

# Sustainability Report 2023

Resilient  
infrastructure for  
a decarbonising  
world



**Channel**

Infrastructure NZ



# Welcome to this report

## Our reporting

Channel Infrastructure NZ Limited (Channel Infrastructure) is proud to present the company's 2023 environmental, social, and governance (ESG) performance, which comprise this Sustainability Report (report), the 2023 Annual Report, and its Governance Statement. These documents form an integrated suite of reports and should be read in conjunction with each other, and where possible, we have drawn links between each. They are all available for download at: [www.channelnz.com](http://www.channelnz.com), alongside several underlying documents and policies referred to throughout this report.

In this report, references to "Channel", "Channel Infrastructure", the "Company", the "Group", "we", "us" and "our" refer to Channel Infrastructure NZ Limited (NZX:CHI), unless otherwise stated. All dollar figures are in New Zealand (NZ) dollars unless otherwise stated.

## This report

This report has been prepared in compliance with Part 7A of the Financial Markets Conduct Act 2013 (FMCA 2013), The New Zealand External Reporting Board's (XRB) Aotearoa New Zealand Climate Standards (NZ CS), including the use of adoption provisions 1, 2, 4, 5, 6, and 7 (refer to Appendix 5: CRD disclosure index (see page 117) for more details).

Channel Infrastructure is listed on the Main Board of the NZX Stock Exchange (NZX) as CHI and is subject to regulatory control and monitoring by both the NZX (through NZ RegCo) and the Financial Markets Authority (FMA). This report has been prepared in accordance with the NZX Corporate Governance Code; and the NZX ESG Guidance Note (refer to [www.nzx.com](http://www.nzx.com)).

A complete suite of Channel Infrastructure's governance documents can be publicly viewed at the "Investor Centre" on our website ([www.channelnz.com](http://www.channelnz.com)), which includes detailed reporting against the NZX Corporate Governance Code, board and committee governance documents, and our suite of policies, including those which govern our approach to ESG matters.

This report is also prepared in accordance with the Global Reporting Initiative Standard (GRI): Core Option and references selected United Nations' Sustainable Development Goals (SDGs), where relevant in Channel's circumstances.

This Sustainability Report provides an updated overview of our approach, progress and performance in relation to material ESG issues. This report is provided for the benefit of all our stakeholders as a clear and concise summary of Channel Infrastructure's ESG performance during the reporting period and our objectives for the year ahead.

The data presented in this report is unaudited. This Sustainability Report also contains forward-looking information, or forward-looking statements. Please see "Forward-looking Information", Appendix 7 on page 120 of this report.

## Directors' statement

The Directors are pleased to present Channel Infrastructure NZ Limited's Sustainability Report for the year ended 31 December 2023. This report is dated 28 February 2024 and is signed on behalf of the Board by:



**JB Miller**  
Chair of the  
Board

**PA Zealand**  
Chair,  
HSEO Committee

**AM Molloy**  
Chair, AFC  
Committee

## Feedback

We are committed to continuous improvement of our ESG reporting practices and value our stakeholders' perspectives. We welcome feedback on this report and our performance. To do so, please email us at [investorrelations@channelnz.com](mailto:investorrelations@channelnz.com).

**Front Cover Imagery:** Looking beyond the geodesic roof on a newly converted jet storage tank at Marsden Point, to Mount Manaia in the distance.

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# Introduction



# Infrastructure to fuel NZ's future to 2050 and beyond

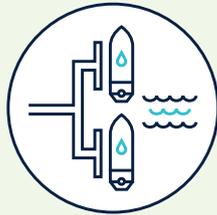


# Channel at a Glance



### Capability and Connection

c. 100 employees with strong technical capability and community connection



### Critical Infrastructure

Deep water harbour and jetties capable of receiving refined product ships amongst the largest in the world



### Positioned to support the transition

Infrastructure can accommodate lower carbon liquid fuels<sup>1</sup>



### NZ's Largest Terminal

c. 280 ML<sup>2</sup> of storage  
3.3 - 3.6 BL of transport fuels throughput per annum.  
Two ISO accredited fuels testing laboratories



### 40% of NZ's Transport Fuel Demand

Receive, store, test and distribute transport fuels owned by our customers to the Northland and Auckland markets<sup>3</sup>



### 80% NZ's Jet Fuel Demand

Key supply route for jet fuel to Auckland International Airport



### Strong and Stable Cashflows

Long-term contracts with NZ's largest fuel companies (bp, Mobil and Z Energy)



### Capacity to Expand

c. 400ML of additional tank capacity available to support fuel security



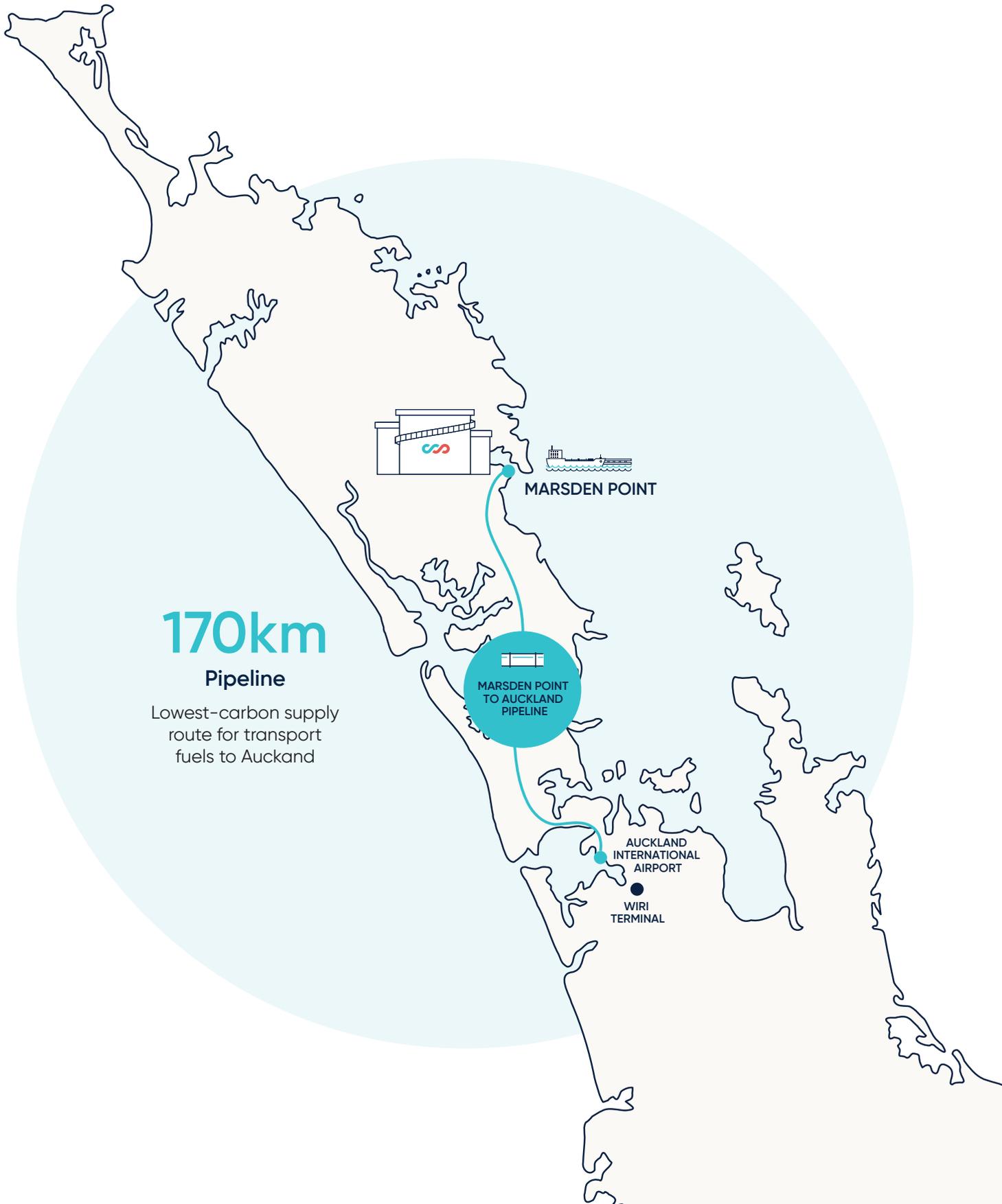
### NZX 50 CHI

79% owned by institutional and retail investors

<sup>1</sup> Including second generation biofuels and Sustainable Aviation fuel

<sup>2</sup> Excludes additional storage which is commercially sensitive

<sup>3</sup> Northland and Auckland markets make up c.40% of New Zealand's transport fuel demand



# 170km Pipeline

Lowest-carbon supply route for transport fuels to Auckland



MARDEN POINT

MARDEN POINT TO AUCKLAND PIPELINE

AUCKLAND INTERNATIONAL AIRPORT

WIRI TERMINAL

# Performance metrics

For year ended 31 December 2023

## A YEAR OF FIRSTS



**Import terminal**  
First full financial year of operations



**NZ climate reporting standards**  
First report issued by Channel



**ESG framework**  
Developed to underpin refreshed Company Strategy



**Safely completed**

Permanent decommissioning of the refinery process plant

**1,099**

**Tonnes** of metals sent for recycling



**4,037**

**t CO<sub>2</sub>E**  
Total Scope 1&2 emissions in FY23 (Refer page 77)

**1.15**

**t CO<sub>2</sub>E/ML**  
Emissions Intensity



**Resilience to weather events**

Uninterrupted supply through Cyclone Gabrielle

**98%**

**Reliability** of our Marsden Point Groundwater Network



Safely home everyday

0.9

TRCF per 200,000 hours  
(2022: 1.8)



Tier 1 and 2 Process safety incidents

1

(2022: 0)



Diverse workforce

32%

Identify as Female  
as at 31 December 2023  
(up 9% from 2022)



Safely Commissioned

45ML

Of additional jet fuel storage  
(More than doubling on-site jet fuel storage through  
the import terminal conversion programme)

# Message from our Board

**Channel's vision is to be a world-class energy infrastructure company with a purpose of delivering resilient infrastructure solutions to meet changing fuel and energy needs.**

Our 2023 Sustainability Report reflects a year of firsts: our first full financial year of import terminal operations, our first disclosure prepared in accordance with the Aotearoa New Zealand Climate Standards and the publication of our first Environmental, Social and Governance (ESG) framework. We have chosen to report our climate related disclosures as part of our broader sustainability reporting, recognising the interrelated nature of climate change risks, impacts to, and opportunities for, our business within our broader sustainability goals.

"Resilient infrastructure for a decarbonising world" is the theme we have chosen for our 2023 Sustainability Report. This reflects the challenge and opportunity of climate change for our business, with infrastructure resilience a key focus to help ensure a reliable and secure supply of transport fuels for all New Zealanders.

## Strategic Refresh

Channel Infrastructure is a business that has undergone a transformational change, and it is firmly focused on the role that it can play to help New Zealand's transition to a lower carbon economy. Through the change, which was initiated back in 2021, we made significant progress on the three transition and climate related targets that we set ourselves:

### Just transition

While we followed in the footsteps of many other refineries around the world that have closed down, our priority was to ensure our people were supported during this period of change. We are pleased to report that 99% of our people impacted by the change since 2022, were supported into their next opportunity within six months of leaving the business, exceeding our ambitious 90% target. We will continue to provide support for the remaining two employees who will leave the company in the coming months.

### Goal of Net Zero Scope 1 and 2 emissions by 2030

We are well on target to achieve our goal of Net Zero Scope 1 and 2 emissions by 2030<sup>1</sup> (refer to page 77). In FY23, our Scope 1 and 2 Greenhouse Gas emissions were 4,037 tCO<sub>2</sub>e. In practical terms, this means that we have gone from being one of the largest emissions intensive businesses listed on the New Zealand Stock Exchange (with emissions of over c.1.2 million tCO<sub>2</sub>e as a refinery), to accounting for less than 0.1% of Scope 1 and 2 CO<sub>2</sub> emissions on the NZX50 in FY23. We continue to prioritise efforts to reduce our emissions and, in 2023, we entered into a long-term contract for the supply of renewable electricity from January 2024 with Energy Attribute Certificates attached. For further detail, please see Case Study: Greenhouse Gas Emissions (see page 106).

### Customer Scope 3 emissions

Our critical infrastructure is capable of handling lower carbon fuels, including second-generation bio and Sustainable Aviation Fuels (SAF). We want to see our critical infrastructure used to support the decarbonisation of the transport sector and to help ensure supply chain resilience. The transition to lower carbon fuels will take time; it will be largely driven by the change in end user preferences, the availability of lower carbon fuels in the quantities required and/or regulatory change. We are committed to playing our part. This includes, among other things, continuing to work with Fortescue Limited to evaluate the potential to produce synthetic SAF, or eSAF, at Marsden Point. For further detail, please see Case Study: Sustainable aviation fuel (see page 104).

<sup>1</sup> The Net Zero Scope 1 and 2 emissions target is based on the market based approach for the calculation of emissions.

## Materiality assessment

With the refinery conversion project largely behind us, in 2023 Channel completed a materiality assessment to deepen our understanding of what is important to our stakeholders and to help frame the Company's strategic priorities, approach to risk management, performance, and reporting.

The insights from the materiality assessment were integrated into our thinking and are reflected in our refreshed company Strategy, as we aim to deliver value for all of our stakeholders and to continuously improve the overall performance of the company.

The new strategy, which shareholders and other stakeholders can read more about on page 32 of this Report (together with the Annual Report), outlines the strategic priorities that the company will pursue to support delivery on issues material to our stakeholders.

## Sustainability Framework

Supporting our Strategy, is an Environmental, Social and Governance (ESG) Framework (refer page 14) which was developed in 2023, to assess and measure our performance across all aspects of our business, aligning activities to the Company strategy.

We add definition to our Strategic Pillar, "A more sustainable future", with the commitment to caring for our people, the environment, and the community in which we operate, focusing on sustainable practices to improve environmental, social and governance performance, alongside maintaining disciplined capital management to support the business.

We have set 2024 targets against each material issue and will report on our performance next year. Over time, we will refine our targets to reflect our longer-term aspirations. To ensure that there is alignment across the organisation, a selection of these targets have been incorporated into the scorecard which will be used to determine short-term incentive payments for our people in 2024.

## Climate Reporting Disclosures

As a Climate Reporting Entity, 2023 is the first year Channel has been required to report in accordance with the Aotearoa New Zealand Climate Standards, although since 2021, we have taken account of the Taskforce on Climate-Related Financial Disclosures (TCFD), which the Climate Standards have been based upon.

Channel has completed a specific climate change physical and transition risk assessment, in conjunction with an impacts and opportunities assessment, to further consider our climate-related impacts and the

risks climate change could reasonably pose to Channel Infrastructure's people, operations, and service.

Our physical risk assessment, refer to Climate change risks and opportunities (see page 65), illustrates that the Marsden Point site is generally safe from coastal erosion and inundation risks, with a variety of longer-term mitigation options available, such as the installation of flood gate protections.

From a transition risk perspective, decarbonisation of the transport sector will largely be dependent on the uptake of Electric Vehicles (EV's) for the light vehicle fleet; the development of alternative technologies (such as hydrogen (H2), biofuels and SAF) and improved technologies leading to fuel efficiencies for carbon consumptive transports such as heavy transport and air travel.

We think that traditional transport fuels are going to have a role to play in keeping the economy moving throughout the energy transition and a growing range of transport fuels and energy choices will require infrastructure (such as ours) to support lower emission, secure energy transport.

We therefore see opportunity for the Company to grow and diversify, while at the same time, contributing to New Zealand's wider decarbonisation efforts under a range of scenarios, refer to Climate change scenarios (see page 38), as we help fuel New Zealand's future to 2050 and beyond.

## Security of supply is critical to New Zealand

It is imperative that New Zealand's import supply chain is secure and reliable. This means that we must operate our critical infrastructure to standards that are world-class, safe, and reliable while helping to keep transport energy available when New Zealanders need it.

As we look to deliver resilient infrastructure solutions to meet New Zealand's changing fuel and energy needs, Channel will continue to pursue opportunities at Marsden Point which help support increased resilience for New Zealand's fuel supply chain.

In 2023, the Company commissioned an additional 45 million litres of jet fuel storage, completing a more than doubling of on-site jet fuel storage through the import terminal conversion programme. This was not only a growth opportunity for the Company, but an investment that helps to provide supply chain resilience, with increased domestic stock-holdings underpinning security of supply. It is also aligned with potential for the future introduction of SAF into the New Zealand fuel supply chain as a "drop in" fuel.

We will continue to invest to support the long-term resilience of our infrastructure and to be a supply partner of choice, committed to playing our part, through the addition of increased in-country fuel storage options for our customers, and the NZ Government. We are well positioned with our c.400 million litres of storage tanks that can be repurposed and c.120<sup>1</sup> hectares of land that is available for development on the Marsden Point site.

## Looking to the future with confidence

The decarbonisation of the New Zealand fuels supply chain presents an exciting longer-term opportunity for Channel Infrastructure under a range of climate change scenarios.

Our business has undergone transformational change in the past year, to set it on a path for a long-term, more sustainable future. However, we know we are only at the beginning of New Zealand's energy transition journey. We will continue to work hard alongside our customers, community, and the Government to both facilitate the transition, and deliver for our many stakeholders.

<sup>1</sup> The Marsden Point site c.180 hectares of which only one-third is currently in use.



FIGURE 1: ESG FRAMEWORK AND 2024 METRICS AND TARGETS

# ESG Framework

## OUR VISION, PURPOSE AND VALUES

### World-class energy infrastructure company

### Delivering resilient infrastructure solutions to meet changing fuel and energy needs

### A more sustainable future

We are committed to caring for our people, the environment and the community in which we operate, focusing on sustainable practices to improve environmental, social and governance performance, delivering for all stakeholders.

One Team

Innovation

Honesty

Care

## ESG PILLAR, OBJECTIVES, AND SDG ALIGNMENT

Environment	People & Community	Governance & Finance
Protect the environment in which we operate  Reduce our carbon footprint and build resilience to climate change risks  Responsibly contribute to achieving NZ's decarbonisation goals	Everyone "safely home, everyday"  Be a good neighbour and corporate citizen, including contributing to regional development  Partner with local iwi, mana whenua and community in impactful ways  Attract, support, and maintain a diverse workforce and a healthy working culture	Open and transparent reporting  Disciplined capital management  Support our customers to provide a resilient fuel and energy supply chain for New Zealand  Operate our critical infrastructure safely and reliably
	  	

## MATERIAL ISSUES

Climate Change	Health, safety & wellbeing	Infrastructure resilience and security of supply
Land, waste & water	Iwi & community partnerships	Asset & lifecycle management
	Equity, diversity & inclusion	Transparency & Financial discipline

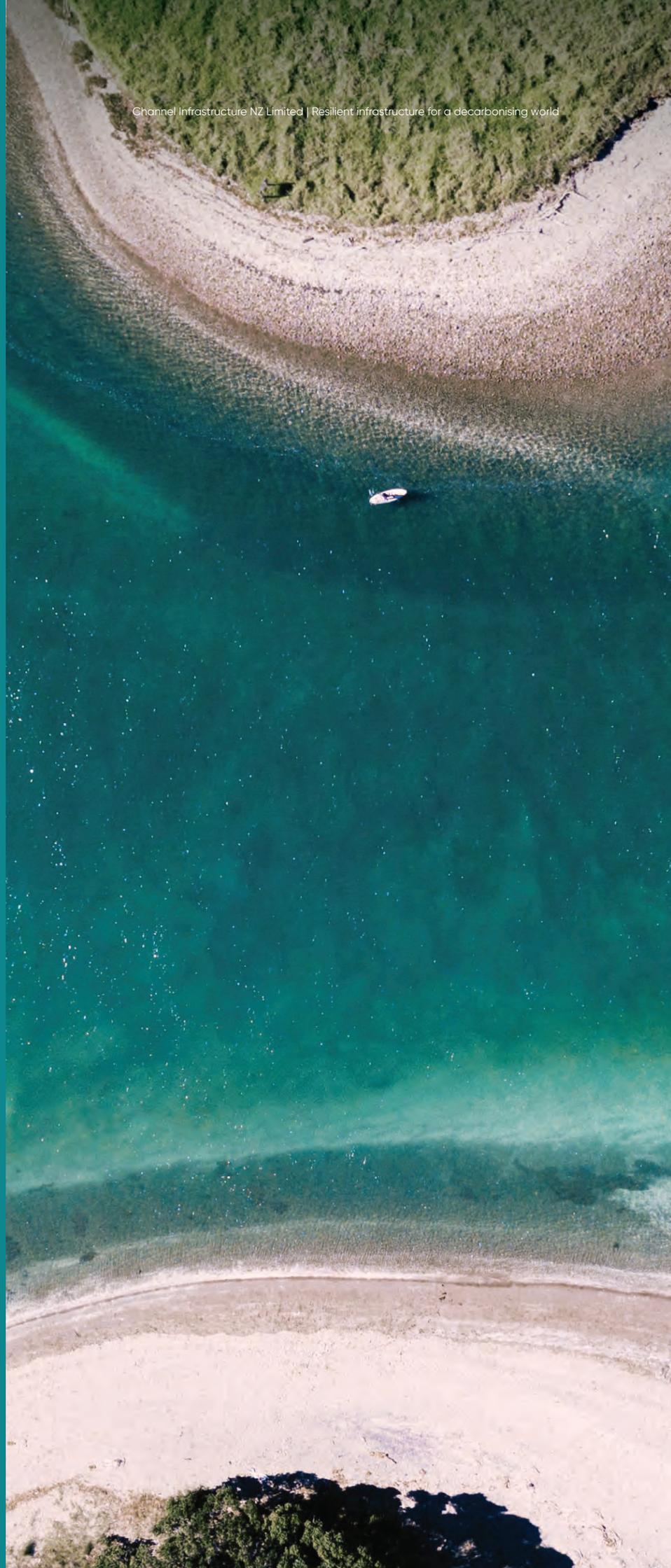
# Our 2024 metrics and targets

	AREA	STRATEGIC PILLAR	GOAL	MEASURE	UNIT	2024 TARGET
Environment	Climate Change		Net Zero Scope 1 and 2 by 2030 <sup>1</sup>	Reduce Scope 1 & 2 emissions	% change	50% lower <sup>2</sup>
	Land, waste and water	 	Protect our environment	Tier 1 and 2 process safety incidents	# pa	Zero
People and Community	Health, safety & wellbeing	  	Safely home everyday	Lost time injuries	# pa	Zero
	Equity, diversity & inclusion		Diverse and engaged team	Lift in employee engagement score	% change	+4 percentage points <sup>2</sup>
	Customer, Iwi & community partnerships		Meaningful relationships	Customer assessment of CHI performance based on survey against key performance criteria	% change	+10% <sup>2</sup>
Governance and Finance	Infrastructure resilience and security of supply	  	Reliable infrastructure	Pipeline reliability	% pa	> 98%
	Asset and lifecycle management	 	Supply resilience	Contract new storage volume	% change	+10% <sup>2</sup>
	Transparency and Financial discipline		Financial discipline	Deliver 2024 plan and meet EBITDA guidance	\$m	EBITDA Guidance \$91 to \$95 million

-  NZ's infrastructure partner of choice
-  Grow through supporting the energy transition
-  More sustainable future

<sup>1</sup> Refer to page 81  
<sup>2</sup> Compared to FY23

# Governance



# Board of Directors

**Channel Infrastructure takes its role as a responsible operator seriously. We have many governance measures and structures in place to identify, manage and respond to environmental, social and governance issues effectively, so that we can continue to operate in a more sustainable and responsible manner.**

Channel Infrastructure's Corporate Governance framework, as depicted in Figure 2, sets out our governance practices and processes to provide accountability to our diverse range of stakeholders.

The Board is responsible for setting the Company's strategic direction and for providing oversight of the management of the Company, with the aim of increasing shareholder value and ensuring the obligations of the Company are properly met. This includes the review and approval of the Company's environmental, social, and governance (ESG) strategy, including the consideration of entity-specific climate-related risks, impacts, and opportunities.

Day-to-day management of the Company is delegated to the Chief Executive Officer. The Board uses committees to address specific issues which require detailed consideration by members of the Board who have specialist knowledge and experience. The Board retains ultimate responsibility for the functions of its committees and determines their responsibilities.

As outlined in the Risk Management section of this report (refer to page 60), the Board is responsible for reviewing and managing risks (including climate change risks).

To continue to develop our sustainability and climate change competency as the Aotearoa New Zealand Climate Standards (NZCS1-3) mature, Channel Infrastructure's Corporate Lead Team has undertaken a climate-related disclosures upskilling session in June 2023. Facilitated by an external provider, the session was structured to assist in the preparation of broader climate-related information for Board decision-making purposes.

Our Board is committed to growing expertise and competency for oversight of climate-related risks and opportunities and, in conjunction with a general environmental, social, and governance update in 2024, will undertake a refresh on the maturing landscape for climate-related disclosures in New Zealand.

The Board maintains a skills matrix setting out the mix of skills and diversity of the Board. The skills

matrix is used to evaluate whether the collective skills, competencies and experience of the Directors meet Channel Infrastructure's requirements both currently and into the future. For further information, please refer to the 2023 Governance Statement available on the company's website ([www.channelnz.com](http://www.channelnz.com)).

## Director spotlight: Sustainability and climate change

### Andrew Holmes



*Independent Director  
Appointed 4th April 2022*

*In addition to a career as a senior leader in supply chain management and operations in bp, Andrew Holmes brings a wealth of expertise to our Board, having deep knowledge within the emerging global Hydrogen industry and energy transition space.*

His experience includes:

- Chair of Scaling Green Hydrogen cooperative research consortium bid (Australia) which included 80 business partners and 16 universities
- Chair of Urban Analytica – Australian start up company delivering driver behaviour tracking and transitioning to carbon tracking
- Sponsorship of bp's initial involvement in Fulcrum Bioenergy (US) – a waste to Sustainable Aviation Fuel producer

**FIGURE 2: GOVERNANCE STRUCTURE**



## Governance of sustainability and climate change

The direction and oversight of sustainability and climate change is delegated to three sub-committees according to relevance of topic.

The Board considers and (where applicable) approves the assessment of material sustainability impacts for Channel Infrastructure, as well as all corresponding targets to monitor performance. This includes approval of sustainability reports, including this report.

The respective roles of the Board, its committees and Management (the Corporate Lead Team) are set out in the Board and relevant committees' charters. Committees annually evaluate their own performance, processes and procedures against their charter obligations, to assist the Board in effectively fulfilling its role and meeting its duties. The Board also periodically reviews its own performance as a board. A third-party independent organisation undertakes performance evaluations on a bi-yearly basis; the next review is expected to be completed in quarter four of 2024.

### Audit & Finance Committee (AFC)

The AFC reviews our corporate financial matters, including reporting and treasury risk management. In FY23, the AFC reviewed pre-assurance of Greenhouse Gas (GHG) emissions and the company's climate change scenarios. From FY24 onwards, the AFC will review the external annual assurance of GHG emissions and the financial impacts (both current and anticipated) of reasonably expected climate-related risks and opportunities. Meetings between management and the AFC provide oversight and feedback of information on an annual basis supplemented by additional reviews where relevant.

### Health, Safety, Operations & Environment Committee (HSEO)

The HSEO Committee reviews and manages our Health, Safety, Environment, and Operations risks and responsibilities. This includes the evaluation of our environmental hazards, physical risks, including climate-related operational risks. Meetings between management and the HSEO committee provides oversight and feedback of information and that includes a deep dive on the non-financial climate-related risks to and of Channel's business, their impacts and associated opportunities where relevant, on an annual basis.

### People & Culture Committee (P&C)

P&C reviews our Company's People and Culture Strategy including organisation structure, the capability and development strategy and succession planning processes (including succession planning for executive roles, culture, diversity, pay equity, inclusiveness and well-being initiatives). This includes the review and approval of remuneration and performance policies as they relate to climate-linked targets and performance. Meetings between management and the P&C Committee provide oversight and feedback of information on an annual basis, supplemented by additional reviews where relevant.

### Climate Working Group (CWG)

A climate working group was established in 2024, comprising of senior leaders and subject matter experts, to meet the Aotearoa New Zealand Climate Standards. The CWG is responsible for providing a corporate representation of climate-related risks, impacts, and opportunities to the Board, by consolidating inputs from each sub-committee (i.e. AFC, HSEO and P&C) for consideration by the full Board. This working group will review and consolidate climate-related information to provide a Corporate view of risks, up to four times a year.

# Management's role

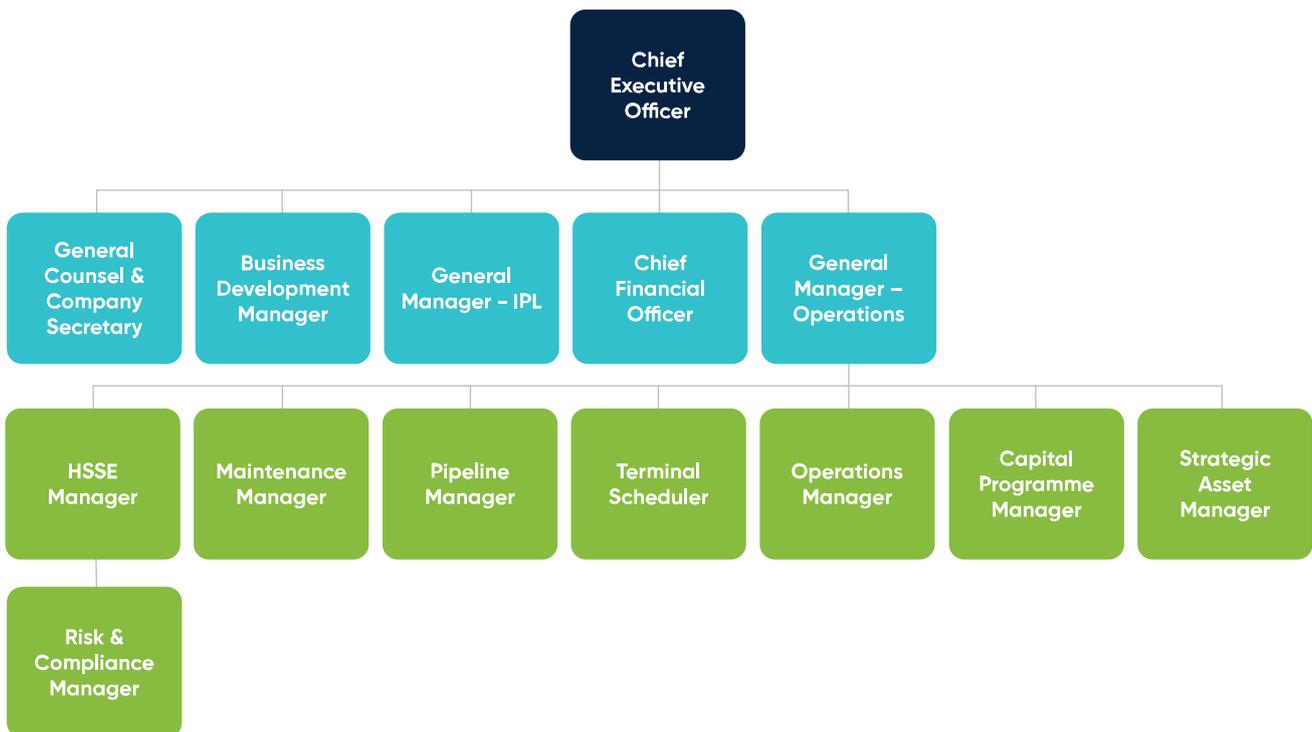
Channel Infrastructure's management closely considers climate change and sustainability issues in the ongoing optimisation of financial and operational performance, as well as planning for future growth and diversification of the Company's business through the decarbonisation of New Zealand's economy.

The primary point of responsibility for sustainability and climate change within the Corporate Lead Team is the Chief Executive Officer, and additional climate change, sustainability, and management of people responsibilities are held by the Chief Financial Officer, General Manager - Operations and the Business Development Manager. These positions are also members of our Climate Working Group (CWG). Each of these positions requires an understanding and oversight of climate-related risks and opportunities. These include consideration of the fuel demand forecasts, impacts of climate policy developments such as carbon pricing, consideration of the physical impacts of climate change on operational safety and continuity, and workforce and community impacts.

At the operational level, the Company's General Manager - Operations and supporting team members oversee ongoing activities on-site, including environmental and climate-related issues such as identifying and implementing opportunities for efficiency gains through minimising input costs such as fuel and electricity, and appropriate responses to extreme weather events. The Risk and Compliance Manager maintains the Enterprise Risk Register, including the identification and monitoring of risks and the Environment, Health and Safety Manager is responsible for relevant reporting and compliance obligations.

The relevant reporting lines are depicted in Figure 3.

**FIGURE 3: ORGANISATIONAL CHART**



## Remuneration links to climate performance

To reflect the strategic importance of climate-related risks and opportunities to the business, our remuneration policy allows for the setting of climate-related key performance metrics. We acknowledge the consideration of climate-linked performance and remuneration within our People and Culture Committee Charter with the intention to further explore related performance targets in upcoming disclosures.

Our CEO's 2023 KPI's included a metric on securing a long-term electricity supply at a lower cost and a lower emissions intensity. This was achieved with the securing of a Fixed Price Variable Volume (FPVV) contract at a lower rate, and the bundling of Energy Attribute Certificates (or renewable energy certificates) from 1 January 2024. Our climate-linked performance metrics are reviewed on an annual basis.



Terminal operators monitoring tank movements and pipeline operations from the control room

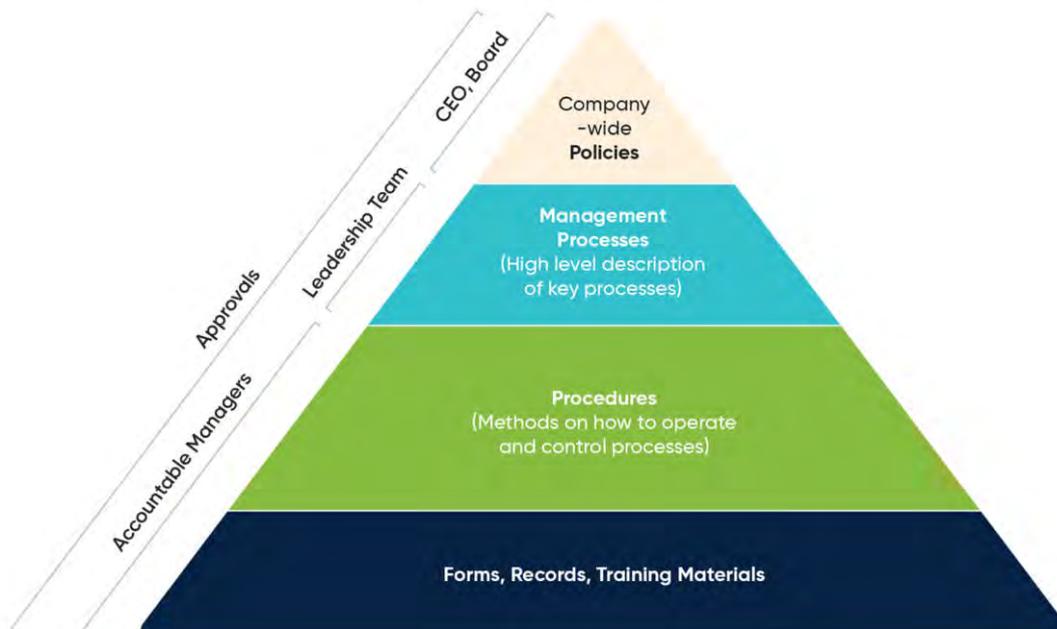
# Our management system

The Management System applies to all of Channel's people and establishes the requirements for how we do business across our operations and support teams.

It is designed to protect our people, the community, the environment, and the economic value of our assets, operations and activities. The Management System comprises:

- Policies and Code of Conduct ([channelnz.com/who-we-are/corporate-governance/](https://channelnz.com/who-we-are/corporate-governance/))
- Management processes explaining the minimum standards of "what" the business must achieve
- Procedures, technical standards, processes and tools (forms and records) explaining the expectations and practices for "how" business activities should be undertaken.

FIGURE 4: MANAGEMENT SYSTEM STRUCTURE - HIERARCHY OF APPROVALS





# Strategy



# Engaging with our key stakeholders

Building quality, long-term relationships with our stakeholders enables us to become a better neighbour, employer, partner and provider of critical infrastructure to reliably keep Aotearoa New Zealand moving through an era of change.

This requires open and clear communication; we engage with our key stakeholders outlined in Figure 5 on a regular basis and aim to meet face-to-face as much as possible.

**FIGURE 5: OUR KEY STAKEHOLDERS**



The following table illustrates how we engage with individual stakeholder groups, with the “issues of interest” reflecting the topics most commonly raised by these stakeholders through our established channels in 2023. The type and frequency of engagement varies depending on the needs of each individual group.

TABLE 1: ENGAGING WITH OUR STAKEHOLDERS

STAKEHOLDER GROUP	HOW WE ENGAGE	PARTICULAR AREAS OF INTEREST 2023
<b>Financial markets</b> (e.g. shareholders, bondholders, banks)	Annual Meeting of Shareholders Analyst days and site tours NZX releases Investor meetings and conference calls Investor presentations Annual and Sustainability Reports	Financial performance, strategy, dividends, growth and capital structure Environmental, Social and Governance (ESG) goals, policies and performance
<b>Customers</b>	Relationship meetings Customer surveys Teleconference and face-to-face meetings Quarterly operational performance meetings Multi-customer forum On-site visits	Terminal performance Fuel industry changes, including Government policy developments Jet fuel supply chain resilience Product quality
<b>Hapu/iwi</b>	Mana Whenua Roopu (Quarterly meetings) Kanohi ki te kanohi (face-to-face) hui on-site and at local marae Relationship agreements Relationship and governance meetings Working together on relevant environmental projects	Local economic impacts of Channel Infrastructure Improving economic well-being Workforce diversity Shared interest in environmental outcomes Future use of site (including water requirements) Marine and Coastal Area Act process

STAKEHOLDER GROUP	HOW WE ENGAGE	SELECT AREAS OF INTEREST 2023
<p><b>Employees and contractors</b></p>	<p>On-site staff communications channels</p> <hr/> <p>Toolbox meetings before shift work starts focused on safety</p> <hr/> <p>'Cascade' newsletter</p> <hr/> <p>"All-up" team meetings</p> <hr/> <p>Employee engagement surveys</p> <hr/> <p>Site Hangi</p>	<p>Environmental, health and safety</p> <hr/> <p>Workplace changes</p> <hr/> <p>Workforce diversity</p> <hr/> <p>Business development activities -potential additional storage contracts, SAF project development</p> <hr/> <p>Business strategy update</p> <hr/> <p>Collective bargaining</p>
<p><b>Central government</b></p>	<p>Engagement with key officials across relevant departments</p> <hr/> <p>Engagement with Ministers and Parliamentary Advisors</p> <hr/> <p>Site visits as requested</p>	<p>Policy issues including domestic fuel security and the development of a New Zealand Energy Plan</p> <hr/> <p>Submission of tender to Government strategic diesel storage</p> <hr/> <p>Auckland fuel supply chain resilience</p> <hr/> <p>Responding to information requests as a result of coalition agreement to investigate re-opening the refinery</p>
<p><b>Local government and regulators</b></p>	<p>Formal, scheduled meetings</p> <hr/> <p>Ad hoc outreach to key regulators<sup>1</sup></p> <hr/> <p>Site visits</p> <hr/> <p>Site inspections</p> <hr/> <p>Audits</p> <hr/> <p>Performance reporting</p>	<p>Local economic impacts of Channel Infrastructure</p> <hr/> <p>Compliance with consents</p> <hr/> <p>Environmental management and remediation in accordance with consents</p> <hr/> <p>Future use of site (including water requirements) and growth opportunities</p> <hr/> <p>Environmental, health and safety performance</p>

<sup>1</sup>Including: WorkSafe, Maritime NZ, Fire and Emergency New Zealand (FENZ), Electricity Authority, Civil Aviation Authority (CAA), Northland Regional Council (NRC), Environmental Protection Agency (EPA), Whangarei District Council (WDC)

STAKEHOLDER GROUP	HOW WE ENGAGE	SELECT AREAS OF INTEREST 2023
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<p><b>Neighbours, community</b></p>	<p>Attendance at community meetings and events</p> <hr/> <p>Social media outreach</p> <hr/> <p>Letters and fact-sheets</p> <hr/> <p>Harbour Safety Group Meetings</p>	<p>Local impact of Channel business including resource consent activity</p> <hr/> <p>Terminal Safety Case</p> <hr/> <p>Growth and business development opportunities</p> <hr/> <p>Environmental management and site remediation</p> <hr/> <p>Regional issues</p> <hr/> <p>Harbour safety</p>
<p><b>Suppliers</b></p>	<p>Contract tender processes</p> <hr/> <p>Ad hoc engagement as required due to business needs</p> <hr/> <p>Supplier/contractor relationship management/performance meetings</p> <hr/> <p>Site visits as requested</p>	<p>HSE and on-site protocols</p> <hr/> <p>Business-related issues</p> <hr/> <p>Environmental, health and safety performance</p>

# Identifying material issues

**At the heart of the relationship that we have with each of our stakeholders is an understanding of the material issues for each stakeholder or those that matter most, as well as for the Company.**

Channel Infrastructure closely considers the impact we have on the community and the environment in which we operate. In 2023, following the transition to import terminal operations, we completed a new materiality assessment to deepen our understanding of what is important to stakeholders and to frame the Company's approach to ESG risk management, performance, and reporting.

Our materiality assessment included a workshop with our Corporate Lead Team to understand our stakeholder universe, exploring a wide range of relevant industry and sector topics from the SASB<sup>1</sup> Standards and taking into account the Global Reporting Initiative (GRI) Standards, to then assess Channel Infrastructure's key material issues in respect of their importance to Channel and their importance to our stakeholder network.

We then conducted a series of stakeholder interviews across samples of each of our stakeholder groups via an external third party to better understand the internal and external views against our internal materiality mapping results. The 16 material issues identified with our stakeholders are shown in Figure 6, with the "highest impacts" material issues reflected in the top right-hand quadrant.

The material issues were then grouped into three overarching categories: environmental performance; people and community; and governance and financial performance as set out in Table 2.

<sup>1</sup> The Sustainability Accounting Standards Board – SASB materiality standards are now operated by the IFRS Foundation

FIGURE 6: MATERIALITY MATRIX



**TABLE 2: MATERIAL ESG ISSUES AND FRAMEWORK**

Environmental performance	People and community	Governance and financial performance
<p><b>Greenhouse Gas (GHG) Emissions</b></p> <p>Management of regulatory risks, environmental compliance, and reputational risks and opportunities as they relate to Scope 1, 2 and 3 GHG emissions</p> <p><b>Water and wastewater management</b></p> <p>Efficiency of water resource usage and management of waste water treatment, and managing existing site contamination to reduce this over time</p> <p><b>Ecological impacts</b></p> <p>Management of impacts on ecosystems and biodiversity through operational land use, project development and construction</p> <p><b>Circularity</b></p> <p>Increasing material and operational efficiency to, where possible and over the longer term, attain zero waste and divert from landfills back into the supply chain</p> <p><b>Physical impacts of climate change</b></p> <p>Ability to manage risks and opportunities associated with direct exposure to actual or potential physical impacts of climate change</p>	<p><b>Health, safety and well-being</b></p> <p>Creating and maintaining a safe and healthy workplace that reflects regulatory expectations and values employee &amp; contractor well-being</p> <p><b>Iwi partnerships</b></p> <p>Recognising iwi responsibilities as mana whenua and kaitiaki over poupuwhenua, the land upon which we stand, partnering to maintain and enhance the cultural health of our operational site and the surrounding coast, informing our partners of potential changes and considering their views</p> <p><b>Employee diversity, equity &amp; inclusion</b></p> <p>Attracting, supporting, and maintaining a diverse workforce and healthy working culture</p> <p><b>Contribution to regional economy</b></p> <p>Working towards an impactful and sustainable contribution to the regional economy in which we work, as well as to Aotearoa New Zealand more broadly</p> <p><b>Human rights and community engagement</b></p> <p>Engaging our local community to seek partnerships in impactful ways and to continue as a responsible corporate citizen and neighbour. Upholding labour standards and increasing transparency throughout our supply chain to promote a high standard of human rights</p>	<p><b>Infrastructure resilience</b></p> <p>A focus on infrastructure resilience to environmental and specification changes</p> <p><b>Security and quality of supply</b></p> <p>Supporting the delivery of reliable, high-quality fuel by our customers to accommodate changing needs and to help maintain their competitiveness</p> <p><b>Transparency and disclosure</b></p> <p>Ethical conduct of business and providing accurate and timely information about our sustainability impacts and performance</p> <p><b>Asset and life-cycle management</b></p> <p>Ability to manage infrastructure and operational asset life-cycle risks</p> <p><b>Business model resilience (infrastructure)</b></p> <p>Incorporating social, environmental and political transitions into long-term business model planning and responding to the transition to a low-carbon economy</p> <p><b>Regulation and policy</b></p> <p>Complying with, supporting and anticipating future regulations and policy</p>

# Our refreshed strategy

In 2023, following the effective completion of the import terminal conversion, we undertook a strategy refresh, realigning our vision to be a world-class energy infrastructure company with a purpose of delivering resilient infrastructure solutions to meet changing fuel and energy needs.

Material issues are integrated into our thinking and reflected in the "refreshed" company strategy, as we aim to deliver value for our stakeholders and to continuously improve the overall performance of the business. As part of our strategy refresh, we listened to "what matters most" to our stakeholders and reflected the strategic priority to address those concerns.

The Company's Strategic Framework, set out on page 33, outlines the way that we will achieve our purpose, and vision, underlined by three key strategic pillars – being New Zealand's infrastructure partner of choice, growing through supporting the energy transition and focusing on a more sustainable future.

## New Zealand's infrastructure partner of choice

Our first pillar, to become a world-class operator, recognises that our customers operate globally and interact with terminal businesses all over the world, so they know what good looks like. Being a world-class operator is key to being a partner of choice for our existing and new customers and therefore to the long-term success of our business. It is also critical to unlocking our growth strategy.

A high-performance culture is core to everything we do and will mean attracting, supporting and maintaining a diverse and engaged workforce, having a clear succession and talent management plan and maintaining an agile and resilient workforce with a focus on well-being.

## Grow through supporting the energy transition

Our second strategic priority is to grow through supporting the energy transition. We will work hard to execute brownfield opportunities at Marsden Point, such as the additional private storage that has been delivered for our customers, as well as consolidating fuels infrastructure more broadly in New Zealand to help provide resilience in the supply chain. We also see an opportunity to help optimise the supply chain for our customers and deliver lowest cost, resilient fuel supply for New Zealanders.

We will also play our part in supporting the liquid fuels energy transition which will provide our business with long term growth opportunity and business resiliency. For Channel, this means investigating ways we can repurpose unutilised land at Marsden Point and leverage our strategic assets to support the energy transition. For example, the potential to produce eSAF at Marsden Point, is an opportunity we are currently exploring with Fortescue.

### Sustainable aviation fuel

Refer to case study in Appendix 1 on page 104

Channel will also look at other energy opportunities to support the transition and leverage our strategic assets such as electricity storage and solar, and longer term the opportunity for our Marsden Point site to be a strategic energy storage hub to support New Zealand's energy transition and intermittent renewables development.

### A more sustainable future

The third strategic pillar focuses on our stakeholders – shareholders, our neighbours and broader stakeholders.

It is imperative that Channel continues to have disciplined capital management. We are committed to targeting a shadow BBB+ credit rating, delivering above WACC returns, maintaining a disciplined cost management focus and delivering stable dividends to shareholders over the long term.

To execute our strategy, we understand the importance of being a good neighbour and corporate citizen and that means focusing on reducing our environmental impact and engaging with our Northland community and Iwi partners.

Channel's commitment to acknowledging the role that climate and sustainability impacts continue to have on the business, to provide open and transparent reporting of climate-related disclosures builds on the proud history we have of taking actions to reduce our impact, as outlined in Figure 8.

FIGURE 7: STRATEGIC FRAMEWORK

OUR VISION

World-class energy infrastructure company

OUR PURPOSE

Delivering resilient infrastructure solutions to meet changing fuel and energy needs

OUR STRATEGIC PRIORITIES



OUR VALUES



FIGURE 8: OUR SUSTAINABILITY JOURNEY



Refining operations discontinued

Refining NZ

Channel Infrastructure

**2021**  
**35-year Resource Consent granted**

To operate for another 35 years based upon a detailed environmental impact assessment of our processes and operations

**Strengthening iwi relations**

Signed relationship agreements with local iwi to guide our work together in areas of mutual interest

**2020**  
**Strategic Review initiated**

Culminated in the November 2021 decision to transition from refining to import terminal operations, with subsequent workforce transition



**2022**  
**First standalone Sustainability Report**

Released as Channel Infrastructure, "Our transition to a sustainable future"

**Review of material issues**

Refreshed 2018 materiality survey to ensure it remained a relevant guide for our sustainability priorities as a fuels' infrastructure provider



**2023**

**Second standalone Sustainability Report**

"Delivering a Sustainable Future", built on the 2022 report and reported on our achievements as we transitioned to a new business model

**New materiality survey and refreshed strategy**

Following our business transition, we engaged with our stakeholders to understand their material issues; material issues were then used to inform our 2023 strategy refresh

**Climate change risks, impacts, and opportunities assessment**

Conducted an assessment of climate change risks, their impacts, and potential opportunities for our organisation

**GHG inventory and Scope 3 stock take**

Completed a Scope 1 and 2 inventory of emissions in readiness for NZCS reporting, including advanced preparation for Scope 3 emissions reporting from 2024 onwards

**Climate hazard assessment**

Conducted an assessment of coastal hazards for our Marsden Point site across 2050, 2100, and 2130 time horizons

**Signed long term renewable electricity agreement**

Effective from 1 January 2024, the contract includes Energy Attribute Certificates.

# Climate change

**Channel recognises its role in supporting decarbonisation within the fuels supply chain, by utilising its critical infrastructure to support the transition, while keeping New Zealand moving.**



Channel Infrastructure has c.280 million litres of fuel storage in operation at Marsden Point, with c.400 million litres of unutilised capacity available

## Current context

Channel Infrastructure owns and operates the Marsden Point fuels terminal and the Marsden Point to Auckland Pipeline (the Pipeline), supplying c.40% of New Zealand's demand for transport fuels. Each year, the Company receives, stores, tests and distributes between 3.3 and 3.6 billion litres of fuel owned by our customers.

Channel Infrastructure's wholly-owned subsidiary, Independent Petroleum Laboratory Limited, provides fuel quality testing services at Marsden Point and around New Zealand.

The Company supplies petrol and diesel into the Northland market, via the Truck Loading Facility (TLF) (adjacent to the Marsden Point terminal), and petrol, diesel and jet fuel into Wiri for the Auckland market via the Pipeline.

### Changing transport fuels mix through decarbonisation

In our view, traditional transport fuels are going to have a role to play in keeping the economy moving throughout the energy transition. Decarbonisation of transport fuels will change the mix and quantity of liquid fuels passing through our infrastructure. Channel has a critical role to help keep transport energy available when it is needed.

Channel supplies all of the jet fuel to Auckland International Airport. At "normal" pre-covid demand, Auckland Airport was around 80% of New Zealand's jet fuel demand, and around 10-15% of the domestic jet fuel demand. New Zealand's air connections play a crucial role to the economy through both our tourism and export industries.

Tourism is New Zealand's largest export industry and directly employs 8.4% of New Zealand's workforce<sup>1</sup>, and Air freight carries 16% of exports and 22% of New Zealand's imports<sup>2</sup>, which means that Channel is inextricably linked to these sectors and therefore indirectly impacted by their climate change risks, including those of Auckland International Airport.

Airlines have recognised the need to decarbonise operations, with aviation representing about 2.5% of global emissions. IATA, the International Air Transport Association which is the trade association for the world's airlines representing 300 airlines and 83% of global air traffic, has committed to a pathway to Net Zero emissions by 2050<sup>3</sup>. Channel recognises that several of the major airlines that fly out of Auckland have made an even stronger commitment than this, pledging to replace 10% of their fuel use with Sustainable Aviation Fuels by 2030.

SAF as well as other second-generation renewable fuels, such as biofuels, are drop-in fuels and can be handled through Channel's existing infrastructure. In late 2022, we received New Zealand's first delivery of SAF into Marsden Point for delivery to Auckland International Airport via our pipeline. Over time, we expect the volume of renewable fuels being handled through our infrastructure will continue to grow and comprise an increasing proportion of our throughput.

### Current climate-related impacts

Cyclone Gabrielle, which hit New Zealand from 12-14 February 2023, delivered 240mm of rainfall, with the region recording over 400% of normal rainfall over the summer period. Researchers, supported by the Ministry for Business Innovation and Employment have indicated that climate change played a distinct role in the development of Cyclone Gabrielle<sup>4</sup>.

In addition to a brief power outage on site, a security fence on the coastal boundary was damaged as Bream Bay recorded waves of 11-12 metres. Pre-emptive drainage (surface and sub-surface) clearing around the pipeline and early investment to improve the waste and storm water networks on site, including an investment of c.\$25 million in recent years, helped ensure there was limited impact to the site infrastructure.

#### Infrastructure Resilience

Refer to case study on page 105

<sup>1</sup> Pre-COVID, <https://www.tourismnewzealand.com/insights/industry-insights/>

<sup>2</sup> By dollar value. Transport.govt.nz, Stats NZ

<sup>3</sup> <https://fortune.com/2023/01/26/boeings-chief-sustainability-officer-we-cant-count-on-hydrogen-powered-commercial-flights-before-2050/>

<sup>4</sup> Harrington, Dean et al. (2023) The role of climate change in extreme rainfall associated with Cyclone Gabrielle over Aotearoa New Zealand's East Coast. World Weather Attribution Initiative Scientific report.

# Climate change scenarios

## Approach

As outlined in Our refreshed strategy (see page 32), Channel has a clear strategy to be a world-class energy infrastructure company, which will fuel New Zealand's future to 2050 and beyond. This strategy was founded on our longer-term Business Planning processes, as outlined from page 56.

In 2023, in line with the requirements of NZ CS1, we have used climate change scenario analysis to “test” the robustness of our strategy. Scenario analysis is the process of exploring how an entity might perform under a range of plausible and challenging futures. In a world of uncertainty, scenario analysis is meant to challenge “business as usual” assumptions.

Climate-related scenario analysis does not predict the future, but rather provides a range of hypothetical outcomes to enable an entity to better assess how physical and transition risks and opportunities associated with climate change could impact its operations.

The Company has been using “scenario analysis” as part of its business planning process for many years. Our most recent analyses have focused on the fuel passing through our infrastructure, as in our view, this is the most material climate transition impact for our business. In 2023, we built on our previous work assessing transition risks and used the Intergovernmental Panel for Climate Change (IPCC) data as well as a Coastal Climate Risk Assessment Report that we commissioned for the Marsden Point site, to assess the physical risks of climate change.

The team at Channel has also conducted relevant climate-related risk assessments in the last year and used this information to supplement our thinking around climate scenarios. Throughout the scenario analysis process, our Corporate Lead Team (CLT) and relevant environmental experts have been engaged in the following workshops:

- Climate Change Scenario Workshop
- Physical Risk Assessment Workshop
- Transition Risk Assessment Workshop
- CLT update on Climate Related Disclosures reporting, including consultation and engagement on Climate Scenarios.

Our Board of Directors, through the Audit and Finance sub-committee, have also had oversight across the process from June 2023 and our initial gap analysis through to the October board update, and December Audit and Finance Committee update. In addition, our General Counsel has been engaged across the project so that operational processes and updates are adequately addressed in our company policies and structures.

- **Transition risks** are linked to the ability of Aotearoa New Zealand to decarbonise transport fuels. The decarbonisation of our economy will be dependent on the uptake of EV's and continued fuel efficiency improvements for light vehicle fleet; the development of alternative technologies (such as electric, hydrogen, biofuels and SAF) and improved technologies leading to fuel efficiencies for heavy transport and air travel.
- **Physical risks** are directly dependent on the intensity of global warming. We have used data provided by the Intergovernmental Panel for Climate Change (IPCC) in their AR5 Synthesis Report as input for the climate component of our climate change scenarios, with the Shared Socio-economic Pathways (SSP) developed by the IPCC to incorporate the global socio-economic context. Refer to Appendix 5 on page 117 for more detail.

To read the detail on our process for identifying and managing climate risks, and our identified risks for this year, please refer to Climate change risks and opportunities (see page 65) of this report.

## Scenario methodology

Channel Infrastructure took a phased approach to scenario analysis including the mapping of global and local reference models; setting of scope boundaries; assessing physical and transitional climate risks and opportunities; identifying the most material drivers of change; and finally the complete synthesis of the climate scenarios and their narratives. In line with the External Reporting Board (XRB) guidance on scenario analysis, Channel has mapped a series of global references to design our three climate scenarios and their temperature pathways.

**FIGURE 9: SCENARIO DEVELOPMENT – GLOBAL REFERENCES**

NZ CS1 REQUIREMENT	Channel Infrastructure Scenarios	Network for the Greening of the Financial System (NGFS) Scenario	Global Average Temperature Rise By 2100	Shared Socioeconomic Pathway (SSP)	Representative Concentration Pathway (RCP)	CCC Scenarios
<b>1.5 DEGREE SCENARIO</b>	<b>GREEN</b> Progressive, Coordinated Decarbonisation/ Transition Globally	Orderly	1.5 °C	SSP1 Sustainability – Taking the Green Road	RCP 2.6	Tailwinds
<b>MIDDLE DEGREE SCENARIO</b>	<b>AMBER</b> Inconsistent Decarbonisation/ Transition Globally	Disorderly	2.6 °C	SSP2 Middle of the road	RCP 4.5	Headwinds
<b>&gt;3.0 DEGREE SCENARIO</b>	<b>RED</b> No Decarbonisation, Emissions Continue to Grow	Hothouse	4.0 °C	SSP3 Regional Rivalry – A Rocky Road	RCP 7.0 Downscaled RCP8.5	Current Policy Reference

### Assessing our value chain and setting scope boundaries

Channel completed a value chain assessment including upstream and downstream activities. A scope boundaries assessment was also completed to identify the most material aspects of the value chain<sup>1</sup>. For more information on our methods and assumptions, please see Our performance in detail (see page 77).

### Identifying our drivers of change

Drivers of change (sometimes referred to as driving forces) are critical trends or influencers that affect how the fuels infrastructure sector operates. They are usually large-scale, exogenous factors that impact how climate risks and opportunities cascade through the fuels infrastructure sector. Through a series of workshops, comprising senior leaders and independent advisors, we identified several drivers of change that will affect the fuels infrastructure sector in the future. A longlist of drivers were shortened to nine across the XRB recommended STEEP methodology, covering: social, technology, environmental, economic and political.

The “top six” drivers of change for Channel Infrastructure, as a provider of liquid fuels infrastructure, are summarised in Table 4.

<sup>1</sup> Value chain exclusions: the exclusion of immaterial elements within the value chain were calculated by their monetary value, and their level of influence/impact on operations. Those with both a low monetary value and level of influence were placed outside of scope. Only our material risks and opportunities (after a shortlist process based upon Channel's consequence matrix) were run across the three climate change scenarios.

TABLE 4: DRIVERS OF CHANGE

CATEGORY	DRIVER	SIGNIFICANCE
<b>Social</b>	Population change	There is a strong correlation between population growth and demand for transport fuels. An increase/decrease in NZ's population could result in a change to demand for transport fuels and therefore utilisation of Channel's infrastructure (including through changes in regional demographics)
<b>Technology</b>	Development/adoption of new transport fuels technology	The pace, cost and accessibility of technological advances (e.g. SAF, EV's or hydrogen) could stimulate or suppress demand (e.g. across agricultural and heavy transport sectors as well as changing consumer behaviour) impacting infrastructure utilisation. Technological advances leading to fuel efficiencies may also impact demand for fossil fuels
<b>Environmental</b>	Physical climate change risks	Physical risks are directly dependent on the intensity of global warming. A changing climate (from acute weather events, or chronic changes such as sea level rise) could impact our operations, staff, and supply chains. The severity and uncertainty of climate change drives the extent of adaptation and mitigation required.
<b>Economic</b>	Availability of capital	An increasing focus from banks, investors and insurers to align their lending, investment and risk portfolios with Net Zero 2050 targets. This could stimulate or suppress availability of capital, depending on transition plans.

CATEGORY	DRIVER	SIGNIFICANCE
<p><b>Economic</b></p>	<p>Demand for international air travel</p>	<p>There is a strong correlation between household income and propensity to travel. It is impossible to predict how the cost of travel will evolve in the future. New Zealand is a long way from most of the world, and airlines may be forced to pay for their emissions, making flying expensive. New Zealand's attractiveness as a tourist destination may be impacted by physical climate change to natural assets. GDP of New Zealand's trading partners/ countries may impact trade and therefore air freight.</p>
<p><b>Political</b></p>	<p>Government priorities</p>	<p>The way governments (including NZ) respond to climate change has consequences for the transport fuels sector and therefore the utilisation of our infrastructure. Mandates and incentives may accelerate the transition to alternative transport fuels and Government support for domestic manufacturing of alternative fuels (including at scale, Government mandated domestic SAF industry).</p>

## Summary of time horizons and capital deployment links

As part of the analysis of Channel's climate-related physical and transition risks and opportunities, we have identified the time horizons over which to examine the impacts of climate change. In doing so, we have considered our regular planning cycles, including long-term planning and investment time frames.

**FIGURE 10: TIME HORIZONS**



The **short-term horizon** broadly aligns with the existing Terminal Services Agreements that we have in place with our customers. The initial term of the contracts is 10 years (to 2032), with two five-year rights of renewal.

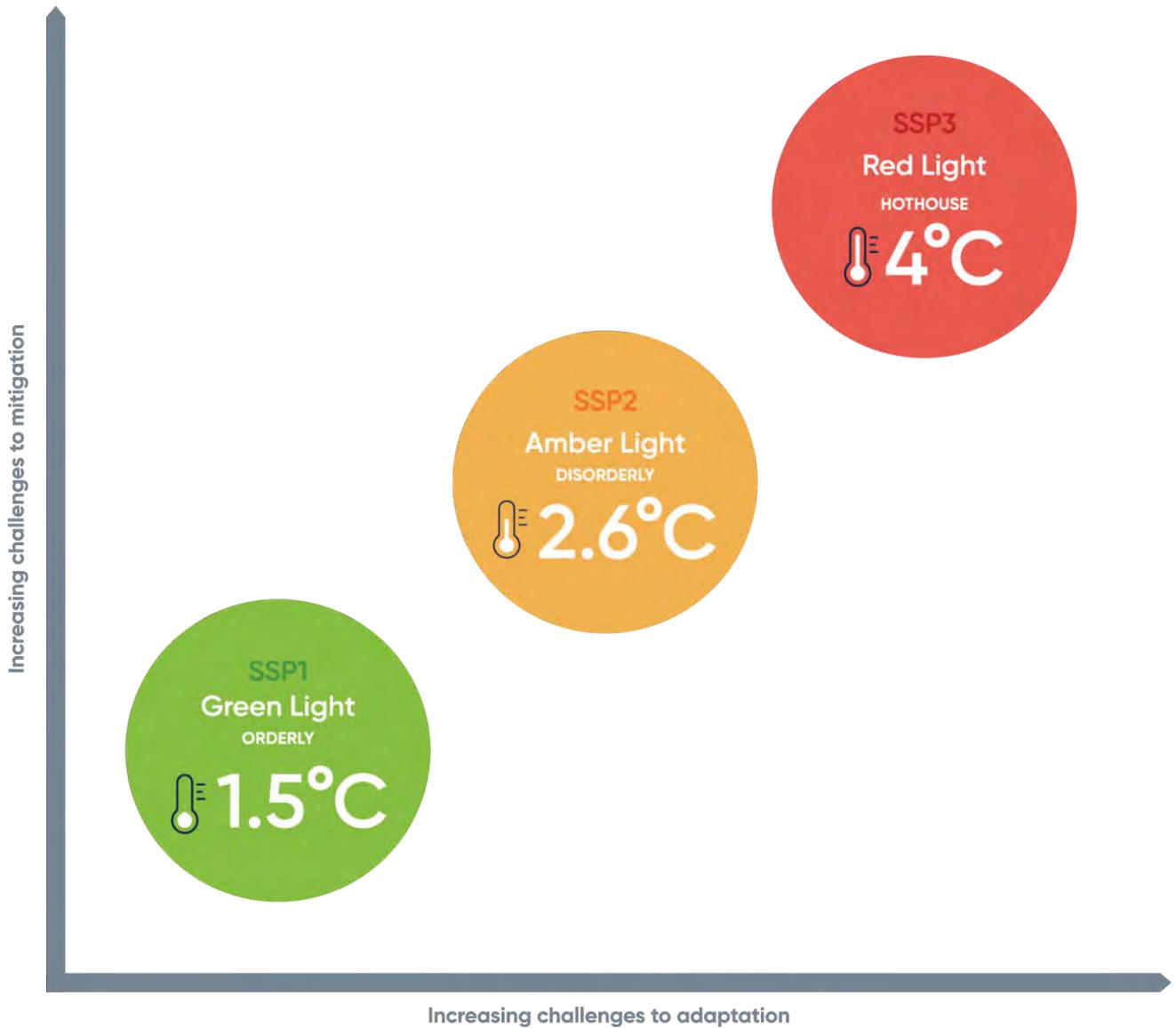
The main climate-related risks facing Channel, as a fuels infrastructure company, are transition risks; with the quantity and types of fuels passing through our infrastructure expected to change as the economy decarbonises. Our customers are at the forefront of these changes and will require infrastructure to meet the changing fuel needs. Channel will invest to support the long-term resilience of our infrastructure and to be a supply partner of choice for our customers to meet New Zealand's changing fuel and energy needs. Our clear investment criteria for these growth opportunities are to only invest in projects that generate returns above our Weighted Average Cost of Capital and those opportunities with contracted revenues to provide revenue certainty.

The **medium and long-term horizons** align with Channel's longer term strategic planning and the lives of significant infrastructure assets. One of the strategic priorities underpinning our refreshed strategy, "helping fuel New Zealand's future to 2050 and beyond", is long-term asset management. In 2023, we undertook work to assess site resilience to warming scenarios to inform a range of short and long-term coastal erosion and inundation management options and ensure robust long-term Asset Management Plans are in place.

## Summary of our scenarios

We have developed and explored three climate-change scenarios:

**FIGURE 11: CLIMATE CHANGE SCENARIOS**

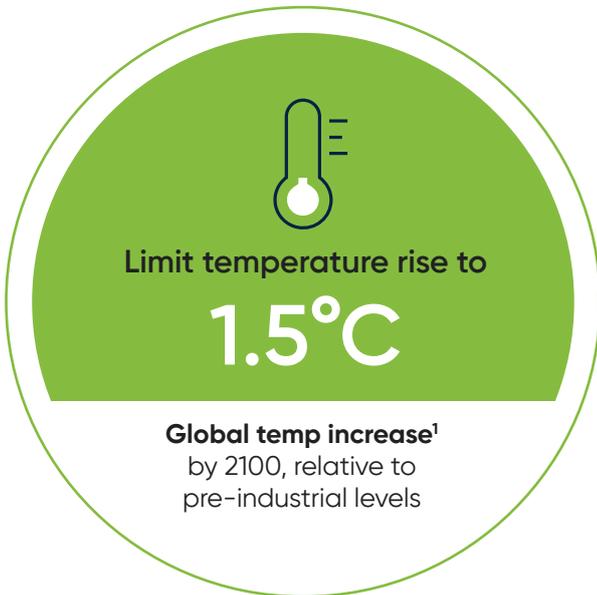


A summary of each scenario, including narrative and metrics are outlined from page 44. We have drawn data from global climate change assumptions and applied these in a New Zealand context. Channel acknowledges the links our infrastructure services have to the aviation and tourism industry and where appropriate, have included relevant information from the Aotearoa Circle, Tourism sector climate change scenarios and other datasets<sup>1</sup> for technical and narrative input.

<sup>1</sup> Our climate references and datasets have come from: IPCC International Panel on Climate Change (AR5, AR6), NGFS Network for the greening of the financial system, IIASA International Institute for Applied Systems Analysis. (2018), CCC Climate Change Commission (2021), TNZ Treasury New Zealand (2022), MfE Ministry for the Environment (2018) and, where appropriate, The Aotearoa Circle Tourism Sector Climate Change Scenarios (2023).



## Green Light



### An orderly scenario, including progressive and coordinated decarbonisation/transition.

Ambitious and aligned economic, transformative change where policy and social behaviors are leveraged in response to climate change to meet a 1.5-degree trajectory. Renewable energy is produced at scale across the world, associated technology and investment increases. The physical impacts of climate change are minimal in relation to other warming trajectories.

#### SCENARIO INDICATORS



**\$277**

NZ carbon price<sup>3</sup>  
For 2050, per tonne



**6.04M**

New Zealand  
Population  
in 2050 (SSP1)<sup>4</sup>



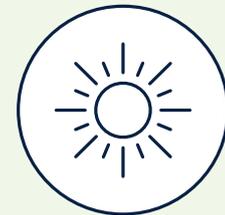
**0.22m**

NZ sea level rise<sup>2</sup>  
For 2031-50 relative  
to 1995-2014



**+6.0%**

Rainfall intensity<sup>2</sup>  
100-yr ARI 12-hr rain  
depth, 2031-2050  
relative to 1986-2005

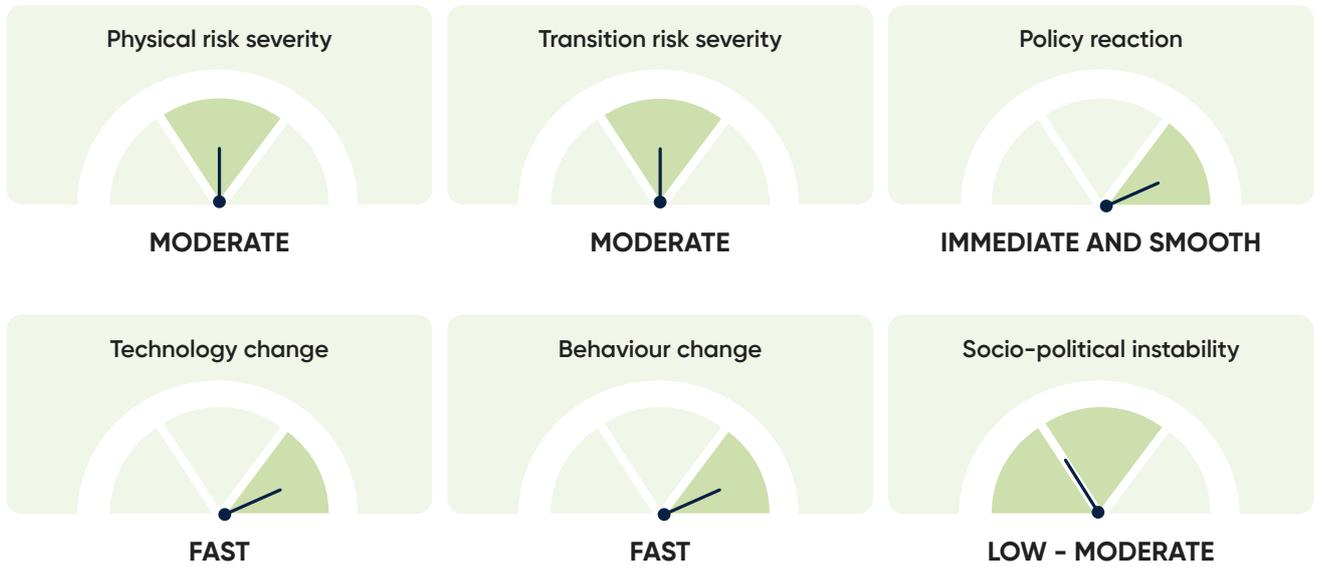


**+43%**

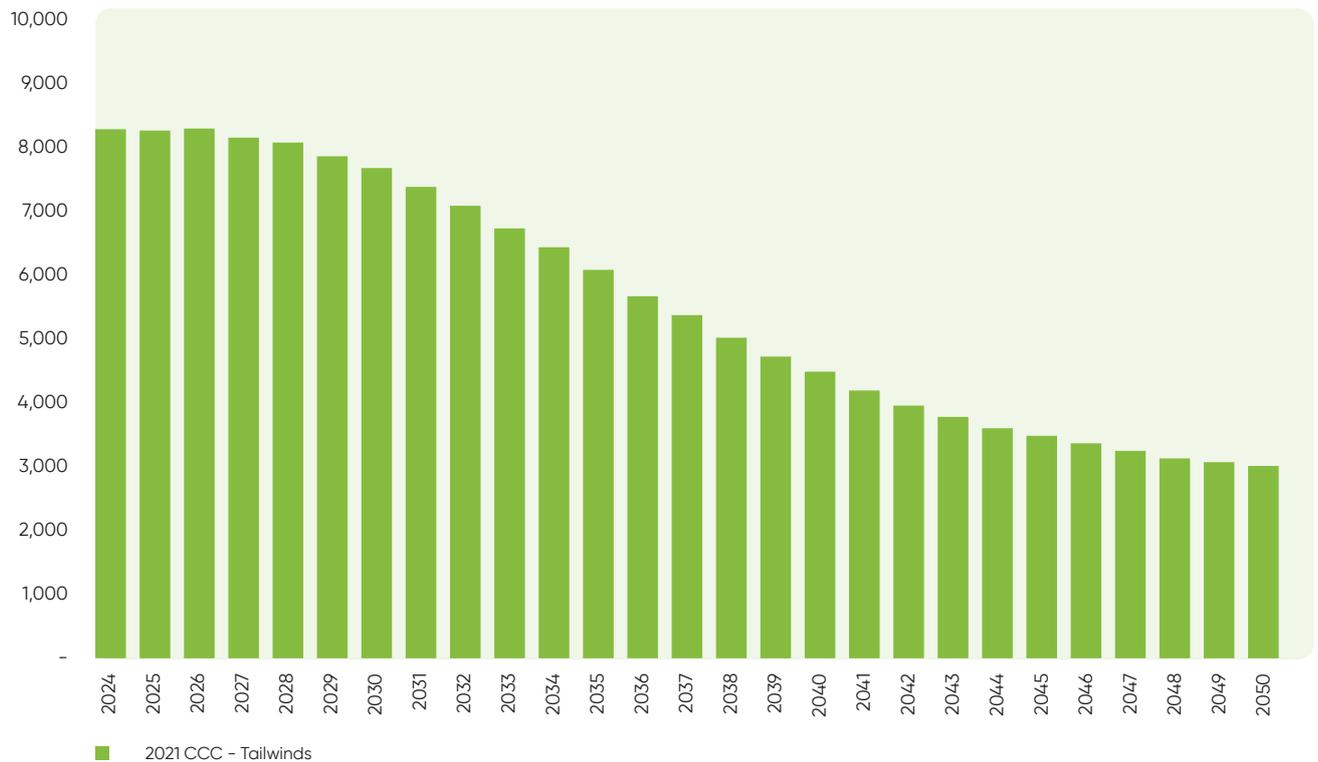
NZ Hot days<sup>2</sup>  
For 2031-2050  
relative to  
1986-2005

## HIGH LEVEL DESCRIPTORS

Global temperature rise 1.5°C by 2100



## NZ TOTAL FUEL DEMAND (ML) - 2021 CCC - FOSSIL FUELS ONLY



**Data sources:**

1. IPCC WG1 AR5 Summary for Policymakers
2. Ministry for the Environment (2018) Climate change projections for New Zealand
3. Treasury New Zealand (2022) CBAX Tool User Guidance
4. International Institute for Applied Systems Analysis (2018) SSP Database
5. Climate Change Commission (2021) Scenarios dataset for the Commission's 2021 Final Advice

**Reference scenarios:**

NGFS Orderly, RCP 2.6, SSP 1, CCC Tailwinds



# Green Light

## PROGRESSIVE, COORDINATED DECARBONISATION/TRANSITION

### NARRATIVE

#### Social

The global population continues to increase at a steady and expected rate. New Zealand is seen as an attractive place to travel to and to live.

New Zealand's population increases as the country becomes a haven for many immigrants across the socioeconomic spectrum. Population number is expected to reach 6.04 million by 2050.

Health, wellbeing, and retreat impacts from climate change are considered low in relation to the delayed and stalled transitions (due to rapid and coordinated global action to reduce emissions).

As a result, population continues to increase but at a slower rate. Sea level rise forces some Pacific Island residents (and other communities/nations) currently living in low lying coastal settlements to move, contributing to limited population growth.

Channel Infrastructure commit to managing reliable and resilient infrastructure to help support the availability of transport fuels when they are needed.

#### Technology

Renewable fuel technology globally is developed at scale around the world. This gains momentum in the first half of the 2030s.

Volumes of SAF including production and technology development start increasing from the mid-2030s in NZ, replacing conventional jet fuel. Globally, there is competition for the supply of SAF, due to a decline in passengers willing to fly when conventional jet fuel is being used.

Green hydrogen is available from the mid-2030s in NZ, gradually replacing conventional diesel from that point on for heavy transport.

Continued development in the performance, range, and chargeability of electric vehicles enable mass adoption and accelerated reduction of fossil-fueled light fleet vehicles by 2035.

Auckland Airport uses Channel's infrastructure (tanks and pipeline) for the supply of imported SAF and/or SAF produced at Marsden Point.

Channel Infrastructure accommodates renewable fuel technology and provides infrastructure services for SAF and hydrogen throughput, phasing out diesel and petroleum infrastructure against transition requirements.

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## Markets

Global demand for fossil transport fuels declines. Demand for sustainable liquid fuels and for green hydrogen increases to meet shifting demand. The demand for electric vehicles increases rapidly.

The infrastructure and energy sectors globally gain confidence in making long-term decisions and investments as the production of new technology fuels increase at scale.

The cost of capital for 'green' investments continues to decrease while the cost of capital for all investments associated with fossil fuels and GHG emissions increases from the mid-2020s.

New Zealand continues to rapidly decarbonise its land transport sector, however, New Zealand's demand for air travel and air freight, and therefore demand for jet fuel (SAF or fossil fuels) remains around current levels due to New Zealand's remote location and ensuring connection for the growing population to the rest of the world.

Channel Infrastructure continues to provide infrastructure and storage capacity to support lower emissions/sustainable fuels and assist in a rapid transition with challenging reductions to liquid fuel demand.

---

## Environment

Global temperature increase is limited to below 1.7 °C by 2050 and stabilises at 1.5 °C by 2100 (Due to data availability, New Zealand impacts are assessed using RCP2.6, which projects a slightly higher global temperature increase in the second half of the century.) Physical impacts of climate change are considered limited/managed in comparison to other warming trajectories. Sea-level rise in New Zealand (metres above 1986–2005 baseline) is 0.22m by 2050 and 0.46m by 2100.

There is a 43% increase in the number of hot days by 2050 and a 6% increase in the rainfall intensity. These physical impacts of climate change are considered minimal compared to the disorderly and hothouse scenarios and vary on location and geography across New Zealand.

Water use and wastewater products increase in the mid 2030s as the need for green hydrogen production increases. Channel has successfully achieved Net Zero scope 1 and 2 emissions by 2030.

Channel Infrastructure implements necessary safeguards from physical coastal and climatic impacts.

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## Policy

Globally, countries have adopted policies and regulation early before 2030 to support a smooth transition. Inclusive and ambitious targets are set by government to transition New Zealand's energy and infrastructure needs alongside the National Adaptation Plan and Climate Change Response Act.

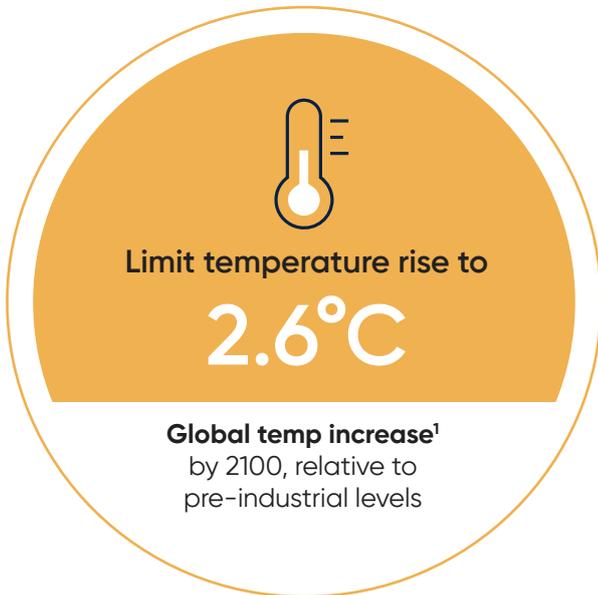
The transition to low or zero emissions vehicles in New Zealand by 2035 signalled in NZ's first emissions reduction plan is supported by legislation, resulting in continued decline of fossil-fueled vehicle use (being replaced by EVs and other modes of transport). This is accelerating from about 2030 as New Zealand seeks to decarbonise the transport sector as quickly as possible. The Emissions Trading Scheme (ETS) remains in place and the carbon price signal shows a managed transition away from fossil fuels at \$277 per tonne by 2050.

Channel Infrastructure successfully meets policy and regulation changes, by transitioning to sustainable fuels product, storage and/or distribution.

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## Amber Light



### A disorderly scenario, involving globally inconsistent decarbonisation/transition.

Delayed responses to climate change globally, governments and regulators rely on industry to act until societal and legislative pressures shift. Renewable energy development is initially slow, gaining momentum closer to 2050. Global demand for fossil transport fuels continues to rise before declining. Economic pressures arise from rapid decarbonisation in the 2030s.

## SCENARIO INDICATORS



**\$369**

NZ carbon price<sup>3</sup>  
For 2050, per tonne



**5.94M**

New Zealand  
Population  
in 2050 (SSP1)<sup>4</sup>



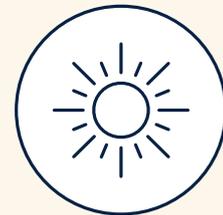
**0.24m**

NZ sea level rise<sup>2</sup>  
For 2031-50 relative  
to 1995-2014



**+7.5%**

Rainfall intensity<sup>2</sup>  
100-yr ARI 12-hr rain  
depth, 2031-2050  
relative to 1986-2005



**+54%**

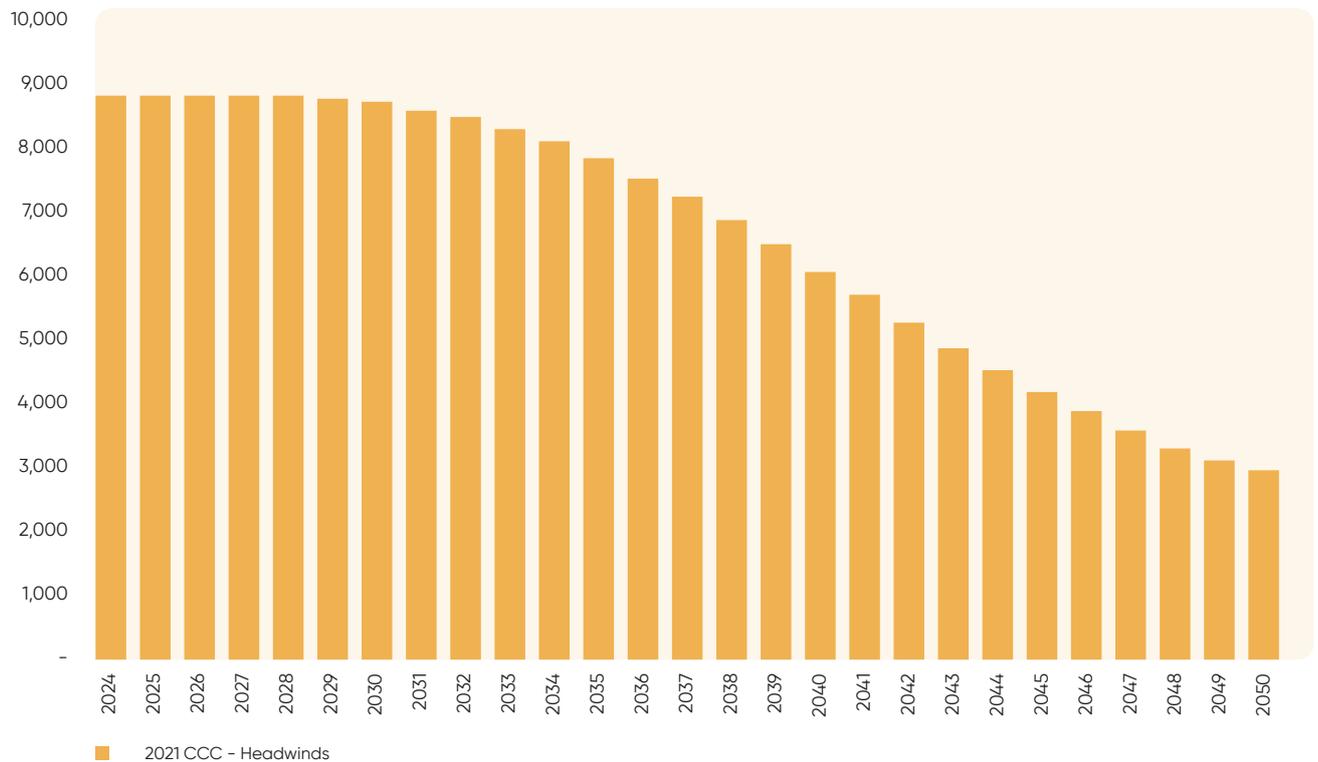
NZ Hot days<sup>2</sup>  
For 2031-2050  
relative to  
1986-2005

## HIGH LEVEL DESCRIPTORS

Global temperature rise 2.6°C by 2100



## NZ TOTAL FUEL DEMAND (ML) - 2021 CCC - FOSSIL FUELS ONLY



**Data sources:**

1. IPCC WG1 AR5 Summary for Policymakers
2. Ministry for the Environment (2018) Climate change projections for New Zealand
3. Treasury New Zealand (2022) CBAX Tool User Guidance
4. International Institute for Applied Systems Analysis (2018) SSP Database
5. Climate Change Commission (2021) Scenarios dataset for the Commission's 2021 Final Advice

**Reference scenarios:**

NGFS Disorderly, RCP4.5, SSP 2, CCC Headwinds



## INCONSISTENT DECARBONISATION/TRANSITION GLOBALLY

### NARRATIVE

#### Social

Global population growth is moderate and levels off in the second half of the century.

New Zealand's population increases as immigrants, particularly climate refugees, move to New Zealand, reaching 5.94 million by 2100.

Health and wellbeing benefits e.g. air quality, from transitioning away from fossil fuels are delayed relative to the orderly scenario.

Severe weather events such as storm surges and heavy rain destroy arable land and settlements forcing some Pacific Island residents (and other communities/nations) currently living in low lying coastal settlements to move. While some move domestically, some move to New Zealand, this happens more frequently as time passes (2040s onwards) and the cumulative affects of physical chronic and acute climate change impacts increase.

#### Technology

Pace and scale of renewable fuel technology is inconsistent across the globe; gathering momentum closer to 2050.

SAF, including production technology, is not available in significant quantities until after 2040 in New Zealand either through imports and/or local production. Conventional jet fuel continues to be used until then.

Green hydrogen is not available in significant quantities until after 2040 in New Zealand and is initially expensive. Diesel continues to be used until then for heavy transport.

Channel Infrastructure continues to provide infrastructure and storage of fossil based transport fuels while renewable fuel technology is slow to develop.

#### Markets

Global demand for fossil transport fuels continues to rise before declining from 2030, however the degree of change varies between countries.

Capital availability internationally does not shift markedly from current, however, there is a lack of confidence to make long-term decisions and investments.

In New Zealand, capital is allocated to recovery from multiple, successive severe weather events and retreat from the 2030s onwards. From the 2040s, investing in decarbonising agriculture and transport becomes a priority. The cost of capital increases towards 2050.

Globally, demand for international travel continues to grow until the mid-2030s when travel volume stagnates while the impacts and costs of climate change are felt more widely around the world. In New Zealand, this has an impact on inbound tourism (until SAF is widely available from the 2040s). However, jet fuel volumes continue to increase with the uptake of SAF due to New Zealand's geography and location relative to our trading partners.

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## Environment

Global temperature rises 2.0 °C by 2050 and gradually increases to 2.6 °C rise by 2100.

Acute physical impacts of climate change are inconsistent and uncertain. Sea-level rise in New Zealand (metres above 1986–2005 baseline) is 0.24m by 2050 and 0.55m by 2100. Chronic changes continue to scale with cumulative emissions. There is a 54% increase in the number of hot days by 2050 and a 75% increase in rainfall intensity. These physical impacts of climate change vary on location and geography across New Zealand.

Water use and wastewater products are considered minimal up until a rapid decarbonisation catalyses the need for green hydrogen production. Water scarcity and resourcing for large scale production in some areas are limited.

Due to delayed action and need for capital investment, Channel has achieved Net Zero scope 1 and 2 emissions by 2035.

Channel Infrastructure implements necessary safeguards from physical coastal and climatic impacts which after the 2040s and 2050s stand against severe acute and chronic weather patterns. Minimal damage and disruption to operations occurs.

---

## Policy

No targets are set by government to transition New Zealand's energy and infrastructure needs until the 2030s where extreme pressures are placed on heavy emitting industry to decarbonise quickly, resulting in continued decline of fossil fueled vehicle use (being replaced by EVs and other modes of transport). The Emissions Trading Scheme (ETS) remains in place and stagnates until the carbon price signal strongly enforces a transition away from fossil fuels after the 2030s to reach \$369 per tonne by 2050.

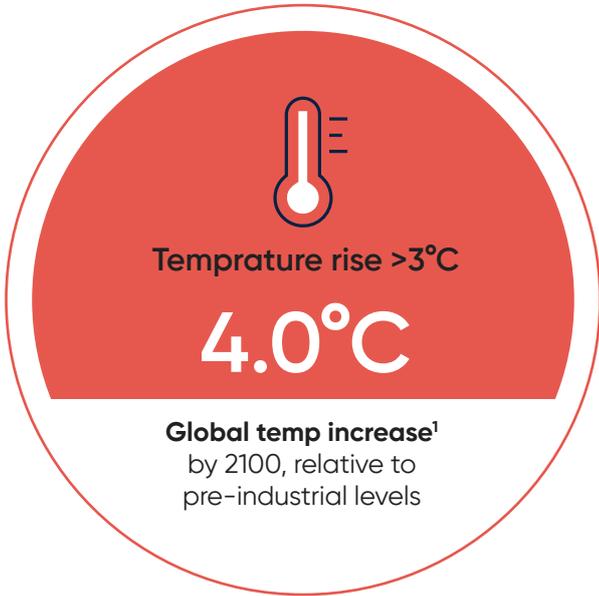
Government support in managed retreat is poorly facilitated and inconsistently implemented across the nation.

From the 2030s, uncoordinated policies are put in place to accommodate large infrastructure projects. The sector is targeted by government to seek low carbon options for energy generation and distribution. Supporting government policies are introduced, including co-investment and/or mandates.

Channel Infrastructure meets reactive policy and regulation changes from the 2030s onwards and prioritises the transition to lower carbon storage and service to match policy effects on customer supply.

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 **Red Light**



**A hot house scenario, with little to no decarbonisation/transition; emissions grow.**

Global and New Zealand efforts and policies to decarbonise stall. Demand for transport fuels stays similar to current levels. New Zealand continues to use conventional jet fuel. The global demand for fossil fuels, including oil and natural gas, does not decline. As a result, renewable fuel technology advances are limited. Physical impacts of climate change are major in relation to other warming trajectories.

**SCENARIO INDICATORS**



**\$35**

**NZ carbon price<sup>3</sup>**  
For 2050, per tonne



**6.94M**

**New Zealand Population**  
in 2050 (SSP1)<sup>4</sup>



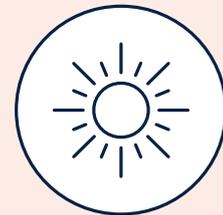
**0.28m**

**NZ sea level rise<sup>2</sup>**  
For 2031-50 relative to 1995-2014



**+8.6%**

**Rainfall intensity<sup>2</sup>**  
100-yr ARI 12-hr rain depth, 2031-2050 relative to 1986-2005



**+67%**

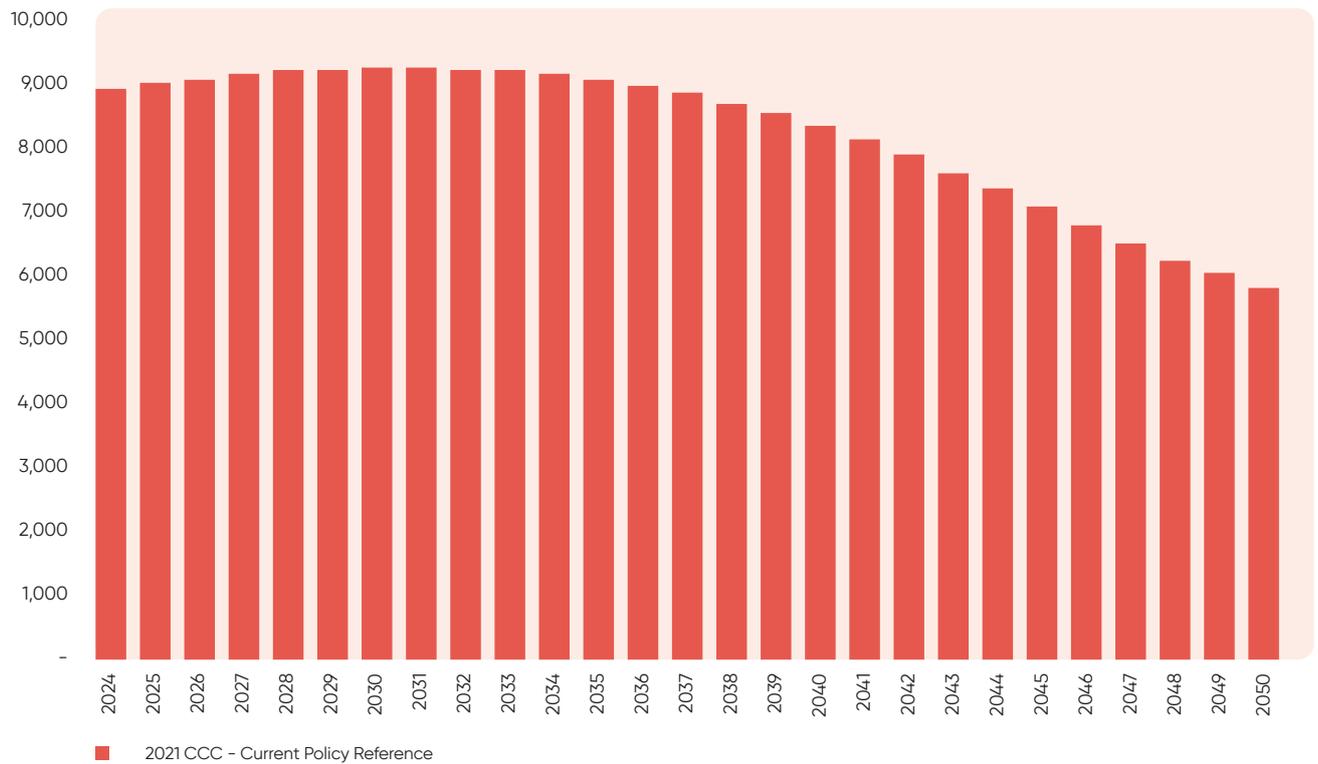
**NZ Hot days<sup>2</sup>**  
For 2031-2050 relative to 1986-2005

## HIGH LEVEL DESCRIPTORS

Global temperature rise 2.2°C by 2050; 4.0°C by 2100



## NZ TOTAL FUEL DEMAND (ML) - 2021 CCC - FOSSIL FUELS ONLY



**Data sources:**

1. IPCC WG1 AR5 Summary for Policymakers
2. Ministry for the Environment (2018) Climate change projections for New Zealand
3. Treasury New Zealand (2022) CBAX Tool User Guidance
4. International Institute for Applied Systems Analysis (2018) SSP Database
5. Climate Change Commission (2021) Scenarios dataset for the Commission's 2021 Final Advice

**Reference scenarios:**

NGFS Hothouse, RCP8.5, SSP 3, CCC Current Policy Reference



## NO DECARBONISATION, EMISSIONS CONTINUE TO GROW

### NARRATIVE

#### Social

Population growth is low in industrialised and high in developing countries.

New Zealand's population continues to increase to 6.94 million by 2050.

Severe weather events such as storm surges and heavy rain destroy arable land and settlements forcing some Pacific Island residents (and other communities/nations) currently living in vulnerable coastal settlements to move. While some move domestically, some move to New Zealand. This happens more frequently as time passes (2050s onwards) in large volumes as the cumulative affects of physical chronic and acute climate change impacts increase.

#### Technology

Renewable fuel technology advances are limited. SAF, green hydrogen and other renewable fuels do not become available in significant quantities and remain largely unaffordable.

Conventional jet fuel continues to be used for aviation. Diesel continues to be used for heavy land transport (however light transport vehicles are replaced by EVs over time).

Channel Infrastructure continues to store conventional fuels, increasing overall jet fuel storage to meet larger population needs.

#### Markets

The global demand for fossil fuels does not decline, and instead continues to grow.

As per the global narrative, nationalism influences where capital is invested.

In New Zealand, significant capital is allocated to recovery from multiple, severe weather events and retreat from 2030 onwards. Cost of capital increases from the 2030s.

Demand for land transport fuels peaks within the early 2030s and slowly declines from then to 2100. Demand for international travel has augmented strongly due to a growing middle class globally travelling more and away from unfavorable climatic events/seasons.

Channel Infrastructure continues to provide infrastructure and storage of national fuel reserves, due to increasing nationalism, capital is invested to secure large quantities of domestic stock.

#### Environment

Global temperature rise is over 2.2 °C by 2050 and is expected to reach 4.0 °C by 2100.

Physical impacts of climate change are significant. Sea-level rise in New Zealand (metres above 1986–2005 baseline) is 0.28m by 2050 and 0.79m by 2100. There is a 67% increase in the number of hot days by 2050 and an 8.5% increase in rainfall intensity. These physical impacts of climate change are considered significant and vary on location and geography across New Zealand.

Water use and wastewater products are considered minimal including low scale attempts to diversify energy options to meet global supply chain disruption for fossil fuels.

Severe acute and chronic climate change impacts disrupt supply chain routes and onsite operations. Capital investment is required to remediate damage.

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## Policy

The transition to low or zero emissions vehicles in New Zealand by 2035 signalled in New Zealand's first emissions reduction plan is not supported by legislation, however, passenger EVs are still adopted by the market. No or only low targets are set by government to transition New Zealand's energy supply. The Emissions Trading Scheme (ETS) remains in place, however, the carbon price signal does not encourage a transition away from fossil fuels at \$35 per tonne in 2050.

Channel Infrastructure continues to meet demand, providing infrastructure and storage of conventional fossil fuels to current policy and regulation standards.

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# Business Planning

## Our 2023 Sustainability Report, brings together the new NZ Climate Standards (NZ CS) as well as our existing work to date on climate change analysis.

Channel Infrastructure has used scenario forecasting in its traditional form, as one of many tools through which we assess our options in our strategic reviews and business planning. These 'normative' probability scenarios are based on likelihood from local fuel demands and have informed our business decision-making for over 15 years. This information helps us to mitigate and adapt to a changing climate while continuing to provide New Zealanders with the fuel they need to keep moving while we transition to a lower carbon economy.

With the entry of climate change scenarios, which explore the bounds of plausibility and challenge reasonable future states of global warming potential (GWP) in three very different yet plausible scenarios, Channel Infrastructure has assessed both the climate change scenarios in a stand-alone exercise, as well as the demand outlook prepared by Envisory<sup>1</sup> in early 2023 to inform our strategic refresh. The Envisory fuel demand outlooks modelled three cases; the "Base" is the "most expected" case while the faster represents a faster transition and the slower is the where the transition takes more time.

To combine our existing business planning processes with our climate scenarios, we have utilised the CCC 2021 data tables (aligned with the three SSP's underpinning our scenario analysis) to provide a trend line of New Zealand Liquid Fossil Fuel Demand (converted from petajoules (PJ) to million litres (ML)) across our Envisory demand outlooks. This is to show the degree of alignment between our existing business planning process and the new climate change scenario analysis processes, as outlined on the following page.

It is noted that the Envisory data includes biofuels, whereas the CCC data is for fossil fuels only.

To interpret the trend line comparisons, it is important to recognise the significantly different basis upon which the two data sets have been developed:

- The 2023 Envisory New Zealand demand outlook is more current than the CCC's 2021 projections, and was "built up" by detailed modelling:
  - The jet demand forecast was based on the long-term passenger number forecast developed by international consultants DKMA for Auckland Airport in December 2022. This passenger forecast included flight destinations, enabling Envisory to be more specific on fuel consumption, categorising flights as domestic, short-haul, long-haul, and extra long-haul (>11,500km). Air freight is a growing segment and was modelled separately.
  - For diesel, the modelling was based on each consumption sector separately, including Agriculture, Industrial, Commercial, Residential, Transport and International shipping.
  - The vehicle fleet was split between light passenger, light commercial, motorcycle, heavy transport and buses; each was modelled with its own split between new and used vehicles and turnover rates; and different proportions of electric vehicles coming into the fleet. This was done for each category and for new/used vehicles over time.
  - Biofuel volumes were assessed for petrol and diesel, although not for jet fuel as SAF is a drop-in fuel, fully interchangeable with jet fuel and is able to be supplied via Channel's existing infrastructure.
- The CCC's liquid fuel demand was modelled using the Energy and Emissions in New Zealand model (ENZ) and includes fossil fuels only, based on projected use/mode of transport from the Ministry of Transport.

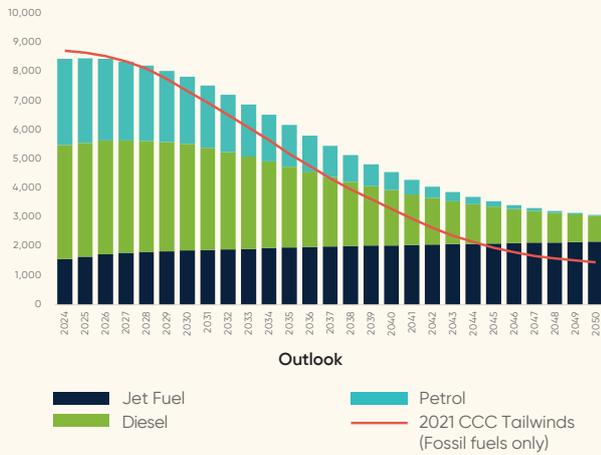
It is also important to note that the trend lines on the charts also show New Zealand's total fuel demand profile, which will be materially different to Channel's, due to the Company having a greater exposure to jet fuel due to the Auckland Airport – which is supplied via the pipeline – and accounts for around 80% of New Zealand's jet fuel consumption.

<sup>1</sup> Envisory (formerly Hale and Twomey) provides independent strategic advice and consultancy services to the energy sector.

**FIGURE 12: ENVISORY FUEL OUTLOOKS OF NEW ZEALAND TOTAL FUELS DEMAND**

### Faster Transition

**Faster Transition: NZ Fuel Demand (Million Litres)**



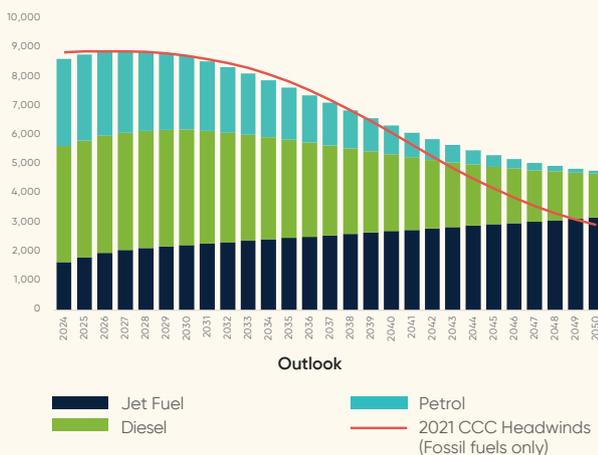
**Factors influencing faster transition:**

- Behavioural changes have more impact than expected,
- Electric Vehicles (EV's) reach cost parity with Internal Combustion Engine (ICE) earlier,
- Efficiency of new ICE fleet improves faster than expected,
- Better economic conditions increasing rate of fleet turnover,
- Breakthroughs in development of alternate fuel heavy vehicles,
- More technological breakthrough in aviation,
- Government policies: fleet efficiency targets, bio-fuels, mandates.

The CCC trend line follows a similar rate of decline over the short-medium term; however, the forecasted volumes are observed to be higher from the mid 2030s, due to our expectation of biofuels substitution.

### Base Case

**Base Case: NZ Fuel Demand (Million Litres)**



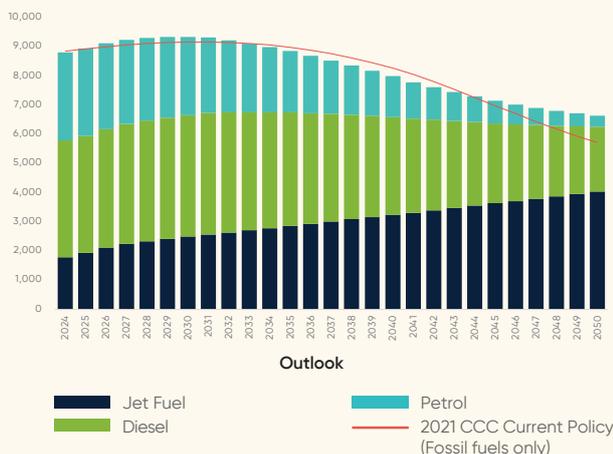
**Base Case:**

- Petrol volumes decline most rapidly due to replacement transport options (mainly EV's) being available,
- Diesel volumes decline, although at a slower rate, due to some "difficult to shift" demand,
- Jet volumes (including liquid SAF) continue to increase, due to post-covid recovery, continued demand for international travel and difficulty of substitution.

The CCC trend line more closely follows the trend line of total fuel decline, however this trend is observed less aligned as the volumes approach the mid 2040s, due to our expectation of biofuels substitution.

### Slower Transition

**Slower Transition: NZ Fuel Demand (Million Litres)**



**Factors influencing slower transition:**

- More difficult to change people's behaviour,
- More inertia in transition, possibly due to alternate (cheaper) ways of meeting emissions reductions,
- EV's take longer to reach cost parity,
- Slower efficiency improvement due to less efficient vehicles coming into the fleet,
- Poorer economic conditions result in age of fleet increasing,
- Less encouragement from Government and lack of support for net zero by 2050 (no bio-fuels obligation/mandate).

The CCC trend line show close alignment between 2030s to late 2040s, which then tapers away as the volume approaches 2050.

# Roadmap for our role in New Zealand's energy transition

There are a range of potential market scenarios for the decarbonisation pathway as evidenced by the scenario work undertaken.

Most scenarios, including Envisory's fuel demand outlook, agree that electrification of the transport sector and improving fuel economy of the light vehicle fleet, will result in petrol demand peaking, and starting to decline in the near term. Diesel is expected to transition more slowly, with a gradual increase in biofuels and the electrification of light commercial vehicles and buses, and the transition of heavy transport to electric and hydrogen expected to take longer. The decarbonisation of the aviation industry is expected to largely be driven by the gradual substitution of petroleum jet fuel with Sustainable Aviation Fuel (SAF).

## Our infrastructure will help fuel New Zealand's future to 2050 and beyond

Channel will continue to play an essential role delivering resilient infrastructure solutions in the transition to a resilient, low-carbon economy. Transition planning is a core aspect of our refreshed strategy and our purpose. Our role is to help keep New Zealand moving now and into the future and to support decarbonisation of New Zealand's transport sector. Our capital allocation plans and consideration of climate-related risk and opportunity are directly linked to our business planning across our six key strategic pillars.

Channel first published its Transition Roadmap in our 2021 Sustainability Report, and although we have provided more specificity through our strategic planning, it remains largely the same. In Figure 13, we outline what the enablers of our new strategy will be, and what Channel will be called on to deliver and how that informs our future strategy.

## The enablers for Channel

Those unique characteristics and aspects of our business that come together so we can make the most of the opportunities ahead of us in the decades to come:

### 1. Strong and stable cash flows

Our commercial framework delivers strong and stable cash flows – a core feature of our infrastructure business and a key enabler of our "go forward" strategy. Our long-term contracts are with strong counterparties, have take-or-pay commitments with all fees (including fixed fees, take-or-pay commitments and private storage fees) subject to indexation which provides protection through inflationary cycles.

### 2. Strong capabilities

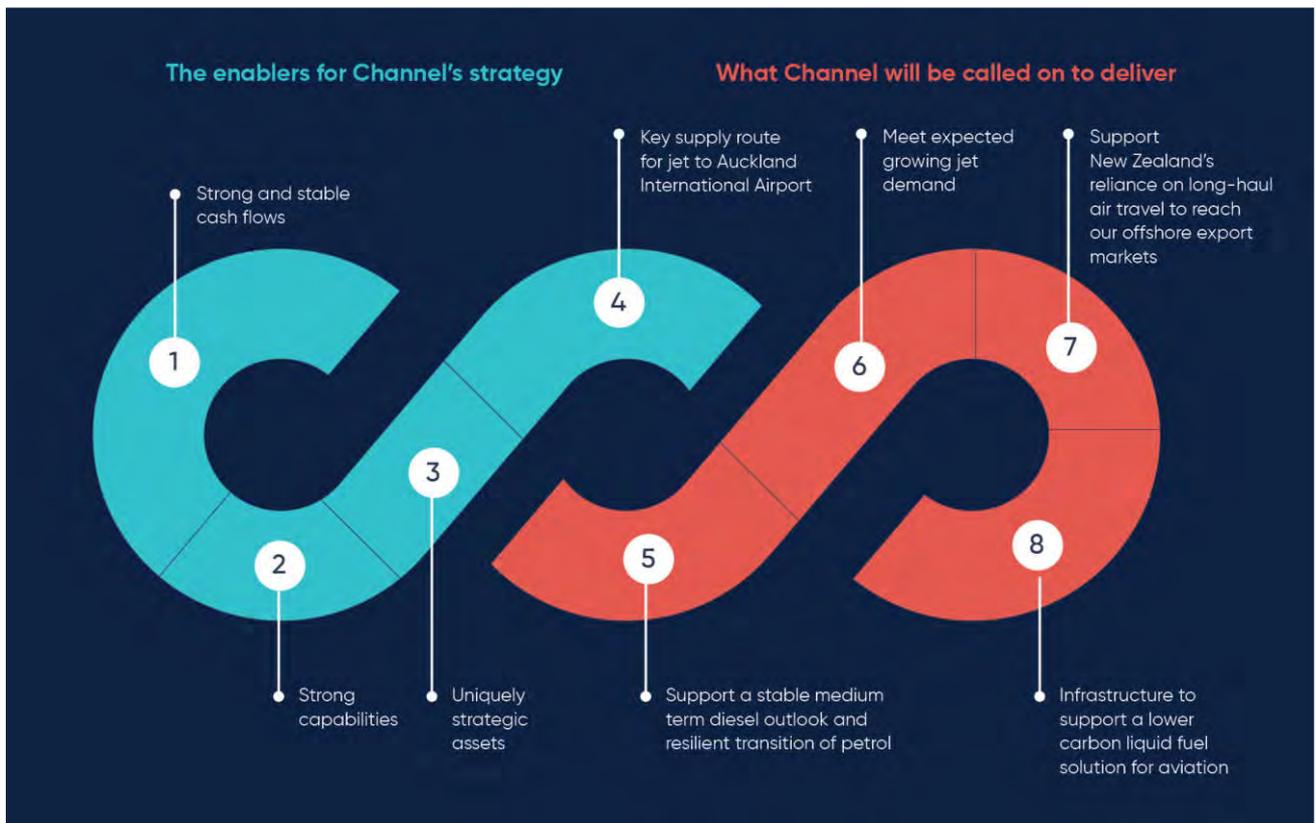
Channel has strong capabilities – fuels infrastructure, project development and delivery, critical operations, asset capability and New Zealand's leading transport fuels testing laboratory – with an ambition to become a world-class operator. This capability set is evidenced by the Company's execution of the import terminal conversion on time and on budget, delivery of additional 100 million litres of private storage and doubling our on-site jet storage capacity increasing fuel resiliency for New Zealand.

### 3. Uniquely strategic assets

Marsden Point is a uniquely strategic site in New Zealand. The combination of the 35-year resource consent, deep water harbour and jetty access, electricity and gas connections and pipeline to New Zealand's largest city and international gateway sets us apart. Marsden Point also has a relatively low exposure to physical climate change risks, under a range of scenarios, as outlined in Climate change risks and opportunities (see page 65).

### 4. Key supply route for Jet fuel to Auckland International Airport

With Auckland Airport accounting for 75% of New Zealand's seat capacity and 80% of New Zealand jet fuel usage, our pipeline is the safest, lowest-cost, most efficient and lowest-emission distribution option to get fuel to the airport and the broader Auckland region.

**FIGURE 13: OUR STRATEGIC ENABLERS AND DELIVERY**

## What Channel will be called upon to deliver

Under a range of plausible scenarios, we believe that there are four main things that Channel will be called upon to deliver, identified as items 5-8 in Figure 13, which build upon Channel's four enablers:

### 5. Support a stable medium term diesel outlook and resilient transition of petrol

We expect that petrol demand will continue to decline over the next 20 years as EV's continue to grow in the vehicle fleet. Our current projections also suggest stable diesel demand until at least the end of the decade due to demand from the difficult to abate heavy transport and agricultural sectors. As demand for land transport fuels changes over the next 20 years, we will continue to provide resilience and cost-effective infrastructure through this transition.

### 6. Meet expected growing jet demand

We will need to meet expected and growing jet demand with increasing middle class in Asia and India and a sector that is incredibly important to our exports and our tourism industry.

### 7. Support New Zealand's reliance on long-haul air travel to reach offshore markets

We will need to provide resilient infrastructure to support New Zealand's reliance on long-haul air travel to reach our offshore export markets.

### 8. Provide infrastructure to support a lower carbon liquid fuel solution for aviation

We think the aviation sector will require a liquid fuel solution, such as SAF, to support lowering emissions from medium to long haul flights, which our infrastructure can already accommodate.

## Sustainable aviation fuel

Refer to case study on page 104.

# Risk management



# Reporting on risk

**The Channel Infrastructure Board is responsible for reviewing and managing enterprise risk, including those related to climate change. Day-to-day risk management is delegated to the Chief Executive Officer, with risk assessments conducted by the Corporate Lead Team facilitated by the Risk and Compliance Manager.**

The frequency of risk assessments and review and the process for escalation is outlined in Figure 14.

Channel Infrastructure uses the “three lines of defence” model to coordinate its approach to risk and assurance. The model, set out in Figure 15, focuses on managing material risks, including environmental, social, governance and climate risks, at the strategic, tactical and operational levels.

The increasing importance of regular oversight of climate-related matters is acknowledged and is now assessed by the Board on a twice-yearly basis, aligned to our existing enterprise risk management schedule. Previously, the oversight of climate-related interests has been presented to the Board on an ad-hoc basis, as and where required. Climate-related risks and opportunities are embedded within our existing enterprise risk management framework, of which we identified six areas of potential climate-related risk within our 2023 assessment. With the introduction of the new Aotearoa New Zealand Climate Standards, Channel Infrastructure has completed a physical and transition risk assessment, in conjunction with an impacts and opportunities assessment to further consider climate-related risks to Channel Infrastructure’s operations and people.

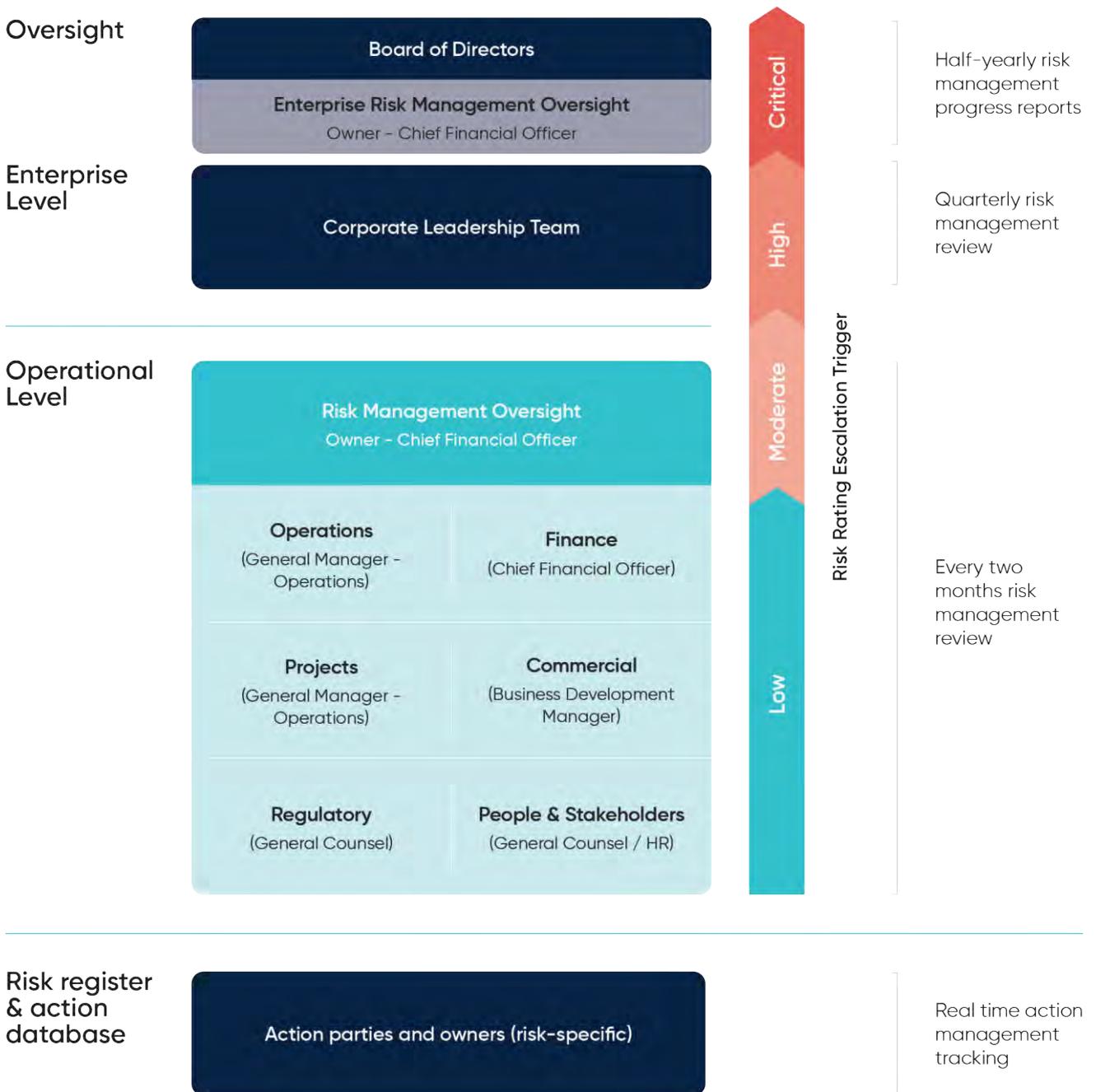
Our process for identifying climate-related risks is already embedded within our enterprise-wide risk management system, covering preventative/recovery and mitigating barriers or controls.

Following the implementation of NZ Climate Reporting Standards, Channel Infrastructure engaged independent consultants to undertake a gap analysis of existing practices and to facilitate a more detailed assessment of climate-related risks, impacts, and opportunities through a series of workshops.

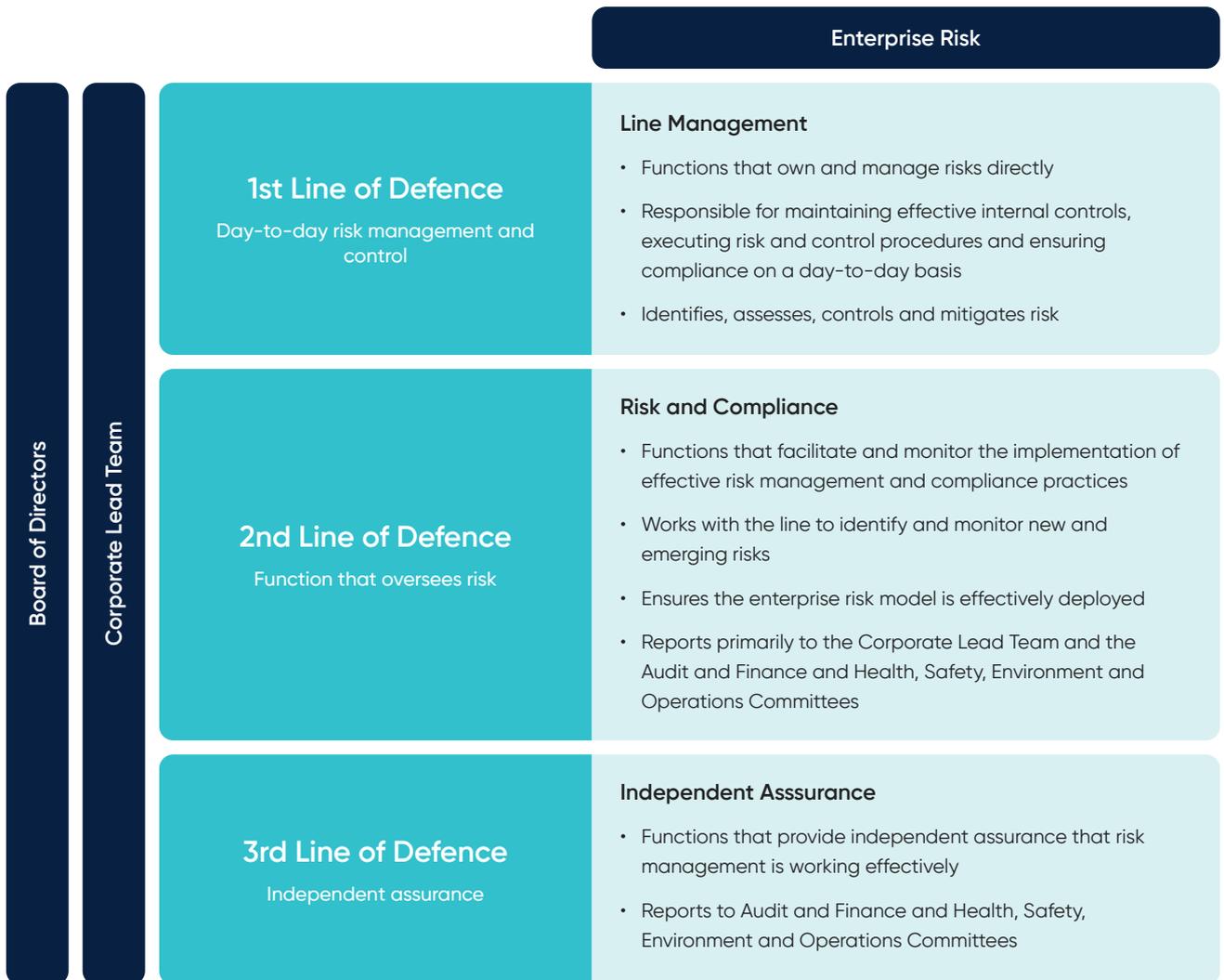
Climate-related risks are weighted the same as all other risks within our enterprise risk management system, with identified risks assessed against our risk consequence matrix to identify the top 10 enterprise risks - five of which can be linked to climate change and are covered by the discussion set out in the section, Climate change risks and opportunities (see page 65). This is reflective of our recent business transition and our understanding of the potential risks and opportunities arising from climate change and, more importantly, an understanding of our role in providing critical infrastructure services which will keep the economy of Aotearoa moving through an era of change.

The audit, or independent assurance programme, is designed to verify that operational controls (barriers) are functioning as documented and to assess the efficiency and effectiveness of internal controls. The Corporate Lead Team and the Board obtain additional assurance of the adequacy of the Company’s management system from detailed operational reports and monitoring controls, covering both leading and lagging indicators, as well as independent risk assessments carried out by independent third parties.

**FIGURE 14: RISK MANAGEMENT GOVERNANCE; REVIEW AND ESCALATION**



**FIGURE 15: THREE LINES OF DEFENCE MODEL**



# Our reporting structure

Channel Infrastructure's management closely considers climate change issues in ongoing optimisation of financial and operational performance, as well as planning for future growth and diversification of the Company's business through the decarbonisation of New Zealand's economy.

The climate-related risks identified through our enterprise risk management system include mitigants and controls that are reviewed and approved by the Corporate Lead Team and then sent to the Board for endorsement. The Corporate Lead Team is responsible for proposing targets to the Board and then achieving those that are approved. The Corporate Lead Team approves the portfolio of climate change programmes to achieve targets and assigns management accountability for implementation. This includes the day-to-day responsibility for implementing the Company's commitments to addressing climate change.

The Company has an integrated approach to business planning and risk management in place, as outlined in Figure 16.

Apart from our existing risk management framework, there are no specific tools through which the Board exercise accountability for management's implementation of climate-related policies, strategies, and targets. We acknowledge the consideration of climate-linked performance and remuneration within our People and Culture Committee Charter with the intention to further explore related performance targets in upcoming disclosures.

**FIGURE 16: INTEGRATED APPROACH TO RISK MANAGEMENT**



# Climate change risks and opportunities

## Identifying our climate risks and opportunities

In line with the Aotearoa New Zealand Climate Standards (NZCS1-3), we have summarised the climate-related risks and opportunities considered relevant to our business in Table 5 on page 66. Risks and opportunities have been considered across three future time horizons:

- Short-term to 2030
- Medium-term to 2050, and
- Long-term to 2100.

The climate-related risks identified through our enterprise risk management system include mitigants and controls that are reviewed and approved by the Corporate Lead Team and then sent to the Board for review and approval. The Board exercises accountability for management's implementation of climate-related policies, strategies, and targets through the existing enterprise risk management framework and monthly performance reporting.

With the introduction of the new Aotearoa New Zealand Climate Standards, Channel Infrastructure has completed a specific climate change physical and transition risk assessment, in conjunction with an impacts and opportunities assessment, to further consider climate-related risks to Channel Infrastructure's operations and people.

Throughout our risk assessment processes we have considered the risk (transition or physical), its potential impact, and associated business assets or activities which could be vulnerable to each risk. For our current identified impacts please refer to current climate-related impacts on page 37.



Ship berthed at Marsden Point discharging imported cargo of transport fuels

## Direct physical risks

The following direct physical risks were identified through a series of workshops, leveraging an independent consultancy assessment of climate change risks to the Marsden Point site. The risk rating has been assessed, taking into account the exposure, sensitivity, adaptive capability and consequence.

Channel also considered indirect physical risks to the business from climate related impacts. Indirect risks were ranked based on consequence only, as exposure, sensitivity and adaptive capacity are less well understood.

TABLE 5: TOP 10 PHYSICAL RISKS (DIRECT AND INDIRECT)

Risk type	Enterprise Risk Management (ERM)		Potential Impacts and Associated Assets/Activities	Green Light (1.5)			Amber Light (2.6)			Red Light (>3.0)			
	Risk	Assessment		ST	MT	LT	ST	MT	LT	ST	MT	LT	
PHYSICAL RISKS (DIRECT)	Harm to people, assets and environment	Extreme temperatures	Damage to Marsden Point onsite road surfaces (bleeding and melting) in high temperatures, potentially disrupting operations	↓	↓	↓	↓	↓	↓	↓	↓	↓	
			Risk to external Auckland and Northland highways and surrounding Ruakākā, Marsden Point roading from high temperatures, limiting distribution of fuels by road transport and staff traveling to site, impacting operations.	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	Physical risks to assets from climate change	Sea level rise and coastal erosion	Risk to some petrol tanks along NE boundary at Marsden Point site	↓	↓	↓	↓	↓	↓	↓	↓	↓	
			Intense rainfall and flooding	Risk to ground stability along the Marsden Point to Auckland Pipeline due to high rainfall events after a dry period – rainfall induced slip	↓	↓	↓	↓	↓	↓	↓	↓	↓
			Coastal inundation and erosion	Coastal inundation impacting offsite electricity substation (owned and operated by a third party) resulting in loss of power to site	↓	↓	↓	↓	↓	↓	↓	↓	↓
PHYSICAL RISKS (INDIRECT*)	Physical risks to external infrastructure and transport networks from climate change	Intense rainfall and flooding	Risk to Brynderwyns section of SH1, from flooding and slips disrupting supply of chemicals and other critical goods and services to site, impacting pipeline/terminal operations										↓
			Risk to flooding of Wiri terminal with a consequential impact to fuel volumes through the Marsden Point terminal										↓
		Transport networks	Delay in arrival of tankers delivering customers imported fuel to site due to extreme weather events, impacting fuel volumes through Marsden Point terminal										↓
			Risk to fuels distribution by customers to service stations due to severe weather (storms, flooding, landslips), with a consequential impact to fuel volumes through the Marsden Point terminal										↓
	Sea level rise	Risk to Auckland Airport from sea level rise which causes interruption to the airport, and a consequential impact to jet volumes through the Marsden Point terminal										↓	

\* Indirect risks were ranked based on consequence only, as exposure, sensitivity and adaptive capacity are less well understood by Channel Infrastructure.

**Key:**

- ↑ High Risk
- ↓ Medium Risk
- ↓ Low Risk
- ST – short term to 2030
- MT – medium term to 2050
- LT – long term to 2100

In the following table, we outline the business activities undertaken to manage the physical risks identified in Table 5.

**TABLE 6: BUSINESS ACTIVITIES ALIGNED TO THE MITIGATION/MANAGEMENT OF PHYSICAL RISKS**

<b>Physical Risk</b>	<b>Business activities aligned to physical risks</b>
<b>Harm to people, assets, and the environment</b>	We actively plan and prepare for weather impacts on our site and assets with well-developed response systems, coastal erosion management framework and established incident management processes. In recent years we have improved the resilience of our site to severe weather events through investments in our storm-water management systems (including removal of sludge, as outlined on page 82) and dune protection improvements.
<b>Physical risks to assets from climate change</b>	<p>We maintain Material Damage and Business Interruption insurance for property damage and consequential business interruption as a financial mitigation of these risks.</p> <p>In 2023, Channel commissioned a coastal hazards assessment by an independent expert for the Marsden Point site, considering future sea-level rise under climate change warming scenarios. The assessment included coastal erosion and inundation hazard risks, conducted in addition to our scenario analysis (refer to Climate change scenarios (see page 38)). The results of this assessment illustrated that most assets are safe from coastal erosion and inundation risks provided the existing rock revetment is maintained or realigned, with a flood gate mitigating inundation risks. The existing sand dune may require nourishment and/or stabilisation with rock revetment.</p> <p>In 2024, Channel Infrastructure will complete more detailed climate-change modelling and assessment to understand the physical impacts to the Pipeline from a more severe climate change.</p>

## Transition risks

Transition risks are related to the transition to a low-emissions, climate-resilient global and domestic economy, and include policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.

Decarbonisation of the transport sector, which Channel provides the fuel infrastructure to support, will be dependent on the uptake of EV's and continued fuel efficiency improvements for the light vehicle fleet; the development of alternative technologies (such as electric, hydrogen, biofuels and SAF) and improved technologies leading to fuel efficiencies for heavy transport and air travel.

TABLE 7: TOP FIVE TRANSITION RISKS

Risk type	Enterprise Risk Management (ERM)		Anticipated Impacts and Associated Business Assets/ Activities	Green Light (1.5)			Amber Light (2.6)			Red Light (>3.0)				
	Risk	Assessment		ST	MT	LT	ST	MT	LT	ST	MT	LT		
TRANSITION RISKS	Change in demand for our infrastructure	Our infrastructure is bypassed because of a material reduction in liquid fuel demand in Auckland/Northland	Accelerated EV and green hydrogen uptake results in faster decline in diesel and petrol volumes impacting utilisation of our infrastructure.			↓	→	↑	↓	→	→	↓	↓	↓
	Access to capital	Inability to access funding due to poor financial and/or operational performance, breach of compliance obligations, or climate change	Insurance companies reduce capital availability due to climate change impacts, increasing the risk that Channel must self-insure some or all of its assets.	↓	↓	→	↓	→	→	↓	→	↑		
			Availability of capital reduces, as banks and investors align their lending and investment with Net Zero 2050 targets, potentially limiting Channel's growth aspirations.	↓	↓	↓	↓	→	→	↓	↓	→		
Policy change	Changing political attitudes to fuel security and meeting global climate change emissions targets	Supply and demand dynamics become volatile due to disparity in climate change response across developing and industrialised nations, impacting the availability and affordability of fuel (and consumer purchasing decisions in New Zealand).	↓	↓	↓	↑	↑	↑	→	→	→			
		Unpredictable carbon price impacts and NZ ETS constrains emissions intensive organisations. This may result along our value chain (linked to customer emissions), including indirect impacts if our customers in the fossil fuel sector experience financial stress.	↓	↓	↓	↓	→	↑	↓	↓	↓			

Key:  
 ↑ High Risk      ST – short term to 2030  
 → Medium Risk    MT – medium term to 2050  
 ↓ Low Risk        LT – long term to 2100

## Opportunities

There is opportunity for the Company to grow and diversify while at the same time, contributing to New Zealand’s wider decarbonisation efforts. A growing range of transport fuels and energy choices will require infrastructure to support lower emission, secure energy transport. Channel Infrastructure has a central role to play providing resilient infrastructure for a decarbonising world – keeping energy available when it is needed.

TABLE 8: TOP FIVE OPPORTUNITIES

Driver		Drivers and anticipated impacts	Green Light (1.5)	Amber Light (2.6)	Red Light (>3.0)
Supporting New Zealand’s demand for transport fuels (renewable and non-renewable)	Population change	Population growth towards the middle of the century, resulting in increased demand for transport fuels and therefore increasing the utilisation of CIL’s infrastructure. The scale of this opportunity, will be dependent on the speed of transition to lower carbon land transport fuels. Jet fuel volumes are anticipated to grow due to New Zealand’s remote location and ensuring connection for the growing population to the rest of the world.	–	+	★
	Development/adoption of new transport fuels technology	High cost of new technology may slow decarbonisation, including the transition of the heavy transport fleet from fossil diesel to green H2.	–	+	★
	Development/adoption of new liquid transport fuels technology	Policy and regulation changes provide business growth opportunities aligned to decarbonisation of New Zealand’s fuel supply chain. Technological advancements in the manufacture, transport and end-uses of lower carbon fuels may accelerate their uptake across the New Zealand economy (e.g. SAF). This represents a sustainable growth opportunity for Channel to diversify our role as a provider of critical energy services to the economy.	★	+	–
Innovation of new technologies and service diversification	Development/adoption of new transport fuels technology	As New Zealand tackles the challenge of decarbonisation, new markets for low or zero carbon fuels and associated storage and infrastructure requirements are expected to evolve and grow, providing an opportunity to diversify Channel’s core business. Second-generation bio-fuels and e-fuels (including SAF) can be stored and distributed using our existing infrastructure.	★	★	–
Increased Domestic Stockholding/storage	Government priorities – fuel security/resilience and climate reduction targets	Channel infrastructure has significant unutilised tank capacity which could provide additional fuel storage in country, increasing fuel security and resilience to supply disruption (including from geo-political issues). Marsden Point can also support larger shipping vessels, providing opportunity for customers to lower upstream emissions intensity and further improve supply chain efficiency of delivered fuel.	–	+	★

Key: ★ Significant + Important – Lower

## Business activities aligned to transition risks and opportunities

Channel Infrastructure's strategic framework, set out on page 32, includes a strategic imperative to "grow through supporting the energy transition".

Opportunity	Business activities/assets aligned to transition risks and opportunities
<b>Supporting New Zealand's demand for transport fuels (renewable and non-renewable)</b>	We are in discussions with our customers on the potential use of our strategic infrastructure to enable the receipt, storage testing and distribution of lower-emissions fuels. This includes considering opportunities to increase scale as demand and available supply grows. We have already processed a shipment of SAF through our infrastructure as part of a trial for Air New Zealand.
<b>Innovation of new technologies and service diversification</b>	We are currently working with Fortescue to study the feasibility of eSAF production at Marsden Point for domestic consumption.
<b>Increased domestic stockholding/storage</b>	With New Zealand's import supply chain, resilience comes from our domestic capacity to identify and deal with supply chain disruptions. We are committed to supporting our customers and the New Zealand Government with their efforts to provide a resilient fuel supply chain for New Zealand and have offered additional product storage in country to meet strategic storage and minimum stock holding obligations.

### Sustainable aviation fuel

Refer to case study on page 104.

### Security and quality of supply

Refer to case study on page 108.

In addition to the specific business activities outlined above, we will continue to:

- monitor domestic and international technology developments which may represent commercially attractive opportunities for our business over the longer-term, and
- work closely with our investors, iwi and local community, and other stakeholders to better understand their expectations on climate change-related matters.

## Capital deployed towards climate risks (physical and transition) and opportunities

Channel has a clear investment criterion for all growth opportunities and that is to only invest in projects that generate returns above our Weighted Average Cost of Capital and projects underpinned by contracted revenues.

From a risk management perspective, Channel will invest to mitigate risks (including climate related), in line with our risk tolerance.

We will use the Emissions Trading Scheme New Zealand emissions unit (NZU) price to align to New Zealand's current state and inform our strategic development projects at the point in time of auction results and project inception<sup>1</sup>. To ensure we continue to remain aligned to a net zero Scope 1 and 2 emissions<sup>2</sup> trajectory, we also consider the Climate Change Commission (CCC) recommended auction reserve prices as a basis for understanding NZU pricing mechanisms required to incentivise changes in consumer behaviour, and investments required to meet national climate targets.

From a risk management perspective, Channel will invest to mitigate risks (including climate related), in line with our risk management framework.

As an example, in 2023 we invested resource into the the following climate risks and opportunities:

Risk/Opportunity	Business Activity	2023 Resource Allocation/Investment
<b>Harm to people, assets, and the environment</b>	Cleaned the storm water systems, removing over 200 tonnes of sediment and sludge, to further improve our ability to respond to significant rainfall events.	Spend of c.\$820K on these activities.
	Completed a coastal hazards assessment for the Marsden Point site.	
<b>Innovation of new technologies and service diversification</b>	Provided support to Fortescue in relation to the scoping study and pre-feasibility phase of the potential hydrogen and eSAF project.	Support hours provided (not measured).
<b>Increased Domestic Stock holding/storage</b>	Commissioned an additional c. 45 million litres of jet fuel storage at Marsden Point, more than doubling on-site jet fuel storage through the import terminal conversion programme. This aligns with our expectation that sustainable aviation fuel, blended with traditional jet fuel will be a long term enabler of the decarbonising of aviation.	The jet fuel tanks were converted from crude oil storage in the last 18 months as part of the \$45-\$50 million project to deliver c.100 million litres of additional storage capacity.
	Entered into a new storage contract (c.\$9 million of additional revenue across 10 years from 2024) and increasing domestic stockholding, increasing supply chain resilience.	Minimal incremental growth capital expenditure.

<sup>1</sup> The average secondary market closing price across the four auctions for 2023 was NZ\$67.15, ranging between NZ\$57.25 - NZ\$75.85 per NZU

<sup>2</sup> Refer to page 77

# Our 2023 performance





# Environment



## Objective

We are committed to maintaining a high standard of environmental performance and to reducing our impact on the environment in which we operate.

Our environmental commitments extend beyond carbon emissions to include waste, waste water, bio-diversity, land contamination and coastal erosion.

We seek to:

- Reduce our carbon footprint, build resilience to climate change risks, and, where possible, to responsibly contribute to achieving New Zealand and global decarbonisation targets,
- Act as responsible managers of the land and coastline upon which we operate,
- Utilise our strategic infrastructure to support others, particularly through innovation in the energy and fuels sector, to reduce carbon emissions,
- In addition, we will report on our climate approach, progress and performance in compliance with the Aotearoa New Zealand Climate Standards (NZCS1-3) each year.

## Sustainable Development Goals (SDGs)<sup>1</sup>

Reducing impacts on the environment in which we operate is an intrinsic part of our care value, and our good neighbour, good citizen pillar within our refreshed strategy.

We acknowledge this is a critical responsibility upon poupuwhenua here, at Marsden Point, and we acknowledge the links we have in our current performance in this area with the UN SDGs, as outlined in the following table.

Sustainable Development goal	SDG Reference	Our Contribution
	15.8 By 2030, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	Funding research with iwi for pest control of Mediterranean fan worm.

<sup>1</sup> The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership.

# Our 2023 environmental performance at a glance

## 2023 performance highlights



**4,037**

tCO<sub>2</sub>e Scope 1 & 2 emissions in FY23<sup>1</sup>



**73%**

Reduction in FY23 water consumption from FY22, saving c.600,000 m<sup>3</sup> of water



**Over 1,099**

Tonnes of decommissioned metals sent for recycling in FY23

<sup>1</sup> Refer to page 79

## Delivery against 2023 focus areas

2023 Focus Area	Our Performance
Assess physical impacts from a 4°C global warming scenario	Physical risks to our Marsden Point site have been assessed out to 2080 as low to medium in the majority of cases with only simple mitigations being required. Having completed the assessment for the Marsden Point site we are now assessing physical risks for the Pipeline.
Extend our climate change reporting disclosures in accordance with XRB requirements	This report is prepared in compliance with the Aotearoa New Zealand Climate Standards.
Work with customers on Scope 3 emissions	Fortescue study into production of eSAF in pre-feasibility phase.
Continue programme of groundwater remediation	Groundwater monitoring and remediation continued throughout 2023 in line with the site resource consent.
Increase reliability of groundwater network by implementing improved asset maintenance strategies	In 2023 we increased our groundwater system reliability to >98% through the implementation of an improved preventative maintenance programme.
Establish pathway for 20% reduction in waste to landfill	Under development, now scheduled for delivery in 2024.
Expand our environmental pest control by supporting Mediterranean Fan Worm Research	We have funded work with our Iwi partners to trial fan worm eradication, as outlined on page 91.

## Additional data

Data tables, summarising our environmental performance over the last five years against a range of metrics can be found in the Appendix on page 110.

# GHG emissions

## A material topic

Management of regulatory risks, environmental compliance, and reputational risks and opportunities, as they relate to Scope 1, 2, and 3 GHG emissions.

## Our performance in detail

Channel measures its Greenhouse Gas (GHG) emissions in accordance with the global standards established in the Greenhouse Gas Protocol<sup>1</sup>, which recognises three categories of emissions as set out in Figure 17.

In accordance with the GHG Protocol Corporate Value Chain Scope 3 Accounting and Reporting Standard category boundaries, emissions associated with the refined transport fuels that Channel stores and distributes but does not own or sell to the end user<sup>2</sup> are not a Channel Scope 3 emission. However, Channel supports the goal of decarbonisation of the transport fuels value chain in New Zealand.

End user emissions are emissions (upstream and downstream) that result from the end use consumption (combustion) of transport fuels that Channel distributes via its owned and operated infrastructure, but does not take ownership of and therefore does not own or sell to the end user. Refer to Figure 18, NZ's transport fuels supply chain via Marsden Point.

In FY23, being our first year of reporting in accordance with the Aotearoa New Zealand Climate Reporting Standard, we report Scope 1 and 2 emissions<sup>3</sup> only.

FIGURE 17: SCOPE 1, 2 AND 3 EMISSIONS

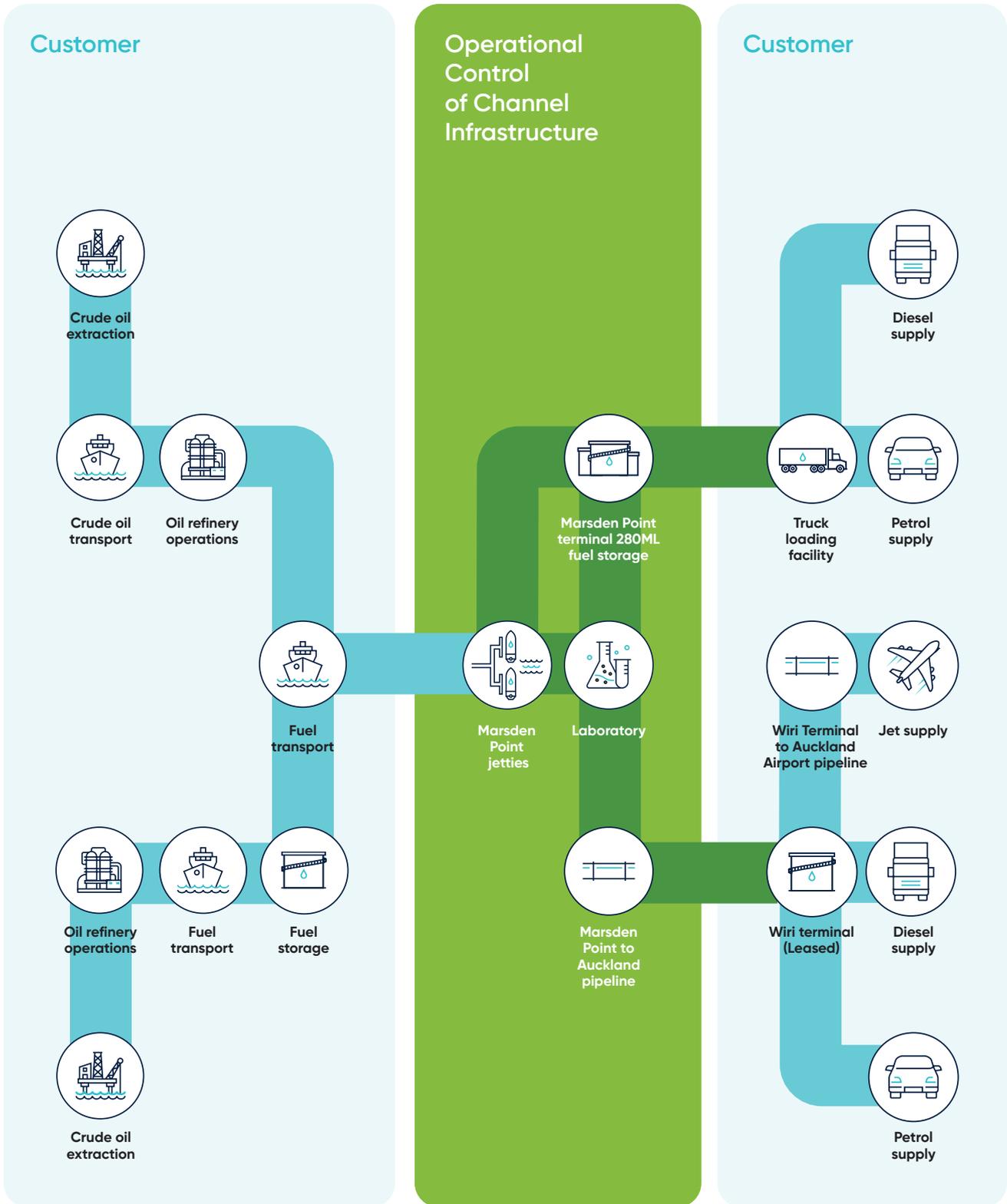


<sup>1</sup> Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) (the GHG Protocol).

<sup>2</sup> Channel distributes transport fuels by the Marsden Point to Auckland pipeline, Marsden Point Jetty and pipeline to the Truck Loading Facility (adjacent to the Marsden Point site), but does not import, own or sell any of the fuels

<sup>3</sup> As per Adoption of Aotearoa New Zealand Climate Standards (NZ CS 2), Adoption provision 4: Scope 3 GHG emissions

FIGURE 18: NZ TRANSPORT FUELS SUPPLY CHAIN VIA MARSDEN POINT



## Our 2023 delivery

### GHG emissions

In FY23, Channel reports Scope 1 and 2 emissions only. Although inherently difficult to calculate, we are well advanced in developing the framework for the reporting of Scope 3 emissions from 2024 onwards.

Channel's total Greenhouse Gas Scope 1 and 2 emissions for the year ended 31 December 2023 were approximately 4,037 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e).

SCOPE	PROPORTION OF SCOPE 1 & 2	ELEMENT	2023 tCO <sub>2</sub> e
1	37%	Fuel consumed by stationary and mobile combustion equipment	974
		Wastewater treatment	189
		Fugitive emissions released from transport fuel storage and refrigeration systems	326
<b>Total Scope 1</b>			<b>1,489</b>
2	63%	Purchased electricity	2,548
		<b>Total Scope 2<sup>1</sup></b>	<b>2,548</b>
<b>Total Scope 1 and 2</b>			<b>4,037</b>

1 Calculated using the location method

Channel monitors its GHG emissions intensity by measuring total Scope 1 and 2 emissions per million litres of terminal throughput (tCO<sub>2</sub>e/ML). In 2023, our base year, Channel's emissions intensity was 1.15 tCO<sub>2</sub>e/ML.

## GHG inventory - key details and assumptions

Channel measures its impact and emissions in accordance with the Greenhouse Gas Protocol. Key details are as follows:

Detail	Approach, Assumptions, Basis
<b>Annual measurement period</b>	1 January to 31 December, following our financial reporting cycle.
<b>Base emissions measurement year</b>	FY23: 1 January 2023 to 31 December 2023, being the first full year of import terminal operations.
<b>Base year recalculation approach</b>	In case of structural changes to our business, substantial changes by third parties to emissions factors, or discovery of significant errors or several cumulative errors that exceed a 5% materiality threshold shall trigger a recalculation of the FY23 base year to ensure like-for-like comparisons. Organic growth or decline will not trigger a recalculation.
<b>Assurance</b>	No assurance required in FY23 as per Part 7A of the Financial Markets Conducts Act 2013.
<b>Consolidation approach</b>	Operational control consolidation approach, meaning that the organisational boundary of Channel NZ's GHG inventory is defined by those emissions over which we have operational control (refer to Figure 18).
<b>Organisational boundaries</b>	All of Channel's operating subsidiaries.
<b>Exclusions</b>	The New Zealand Refining Nominees Limited, which Channel had an interest in during the reporting period, is excluded from our emissions inventory. This is because the Company acts as custodian of the assets belonging to the New Zealand Refining Pension Fund, a legacy defined benefit Restricted Workplace Savings Scheme. The Pension Fund is independently governed and is therefore not under direct or operational control of Channel as it does not make the investment decisions for the Pension Fund and the administration of the Fund is carried out by an independent third party.
<b>Gases included in the inventory</b>	All seven greenhouse gases under the Kyoto Protocol: carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF <sub>6</sub> ), and nitrogen trifluoride (NF <sub>3</sub> ).
<b>Emissions factors</b>	<p>Emissions factors used in Channel's inventory are based on the latest factors deployed by:</p> <ul style="list-style-type: none"> <li>Ministry for the Environment (MfE), Measuring Emissions: A guide for organisations – 2023 Detailed Guide</li> <li>Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW) Australian National Greenhouse Account Factors (August 2023)</li> </ul> <p>And in the absence of emissions factors in these documents, relevant sector information is utilised:</p> <ul style="list-style-type: none"> <li>Market Economics Limited, research report prepared for Auckland Council – Consumption Emissions Modelling (March 2023) (for Scope 3 spend-based methods)</li> <li>BRANZ CONSTRUCT v3.0 Report – (emission factors for Scope 3 Purchased Goods).</li> </ul>
<b>Global Warming Potential (GWP)</b>	We use the GWP value from the sources above. These have been disclosed as GWP100 from the IPCC AR5 (MfE, 2023; DCCEEW, 2023) other sources used do not disclose the GWP used.

## Data collection methodology

The data collection methodology including data source, uncertainties, and assumptions inherent in the calculation of Channel's GHG emissions is detailed in the Appendix on page 112. Greenhouse Gas emissions reported for the year ended 31 December 2023 (Scope 1 and 2) were sourced from our Finance, Procurement, Operational records, and suppliers/service providers.

## Targets

In our first Sustainability Report released in April 2022, the Company set a “Net Zero” target as part of our Transition Roadmap<sup>1</sup>. As we transitioned from refining to import terminal operations, we made a commitment to achieve net zero Scope 1 and 2 emissions (absolute) by 2030.

With the business transition complete (resulting in a greater than 98% reduction in scope 1 and 2 emissions (over 1 million tonnes of CO<sub>2</sub> per annum)), our direct emissions are now primarily from electricity consumption and the use of fuel for vehicles and equipment on site.

**We reconfirm the commitment made in 2022, to achieve net zero Scope 1 and 2 emissions by 2030<sup>2</sup>.**

In 2023, we further reviewed the opportunities to achieve our commitment. Our emissions reduction plan now includes a new renewable electricity supply contract<sup>3</sup> which came into effect on 1 January 2024, operational improvements, and the use of high-quality offsets where emissions reductions are not otherwise possible. This net zero target supports the contribution Channel makes to limiting planetary warming to 1.5°C, in line with the Paris Agreement. This target relies on the use of Energy Attribute Certificates (EAC's) issued by the New Zealand Energy Certificate System to reduce Scope 2 emissions, which are currently considered hard to abate. Technological innovations and scalable disruptions to existing energy options are needed to replace carbon consumptive materials such as fossil diesel for low-carbon biogenic diesel fuel.

In FY24, our customers will remove their residual crude oil slops (ex the refining process), eliminating the Scope 1 fugitive emissions from crude tanks (refer to Appendix 3: Climate change & GHG emissions).

Based on these initiatives and other emissions reduction plans we have in place, next year, we expect to reduce our FY23 Scope 1 and 2 GHG emissions by c.50%.

<sup>1</sup> Refer to 2021 Sustainability Report, “Our transition to a sustainable future”, available at: [www.channelnz.com](http://www.channelnz.com)

<sup>2</sup> This absolute target is based on the application of a market based approach in respect of Scope 2 emissions.

<sup>3</sup> In 2023, the Company entered a long-term fixed price variable volume contract for the supply of renewable electricity from 1 January 2024. The electricity supply arrangements under this new contract include Energy Attribute Certificates, certifying that electricity has been generated from renewable sources. Refer to NZX announcement dated 16 June 2023: Channel secures long-term renewable electricity supply - NZX, New Zealand's Exchange.

# Infrastructure resilience and physical impacts of climate change

## Material topics

Ability to manage risks and opportunities associated with direct exposure to actual or potential physical impacts of climate change.

Ensuring our infrastructure is resilient to environmental changes.

## Our 2023 delivery

### Preparing for extreme weather events

We actively plan and prepare for weather impacts on our assets and operations, with well-developed response systems, coastal erosion management framework and established emergency response and incident management processes.

In recent years, we have improved the resilience of our site to severe weather events through investments in our storm water management systems and dune protection improvements. In 2023, we cleaned the storm water systems, removing over 200 tonnes of sediment and sludge, to further improve our ability to respond to significant rainfall events. The resilience of our operations through cyclone Gabrielle and severe weather in 2023 demonstrate the effectiveness of these measures and our emergency preparedness.

### Infrastructure resilience

Refer to the case study on page 105

### Climate change risk assessment

In 2023, we undertook work to assess site resilience to potential warming scenarios to inform a range of short and long-term coastal erosion and inundation management options for inclusion in our Asset Management Plans. This work has assessed the risks to our site as low to medium until at least 2080 in the majority of cases with implementation of simple mitigations. For further detail on the climate change physical risk assessment, refer to Climate change risks and opportunities (see page 65).

## Coastal erosion management strategy

Recent studies have observed and confirmed evidence of erosion at the coastal site boundary, and identified the future possibility of ongoing erosion events as a result of climate change. This includes storms and tsunami aggravated by sea level rise and changing weather patterns. Our erosion management strategy aims to manage the dynamic coastal environment in which we operate in a way that not only provides resilience to our nationally significant infrastructure, but also recognises the wider social, cultural, and environmental considerations.

Our coastal erosion strategy includes monitoring of the dunes of the coastal foreshore to track movement or recession over time. Our mapping, along with information from the Northland Regional Council, has been used to predict and track expected retreat of the dunes over the next 35 to 50 years so that we can make the necessary investments to manage the potential retreat from land that is most at risk of weather-related impacts over this time.

The erosion studies were expanded in 2023 to include assessments for climate warming scenarios including a 4°C warming case, assessing the risk to at least 2080 as low to medium in the majority of cases, with only simple mitigation required. The output of this work is being incorporated into our long-term strategic asset management plan to ensure necessary mitigations are planned to maintain long-term resilience of our infrastructure.

In addition, we are developing a Coastal Landscape Management Plan in conjunction with our iwi partners, which will, among other things, include dune planting to improve dune resilience to erosion events.

# Land, waste and water

## A material topic

Efficiency of water resource usage and management of waste water treatment and managing existing site contamination to reduce this over time.

## Our 2023 delivery

Our environmental management systems include monitoring of our discharges to air and water, soil and groundwater management, awareness and permit to work controls, as well as a zero spill target and prompt cleaning and remediation, as far as possible, of all leaks or spillage if this is not achieved. More information on our environmental management systems can be attained on the Environment section of our website at [www.channelnz.com](http://www.channelnz.com).

## Refinery decommissioning

Permanent decommissioning of the refinery process plant was completed in 2023. The decommissioned plant has been left in a safe state that will allow us time to explore options for future repurposing of these parts of the site.

### Groundwater remediation

The Company is obliged under its resource consents, obtained in April 2021, to continue maintaining the current level of environmental standards. Environmental measures at Marsden Point include operation of a groundwater hydraulic containment system and hydrocarbon recovery program reducing the extent of legacy contamination over time as part of the ongoing remediation of the ex-refinery site. The Company has recognised a liability in respect of this on-going obligation, as set out in note 14 to the FY23 Financial Statements.

As a condition of the resource consent, Channel Infrastructure has also committed to work with the Northland Regional Council ahead of time (during the 20th year of consent or at least 12 months prior to the cessation of terminal operations) to set out the actions necessary to maintain compliance for the discharges of contaminants. Given the unknown nature of the future activities that may be agreed with the Northland Regional Council, no liability has been recognised in the Consolidated Balance Sheet other than the cost associated with ongoing environmental monitoring activities over a period of 20 years.

### Potential sale of decommissioned assets

In July 2023, Channel entered into a conditional agreement with Seadra Energy Incorporated (SE) under which SE is granted an option to purchase permanently decommissioned parts of the former refinery. Under the current agreement, SE has until 7 July 2024 to confirm whether it will proceed with the purchase of assets from the former hydro-cracking complex for a total price of US\$33.875 million, including non-refundable option payments amounting to US\$4.5 million, but excluding any transaction costs.

Should SE choose to proceed with the purchase, this agreement provides an opportunity for Channel to free up space on our Marsden Point site, allowing us to consider repurposing opportunities, such as the potential manufacture of green hydrogen and eSAF at Marsden Point. Refer to Case Study: Sustainable aviation fuel (see page 104). These site repurposing opportunities have the potential to contribute to New Zealand's wider decarbonisation efforts and energy transition, and bring the potential for new jobs for Northlanders.

## Circularity

Throughout the company's transition, it has been a priority to reuse and recycle as much equipment as possible and to minimise the waste that is sent to landfill.

Through the decommissioning project, we have focused on recycling or reusing redundant plant and materials removed from the refinery process plant. We continued to build on the prior year's significant achievements and in 2023, we recycled:

- Over 47,000 litres of lube and seal oil as a cost-effective heating fuel,
- 48 tonnes of wood,
- 1,099 tonnes of metal, which was a mixture of steel, stainless steel, aluminium, bronze and mixed metals, and
- Over 1.14 tonnes of cardboard.

Among other general recycling initiatives, Channel is working to implement processes around the recycling of used Personal Protective Equipment, reducing water usage, and increasing recycling of plastic and metals, particularly in Independent Petroleum Laboratory (IPL), who are high users of both plastic sample bottles and metal sample tins.

## Water usage

As a result of the transition to import terminal operations our site water consumption has reduced considerably. Daily water consumption continued to reduce throughout 2023 as decommissioning/conversion activities on site wound down. At the end of 2023, our daily water consumption was around 28m<sup>3</sup> per day, a reduction of >99% on the typical consumption during refinery operations of over 4,000 m<sup>3</sup> per day.

## Our 2024 Environmental focus

In 2024, we will focus on the following:

### Climate change resilience

Assess physical impacts on the Pipeline from global warming scenario

### GHG Emissions

Aim to reduce Scope 1 and 2 emissions by 50% from the 2023 baseline

### Groundwater

Continue program of groundwater remediation

### Scope 3 GHG Emissions

Complete Scope 3 emissions inventory and report in the 2024 Sustainability Report

### Waste

Complete plan to achieve a 20% reduction in waste to landfill

# People and community



## Objective

Our commitment is to get 'Everyone Safely Home, Every Day' and actively value and protect the physical and mental health and safety of all those who come to our site, be they permanent employees, contractors, or visitors.

We aim to:

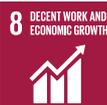
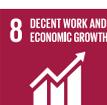
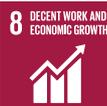
- Be a good neighbour and corporate citizen,
- Partner with local iwi, hapu and community in impactful ways, and
- Attract, support, and maintain a diverse workforce and healthy working culture.

## Sustainable development goals

The safety of our workplace and the health and well-being of our people are an intrinsic part of our care value, which sits at the heart of the on-site culture.

We acknowledge this is a critical responsibility and that our operations contribute to the welfare of our people and the surrounding communities. This responsibility is grounded in the United Nations' Guiding Principles on Business and Human Rights (UNGP) and the UN SDG 3 Good Health and SDG 8 Decent Work and Economic Growth.

We recognise our direct links to the SDGs sub targets where relevant under each of our selected goals. Our contribution to UN SDG 5 Gender Equality should be considered with reference to international instruments including the UN Convention on Discrimination Against Women and the UN LGBTI Standards of Conduct for Business. The table on page 87 highlights how we are contributing to the relevant SDG's.

Sustainable Development Goal	SDG Reference	Our Contribution
	<p>3.4 By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</p>	<p>Benestar Employee Assistance Program, Critical Incident Response, and Development.</p>
	<p>5.1 End all forms of discrimination against all women and girls everywhere</p>	<p>Parental leave policy updates to support a more balanced approach to primary care giving. Focus on reducing the gender pay gap.</p>
	<p>5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</p>	<p>Establishment of a women's CEO forum to raise and address workplace issues specific to women.</p>
	<p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p>	<p>Updates to contractor working policy and all new contracts to meet the living wage. In conjunction with Northable, exploring opportunities for a neuro diverse workforce.</p>
	<p>8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training</p>	<p>Apprenticeship /internship opportunities to encourage youth employment.</p>
	<p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</p>	<p>Pay equity and living wage. Modern Slavery Policy.</p>

Channel Infrastructure's specific values and commitments are detailed in our Diversity and Inclusion Policy (available on the website under Governance).

# Our 2023 people and community performance at a glance

## 2023 Performance highlights



**99%**

Of our people affected by the closure of the refinery since 2022, supported into their next opportunity within six months, exceeding our target of 90%



**33%**

Of the corporate and senior leadership team identify as female (2022: 36%)



**\$1.2 M**

Paid to employees as redundancy and entitlement benefits in 2023 (2022: \$29 M), to help support our people during the refinery closure

## Delivery against 2023 focus areas

2023 Focus Area	Our Performance
<b>Maintaining safe and reliable terminal operations</b>	Excellent overall leading and lagging performance with important learnings from the API Tier 1 event embedded in our systems.
<b>Embedding the new safety and compliance management systems</b>	New permit to work and lock-out-tag-out systems implemented along with our new compliance management system.
<b>Ensuring that at least 90% of the staff who will exit in 2023 find new opportunities within six months of leaving the business</b>	99% of staff who left the business since 2022 found new roles within six months.
<b>Building capability of all staff through comprehensive personal development plans and systems and competency targets</b>	We focused heavily on helping staff understand their new roles with the business. Performance and Development Plans were a key way to communicate accountabilities and responsibilities and to identifying development gaps and opportunities.
<b>Future proofing our workforce through employee upskilling and development</b>	We continue to identify and work on upskilling our staff in areas that we see as core to the business.

## Additional data

Data tables, summarising our people and community performance over the last five years against a range of metrics can be found in the Appendix on page 110.

# Health, safety and well-being

## A material topic

Creating and maintaining a safe and healthy workplace, consistent with regulatory expectations, and one that values employee well-being.

Upholding labour standards and increasing transparency throughout our supply chain to promote a high standard of human rights.

## Our 2023 delivery

Our transition from a refinery to an import terminal created change and uncertainty for many of our team. With many staff continuing to transition from the business in 2023 as conversion works concluded, our continued support into their future employment opportunities and their mental health, has remained a huge focus for the business. Ensuring we have a broad range of mental health support services available continues to be key to contributing to the well-being of our staff.

## "Care" Framework

This framework provides key support services to ensure all employees have access to support for their mental health. Care, an initiative that started as a way of supporting our people during major workforce changes, includes counselling, workshops and well-being initiatives designed to support mental health. A key initiative in 2023 has been our new partnership with employee support provider – Benestar – providing a digital platform with access to a vast library of well-being information along with direct and confidential access to an excellent selection of counsellors to provide support.

## Fatigue Management

Through 2023 we have continued to improve our shift roster system, designed specifically for terminal operations, by incorporating learnings from our early experiences in 2022 and implementing a flexible resourcing model to support periods of additional workload and provide greater flexibility for leave and holidays.

## Health & Safety Leadership Training

A key component of our health and safety culture is strong leadership. In 2023, to support leadership development at Channel, we partnered with Safety Futures for implementation of their Safety Leadership for Supervisors and Managers.

The Safety Futures program, involving our front-line leadership, is based on recognised safety practice and has been successfully applied across a range of industries. Through the training, participants undertake a series of "missions" over a 12-week period, practising the application of a 'Safe System of Work' in their daily work routines. The Safety Futures program has been recently updated based on participant feedback and will remain a key element of our health and safety culture programme for 2024.

## Safety Engagements

Underpinning our safety culture programme are our safety engagements, which are undertaken by people across the business. These initiatives encourage site leaders and workers to engage on safety through on-site visits and toolbox talks based on Channel's critical risks and life-saving rules.

In 2023, over 439 leadership walks were undertaken across the business offering the opportunity for our senior leaders to engage with employees and contractors with monthly themes on compliance with critical safety controls. As we look to 2024, we plan to further improve the effectiveness of safety engagements through applying positive and corrective reinforcement of site procedures during these engagements.

## Total Recordable Case Frequency (TRCF) and Lost Time Injury Frequency (LTIF)

From a personal safety performance perspective in 2023, as we have completed the peak of the conversion project work and worked to embed new systems and practices under terminal operations, we have achieved a pleasing reduction in our recordable and lost time injury rates. Our TRCF and LTIF in 2023 were 0.9 and 0 per 200,000 hours worked respectively. (2022: 1.80 TRCF, 0.77 LTIF).

Notwithstanding the improved performance, the recordable incidents that have occurred have provided important learnings which have been integrated into our health and safety management systems as we continue to strive to always get everyone safely home every day.

# Partnering with local iwi, mana whenua and community

## A material topic

Recognising hapū and iwi responsibilities as mana whenua and kaitiaki over poupuwhenua, the land upon which we stand. Partnering in work to maintain the cultural health of our operational site and the surrounding area, and informing our partners of potential changes and considering their views.

Engaging our local community to partner with the aim to achieve significant impacts and to continue as a responsible corporate citizen and neighbour.

## Our 2023 delivery

We have continued our focus on building strong and enduring partnerships with the kaitiaki (guardians) over the poupuwhenua. We are proud of our work and acknowledge iwi perspectives as we recognise the intergenerational impact our business has had on tangata whenua from our region. We are committed to upholding the principles of Te Tiriti o Waitangi, as we manage the impact of our operations on the site, and harbour at Marsden Point, now and in the future.

We have long-term formal relationship agreements with two of our nearest iwi partners – Patuharakeke and Te Parawhau. This mechanism gives us a framework to work through differences and a way to work together in areas where we share a common interest.

These are living documents that guide the way we work together. This includes regular kanohi ki te kanohi (face-to-face) hui with each iwi partner, and a quarterly joint Mana Whenua Roopu hui, which brings together leadership from the local iwi in our area. We have open lines of communication with iwi, and frequently update them on key business decisions, particularly those in areas of known interest to iwi, such as protecting our environment, and the future use of our site.

Throughout 2023 we have worked in agreement with local hapū on three independent projects:

### Community-based Marine Pest Eradication Plan

Mediterranean Fan Worm (*Sabella spallanzanii*) was first detected in 2008 in New Zealand and has since proliferated throughout our country's harbours and coastlines. These non-indigenous worms out-compete other native taonga species for food and habitat, such as scallops and mussels, forming dense colony clusters of up to 1,000 individuals per square metre.

The cultural and ecological importance of protecting the local coastline and taonga species, is critical for Patuharakeke as kaitiaki over Poupuwhenua. Community-led participation is another key feature of Patuharakeke and Channels Whakawhanaungatanga Roopu which supports effective and enduring environmental action. As a result, Channel has assisted in the development of a hapū led community-based marine pest eradication plan to trial the eradication of the Mediterranean Fan Worm on the surrounding Takahiwai coastline.

### Poupuwhenua Cultural Health Monitoring Program

Hapū recognise the strong links between environmental and ecosystems health to the health and well-being of people, and have long held concerns regarding the impacts of industrialisation on Poupuwhenua, including the potential to diminish the relationship of Māori as kaitiaki of this place. Channel Infrastructure has continued to collaborate with Patuharakeke in undertaking sediment and shellfish sampling on both Marsden and Mair banks Mātaitai area as part of the program of work for both parties to better understand the health of the Mātaitai area and surrounding aquatic systems.

### Iwi consultation on our material issues

Following a significant business transition and shift in stakeholder needs and expectations, Channel engaged with an independent third-party provider to consult with hapū and iwi to better understand the sentiment toward Channel Infrastructure and our updated material issues. Channel plans to provide further ongoing support and undertake projects in areas of importance to Patuharakeke, this includes the exploration of opportunities to develop a presence on-site at Poupuwhenua, Marsden Point.

# Equity, diversity and inclusion

## A material topic

Attracting, supporting, and maintaining a diverse workforce and healthy working culture.

## Our 2023 delivery

As an organisation we are committed to treating everyone with respect and dignity. As part of our 2023 strategy refresh, we have focused on what changes might be required to be a diverse and inclusive organisation.

## Diversity and inclusion

The Company's Diversity and Inclusion Policy guides our recruitment, talent management, performance management, values, and succession planning. Through these principles, we are constantly reviewing and seeking to diversify our workforce as the business grows and changes.

The Company's Diversity and Inclusion Policy also states the Company's definition of diversity, and details what metrics are captured and monitored. These metrics are recommended to the Board by the Corporate Lead Team with the Board annually assessing progress towards diversity objectives while also making any required updates or revisions to the policy.

Rather than setting strict numerical diversity targets, the Company has focussed on non-numerical diversity and inclusion objectives, and it uses the metrics in its Diversity and Inclusion Policy and Appendix 2 to measure its progress towards these objectives. At the end of 2023, Channel had employees from 10 different countries and 9 different ethnicities.

- 43% of the Board identify as female (2022: 43%)
- 33% of the corporate and senior leadership team identify as female (2022: 36%)
- 29% of women employed are in leadership positions (2022: 36%)
- 32% of our employees identify as female (2022: 23%) and 68% as male (2022: 76%) (2022: 1% gender diverse)

Following the significant changes occurring as part of the transition to an import terminal, the Company has considered how to further apply its diversity and inclusion principles to its processes. These steps taken are described here (and Appendix 1 on page 110), together with the Company's focus for 2024.

The Company wishes to improve its gender, age and ethnic diversity so that it better reflects our community, and promotes the benefits of diversity and inclusion referred to in our Policy. Therefore, the steps explained here were implemented with the goal of improving the ability of women and younger people to work at Channel. In our focus for 2024, we continue with our work on gender diversity, but also seek to further build our cultural inclusiveness.

## Early career roles

In 2023 we have increased our overall headcount and brought in new roles that suit early career development. These roles in the laboratory and maintenance team bring in new diversity and build pathways for young people to join the organisation.

## Pay equity and living wage

We are focused on and committed to pay equity, already taking steps to ensure equity for all employees. The gender pay equity gap for the business was assessed at 19% (2022: 16%). The increase is largely driven by the departure of our former CEO, Naomi James, the smaller size of the organisation and the drive to bring women into the organisation, entering into early career roles and operations.

Channel will continue to review and monitor pay equity into the future. In 2023, we formally committed to paying the Living Wage to all staff.

## Parental Leave Policy

In late 2022, the Company approved its Paid Parental Leave Policy which provides enhanced entitlements to eligible employees which are not available under current legislation.

The Paid Parental Leave Policy focuses on supporting permanent employees and their family's well-being, throughout the parental leave journey. In 2023, two of our employees were offered support under the Policy. Refer to case study on page 109. In-line with our overall Company principles, the Policy also provides an employee benefit that supports retirement planning and financial security.

## Human Rights

Modern slavery is a key human rights risk, both in operations and in supply chains. Channel Infrastructure is committed to being a responsible corporate citizen and to maintaining high standards in all of the work that we do. Channel will not tolerate any form of modern slavery in our business, including those we do business with. On 23 February 2023, we approved our formal policy on modern slavery. The policy is available on our [website](#).



Our people enjoying the 2023 Christmas luncheon

## Our 2024 people and community focus

In 2024, we will focus on:

### Continue to build employee value proposition - 'whole of life' view

Focused development of our women leaders

Flexible working arrangements

CEO women's forum to discuss issues specific to women

### Developing our Māori whanau

Develop cultural capability of our leaders

Support of tikanga on site e.g. site hāngi, karakia

### Partnerships to grow capability

Iwi scholarships and leadership training

Internships for neurodiverse young people entering the workforce, in conjunction with Northable



Preparations underway for the 2023 site hāngi



# Governance and finance



## Objective

We commit to:

- Seeking to be open and transparent and acting in the best interests of our shareholders.
- Supporting our customers and the New Zealand Government with their efforts to provide a resilient fuel supply chain for New Zealand.
- Operating our critical infrastructure safely and reliably over the long-term, and as the transition to lower carbon fuels continues, to help ensure that transport fuels are affordable and available when needed.

## Sustainable Development Goals

We understand the importance of a strong governance and financial foundation through which we build our organisation's growth and resiliency to provide the critical infrastructure and security of supply needed to successfully transition to a low-carbon economy.

We illustrate our direct contributions to the SDGs through SDG 9 Industry, Innovation, and Infrastructure. Our selected goal links to the strategic opportunity for Channel to support the energy transition and keep New Zealanders moving.

### Sustainable

Development Goal	SDG Reference	Our Contribution
	9.1 Develop quality, reliable, sustainable and resilient infrastructure, support economic development and human well-being, with a focus on affordable and equitable access for all	Completed first iteration of the asset management plans for our assets to manage infrastructure resilience.
	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.	

# Our 2023 Governance and finance performance at a glance

## 2023 Performance highlights



### First

Strategic asset management plan prepared and independently reviewed



### 45ML

Additional jet fuel storage commissioned, more than doubling Marsden Point jet storage through the conversion project

## Performance against 2023 focus areas

2023 Focus Area	Our Performance
Complete Fortescue study (2 <sup>nd</sup> phase) on hydrogen production	The second phase of the study was completed in July 2023 and the project has now progressed to the pre-feasibility phase.
Continue to assess Sustainable Aviation Fuels options at Marsden Point	The Fortescue green hydrogen project progressed from scoping to pre-feasibility phase.
Completed the first iteration of the terminal asset management plan	Channel's first strategic asset management plan was independently reviewed and finalised in quarter 4 of 2023.
Transition of primary emergency response capability to external agencies	Responsibility for emergency response passed to the Terminal Operations team with emergency services team support until upgrades to the firefighting systems are complete.
Optimising preventative maintenance programmes and maintenance execution model	In 2023 we achieved our target preventative maintenance level of 60% and increased our campaign maintenance execution to a completion rate of 83%

## Additional data

Data tables, summarising our governance and financial performance over the last five years against a range of metrics can be found in Appendix 2: Summary data tables.

# Asset and life-cycle management

## A material topic

Ability to manage infrastructure and operational asset life-cycle risks.

## Our 2023 delivery

With the effective completion of the refinery decommissioning, the business has been equally focused on establishing new systems and processes to manage the life-cycle of the company's critical assets. Channel's Strategic Asset Management Plan (SAMP), which was developed by drawing on support from external experts, outlines over the long-term, the way the business will manage asset design, construction, operation,

maintenance and disposal. The objective of the SAMP is to seek the optimal lifecycle cost while maintaining the resilience and performance required to support our critical infrastructure operations.

A key output of this work is our long-term funding plan mapping out the asset investments needed to support business objectives through our budgeting process. Channel's SAMP project is a key work-stream for the Board's HSEO Committee.



Terminal operator preparing a fuels sample for quality testing by Independent Petroleum Laboratory

# Security and quality of supply

## A material topic

Supporting the delivery of reliable, high-quality fuel by our customers to accommodate changing needs and to maintain their competitiveness.

## Our 2023 delivery

Having safely transitioned our operations in 2022, our focus for 2023 has been to embed the high standard of operational discipline needed to sustain safe and reliable terminal operations. This has included a peer review of our safety management systems by Australian terminal operator ATOM along with independent benchmarking of our operations. Insights from these assessments are being implemented through our world-class operations strategy alongside our H&S Leadership training programme with Safety Futures.

## Safety Case

Our comprehensive Safety Case for terminal operations was accepted by WorkSafe in 2022 and we continually update and improve the Safety Case to reflect changes in our operations. For more detail, refer to our Safety Case Summary available on our website. ([www.channelnz.com](http://www.channelnz.com)).

## Tier 1 and 2 Process Safety Incidents

During 2023 we had one API Tier 1 process safety incident relating to a leak from a 60-year-old pipe. Whilst the leak was contained within the site drainage systems and did not escalate, the incident has provided important learnings which have been incorporated into our site integrity management systems and emergency response plans.

## Emergency Response Training

During 2023 we have completed a broad range of emergency exercises and emergency response training. This included training of terminal operations staff on terminal emergency response procedures, multi-agency exercises and training with Fire and Emergency NZ to test terminal emergency and incident management procedures, and oil spill response training for all terminal operations staff, including an oil spill response exercise in conjunction with Maritime NZ and Northland Regional Council. Through our transition programme we are making considerable investments in emergency response equipment, facilities and training so that we are well placed to respond to emergency situations that may arise at Marsden Point, until emergency response agencies arrive.

## Pipeline Integrity Management

As part of the pipeline integrity management process, in 2022 we completed a full inspection of the pipeline using an intelligent pipeline inspection gauge (or PIG) with results indicating that the pipeline remains in very good condition. The results of these five-yearly inspections are fed in to our proactive maintenance programme to address identified corrosion.

A focus for the Channel team in 2023 was to ensure the pipeline continued to operate reliably through, and following, severe weather events including Cyclone Gabrielle. Through the 2023 summer period, we experienced over 400% of normal rainfall which presented, amongst other things, an increase in ground stability risk along the pipeline route. Through the weather events we undertook additional aerial monitoring of the pipeline and were pleased to confirm that there were no significant stability threats to the pipeline resulting from these events. This outcome is the result of comprehensive assessment and works to protect the pipeline from ground stability risks and this work is now being complemented with an assessment of future risks based on climate change scenarios.

## Increasing our storage capacity

Channel Infrastructure is committed to playing its part and investing to support a resilient supply chain. In 2023, the Company commissioned an additional 45 million litres of jet fuel storage, more than doubling on-site jet fuel storage through the import terminal conversion programme.

## Security and quality of supply

Refer to the case study on page 108

## Our 2024 Governance and financial focus

In 2024, we will focus on:

### Site plan

Continue to progress Site Plan for Marsden Point

### Supply resilience

Supporting our customers to meet their obligations under the incoming minimum fuel stockholding policy and submitting to the Government onshore diesel storage tender

### SAF

Continue to work with Fortescue in completing their pre-feasibility assessment

### Emergency services

Transition primary emergency response capability to external agencies, following completion of fire systems upgrade project

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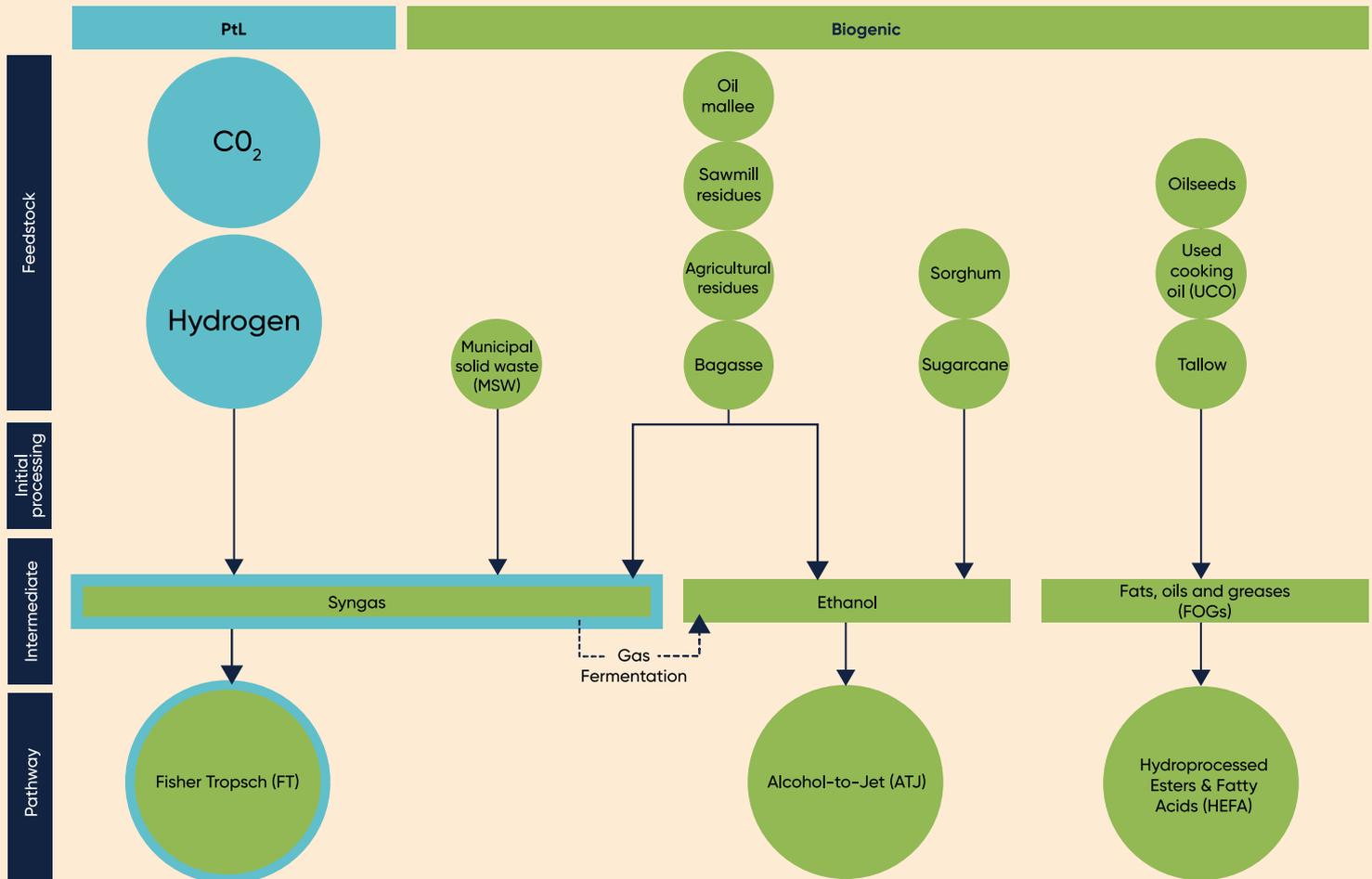


# Appendices



# Appendix 1: Our performance in detail

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Types of SAF : Biogenic and Power-to-liquids

## Sustainable aviation fuel

When we talk about Sustainable Aviation Fuel (SAF) we refer to a group of hydrocarbon molecules that are largely indistinguishable from fossil jet fuel. There are different ways of manufacturing SAF, and there is a range of feed-stocks that can be used. These can be broadly grouped into two classes; biogenic SAF and synthetic SAF. It is expected that both types of SAF will be needed in the future to meet the decarbonisation objectives of the aviation sector.

As part of our site repurposing activities, we are currently working with Fortescue to evaluate the potential to produce synthetic SAF, or eSAF, at Marsden Point by combining renewable, green hydrogen (from water) with carbon dioxide using the Power-to-Liquids technology.

In 2023, following a successful scoping study that assessed the overall viability of producing eSAF for the domestic market at Marsden Point, we announced that Fortescue was progressing its study to the pre-feasibility stage. This will include more detailed engineering and design studies and developing further detail on the economic viability of the project.

The pre-feasibility study will investigate a 300MW, c.60 million litres per-year eSAF production facility at

Marsden Point, with the eSAF to be distributed via the existing Marsden Point-to-Auckland Airport supply chain, as well as further analysis of the project's benefits to New Zealand, including the potential provision of large-scale demand response, enabling electricity to be released to the grid when needed.

Fortescue has signed a Memorandum of Understanding with Air New Zealand to further their mutual interest in investigating eSAF production and eventual use in New Zealand, with the initial focus being on Air New Zealand becoming the foundation customer for eSAF produced through the Marsden Point project once it becomes commercially available and economically viable. Fortescue has also entered into MOUs with Mercury, Manawa Energy, Yinson Renewables and Top Energy to support the provision of renewable electricity for the project.

The pre-feasibility phase of the project is being supported by the government through the Energy Efficiency and Conservation Authority. Underpinning government support is the potential demand response benefits that the facility could provide to the electricity market.



Canals are an integral part of the stormwater network on the Marsden Point site

## Infrastructure resilience

Cyclone Gabrielle, which hit New Zealand from 12-14 February 2023 proved a test of Channel's infrastructure resilience, and we are proud to report that the site, and its assets, including the Pipeline, came through this significant weather event with limited damage and no disruption to fuel supply.

Over the three days of Cyclone Gabrielle, our Marsden Point site received 240mm of rainfall, and overall, the area recorded 400% of normal rainfall over the summer period.

As a lifeline utility, Channel's infrastructure is required to continue operating in the event of a natural disaster, such as a cyclone. That means that the business receives support from civil defence where necessary, and in this case, is able to access advance warning systems such as MetService forecasting and analysis. This early warning system greatly helped Channel to prepare the site and stand up the Incident Management Team (IMT) well in advance of the cyclone's arrival. The IMT made the

decision to clear the site and stop all non-essential work, send non-essential staff home, and prepare the canals, storm-water basin, and waterways for a large amount of rain. All shipping movements were halted by the harbour master, and Channel was able to work alongside its customers and contractors to ensure there would be no impact on fuel supply.

The cyclone, as well as the extraordinary levels of rainfall that Northland experienced throughout 2023 has proven to the business that its investments over the past 10-years' have helped to build resilience to these to the events.

During the cyclone, Bream Bay recorded waves of 11-12 metres and the Marsden Point site lost power, which was quickly restored after less than an hour. Proactive drainage (surface and sub-surface) clearing around the pipeline and earlier investment to improve the waste and storm water network, helped limit impact to the infrastructure.



The Company has taken action to reduce its Greenhouse Gas Emissions

## Greenhouse Gas Emissions

In 2022, Channel Infrastructure set itself the ambitious target to achieve net zero Scope 1 and 2 emissions by 2030 (refer to page 81). At the same time, the Company made the commitment to work alongside its customers to facilitate the use of low-carbon future fuels, by using our strategic infrastructure. This includes considering opportunities to increase scale as demand and available supply grows.

With the closure of the oil refinery in April 2022, the Company's Greenhouse Gas Emissions (Scope 1 and 2) have reduced considerably to 4,037 tCO<sub>2</sub>e in 2023. In practical terms, Channel Infrastructure, has gone from one of the largest emissions intensive businesses listed on the New Zealand stock exchange, to accounting for less than 0.1% of Scope 1 and 2 CO<sub>2</sub> emissions on the NZX50 in FY23.

In 2023, Channel entered a long-term fixed price variable volume contract for the supply of renewable electricity from January 2024 with Energy Attribute Certificates attached. Meeting all our electricity needs

from renewable sources would mean that Channel will have largely eliminated its Scope 1 and 2 emissions from 2024 - some six years ahead of the company's target.

Channel Infrastructure recognises that the fuel and transport sector significantly contribute to climate change and our infrastructure continues to distribute refined oil products. The Company therefore remains committed to supporting the reduction of emissions within the fuels supply chain, being End Users Emissions. Our large storage capacity at Marsden Point is able to support larger shipping vessels, providing opportunity for emissions efficiency of delivered fuel and lower upstream emissions intensity, and we provide our customers with low-emissions delivery of fuel to Auckland.

Over time, we see the mix of transport fuels in New Zealand changing, and renewable fuels are set to make up a far greater proportion of fuels being distributed through our infrastructure. The Company and its critical infrastructure has a key role to play in supporting, and in some cases, enabling this transition.



Laboratory technician at Independent Petroleum Laboratory setting up specialist equipment for fuels quality testing

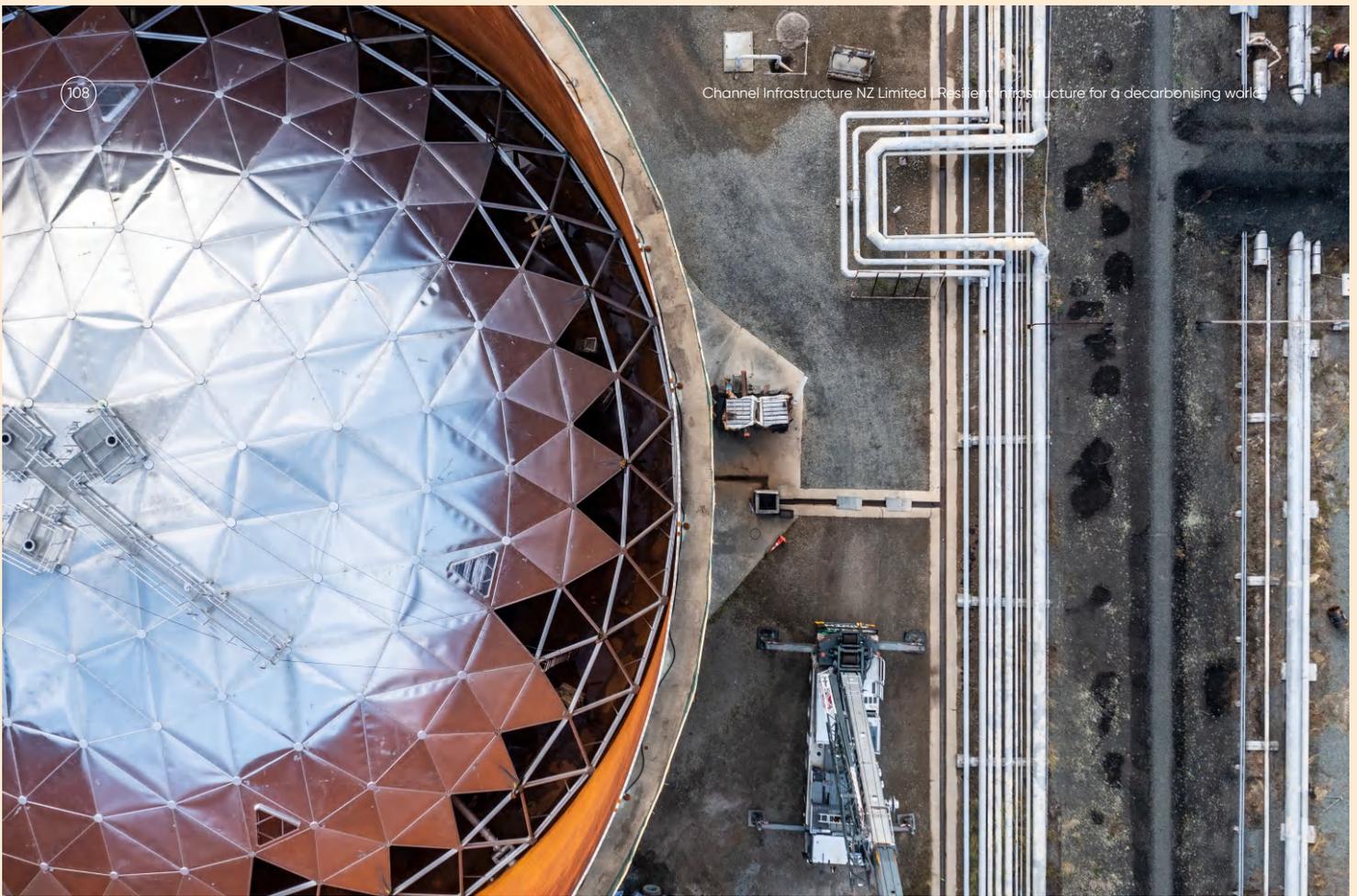
## Health and safety

The health, safety, and well-being of our people remains core to everything that we do at Channel Infrastructure. As a high-hazard site, we continue to have a strong focus on ensuring that we get 'everyone safely home, everyday'.

With the successful transition to an import terminal safely completed in 2022, we took the time to reset our aspirations for health and safety as an import terminal operation. This is not only good for our people, but it is specifically designed to support our company drive towards world-class operations. We appointed a Health and Safety Specialist with a mandate to further lift the standards of the Company's health and safety culture, by continuing to build health and safety leadership capabilities within the business, bringing forward operational discipline and incentivising safety engagement. Where good practices are observed, these are recognised and celebrated and when opportunities for improvement are identified, corrective actions are implemented as part of the learning environment for continuous improvement.

A key component of our Health and Safety management system is strong leadership, and this has also been a focus for Channel in 2023. We partnered with external providers, Safety Futures, to deliver a twelve-week training programme for 40 leaders from different teams across the business, including members of the Corporate Lead Team, and the CEO. The world-class Safety Futures program builds the leadership capabilities of individuals, who in turn take this knowledge to their teams to exercise shared responsibility for safety. As a result, we have been able to further improve our hazard management processes by implementing what we learned and improve overall discipline by challenging the balance of safety, speed and quality and improve our collaborative planning processes.

At the same time, as the Company seeks to bed in processes and polices consistent with a high-performing terminal operation, there has been a strong focus on implementing robust safety and risk management systems and streamlining safety and emergency response procedures.



Geodesic dome roof on converted jet fuel storage tanks commissioned in 2023

## Security and quality of supply

Channel Infrastructure is committed to playing its part to support a resilient supply chain for the good of New Zealand, given our highly strategic location in Northland, direct supply route to Auckland, and ample unutilised storage capacity at Marsden Point.

In 2023, the Company was proud to announce that it had completed the final contracted tank conversions, which as a result, means that Channel has now doubled

its on-site jet fuel storage through the import terminal conversion programme. At the end of 2023, Channel had 280 million litres of product storage capacity contracted to its existing customers and a further c.400 million litres of unutilised tank capacity available.

With jet fuel so crucial to New Zealand's links with the rest of the world, this significantly adds to New Zealand's overall fuel resilience at a time when we are seeing air travel demand return sharply.



Jane Thomson, Operational Excellence Manager, with her daughters

## Parental Leave

Parental leave has proven beneficial for the two people in our business, who accessed it in 2023, as this ensured financial support during their time away. This support alleviated financial concerns and fostered a sense of security. The experience of parental leave provided essential time with their families and contributed to their professional commitment to our business.

"Six months paid leave was invaluable. It allowed me to focus on quality time with my newborn and family, but also afforded me the means to look after myself and my well-being whilst on leave. For example, I was able to re-join my gym community, when I was physically ready, without worrying too much about how we would pay for it. Because I was able to get back to feeling 'myself' a lot quicker, this has made my transition back to into work much smoother than last time," Jane Thomson, Operational Excellence Manager.

The business benefits from this investment are clear; we observed a seamless return to crucial roles, supported a workplace culture that acknowledges and supports the diverse journeys of its staff, and saw a return of much needed skills. The people who took this leave returned with a positive outlook towards the business, feeling valued and supported. The impact extends beyond the obvious financial considerations, as their reintegration into important roles was smooth and positive.

"We are committed to supporting our people and their families during the significant milestone of welcoming a new family member. Our gender-neutral policy supports primary carers and their partners to take time away from work to focus on family, and provides financial security and a phased return to work for primary carers." Alexa Preston, CFO.

## Appendix 2: Summary data tables

### Environmental

ENVIRONMENTAL	MEASURE	2023	2022	2021	2020	2019
Releases outside of consent	#	-	3	10	5	1
Direct CO <sub>2</sub> emissions (Scope 1)	tCO <sub>2</sub>	- <sup>1</sup>	236,940	857,042	848,621	1,080,041
Indirect CO <sub>2</sub> emissions (Scope 2)	tCO <sub>2</sub>	- <sup>1</sup>	47,321	141,940	134,927	177,132
Sulphur Dioxide Emissions (Refinery)	Tonnes	-	1,259	3,341	3,345	4,329
Greenhouse Gas emissions (Scope 1)	tCO <sub>2</sub> e	1,489	726	-	-	-
Greenhouse Gas emissions (Scope 2)	tCO <sub>2</sub> e	2,548	-	-	-	-
NOX, SOX, VOC and particulate matter	Tonnes	188 <sup>1</sup>	1,777	-	-	-

1 The CO<sub>2</sub> emissions were refinery metrics calculated for NGA reporting. NOX and SOX only relevant in FY22; VOC only in FY23.

RESOURCE USAGE	MEASURE	2023	2022	2021	2020	2019
Total fuel usage (Refinery)	Petajoule	-	2.97	11.6	11.2	14.3
Natural gas usage (Refinery)	Petajoule	-	0.23	1.9	2.4	3.5
Electricity usage	Petajoule	0.12	0.32	0.96	0.92	1.23
Water usage	Million Tonnes	0.22	0.82	1.46	1.49	1.68
Water consumption intensity	Total water consumption (m <sup>3</sup> )/revenue	1.68	5.17	6.24	6.06	4.82

### Waste

WASTE	MEASURE	2023	2022	2021	2020	2019
Total Waste	Tonnes	5,601	-	-	-	-
Recycled / Re-used	Tonnes	1,269	-	-	-	-
Landfill	Tonnes	4,332	-	-	-	-

### Health, Safety and Well-being

SAFETY	MEASURE	2023	2022	2021	2020	2019
Total Recordable Case Frequency	TRC/200,000 hours	0.90	1.80	-	-	0.27
Long-Term Injury Frequency	LTI/200,000 hours	-	0.77	-	-	0.13
Tier I Process Safety Incidents	#	1	-	2	-	-
Tier II Process Safety Incidents	#	-	-	-	-	-
Number of Emergency Exercises	#	12	5	14	16	22
Number of reportable pipeline incidents <sup>1</sup>	#	-	-	-	-	-
Percentage of pipeline inspected internally with Pipeline Inspection Gauge (PIG)	%	-	100	-	-	100
Percentage of pipeline inspected externally <sup>2</sup>	%	100	100	100	100	100
Total metric ton-kilometers of refined fuels transported by mode of transport	Metric T kilometers	14,168	11,528	9,879	-	-

1 As per SASB Standards definition of reportable pipeline incidents.

2 External inspection activities include aerial and ground based observations over the length of the pipeline. Preventative maintenance inspection activities of above ground equipment as per the inspection schedule.

## People, Diversity and Community

PEOPLE	MEASURE	2023	2022	2021	2020	2019
Number of Staff	#	101	135	294	344	412
Number of Contractors	#	127	220	109	105	251
<b>Employee Turnover:</b>						
Unplanned	%	8.5	4.0	-	-	-

## Diversity

	2023						2022					
	BOARD		CORPORATE LEAD TEAM		WORKFORCE		BOARD		CORPORATE LEAD TEAM		WORKFORCE	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>GENDER</b>												
Male	4	57%	6	86%	64	68%	4	57%	6	75%	97	76%
Female	3	43%	1	14%	30	32%	3	43%	2	25%	29	23%
Gender Diverse	-	-	-	-	-	-	-	-	-	-	1	1%
<b>ETHNICITY</b>												
NZ												
European/Pākehā	3	43%	4	57%	53	56%	4	57%	3	38%	74	58%
Other European	4	57%	3	42%	13	14%	3	43%	5	62%	21	17%
Māori & NZ European	-	-	-	-	10	11%	-	-	-	-	12	9%
Māori	-	-	-	-	8	9%	-	-	-	-	12	9%
Asian	-	-	-	-	4	4%	-	-	-	-	3	2%
Other	-	-	-	-	6	6%	-	-	-	-	5	4%
<b>NATIONALITY TOTAL</b>												
New Zealand	-	-	-	-	80	74%	-	-	-	-	111	78%
United Kingdom	-	-	-	-	10	9%	-	-	-	-	11	8%
Australia	-	-	-	-	3	3%	-	-	-	-	4	3%
South Africa	-	-	-	-	3	3%	-	-	-	-	4	3%
Other	-	-	-	-	12	11%	-	-	-	-	12	8%
<b>AGE</b>												
Under 30	-	-	-	-	4	4%	-	-	-	-	1	0%
30 to 50	2	29%	4	57%	47	50%	2	29%	4	50%	63	50%
over 50	5	71%	3	43%	43	46%	5	71%	4	50%	63	50%

# Appendix 3: Climate change & GHG emissions

## GHG Emissions Methodology

In the following table we outline the methodology for data collection and basis of calculation for the GHG emissions sources included in Channel's 2023 GHG Inventory.

Scope	GHG Emissions Source (Activity)	Data Source	Data Collection Unit	Uncertainty	Emission Factor	FY23 Emissions tCO <sub>2</sub> e
<b>1</b>	<b>Fuel consumed by stationary and mobile combustion equipment</b>	Suppliers' invoices and fuel card data	Kg, L	High certainty data quality. Reliant on accuracy of supplier data	Table 3 Stationary combustion of fuel emission factors from MfE 2023 Detailed Guide: LPG, Fuel Oil (Commercial), Diesel	<b>966</b>
		Based on number of fuel oil ash tests and quantity burned and IPL RON MON engine running hours	L	High certainty data quality. Reliant on accuracy of internal records	Table 4 Transport fuel emission factors from MfE 2023 Detailed Guide: Regular Petrol, Premium Petrol, Diesel	<b>8</b>
	<b>Waste water treatment</b>	Calculated on waste water feed processed and average: a) COD of feed, and b) conversion of COD to organic matter	t	Reasonable certainty data quality. <sup>1</sup> Accuracy of ±10%	Table 1 GWPs emission factors, MfE 2023 Detailed Guide: CH4 AR5 GWP N2O AR5 GWP	<b>189</b>
	<b>Fugitive emissions released from transport fuel storage and refrigeration systems</b>	Annual Site survey report from Refrigeration system maintenance provider	kg	High certainty data quality. Reliant on accuracy of supplier data	Table 7 Refrigerant Emission factors, MfE 2023 Detailed Guide: HFC-32 AR5 GWP HFC-134A AR5 GWP 410A AR5 GWP	<b>32</b>
		Fugitive emissions from crude tanks: API 2009 GHG Compendium	kg	Reasonable certainty data quality. <sup>2</sup>  Emission estimate is based on a correlation so assume ±20% accuracy.	Table 1 GWPs emission factors, MfE 2023 Detailed Guide: CH4 AR5 GWP	<b>294</b>
<b>2</b>	<b>Electricity - location based</b>	Online consumption report from electricity supplier	kWh	High certainty data quality. Reliant on accuracy of supplier data	Table 9 Emission factor for purchased grid-average electricity - annual average 2022, from MfE 2023 Detailed Guide	<b>2,548</b>

1 Waste water emissions: Conversion of carbon present in waste water feed to activated sludge removed from the system is 72%, based on validated historical data and confirmed via cross-check with operational data. Methane generation from waste water treatment is calculated via method set out in API Compendium of GHG emissions methodologies for the Oil and Natural Gas industry (2009)

2 Fugitive emissions per crude tank are calculated as 3t/month based on the method outlined in AP-42, 5th Edition, Chapter 7 and is consistent with historically verified data used for NGA reporting. 15% methane concentration in "live" crude oil vapour, per guidance in the API Compendium of GHG emissions methodologies for the Oil and Natural Gas industry (2009)

## 2023 by Greenhouse Gas Type

In the following table we summarise our total 2023 emissions (4,037 tCO<sub>2</sub>e) by type of Greenhouse Gas.

	Carbon Dioxide CO <sub>2</sub> tCO <sub>2</sub> e	Methane CH <sub>4</sub> tCO <sub>2</sub> e	Nitrous Oxide N <sub>2</sub> O tCO <sub>2</sub> e	Hydrofluorocarbons HFCs tCO <sub>2</sub> e	Perfluorochemicals PFCs tCO <sub>2</sub> e	FY23 Emissions tCO <sub>2</sub> e
Scope 1	963	439	55	32	-	1,489
Scope 2	2,474	67	7	-	-	2,548
Scope 1 & 2	3,437	506	62	32	-	4,037

## Detailed climate scenario data

### Focal question

How could climate change plausibly affect our transport fuels infrastructure organisation, what should we do and when?

### References for climate change scenarios physical and socio-economic indicators

Indicator	Scenario			Reference
	Green Light	Amber Light	Red Light	
<b>Physical</b>				
Global temperature increase by 2100, relative to pre-industrial levels	1.5	2.6	4.0	IPCC WG1 AR5 Summary for Policymakers
New Zealand sea level rise for 2031-50 relative to 1995-2014	0.22m	0.24m	0.28m	Ministry for the Environment. (2018). Climate change projections for New Zealand
New Zealand rainfall intensity 100yr ARI 12-hre rain depth, 2031-2050 relative to 1986-2005	+6.0%	+7.5%	+8.6%	Ministry for the Environment. (2018). Climate change projections for New Zealand
New Zealand hot days 100yr ARI 12-hre rain depth, 2031-2050 relative to 1986-2005	+43%	+54%	+67%	Ministry for the Environment. (2018). Climate change projections for New Zealand
<b>Socio-economic</b>				
New Zealand carbon price	\$277 NZD	\$369 NZD	\$35 NZD	Treasury New Zealand. (2022). CBAX Tool User Guidance.
New Zealand population	6.04 million	5.94 million	6.94 million	International Institute for Applied Systems Analysis. (2020). SSP Database
New Zealand fuel demand graph	n/a	n/a	n/a	Climate Change Commission (2021). Scenarios dataset for the Commission's 2021 Final Advice

## Use of reference scenarios

### Network for Greening the Financial System (NGFS)

The NGFS framework is a widely used tool for determining high level scenario narratives. It was decided that the 'Orderly', 'Disorderly' and 'Hothouse' scenarios best spanned the range of plausible futures for our organisation, which has also been used for the tourism sector level climate change scenarios by The Aotearoa Circle. 'Orderly (Net Zero 2050)' describes a world with a smooth transition to net zero carbon dioxide emissions, 'Disorderly (Delayed Transition)' describes a world with little change until 2030, before a disruptive and rapid reduction in emissions, and 'Hothouse (Current Policies)' describes a world with continuing high emissions.

Scenario	RCP Used	Rationale	SSP	Rationale
Green light	2.6	RCP2.6 is the most stringent mitigation scenario in which carbon dioxide emissions decline to net zero relatively quickly. It reflects a world in which warming is limited to around 1.5-2°C	1	SSP1: Sustainability reflects a world in which energy affordability and human well-being is prioritised. There are 'low challenges to mitigation and adaptation'. This aligned well with the rapid and smooth transition described in Green Light
Amber light	4.5	RCP4.5 illustrates global emissions peak around 2040 and slowly begin to decline thereafter. Similar climatic impacts are expected in the disorderly scenario described in this report	2	SSP2: Middle of the Road describes a world with largely similar socio-economic trends of today with 'medium challenges to mitigation and adaptation'. This aligns well with the lack of action until 2030 before a dramatic change thereafter
Red light	8.5 D/S 7.0* <sup>1</sup>	RCP7.0 is a baseline outcome to 4.0 degrees warming by the end of the century. This was downscaled using RCP8.5 due to data unavailability for RCP7.0 in New Zealand. RCP8.5 features growing emissions, leading to severe physical impacts and is understood to be the worst-case of climate scenarios. Although this RCP is considered high and less plausible, the climate impacts of this emissions trajectory is possible under lower emissions scenarios	3	SSP3: Regional rivalry describes a world with material focused consumption and low international priority for addressing environmental concerns. This aligns well with the lack of political action and technological development over time

<sup>1</sup> These RCPs have been downscaled (D/S) to the New Zealand context by NIWA. The New Zealand-specific climate impacts in these scenarios were taken from downscaled NIWA data.

### Climate Change Commission (CCC)

As part of Ināia tonu nei: a low emissions future for Aotearoa, the Climate Change Commission's advice to Central Government on the first three emissions budgets, the CCC published a set of pathways that outlined potential changes in land use, energy, transport and other economic indicators over the coming decades. They reflect pathways that meet the emissions targets in the Climate Change Response Act. These three pathways and associated data were also chosen to inform our three scenarios.

Scenario	CCC Pathway	Rationale
Green light	Tailwinds	Fast technology uptake and behaviour change which aligns to Green Light technology improvements at scale
Amber light	Headwinds	Technology uptake and behaviour change is relatively slow compared to Tailwinds which aligns to the disorderly and delayed response described in Amber Light
Red light	Current policy	Policy change remains weak and unambitious which aligns to Red Light where little to no policy is in effect and initial plans are not supported by legislation

# Appendix 4: GRI disclosure index

## Statement of use:

Channel Infrastructure has reported the information cited in this GRI content index for the period 1 January 2023 to 31 December 2023 with reference to the GRI Standards

GRI 1 used | GRI 1: Foundation 2021

GRI Standard	Disclosure	2023 Sustainability Report (SR) 2023 Annual Report (AR) 2023 Governance Statement (GS)
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	4-7 AR
	2-2 Entities included in the organisation's sustainability reporting	2 SR
	2-3 Reporting period, frequency and contact point	1 Jan 2023 to 31 Dec 2023; Annual reporting period; communications@channelnz.com 2 SR
	2-4 Restatements of information	74 AR
	2-5 External assurance	None
	2-6 Activities, value chain and other business relationships	6-7, 25-28 SR
	2-7 Employees	112 SR
	2-8 Workers who are not employees	112 SR
	2-9 Governance structure and composition	43-44 AR, 17-22 SR 5 - 7 GS
	2-10 Nomination and selection of the highest governance body	43-44 AR, 17-22 SR 5 - 7 GS
	2-11 Chair of the highest governance body	12 AR
	2-12 Role of the highest governance body in overseeing the management of impacts	17-19 SR
	2-13 Delegation of responsibility for managing impacts	18 SR
	2-14 Role of the highest governance body in sustainability reporting	17-19 SR
	2-15 Conflicts of interest	44 AR, 4 GS
	2-16 Communication of critical concerns	61-64 SR
	2-17 Collective knowledge of the highest governance body	29 AR, 17 SR
	2-18 Evaluation of the performance of the highest governance body	44 AR
	2-20 Process to determine remuneration	47-51 AR, 19, 21, 64 SR
	2-21 Annual total compensation ratio	51 AR
	2-22 Statement on sustainable development strategy	32 SR
	2-23 Policy commitments	74-102 SR
	2-24 Embedding policy commitments	74-102 SR
	2-25 Processes to remediate negative impacts	61-64 SR
	2-26 Mechanisms for seeking advice and raising concerns	2 SR
	2-27 Compliance with laws and regulations	2 SR
	2-28 Membership associations	Northland Chamber of Commerce, CEO Health and Safety Forum, NZ Initiative
	2-29 Approach to stakeholder engagement	25-28 SR
	2-30 Collective bargaining agreements	Not reported

<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	29-31 SR
	3-2 List of material topics	29-31 SR
	3-3 Management of material topics	29-31,74-102 SR
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organisation	75-79 SR
	302-3 Energy intensity	75-79 SR
	302-4 Reduction of energy consumption	75-79 SR
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	83-85 SR
	303-5 Water consumption	83-85 SR
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	75-79 SR
	305-2 Energy indirect (Scope 2) GHG emissions	75-79 SR
	305-4 GHG emissions intensity	75-79 SR
	305-5 Reduction of GHG emissions	75-79 SR
	305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	114 SR
<b>GRI 306: Waste 2020</b>	306-1 Waste generation and significant waste-related impacts	83-85 SR
	306-2 Management of significant waste-related impacts	83-85 SR
	306-3 Waste generated	83-85 SR
	306-4 Waste diverted from disposal	83-85 SR
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	93, 112 SR
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	87-95 SR
	403-2 Hazard identification, risk assessment, and incident investigation	87-95 SR
	403-3 Occupational health services	87-95 SR
	403-4 Worker participation, consultation, and communication on occupational health and safety	87-95 SR
	403-6 Promotion of worker health	91 SR
	403-9 Work-related injuries	91 SR
<b>GRI 404: Training and Education 2016</b>	404-2 Programmes for upgrading employee skills and transition assistance programmes	88, 95, 101 SR
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	112 SR

## Appendix 5: CRD disclosure index

We have aligned our reporting to the New Zealand Government's mandatory reporting requirements in accordance with the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021.

In the following sections we provide our disclosures against the four key pillars of the NZCS reporting framework – Governance, Strategy, Risk Management and Metrics and Target

CRD	Disclosure	This Report
<b>Governance</b>		
7 (a)	the identity of the governance body responsible for oversight of climate-related risks and opportunities	17-19
7 (b)	a description of the governance body's oversight of climate-related risks and opportunities	17-19
7 (c)	a description of management's role in assessing and managing climate-related risks and opportunities	20
8 (a)	processes and frequency by which the governance body is informed about climate related risks and opportunities	19
8 (b)	how the governance body ensures that the appropriate skills and competencies are available to provide oversight of climate-related risks and opportunities	17
8 (c)	how the governance body considers climate-related risks and opportunities when developing and overseeing implementation of the entity's strategy	17-19
8 (d)	how the governance body sets, monitors progress against, and oversees achievement of metrics and targets for managing climate-related risks and opportunities, including whether and if so how, related performance metrics are incorporated into remuneration policies	64-65
9 (a)	how climate-related responsibilities are assigned to management-level positions or committees, and the process and frequency by which management-level positions or committees engage with the governance body	20
9 (b)	the related organisational structure(s) showing where these management-level positions and committees lie	20
9 (c)	the processes and frequency by which management is informed about, makes decisions on, and monitors, climate-related risks and opportunities	61-65
<b>Strategy</b>		
11 (a)	a description of its current climate-related impacts	37
11 (b)	a description of the scenario analysis it has undertaken	38
11 (c)	a description of the climate-related risks and opportunities it has identified over the short, medium, and long term	42
11 (d)	a description of the anticipated impacts of climate-related risks and opportunities	65-69
11 (e)	a description of how it will position itself as the global and domestic economy transitions towards a low-emissions, climate-resilient future state	65-71
12 (a)	its current physical and transition impacts	37
12 (b)	the current financial impacts of its physical and transition impacts identified in paragraph 12	<b>Adoption provision 1</b>
12 (c)	if the entity is unable to disclose quantitative information for paragraph 12(b), an explanation of why that is the case.	
13	An entity must describe the scenario analysis it has undertaken to help identify its climate related risks and opportunities and better understand the resilience of its business model and strategy	38
14 (a)	how it defines short, medium and long term and how the definitions are linked to its strategic planning horizons and capital deployment plans	42,56
14 (b)	whether the climate-related risks and opportunities identified are physical or transition risks or opportunities, including, where relevant, their sector and geography	66-69
14 (c)	how climate-related risks and opportunities serve as an input to its internal capital deployment and funding decision-making processes	71
15 (a)	the anticipated impacts of climate-related risks and opportunities reasonably expected by the entity	66-69

CRD	Disclosure	This Report
15 (b)	the anticipated financial impacts of climate-related risks and opportunities reasonably expected by an entity	
15 (c)	a description of the time horizons over which the anticipated financial impacts of climate-related risks and opportunities could reasonably be expected to occur	<b>Adoption provision 2</b>
15 (d)	if an entity is unable to disclose quantitative information for paragraph 15(b), an explanation of why that is the case	
16 (a)	a description of its current business model and strategy	32-33
16 (b)	the transition plan aspects of its strategy, including how its business model and strategy might change to address its climate-related risks and opportunities	56-59
16 (c)	the extent to which transition plan aspects of its strategy are aligned with its internal capital deployment and funding decision-making processes	37, 56 - 59, 71 SR
<b>Risk Management</b>		
18 (a)	a description of its processes for identifying, assessing and managing climate-related risks	61-64
18 (b)	a description of how its processes for identifying, assessing, and managing climate related risks are integrated into its overall risk management processes	61-64
19 (a)	the tools and methods used to identify, and to assess the scope, size, and impact of, its identified climate-related risks	66-69
19 (b)	the short-term, medium-term, and long-term time horizons considered, including specifying the duration of each of these time horizons	42, 65
19 (c)	whether any parts of the value chain are excluded	39, 79-80
19 (d)	the frequency of assessment	62, 64
19 (e)	its processes for prioritising climate-related risks relative to other types of risks	61
<b>Metrics And Targets</b>		
21 (a)	the metrics that are relevant to all entities regardless of industry and business model	46-47, 50-51, 54-55
21 (b)	industry-based metrics relevant to its industry or business model used to measure and manage climate-related risks and opportunities	57
21 (c)	any other key performance indicators used to measure and manage climate-related risks and opportunities	75-102
21 (d)	the targets used to manage climate-related risks and opportunities, and performance against those targets	75-102
22 (a)	greenhouse gas (GHG) emissions: gross emissions in metric tonnes of carbon dioxide equivalent (CO <sub>2</sub> e) classified as:(i) scope 1;(ii) scope 2 (calculated using the location-based method);(iii) scope 3;	79-80 <b>Adoption provision 4</b>
22 (b)	GHG emissions intensity	79
22 (c)	transition risks: amount or percentage of assets or business activities vulnerable to transition risks	68
22 (d)	physical risks: amount or percentage of assets or business activities vulnerable to physical risks	66
22 (e)	climate-related opportunities: amount or percentage of assets, or business activities aligned with climate-related opportunities	69
22 (f)	capital deployment: amount of capital expenditure, financing, or investment deployed toward climate-related risks and opportunities	71
22 (g)	internal emissions price: price per metric tonne of CO <sub>2</sub> e used internally by an entity	71 SR
22 (h)	remuneration: management remuneration linked to climate-related risks and opportunities in the current period, expressed as a percentage, weighting, description or amount of overall management remuneration	21 SR
23 (a)	the time frame over which the targets applies	81
23 (b)	any associated interim targets	None
23 (c)	the base year from which progress is measured	80

CRD	Disclosure	This Report
23 (d)	a description of performance against the targets	81
23 (e)	for each GHG emissions target:	
(i)	whether the target is an absolute target or intensity target	81
(ii)	the entity's view as to how the target contributes to limiting global warming to 1.5 degrees Celsius	81
(iii)	the entity's basis for the view expressed in 23(e)(ii), including any reliance on the opinion or methods provided by third parties	81
(iv)	the extent to which the target relies on offsets, whether the offsets are verified or certified, and if so, under which scheme or schemes	79-81
24 (a)	a statement describing the standard or standards that its GHG emissions have been measured in accordance with	80
24 (b)	the GHG emissions consolidation approach used: equity share, financial control, or operational control	80
24 (c)	the source of emission factors and the global warming potential (GWP) rates used or a reference to the GWP source	80
24 (d)	a summary of specific exclusions of sources, including facilities, operations or assets with a justification for their exclusion.	80-81
<b>Adoption provision 5: Comparatives for Scope 3 GHG emissions</b>		
<b>Adoption provision 6: Comparatives for metrics</b>		
<b>Adoption provision 7: Analysis of trends</b>		

## Appendix 6: Forward-looking statements

This report contains certain forward-looking statements, which can be identified by the use of forward-looking terminology such as “may”, “will”, “should”, “expect”, “intend”, “plan”, “ambition”, “anticipate”, “estimate”, “continue”, “assume”, “project”, “target”, or “forecast” or comparable terminology. Forward looking statements include climate-related metrics, climate scenarios, estimated climate projections.

Primary users are reminded that the climate-related scenarios used in scenario analysis are not intended to be probabilistic or predictive, or to identify the ‘most likely’ outcome(s) of climate change. They are intended to provide an opportunity for entities to develop their internal capacity to better understand and prepare for the uncertain future impacts of climate change. Further, scenario analysis is simply a process for systematically exploring the effects of a range of plausible future events under conditions of uncertainty. Engaging in this process is meant to help an entity to identify its climate-related risks and opportunities and develop a better understanding of the resilience of its business model and strategy.

Therefore, primary users are cautioned in their use of the information presented in this report. The information presented in this report is not a prospective financial statement. Primary users are also reminded that pages 38 to 43 and Appendix 3: Climate change & GHG emissions (see page 112) set out the methods and assumptions underlying the climate-related scenarios used, and the scenario analysis process employed. It is important that primary users understand the limitations applicable to the information presented. Climate change is also prone to inherent uncertainty and novelty, and is subject to ongoing change as the circumstances of a transition to a low-emissions economy and climate change develop in New Zealand and across the world over a long period of time.

The forward-looking statements in this report:

- To the extent prepared by entities or persons other than Channel Infrastructure and repeated herein, are not adopted by Channel Infrastructure unless expressly stated otherwise. Channel Infrastructure does not make any representation or warranty (express or implied) as to, the accuracy, completeness, reliability, adequacy or reasonableness of any such statements, or matters (express or implied) contained in, or derived from, or any omissions from such statements.
- To the extent prepared or adopted by Channel Infrastructure, are based on management’s current expectations and reflect judgements, assumptions, estimates and other information available when the report was compiled or scenario analyses were undertaken. With respect to climate related disclosures they are inherently uncertain and subject to limitations, particularly as to inputs, available data and information. Therefore, the forward-looking statements that Channel Infrastructure has prepared or adopted may be affected by a range of variables which could cause actual results to differ materially from what was planned or expected.
- Relating to climate related disclosures are subject to risk factors associated with, amongst other things, the energy sector, decarbonisation technologies, government action, consumer attitudes and potentially carbon products and markets. Users are also reminded that Channel Infrastructure’s business and plans are subject to risks that may also cause actual results to differ materially from the forward looking statements. These risk categories are set out in Channel Infrastructure’s Governance Statement available on its website: <https://channelnz.com/who-we-are/corporate-governance/>.
- Involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance, achievements and outcomes to be materially different from the forward-looking statements contained in this report (including things such as availability of technology or the cost of technology or other emission reduction proposals). Users are again reminded of the inherent limitations that are associated with scenario analysis noted above.
- Should be read in the context of the variables, risks, uncertainties and other factors outlined above or mentioned in the report, the Annual Report and Governance Statement.

Accordingly, this report should not be relied upon as a recommendation, forecast or guarantee by or expectation of Channel Infrastructure, its related or controlled entities or officers, directors, employees or agents, (together, the Channel Entities) and the Channel Entities, to the maximum extent permitted by law, disclaim any liability whatsoever (including for negligence) for any loss howsoever arising from any use of this report or reliance on anything contained in or omitted from it or otherwise arising in connection with this report. Other than as required by law or the Listing Rules of the New Zealand Stock Exchange, the Channel Entities will not release publicly any updates to any forward-looking statement contained herein to reflect changes to relevant risks, inputs, uncertainties or other factors, and/or the Channel Entities’ understanding of them.

## Appendix 7: Definitions and abbreviations

Abbreviations	Definitions
<b>Aotearoa New Zealand Climate Standards</b>	Standards issued by the External Reporting Board that comprise the climate related disclosure framework
<b>ARI</b>	Annual recurrence interval
<b>BioSAF</b>	Jet fuel derived from biogenic material like wood residues
<b>BL</b>	Billion litres
<b>Carbon dioxide equivalent CO<sub>2</sub>e</b>	In order to aggregate and compare the different types of GHGs that have different levels of global warming potential, emissions and removals are largely expressed in tonnes of carbon dioxide. The carbon dioxide equivalent is calculated by multiplying the quantity of a GHG by the relevant global warming potential
<b>Climate-related disclosure framework</b>	Climate-related disclosure framework has the same meaning set out in section 9AA of the Financial Reporting Act 2013
<b>Climate-related opportunities</b>	The potentially positive climate-related outcomes for an entity. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as through resource efficiency and cost savings, the adoption and utilisation of low-emissions energy sources and building resilience along the value chain
<b>Climate-related risks</b>	The potential negative impacts of climate change on an entity. See also the definitions of physical risks and transition risks
<b>Climate-related scenario</b>	A plausible, challenging description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces and relationships covering both physical and transition risks in an integrated manner. Climate-related scenarios are not intended to be probabilistic or predictive, or to identify the 'most likely' outcome(s) of climate change. They are intended to provide an opportunity for entities to develop their internal capacity to better understand and prepare for the uncertain future impacts of climate change
<b>COD</b>	Chemical oxygen demand - a measure of water and wastewater quality
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>Carbon dioxide equivalent CO<sub>2</sub>e</b>	In order to aggregate and compare the different types of GHGs that have different levels of global warming potential, emissions and removals are largely expressed in tonnes of carbon dioxide. The carbon dioxide equivalent is calculated by multiplying the quantity of a GHG by the relevant global warming potential
<b>Decarbonise</b>	The process of avoiding, reducing or offsetting anthropogenic greenhouse gas emissions through operational activities or efficiencies, technology deployment, use of generated or acquired carbon credit units, and/or other means
<b>Emissions</b>	CO <sub>2</sub> emissions unless otherwise specified
<b>Emissions factor</b>	A factor allowing GHG emissions to be estimated from a unit of available activity data (for example, tonnes of fuel consumed) and absolute GHG emissions
<b>Emissions intensity</b>	Scope 1 and 2 tCO <sub>2</sub> e per million litres of throughput
<b>Employees</b>	Direct hire permanent employees
<b>End user emissions</b>	Upstream and downstream emissions that result from the end use consumption (combustion) of transport fuels that Channel stores and distributes through its infrastructure but does not take ownership of and therefore does not own or sell to the end user
<b>eSAF</b>	Synthetic jet fuel produced by combining green hydrogen and carbon dioxide
<b>ESG</b>	ESG, also known as the three pillars, is an acronym for three categories (environment, social, and governance) where each can have a direct or indirect impact on organisational finance matters
<b>EV</b>	Electric vehicle
<b>Fortescue</b>	Fortescue Limited is a global green energy company committed to producing green hydrogen, containing zero carbon, from 100% renewable sources

Abbreviations	Definitions
Global warming potential (GWP)	A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of carbon dioxide (CO <sub>2</sub> )
GRI	Global Reporting Initiative
H <sub>2</sub>	Hydrogen
ICE	Internal combustion engine
IFRS	International Financial Reporting Standards
IPCC	Intergovernmental Panel on Climate Change - the United Nations body for assessing the science related to climate change
Kt	Thousand tonnes
LTIF	<b>Lost Time Injury Frequency:</b> The sum of work-related injury cases per 200,000 hours worked, where the injured person is deemed medically unfit for any work as a result of the injury
Materiality assessment	In reference to GRI Standards, a process to identify and prioritise the issues that are most important to an organisation and its key stakeholders
Material topics	In reference to GRI Standards, topics that have a direct or indirect impact on the organisations ability to create, preserve or erode economic, environmental and social value for the organisation and its stakeholders
ML	Million litres
MON	Motor Octane Number measures the knock resistance of gasoline in engine conditions mirroring high-speed, high-load driving scenarios
MOU	Memorandum of Understanding
Net Zero	When anthropogenic emissions of greenhouse gases are balanced by anthropogenic removal of greenhouse gases through means such as operational activities or efficiencies, technology or offset through the use of carbon credits, or other means
NGA	Negotiated Greenhouse Agreement
NZ CS	(Aotearoa) New Zealand Climate Standards issued by the External Reporting Board that comprise the climate related disclosure framework
Physical risks	Risks related to the physical impacts of climate change. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events. They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise
Pipeline	Marsden Point to Auckland Pipeline
PJ	Petajoule (1 million billion joules)
RON	Research Octane Number measures the knock resistance of gasoline in engine conditions mirroring low-speed and low-load driving
SAF	Sustainable Aviation Fuel – with lower overall emissions than fossil-jet
SSP's	Shared Socio-economic Pathways - climate change scenarios of projected socio-economic global changes up to 2100 as defined in the sixth IPCC Assessment Report on climate change in 2021
Sustainable/sustainably	At Channel, sustainability is about striving to ensure safe operations, minimising environmental harm and greenhouse gas emissions, and creating long-term value for our stakeholders including our customers, iwi and community, employees, contractors and suppliers and shareholders: balancing the needs of today without undermining the ability to meet the demands of tomorrow
TCFD	Task Force on Climate-related Financial Disclosures
Tier 1 process safety event	An unplanned or uncontrolled release of any material, including non-toxic and non-flammable, from a process which results in one or more of the following: a Lost Time Injury (LTI) and/or fatality; a fire or explosion resulting in greater than or equal to \$100,000 of direct cost to the Company; a release of material greater than the threshold quantities given in Table 1 of API 754 in any one-hour period; an officially declared community evacuation or community shelter-in-place

Abbreviations	Definitions
<b>Tier 2 process safety event</b>	An unplanned or uncontrolled release of any material, including non-toxic and non-flammable, from a process which results in one or more of the following: a recordable injury; a fire or explosion resulting in greater than or equal to \$2,500 of direct cost to the Company; a release of material greater than the threshold
<b>Transition plan</b>	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
<b>Transition risks</b>	Risks related to the transition to a low-emissions, climate-resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change
<b>TRCF</b>	Total Recordable Case Frequency: The number of lost time incidents, restricted work cases, medical treatment cases and fatalities per 200,000 man-hours worked
<b>UNSDG</b>	United Nations Sustainable Development Goals. More information about the SDGs can be found at <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a>
<b>Value Chain</b>	The full range of activities, resources and relationships related to an entity's business model and the external environment in which it operates
<b>WACC</b>	Weighted average cost of capital
<b>XRB</b>	External Reporting Board - responsible for developing and issuing reporting standards on accounting, audit and assurance, and climate, for entities across the private, public, and not-for profit sectors

# Directory

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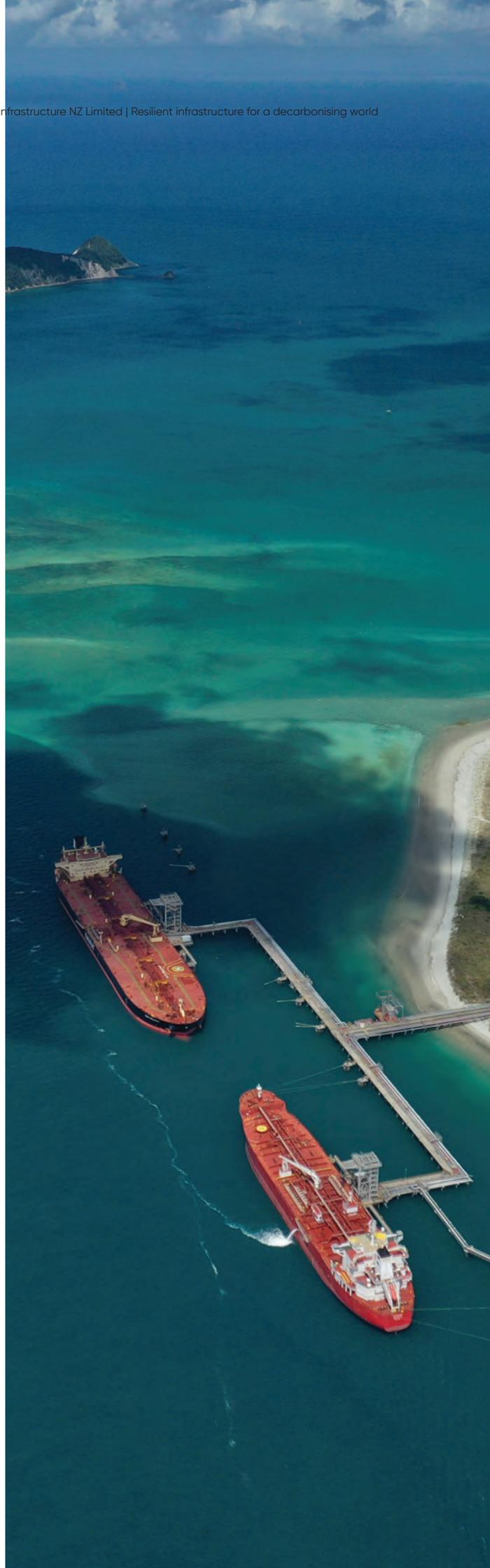
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**Channel**

Infrastructure NZ