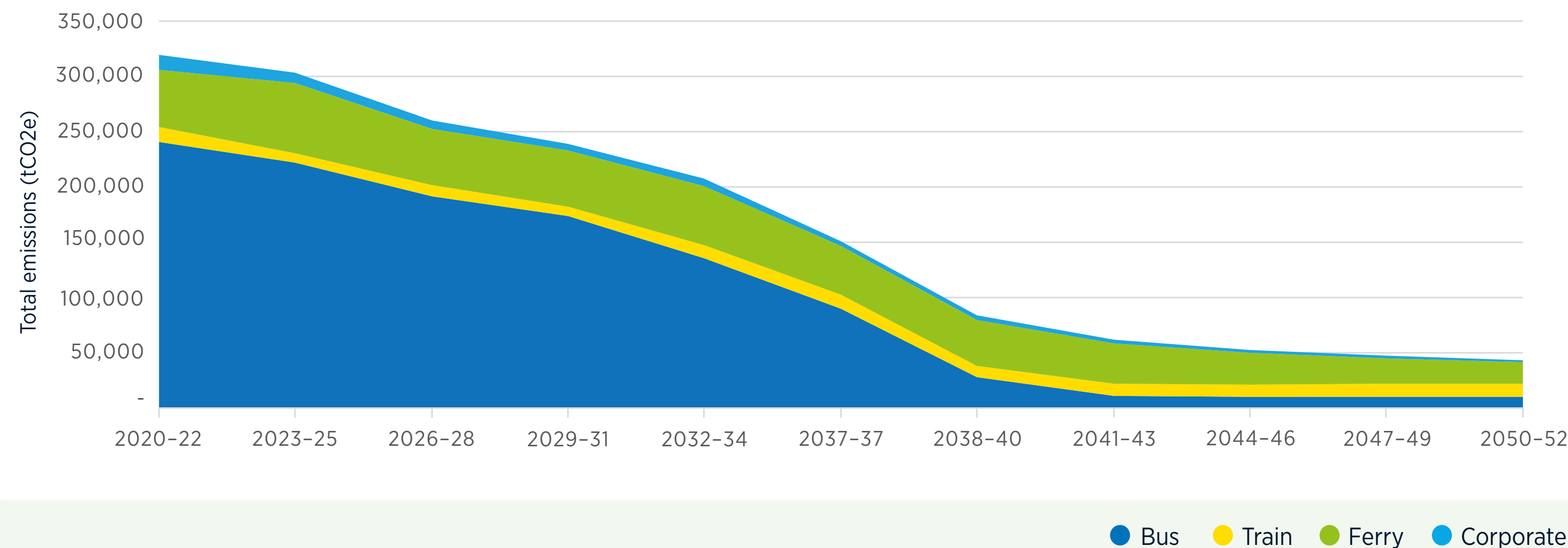
¹⁹ Auckland Council Annual Report: Volume 4: Climate Statement, 2024.

Figure 8: Modelled operational emissions targets by climate scenario



Public transport emissions

Figure 9: Modelled total operational PT, corporate and network operation emissions per RLTP 3-year period, based on current Disorderly scenario



Emissions from public transport services are the second largest source of emissions for AT (43% of our emissions inventory for the year 2023/24) and have been a focus area for emissions reduction activities for the past decade. Rail services are already fully-electrified, and Auckland’s Low Emission Bus Roadmap sets out a plan for the transition to a fully electric bus fleet by 2035.²⁰ As at May 2025, the AT bus fleet sits at 19% electric, making AT an Australasian leader for its electric bus fleet.

Two hybrid and two electric ferries are in production and are expected to be in operation in late 2025. The ferry fleet has the greatest potential for emissions reduction,

with emissions from this service expected to comprise around 50% of ATs operational emissions by 2050 as bus emissions decline due to decarbonisation.

Delivery of electric buses and further ferry decarbonisation are dependent on sufficient funding. While funding for bus electrification at the current pace is supported by Auckland Council, the ferry fleet has yet to secure funding for further decarbonisation. With long ferry lifespans, delays in funding in the short-term will result in long-term ‘locking-in’ of emissions for AT.

As seen in Figure 9: Modelled total operational public transport, corporate and network operation emissions per RLTP 3-year period, based on current Disorderly scenario

We expect buses to have an outsized contribution to emissions until the fleet of ~1350 buses are transitioned to zero-emissions.

- The transition of diesel buses to Zero Emission Buses (ZEBs) is detailed in our Low Emission Bus Roadmap.²⁰
- If new and second-hand diesels remain in the ferry fleet without further transition to hybrid or electric, by the 2030s and 2040s ferry fleet emissions will account for over half of operational emissions.
- AT’s train fleet is already fully electric resulting in low emissions, particularly in relation to the volume of people moved.

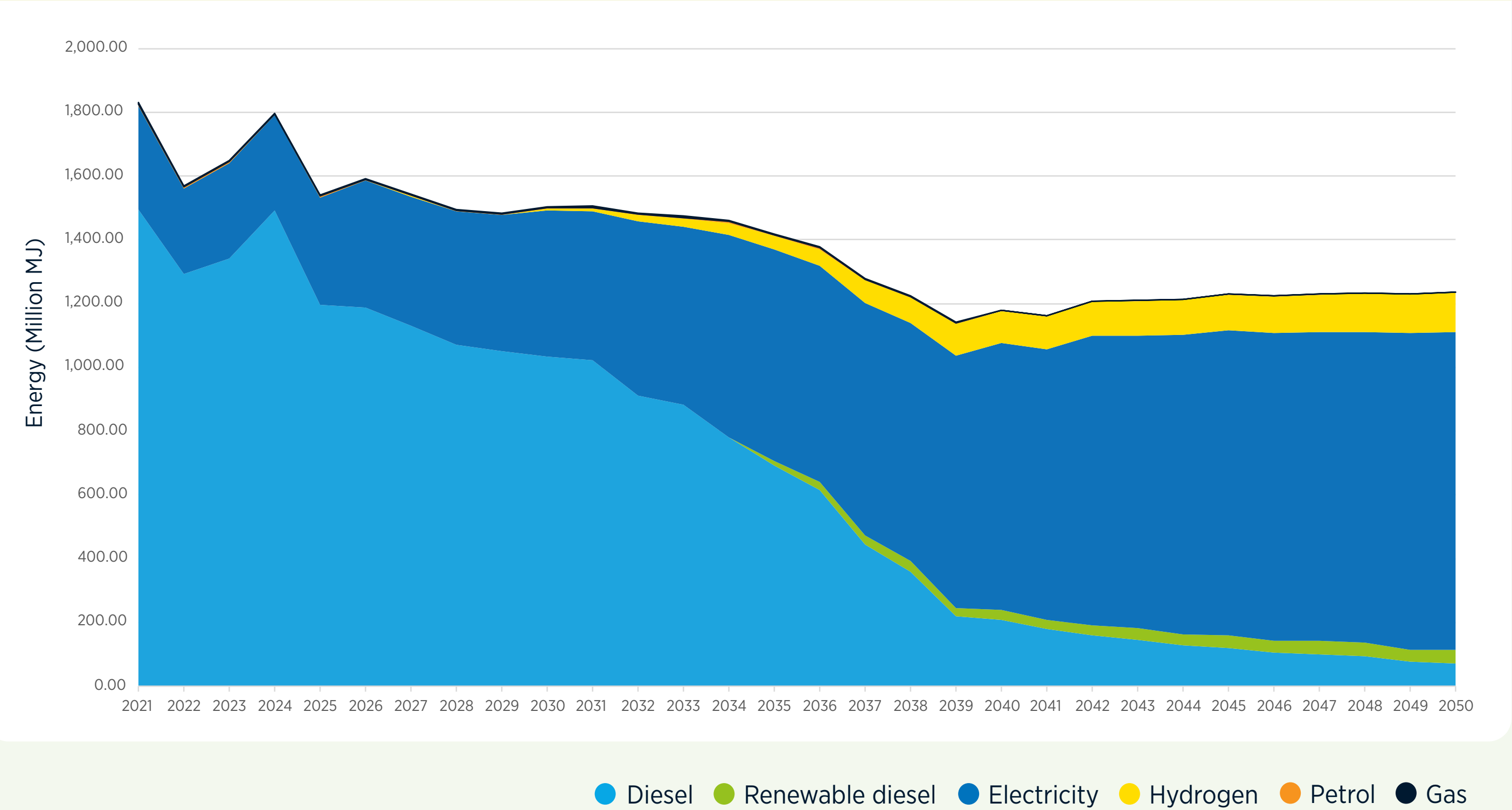


Two hybrid and two electric ferries are expected to be in operation in late 2025.

²⁰ (Auckland’s Low Emission Bus Roadmap, 2023.

Energy security

Figure 10: Modelled annual energy usage by energy source for current Disorderly scenario



AT is considered a large energy user,²¹ and our electricity use is expected to increase substantially. This makes electrification, energy efficiency, and low-emission transport options one of the main focus areas for AT. As our services increasingly rely on electricity, we are alert to potential

risks including to security of supply, relying too heavily on a single supplier, or fluctuations in price or emissions due to climate conditions. We are developing a strategic view of our future energy needs and how to ensure security of supply.

As seen in Figure 10: Modelled annual energy usage by energy source for current Disorderly scenario

- This figure shows the forecasted energy usage by AT’s public transport, corporate, and network operation for the current ambition/Disorderly scenario and categorises AT’s energy usage by fuel type (diesel, electricity, hydrogen, etc.).
- The impact of the full roll out of electric buses can be seen through the decline in diesel use as electricity use increases. From 2040, ferries are expected to make up the bulk of AT’s diesel use.

Bitumen supply risk

AT builds and maintains around 7,500km of roads, with bitumen and fuel making up approximately 25% of road pavement cost. Our construction, maintenance and renewal operations are heavily dependent on bitumen availability, and we are aware our bitumen supply chain is vulnerable to:

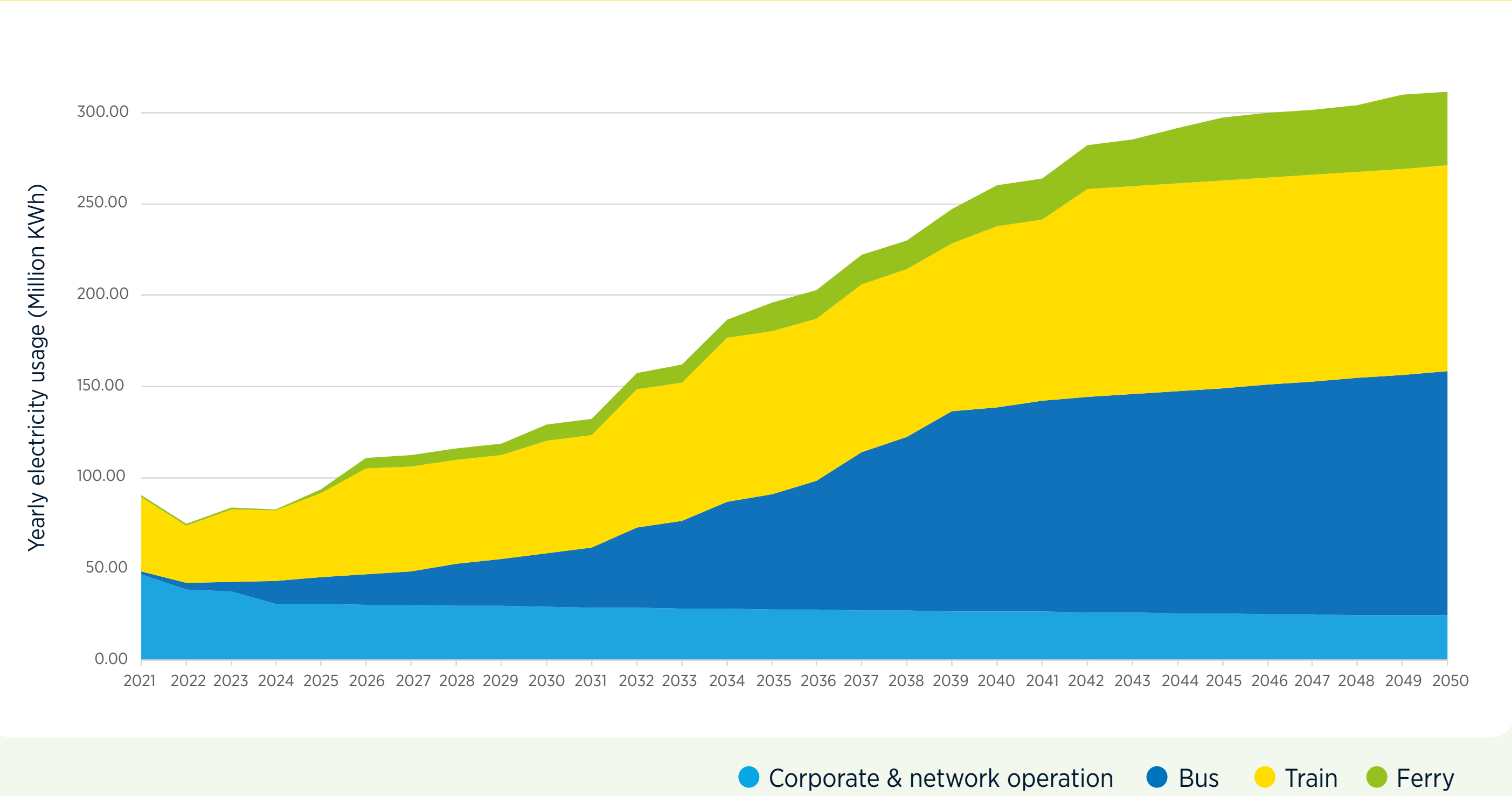
- Fluctuations in international oil prices impacting asphalt cost which may make it unsustainable to build roads with bitumen-based products within 25 years.
- International supply chain disruptions, as all bitumen is imported via 6 weekly shipping deliveries aligned with Australian demand.
- Limited storage capacity within New Zealand means if storage capacity is less than a ‘ship’s-worth’ of cargo, a delivery may be skipped due to cost of delivery.
- Climate-related events may impact bitumen use by delaying construction works, leading to bitumen remaining in storage tanks, deliveries being skipped, a shortage of bitumen, and further delay to works.

AT are monitoring bitumen vulnerabilities and working with suppliers and other partners to investigate alternative products and to reduce this risk and become more resilient to future supply chain impacts.

²¹ Auckland Transport’s Energy Story: Delivering on our Sustainability Framework, 2018.

Electricity

Figure 11: Modelled operational electricity used per year for Disorderly scenario



As seen in Figure 11: Modelled operational electricity used per year for current Disorderly scenario

- This figure shows the forecasted electricity usage by AT’s public transport, corporate, and network operation for the current Disorderly Scenario. It further breaks down the electricity usage by each bus, ferry, and train.

Electricity is the **third-largest source** of our emissions. This is driven by the energy demands of:



Assets and infrastructure
Streetlights, traffic signals, and public transport facilities



Public transport fleets

Opportunities to do things differently, such as the use of technology to create an intelligent transport network, are likely to both increase electricity usage, and optimise efficiency across the network, with an unknown total impact.

We directly consume over 74GWh of electricity annually to operate our own infrastructures and assets, which costs more than \$20 million. Energy efficiency initiatives have reduced electricity use for our operation from 105GWh in FY19 to 74GWh in FY24. This is despite the rise in number of the assets and infrastructures that were added into our network due to growth.

Our bus operators are transitioning their diesel bus fleets to electric to provide our bus services. At present, this means we indirectly consume approximately 10.2GWh of electricity to operate these buses. As we aim for all our public transport buses to be low emissions by 2035, our indirect electricity consumption in future years will significantly increase. However, as New Zealand’s electricity grid becomes more renewable, our electricity-related emissions are expected to decrease.

Hydrogen

While AT remains technology agnostic, we view hydrogen as a part of reaching our decarbonisation targets and transitioning to a low emission public transport fleet. To trial low-emission technology, AT purchased a small number of buses as demonstrator vehicles, one of which was hydrogen fuel cell. This vehicle entered passenger service in July 2021 and has been trialled by multiple operators. The trial has provided both AT and the bus operators valuable insights into how the technology works and how it could be utilised further in their fleets.

Ultimately it is up to our public transport operators to choose what low or zero-emission technology they use for their fleets. AT will continue to support the uptake of hydrogen vehicles, as we do with electric.



Embodied emissions

Embodied emissions target:

Reduce embodied emissions (scope 3) by

50%

By 2031

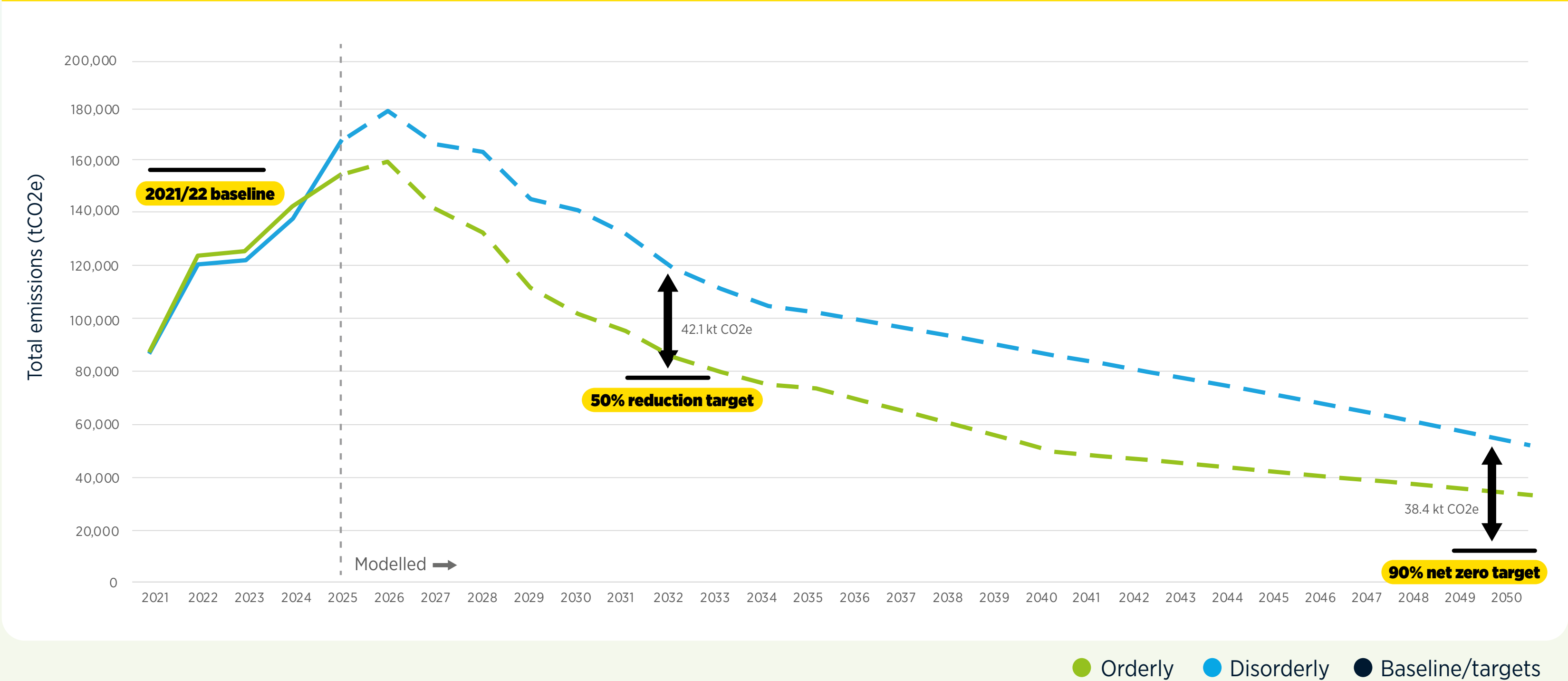
(relative to 2021/22)

And achieve

net zero

By 2050²²

Figure 12: Modelled embodied emissions compared with emissions targets by climate scenario



As seen in Figure 12: Modelled embodied emissions compared with emissions targets by climate scenario

- The embodied emissions modelled in Figure 12 demonstrate the likely reduction under a Disorderly scenario as compared to the impact of greater improvements to low carbon materials in the Orderly scenario.
- Our target of 50% reduction in embodied emissions by 2030 was set in alignment with the PAS 2080²³ international standard which advocates for a whole of life carbon assessment and includes emissions reduction associated with the design (build less) and construction (build smart) contract phases.
- The modelling in Figure 12 is based on 2021 assessments and only considers the use of low carbon materials (build low carbon) where traditional materials have been swapped for low carbon materials, and diesel plant and equipment is changed for electric plant. The analysis of decarbonisation pathways excludes labour and costs.
- The PAS 2080 elements of build less and build smart will be applied in addition to the modelled impacts, as further mechanisms for achieving our targets.
- Our embodied emissions baseline was calculated using budget-based estimates of construction emissions. Subsequent improvements in data have shown this to over-represent embodied emissions compared to actual. Future baselines will reflect our commitment to continuous improvement.

²² Auckland Transport Sustainability Strategy, 2024.
²³ PAS 2080:2023 Carbon Management In Buildings and Infrastructure, 2023.

AT manages \$29 billion of publicly-owned assets for the transport network,²⁴

with new infrastructure planned under the Regional Land Transport Plan (RLTP). Development, maintenance, and renewal of our assets means embodied emissions are around 56% of all our emissions. AT modelled the embodied emissions for the 2021–2024 RLTP and used the estimated average annual emissions to establish a baseline of 156,000 tCO2e per annum. The embodied emissions reduction target of 50% by 2031 was aligned with the Science Based Target Initiative (SBTI) requirements for a transport system (46%) to keep global warming under 1.5°C.

AT follows the international best practice approach described in PAS 2080,²⁵ which advocates for a whole-of-life carbon assessment and recognises that emissions reduction opportunities exist at the design phase (build less), the construction phase (build smart), and through use of low carbon materials (build low-carbon).

We are already reducing our embodied emissions through process improvements, standards, data acquisition, and supply chain engagement. We have also incorporated low-carbon material options into a Practice Note for immediate implementation through contract specifications and support our suppliers and operators to measure and record project-related emissions. Our Supplier Code of Conduct requires suppliers to have sustainability commitments and report emissions data via our online portal.²⁶

Our challenge

Auckland is growing, and we need more transport infrastructure. We also know that extreme weather events – which are the physical impacts of our changing climate – lead to massive recovery and rebuild efforts which create spikes of embodied emissions. Despite these challenges, we are confident we can meet our targets to reduce embodied emissions through smart design, resource efficiency, low-carbon materials and supply-chain engagement.

In 2023-2024, our embodied emissions reduced by 11%, even though there was an extra 13% of total emissions from the massive amount of infrastructure-recovery work following extreme weather events in 2023. This recovery work included a betterment aspect, aimed to improve resilience when future severe-weather events occur.



²⁴ Pūrongo ā-tau: Annual Report, 2024.
²⁵ PAS 2080:2023 Carbon Management In Buildings and Infrastructure, 2023.
²⁶ Auckland Transport Supplier Code of Conduct, 2023.

Case study

Low carbon concrete

In 2024, Auckland Transport began the **Point Chevalier to Westmere Improvements Project**. This project aims to enhance safety and accessibility for pedestrians, cyclists, and public transport users. The project included upgrades such as pedestrian crossings, improved cycling infrastructure and enhanced public transport facilities.



A key achievement in the project was the reduction in embodied carbon emissions. This reduction was achieved using low-carbon concrete instead of traditional concrete. The low-carbon concrete incorporated slag as a partial substitute for Portland cement, significantly reducing the carbon footprint in both production and construction.

This maintained structural strength and durability while achieving a **24% reduction** in embodied carbon compared to conventional methods.

Additionally, aggregates from the excavated road were recycled to replace virgin aggregates, further minimising environmental impacts.

This case exemplifies AT's proactive approach to integrating climate-focused solutions into infrastructure projects. It highlights how reducing embodied emissions through innovative materials and recycling practices supports broader climate transition goals, while ensuring operational resilience.

Adaptation

Adaptation objectives	Indicators
Auckland’s existing transport network is increasingly resilient to the physical impacts of climate change.	1 AT’s physical networks are in sound condition and operate to designed level of service
AT’s planned works are resilient to the physical impacts of climate change	2 100% of planned works integrate the physical impacts of climate change into their design by 2025
AT’s operations are resilient to the physical impacts of climate change	3 AT’s operations are configured and managed to ensure continuity of service and ready to respond to anticipated impacts of climate change

Figure 13: AT adaptation objectives and indicators

Adaptation refers to actions which help make our transport network less vulnerable to the physical impacts of a changing climate, such as extreme-weather events, landslides, flooding and costal erosion, etc.

Our climate adaptation work uses the Dynamic Adaptive Policy Pathways (DAPP) approach for both coastal and inland assets. We regularly monitor and maintain our transport infrastructure to ensure it remains functional and safe under varying climate conditions. This includes conducting frequent inspections, implementing predictive maintenance strategies, and upgrading assets as needed based on climate projections.



Landslide Framework model

AT's Climate Change Risk Assessment showed increasing landslides would be the greatest physical risk to AT assets. Increased rainfall increases the occurrence of landslides that damage roads and disrupt services. This risk from landslides is high in the present day and will become extreme in future climate conditions.

Guidance on how to predict and adapt to landslides is limited. Most landslides are managed in recovery mode, with little data on how to predict vulnerable areas or adapt to reduce impact from this hazard.

The extreme weather events in 2023 provided an opportunity to gather data on landslides from across the region, and

this was used to develop a framework to predict landslide risk on our road network. Over 2,000 landslides were analysed for factors which contribute to landslide risk; such as geology, vegetation cover, overland flow paths, faults, etc.

Technological tools such as Artificial Intelligence were used to extrapolate the data from the existing landslides to the

entire AT road network, map them to a GIS layer and identify areas vulnerable to landslide risk. These modelled areas of vulnerability are now being checked for accuracy through on-site observation, and to predict landslide susceptibility. The model now informs our forward works programme to support preventative maintenance and reduce landslide risk on the network.



Nature positive

Hīkina te Wero: Environment Action Plan 2021-2030

Hīkina te Wero: Environment Action Plan 2021-2030 outlines our strategic approach to minimising environmental impacts and enhancing natural ecosystems within Auckland’s transport network.²⁷

It emphasises a range of measures and targets – such as green infrastructure, careful selection of materials, stormwater management, and improved fish passage – to protect and restore the environment. Together, these initiatives aim to create a transport system which reduces environmental impacts, enhances biodiversity, and improves community well-being, while addressing the impacts of climate change on Auckland’s infrastructure and natural habitats.

Our approach both informs and aligns with Auckland Council strategies and plans related to water and storm water, as well as other aspects of environmental protection.

²⁷ Hīkina te Wero: Environment Action Plan 2021-2030, 2021.

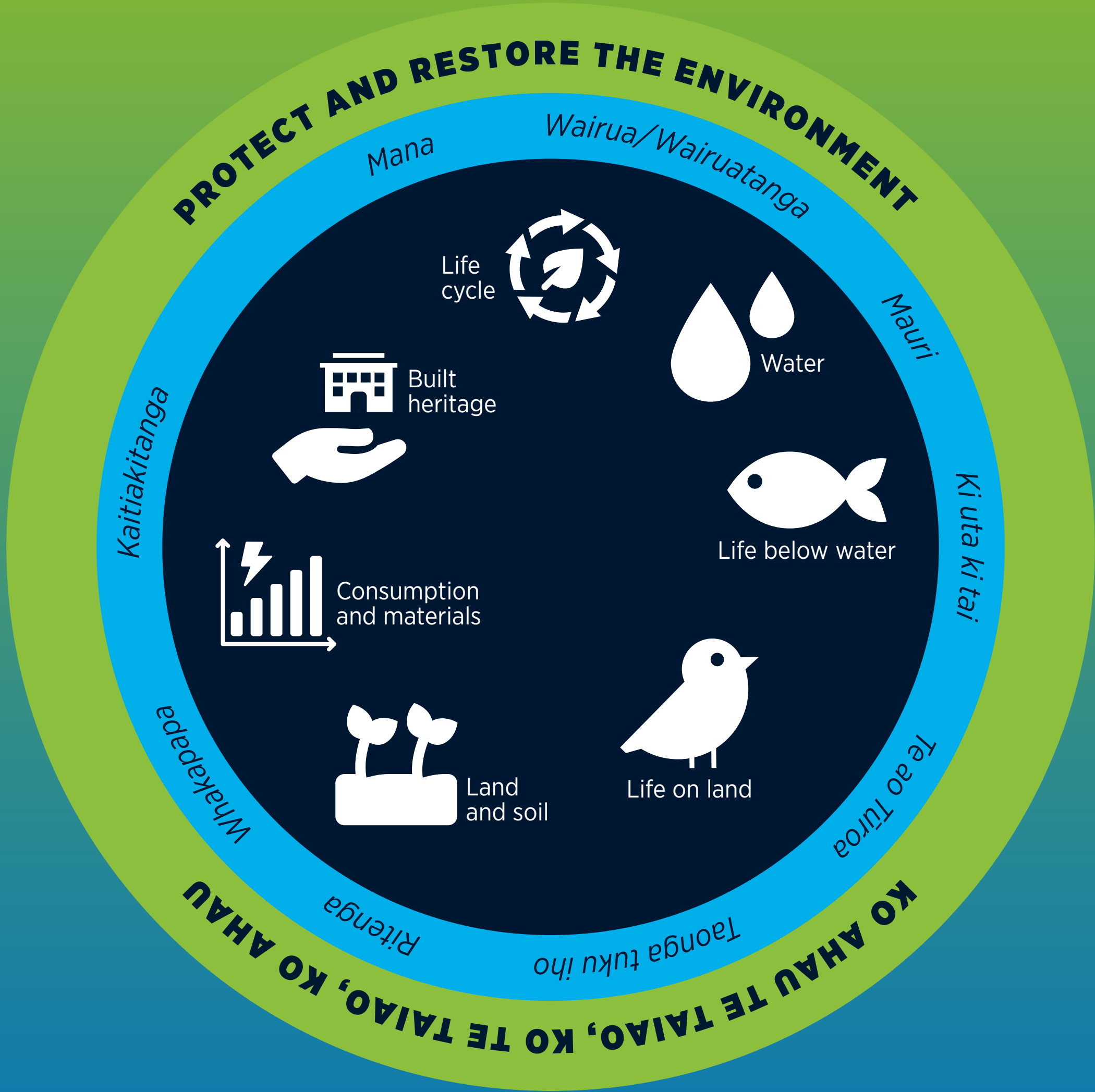


Figure 14: Hīkina te Wero: Environment Action Plan

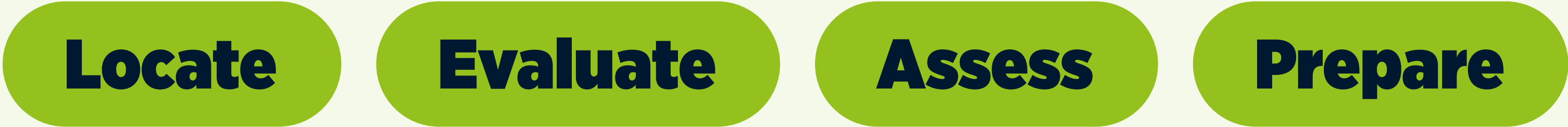
Nature-based financial disclosures

We recognise the changing climate, pollution and invasive species have put a strain on nature’s resilience, reducing nature’s tolerance to withstand these increasing pressures. Degradation of nature affects Nature’s Contributions to People (NCPs).²⁸

All AT’s activities have impacts on, or depend on, nature’s ability to provide NCPs. Therefore, integrating nature into our planning directly benefits many aspects of our long-term resilience.



Utilising a four-phase framework (LEAP):



As set out in Taskforce on Nature-related Financial Disclosures (TNFD) guidance, we have started identifying and assessing our nature-related issues and risks.²⁹ For AT, aligning with the TNFD is a natural extension of the ongoing work as part of our Sustainability Strategy and Climate-related Financial Disclosures, and will prepare AT for nature-related disclosures, should they become mandatory or part of future reporting.

²⁸ Nature’s Contributions to People: Weaving Plural Perspectives, 2021.
²⁹ Guidance on the Identification and Assessment of Nature-related Issues: The LEAP Approach, 2023.

Taking the public with us



The entirety of our work is represented by the movement of our customers.

Our transition is about safeguarding people, which aligns with AT’s purpose: We tiaki all who use transport in Tāmaki Makaurau.

By preparing ourselves, through our Climate Transition Plan and internal transformation, we become well-placed to support our partners and other stakeholders through the Auckland Council led process of regional transition planning.

This process may involve difficult conversations with communities vulnerable to the physical impacts climatic change – such as those impacted by coastal erosion or flooding. By having high-quality information on the transport network and any options for change, we can make it a little easier for communities to decide the best options.

We also recognise supporting and empowering communities will deliver benefits (jobs, business opportunities, connectedness, enhanced well-being and community resilience) for people right now, and into the future. Our social and economic equity work aims to ensure we support a diverse supplier base and promote innovation.

Our internal focus area Every Interaction Counts aims to put our customers at the heart of everything we do and to ensure they have confidence in AT to effectively tackle the complex transport issues facing Auckland.

Mobility Poverty

Mobility Poverty refers to the barriers (cost, access, location etc.) of accessing different and diverse modes of transport which can exclude people from accessing economic and social opportunities. AT aims to eliminate mobility poverty, meaning that everyone in Tāmaki Makaurau can get where they want to go easily and on time, choosing from a range of transport options.

Taking our people with us

We aim to ensure AT staff understand the purpose of our transition to becoming a low-carbon, resilient organisation, how they will be involved, and why their actions are important. Internal training helps our people to integrate preparing for and becoming resilient to climate impacts, into their work. Within AT, developing new climate-related skills and knowledge is seen as both career development, and work to help safeguard communities.

Key activities

AT aims to build community resilience with the work we undertake. We do this to address systematic inequalities by diversifying and improving the inclusivity and resilience of our supply chains, generating quality local employment and helping to build community prosperity.

We will achieve this through the following key activities:



AT's three-step framework to identify, respond to, and measure transport inequities, focusing on four key issues:

- 1 **Lack of effective and affordable access to essential services in high socio-economic deprivation areas**
- 2 **Exposure to transport-derived harms**
- 3 **Inadequate physical access for all**
- 4 **Insufficient personal safety provisions**

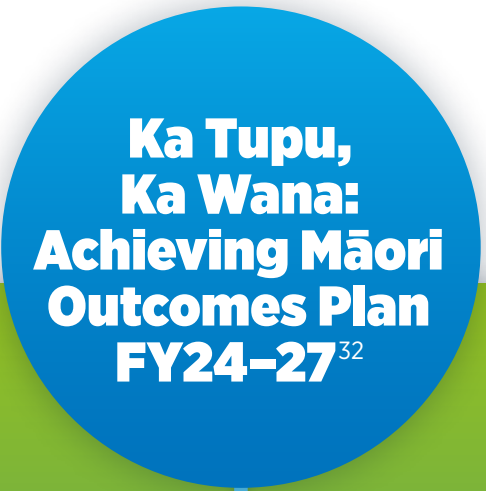
AT is working towards implementing targeted interventions in response to these issues.



Offers discounted fares on public transport for employees whose employers have opted into the program.

Employers can choose to subsidise 25%, 50%, or 75% of public transport travel costs.

The discount applies to all public transport services, except Waiheke Island ferries.



Outlines AT commitment to **achieving positive outcomes for Māori by embedding Te Tiriti o Waitangi principles and Māori aspirations** into its operations. It focuses on Māori representation in decision-making, supporting Māori businesses, improving transport safety near marae, increasing Te Reo Māori visibility, and integrating Māori identity into the transport network. Through strong partnerships with mana whenua and mataawaka, AT ensures a more inclusive, equitable and sustainable transport future for Tāmaki Makaurau.



Outlines AT's commitment to integrating social, economic, and environmental objectives into procurement practices. The plan identifies and details 8 key focus areas:

Supplier Diversity, Quality Employment, Human Rights, Transport Equity, Emissions Reduction, Climate Change Adaptation, Greening our Network, Waste Minimisation.

It sets specific long and short-term targets for each focus area. The plan specifies how we will measure our progress through procurement in helping to meet all relevant AT sustainability targets. The document also outlines the sustainable procurement strategic initiatives and specific actions we will undertake through 2025-2034.



This is the foundation document requiring commitment from our suppliers to best practice relating to **social, environmental, ethical and financial responsibility**. The scope of the Code includes suppliers' parents, affiliates, subsidiaries and subcontractors, and it stipulates minimum sustainable reporting requirements. This reporting is critical to ensure that we can accurately measure and respond to our impact on the climate.

³⁰ Auckland Transport Equity Framework.

³¹ Fareshare Concession, 2025.

³² Ka Tupu, Ka Wana: Achieving Māori Outcomes Plan FY24-27, 2024.

³³ Auckland Transport Sustainable Procurement Action Plan 2025-2034, 2025.

³⁴ Auckland Transport Supplier Code of Conduct, 2023.



Decision-making for the future

An uncertain future

We recognise uncertainty is not the same as risk, and traditional risk-based approaches are ill-suited to today’s climate realities. For example, our current emphasis on shorter-term time horizons (3-year RLTP cycles, and 10-year Long Term Plans) contrasts with the longer timeframes related to our asset lifespans and the impacts of a changing climate. As a result, our decision-making processes may at times become reactive, rather than being proactively aligned with long-term climate strategies.

Extreme weather events have driven immediate, reactive responses, reflecting recency bias rather than long-term strategic planning. Adaptation planning requires effective coordination across multiple regional agencies. However, climate change impacts are occurring faster than detailed adaptation plans can

be developed, increasing the risk of reconstruction of what was there previously. This may not necessarily be the right long term solution given future conditions.

Such conditions mean our opportunities for innovation or adaptation are shaped by fleeting moments of public or political acceptability, also known as ‘Overton windows’.³⁵ These windows force AT to advance climate preparedness only when a window appears, rather than looking ahead.

AT aims to continuously improve internal governance and strategy processes to better anticipate and acknowledge long-term, uncertain futures – even as we operate within legislative and regulatory frameworks designed for short-term responsiveness.

³⁵ A Brief Explanation of the Overton Window, 2025.



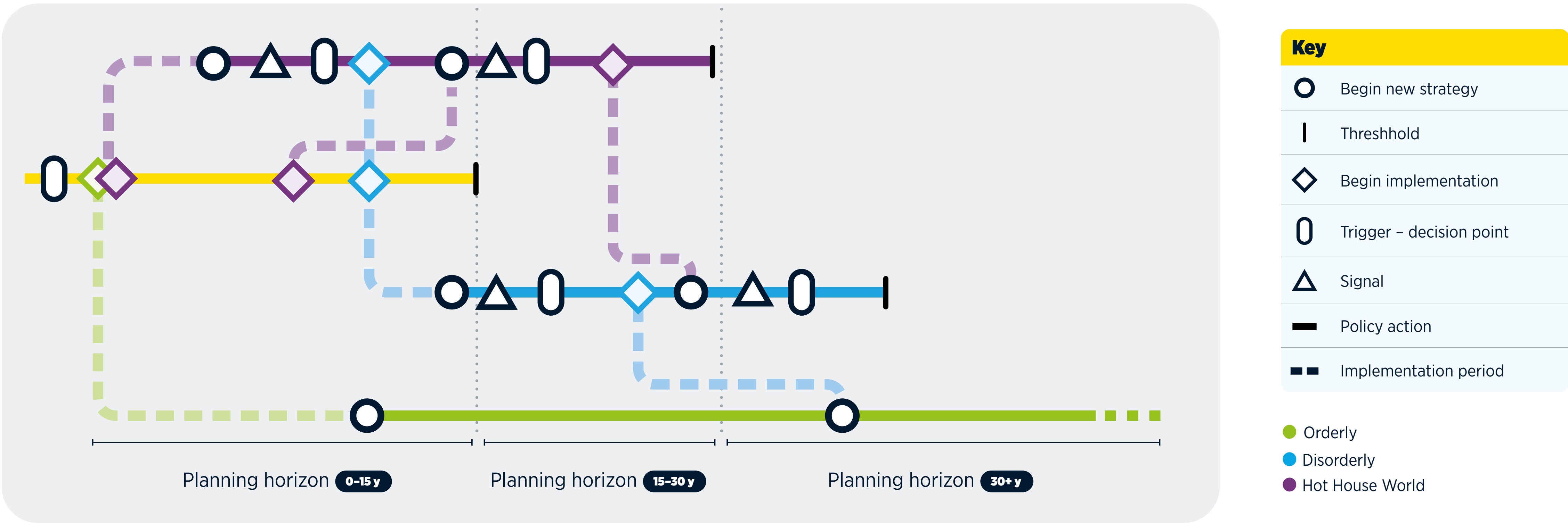
Managing uncertainty

Managing uncertainty is central to AT’s Climate Transition Plan. Navigation of this uncertainty will not only mitigate risks but also enable us to seize opportunities for innovation and efficiency.

We utilise the DAPP approach, as recommended by the Ministry for the Environment. This approach supports taking short-term, actionable steps³⁶ to maintain flexibility and to capitalise on opportunities from technological advancements, new policy contexts, and changing community expectations over time.

DAPP allows responsive planning pathways and iterative decision-making processes where various options can be evaluated and repeated over time (as shown in Figure 15). Each decision point is informed by robust scenario analysis, ensuring actions remain effective across a range of future conditions.

Figure 15: Dynamic adaptation pathways map: Adapted from Hasnoot et al. (2013); Hermans et al. (2017)



³⁶Dynamic Adaptive Policy Pathways: A Method for Crafting Robust Decisions for a Deeply Uncertain World, 2013.

Control, influence and concern

There are factors beyond AT’s control that will influence outcomes in unexpected ways (e.g. shifts in customer demands, sudden shock events, unexpected central government policy changes).

AT categorises these external factors into three key areas:

Control

These are factors AT can directly manage, such as operational decisions, internal policies, and infrastructure investments.

For medium and long-term planning, quantified emissions, financial and other effects are expected to be less precise and, where relevant, are discussed in terms of ranges of impact and orders of magnitude.

Influence

These include external decisions and policies where AT does not have full control but can exert influence, such as regional transport strategies, funding allocations, and reputational changes.

This Climate Transition Plan will inform project planning and organisational activities. Regular review of this plan will ensure new activities and updates to uncertainties are factored into transition planning decisions.

Concern

These are broader factors which affect AT’s planning and operations but are largely outside its sphere of control or influence, such as global economic trends and technological advancements.

Our activities reduce the emissions of others

Our emissions inventory includes emissions within our circles of control and influence. Emissions outside of our control or influence (such as emissions from users of the transport network) are within our circle of concern.

Under the standards and protocols we use, AT’s activities often reduce emissions that do not sit within our own emissions inventory. These are called ‘avoided emissions’ while emission reductions that count within our inventory are called ‘reduced emissions’.

For example, someone catching a bus, instead of driving a car, results in avoided emissions and is not reflected in our organisational emissions inventory, while AT operating an electric bus instead of a diesel bus results in reduced emissions within our inventory.

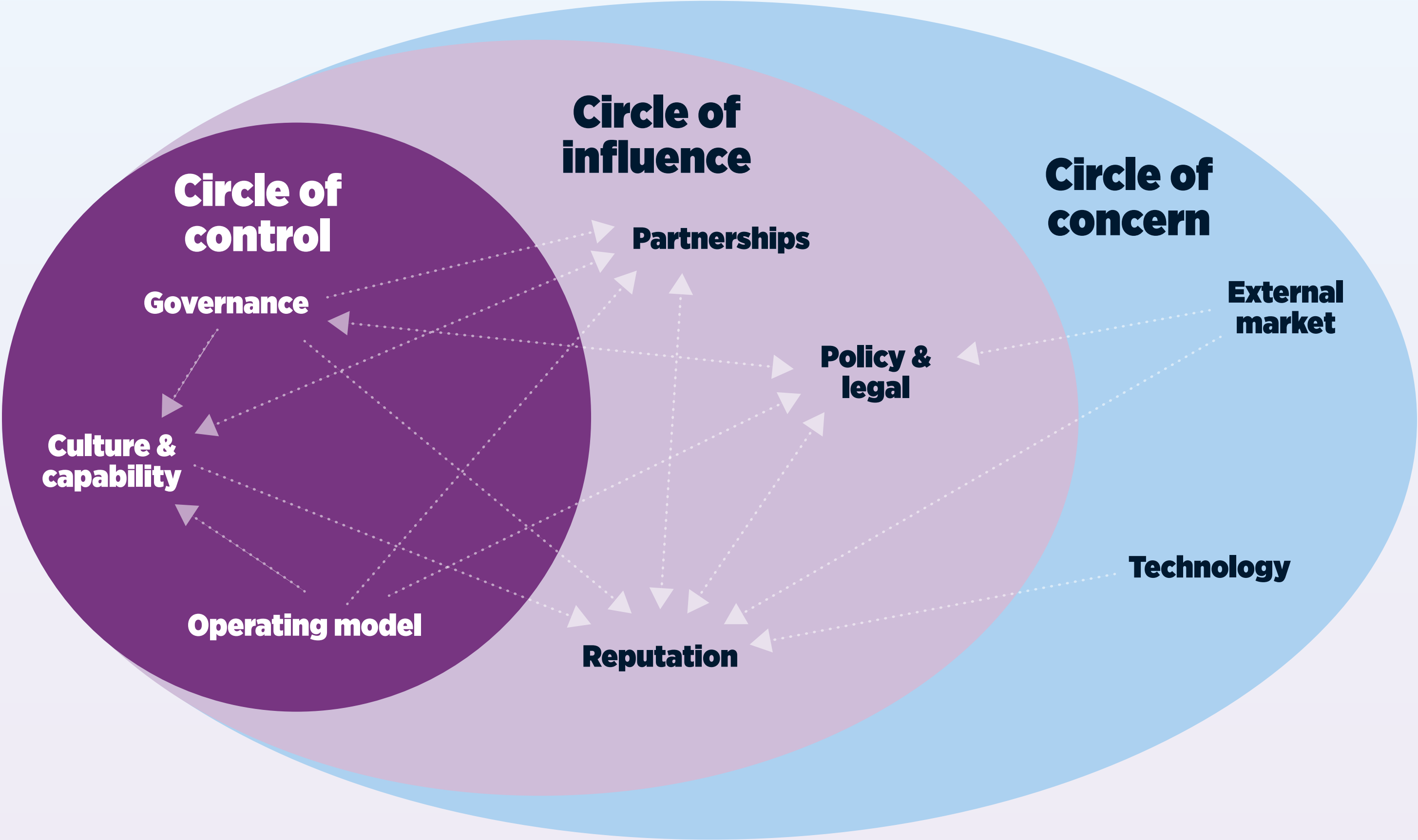


Figure 16: Control, Influence and Concern

Governance

The AT Board of Directors is responsible for identifying potential risks to AT and creates a framework for managing and monitoring these.³⁷ The Board charter includes that the Board must ‘ensure that AT meets its climate-related responsibilities’.³⁸

More information on our Governance structure can be found in our Annual Reports.³⁹

Synergies and trade-offs

AT understands the need to prioritise immediate, financially viable emissions reduction and adaptation measures, over waiting for fully-coordinated regional or national strategies.⁴⁰

Delaying action often incurs greater costs than implementing early incremental solutions, while the potential for misalignment during recovery phases highlights the need to focus on actional adaptation measures, even if suboptimal.

Trade-offs between emissions reduction and adaptation have not been a significant issue for AT yet, due to the whole of life cost-savings associated with our emissions reduction activities. While funding for both emissions reduction and adaptation projects continues to be a challenge, it is not yet due to a trade-off between the two.

³⁷ Pūrongo ā-tau: Annual Report, 2024.

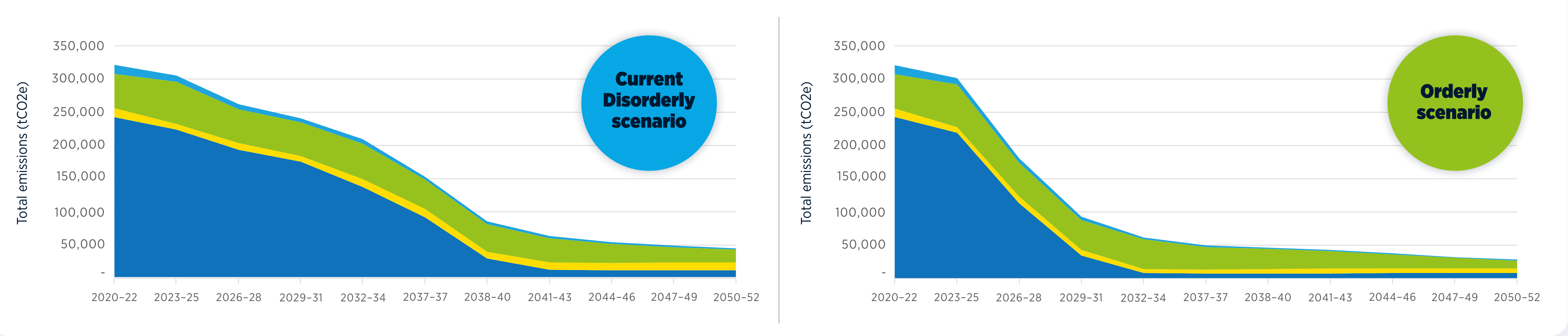
³⁸ Board Charter, 2024.

³⁹ Annual Reports, 2025.

⁴⁰ The Timing versus Allocation Trade-off in Politically Constrained Climate Policies, 2024.

Financing the transition

Figure 17: Modelled comparison of the impact of funding and policy on total operational emissions per 3-yearly reporting period



● Bus ● Train ● Ferry ● Corporate

As seen in Figure 17 – Modelled comparison of the impact of funding and policy on total operational emissions per 3-yearly reporting period

- AT’s ability to meet emissions-reduction and climate-resilience ambitions are significantly impacted by central government and Auckland Council’s three-yearly policy and funding decisions.
- Figure 17 compares the impact of our current ambition to a more ambitious funding scenario. The current Disorderly scenario presents a model based on current policy and funding levels. The Orderly scenario indicates the possible results of a more ambitious policy and funding package.



As a Council Controlled Organisation within the Auckland Council Group, and a road controlling authority under the Local Government Act 2002, we are funded through central government and council. We also generate revenue from our services.

In addition, funding from Auckland Council Green Bonds and Sustainability Linked Loans have helped us implement projects such as the electrification of public transport. Grants from central government agencies, such as EECA, have also enabled significant emissions reduction projects such as the transition to LED streetlights.

Planning and commitment of funding is also required for energy efficiency and adaptation to ensure the transport network is resilient to (costly) extreme weather events. As mentioned above, DAPP is being used in decision-making when considering capital allocation to ensure the organisation can pivot and best utilise its funding mechanisms in response to change. Additional measures for service resilience and improvements to the ability to ‘bounce back’ may also be required.

In coming years, as climate transition planning matures, there is likely to be:

- New, additional capital expenditure
- Changes in maintenance and renewal costs
- Further investment in research for new products or services
- Changes to the useful life of assets which are unable to be made resilient to the impacts of climate change.
- Changes in revenue forecasts

Failure to adequately invest in the climate transition may increase costs in the medium to long term due to climate related physical and transition impacts including damage to assets.

Case study

Streetlight LED upgrade

The Auckland streetlight LED upgrade showcases how targeted investments in sustainable infrastructure can have significant financial and environmental returns, while simultaneously supporting the region's transition to a low-emissions future.

By replacing over

122,396

High Pressure Sodium (HPS) lamps with energy efficient LEDs, AT has **reduced emissions** associated with streetlights by around **73% since 2014/15**, and **electricity consumption** by approximately **45%**.

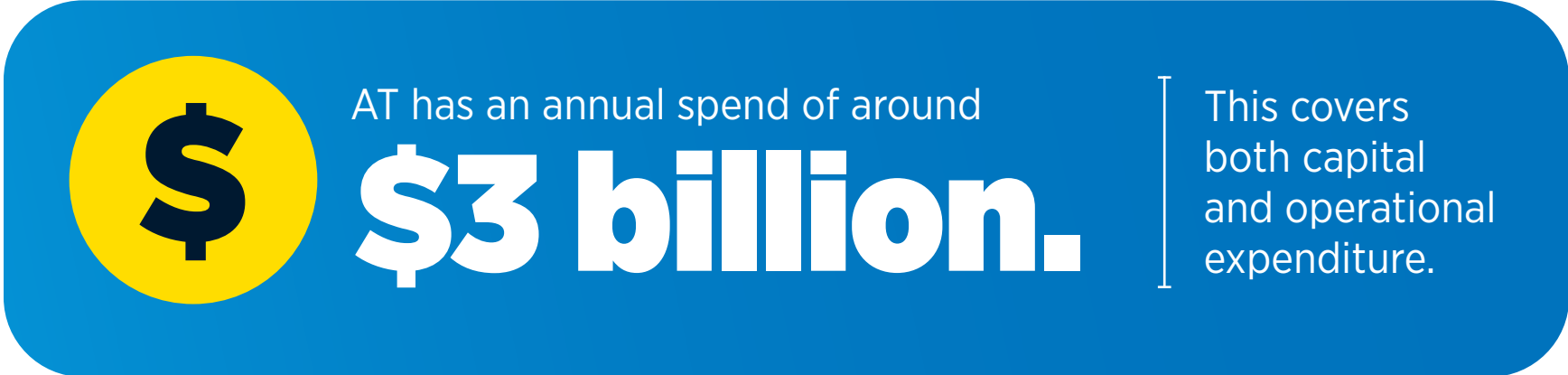
The benefits realised to date include cumulative operational expenditure savings of more than \$80 million, and a net saving of 3,171 tCO₂e in the year 2024, compared to base year 2015 emissions.

Beyond cost savings, the project incorporates a software system which allows real-time monitoring and dimming, reducing energy use during off-peak hours and lowering maintenance demands.

In addition to the emissions and cost savings, the LED lamps have been assessed for their impact on biodiversity. Cool white light such as a 5000K LED contains blue light which mimics sunlight and this may adversely affect bird navigation and insect breeding. AT has deliberately selected 4000K LED lamps for the street network and is exploring warmer LEDs for significant ecological areas, to reduce our impact on biodiversity.



Sustainable Procurement



Procurement activities cover a wide range of sectors, and the sub-contract chain is large, spanning domestic and global markets.

If our value chain does not reduce their emissions, we will not be able to meet our targets. We aim to leverage our purchasing power across our value chain, to support suppliers to change to a low-emissions economy, and support our goals and objectives.

AT’s Sustainable Procurement Action Plan 2025–2034 underpins the responsible financing of AT’s climate transition by embedding sustainability principles into all procurement and expenditure decisions.⁴¹ This framework ensures that every investment – whether in infrastructure and construction, services, or goods – contributes to climate-resilience, emissions-reductions, and social equity outcomes. This includes clear expectations for suppliers around ethical practices, workforce diversity, and environmental stewardship.

Through this plan, AT is committed to building a climate-resilient transport network by requiring suppliers to demonstrate sustainable design, operation, and delivery methods which support emission reduction targets and address climate adaptation challenges. By incorporating consistent engagement, data requirements, and clear accountability measures, the plan ensures AT’s responsible use of financial resources and systematically drives investments towards a low-carbon and climate-resilient future.

⁴¹ Auckland Transport Sustainable Procurement Action Plan 2021–2024, 2021.

Proposed 3-yearly AT capital and operating expenditure

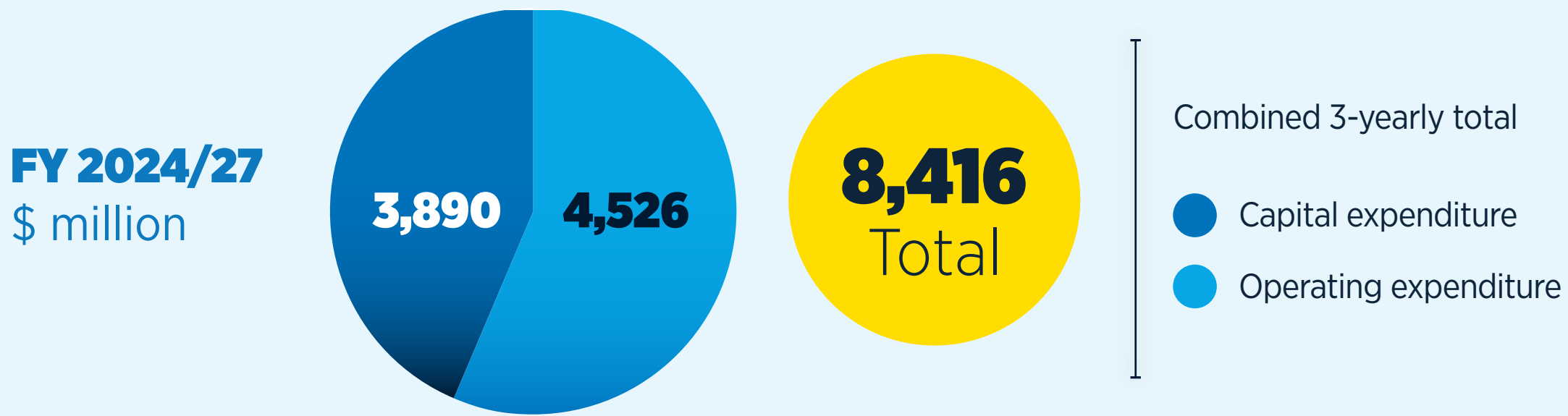


Figure 18: Organisational capital and operational annual expenditure

Average annual spend breakdown FY22-FY24

Infrastructure (45%)	Asset construction (11%)
	Road corridor maintenance (19%)
	Facilities maintenance (1%)
	Transport professional service (7%)
	Physical works (7%)
Transport services (45%)	Public transport (44%)
	Transport operations (1%)
Technology (7%)	Business technology (7%)
Corporate (3%)	Corporate goods and services (3%)

Figure 19: Average annual spend breakdown

Capital deployment

AT’s assets have been assessed for climate risk and to understand signals, triggers and thresholds on an asset-by-asset basis. This work informs AT’s Transport Asset Management Plans and subsequent forward works programmes and funding decision-making processes.

All projects within AT’s capital programme have been previously assessed for GHG embodied emissions using the Rapid Climate Assessment Tool (RCAT). RCAT is used for RLTP and LTP estimations of project emissions.

For our emissions inventory, we use a more accurate internal assessment tool to assess embodied emissions using actual data, and improved methodologies for assessing avoided emissions. Using these tools will enable detailed assessment of the emissions impact of different transport interventions and assist with the comparison of different investment packages.



Climate-related risks and opportunities serve as an input to financial planning processes, including for capital deployment and funding decision-making processes.

To strengthen the alignment between capital deployment and climate objectives, AT can:

Ensure the allocation of financial resources reflect AT’s commitment to addressing climate challenges and achieving net-zero emissions by 2050.

Regularly assess whether Auckland Transport’s funding for climate initiatives is sufficient and identify gaps or excesses in achieving decarbonisation and resilience targets.

Evaluate the impact of climate-related investments on emissions reduction, resilience, and sustainability outcomes to ensure cost-effectiveness and measured progress towards climate goals.



**Holding
to account**

AT is committed to reducing GHG emissions and have measured our GHG emissions since 2018

Emissions Inventory Audit and Certification

In 2020, we joined Toitū’s carbon reduction programme Carbon Reduce and received third party verification. The Toitū certified emissions inventory report is used in other reporting like climate-related financial disclosures and Statement of Intent reporting. Our certified inventory and emissions reduction disclosure can also be used to access sustainable funds like green bonds and sustainability linked loans.

Annual Toitū certification helps us report confidently on annual GHG emissions inventories, monitor, set and update GHG reduction targets and activities. Commitment to certification enables our work to be publicly recognised and disclosed.

Climate-related financial disclosures

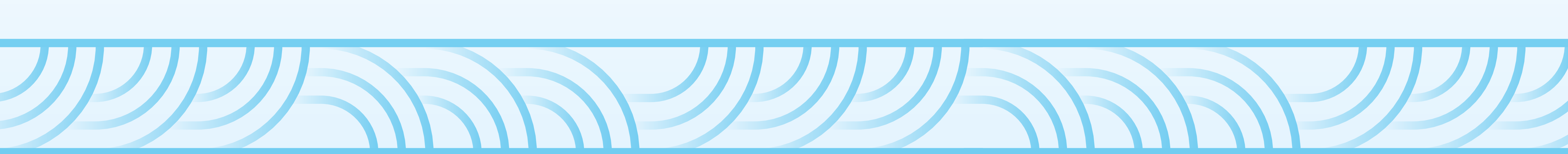
AT produces a Climate-related Financial Disclosure (CFD) as part of our Annual Report and provides information for the Auckland Council Group disclosure under the Aotearoa New Zealand Climate Standards (NZ CS).

Our disclosures follow the CFD framework in CS 1 and give an overview of AT’s climate-related risks and opportunities, and how these inform our work toward mitigation and resilience. Our climate disclosure supports understanding, accountability, and preparedness for the complexities of climate change, and recognises the link between climate change and financial operations.

Zero carbon reporting

As a lifeline utility, AT is captured under the Climate Change Response (Zero Carbon) Amendment Act 2019 Section 5ZW.8.g and can be called on at any time to report:

- Our governance of climate-related risks and opportunities
- Actual and potential climate-related risks to, and opportunities for, our business model, strategy, and financial planning
- The processes used to identify, assess, and manage our climate-related risks and opportunities
- The metrics and targets used to assess and manage our climate-related risks and opportunities.



Green bond and sustainability-linked financial structures reporting

AT reports quarterly on emissions reduction progress to Auckland Council and the New Zealand Treasury in relation to Auckland Council issued Green Bonds and other Sustainability Linked Financial Structures (SLFS).

The total value of Auckland Council’s green bond eligible assets at 30 June 2024 was \$4,208 million. The outstanding green bonds of \$3,694 million represents 87.8% of the council’s eligible assets.⁴²

Auckland Council has allocated proceeds of green bonds to financing planned projects and assets across several eligible sectors. These are described in Auckland Council’s Sustainable Finance Framework including \$3,035.92 million to clean transport initiatives.⁴³

Statement of Intent

AT’s commitment to reducing operational emissions is also one of our performance measures in the AT Statement of Intent (SOI), with a target to reduce operational emissions, including Public Transport activities (from 2021/22 baseline).

For the 2024/25 financial year this SOI target is set at a 10% increase from 2021/22, also equivalent to a 1% decrease from 2023/24 operational emissions.

This includes reductions in emissions across public transport facilities, parking facilities, traffic and streetlights, and public trains, as well as corporate business activities like office power and gas, office waste, and staff travel using AT vehicle fleet, taxis, rental cars and air travel.

AT Board

AT reports 6 monthly on progress against the targets in the AT Sustainability Strategy.

⁴² Green Bond Annual Report 2023/24, 2024.
⁴³ Sustainable Finance Framework, 2025.



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