

Green Bond Report

November 2025

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Introduction

Transpower New Zealand Limited (Transpower) owns and operates the national grid, a lifeline utility that runs the full length of the country from Kaikohe to Tiwai Point. It also runs the electricity market in real-time, moving power from where it is generated to where people and businesses need it. This is detailed further in Transpower’s Integrated Report.



Transpower’s infrastructure network includes thousands of kilometres of lines strung across thousands of towers connecting to hundreds of substations.

It moves electricity from where it is generated to where it is needed, enabling local lines companies to power millions of homes and businesses all around the motu.

As the system operator, Transpower runs the electricity market, balancing supply and demand, 365 days a year, 24 hours a day, to keep the power flowing.

Our people and our service provider whānau are the most important part of Transpower. Their expertise and dedication are critical to the delivery of a reliable and secure electricity system.

Aotearoa New Zealand aspires to a decarbonised future through electrification. Transpower’s systems, and people are ready for the expected 80% increase in electricity demand by 2050.

As the nation embraces electrification, Transpower is connecting more generation to meet demand and increase capacity to move electricity around the country. It is evolving systems and operations to ensure it can manage the challenges ahead.

Transpower is committed to ensuring critical infrastructure is reliable and resilient, and that systems and processes are efficient and secure. Transpower aims to optimise the transition path for Aotearoa’s energy system so that, as a nation, we can meet the 2050 net zero climate change targets and growth goal.

Transpower adopted its Green Financing Framework in May 2022, a step that ensures its funding strategy is fully aligned with its sustainability objectives. The Green Financing Framework covers both existing and future issuance of Transpower’s debt instruments – a debt book worth approximately NZ\$3.648 billion as at 30 June 2025.

Transpower has received programmatic certification under the Climate Bonds Initiative’s Climate Bonds Standard and Electrical Grids and Storage Criteria.

How compliance is assessed, measured and reported

In assessing compliance with the Electrical Grids and Storage Criteria (Criteria), Transpower identifies new generation capacity added to the electrical system over a rolling five-year period, together with a calculation of capacity of new generation below the generation threshold of 100g CO₂e/kWh (measured on a Product Carbon Footprint (PCF) basis) to total new generation capacity.

There are two components Transpower considers as part of achieving the requirements of the Criteria:

1. The Mitigation component		
66	More than 67% of newly connected generation capacity in the System in which the infrastructure is located is below the generation threshold value of 100g CO ₂ e/kWh measured on a PCF basis, over a rolling five-year period.	Compliance with the Mitigation component is reviewed at least annually using the “Operational Electricity Generation Capacity by Plant Types (MW)” statistics published by the New Zealand Ministry of Business Innovation and Employment (MBIE) Electricity statistics Ministry of Business, Innovation & Employment (mbie.govt.nz) . Transpower determines system eligibility for the mitigation component using the added generation capacity methodology described in Methodological note 2 (3.5.2) of the Criteria.
2. The Adaptation and Resilience component		
66	Has the issuer fulfilled the requirements of the Adaptation and Resilience checklist?	Compliance with the Adaptation and Resilience component is similarly reviewed at least annually. Transpower assesses the organisation’s assets, projects, operations and management processes against the requirements of the Adaptation and Resilience checklist listed in Appendix 3 of the Criteria. Compliance is reported as part of this Green Bond Report.

As part of the Green Financing Framework, Transpower operates a Green Financing Committee which meets at least annually.

The Committee’s primary objectives are to:		
I. Carry out the process of selection of assets and/or projects that meet the eligibility criteria set out in this Framework	III. Monitor and approve the Annual Green Financing reporting, processes and publication	Assets and projects are considered and assessed based on their environmental impact, their compliance with the eligibility criteria, contribution to Transpower’s Sustainability Strategy, and are expected to adhere to Transpower’s policies and standards.
II. Confirm that the asset and/or project does not fall within the Excluded Categories set out in this Framework	IV. Review and recommend any proposed changes to the Green Financing Framework	

Confirmation Eligible Green Assets continue to meet the relevant Climate Bond Initiative criteria

Eligible Green Assets include High Voltage Alternating Current (HVAC) and High Voltage Direct Current (HVDC) Transmission Lines and Substations.

Transpower measures the eligibility threshold at least annually using both external New Zealand government published statistics and internal data held by Transpower. To remain eligible, more than 67% of newly connected generation capacity in the system in which the infrastructure is located is below the generation threshold value of 100g CO₂e/kWh, measured on a PCF basis, over a rolling five-year period.

Using the most recent available data, for the five-year period up to the calendar year ended December 2024, the current percentage is 99.4% illustrated in the right hand column:



Period	< 100g CO ₂ e/kWh	> 100g CO ₂ e/kWh	Total	Percentage
2024 - Rolling five-year new capacity	1,259.0	7.7	1,266.7	99.4%

Source: [Electricity statistics | Ministry of Business, Innovation & Employment \(mbie.govt.nz\)](#)

Methodology

The new generation capacity added data is measured over the five-year period to December 2024. Transpower uses the most recent data produced by MBIE on the link indicated above at the time of compiling this report (September 2025). MBIE gather and publish new generation capacity data.

Transpower determines the proportion of new generation capacity that is above 100g CO₂e/kWh from all other generation capacity. Included in the above 100g CO₂e/kWh generation capacity is:

- Biogas
- Diesel
- Coal/Gas
- Other Thermal

In determining the proportion of new generation capacity that is below 100g CO₂e/kWh, Transpower follows the guidance of the Intergovernmental Panel on Climate Change (IPCC). According to the IPCC¹, certain energy generation technologies generally fall below the threshold of 100g CO₂e/kWh:

- Solar
- Wind
- Geothermal
- Hydropower

1 IPCC Working Group III – Mitigation of Climate Change, Annex II Metrics and Methodology - A.II.9.3 (Lifecycle greenhouse gas emissions) (PDF). pp. 1306–1308

Allocation reporting

Use of Proceeds Allocation Report as at 30 June 2025

Eligible Green Assets Portfolio	Eligible Green Assets (NZ\$m)	Green Financing Instruments	Amount of Green Financing (NZ\$m)
Energy Transmission & Distribution Assets	4,987	Green Financing Instruments applied to the Eligible Green Asset Pool	3,648
		Green Financing Instruments not yet applied to the Eligible Green Asset Pool	0
Total Eligible Green Assets	4,987	Total Green Financing	3,648
Excess Eligible Green Assets			1,340
Percentage of Eligible Green Asset Portfolio Allocated to Green Financing Instruments			73.1%
Percentage of Net Proceeds of Green Financing Instruments Allocated to the Eligible Green Assets Portfolio			100.0%
Percentage of Eligible Green Asset Portfolio Unallocated			26.9%

No Eligible Green Assets are allocated to any other certified bonds, such as Social Bonds or other Sustainable Development Goal (SDG) Bonds.

Transpower maintains registers of Eligible Green Assets and Green Financing Instruments within core financial systems. Eligible Green Assets are identified by Asset

Classifications (HVDC and HVAC Substations and Transmission lines). All certified Green Financing Instruments are included within the Green Financial Instrument portfolio and allocated against Eligible Green Assets.

Eligible Green Asset portfolio

CBI Taxonomy Green Category Assets and Eligibility Criteria/ Location	Asset Specifics		Alignment with UN Sustainable Development Goals	Transpower's Eligible Green Assets	Asset Book Value (NZ\$m)
Energy - Transmission and Distribution Infrastructure All Eligible Green Assets are located in New Zealand	Construction, upgrading or operation of: - Overhead lines (conductors and insulators) and pylons - Transformers, reactors and substations - Underground cables - Circuit breakers and switchgear - Sub-stations, buildings, fences and busbars - Fuses, circuit breakers, disconnectors, reactors, capacitors, transformers, voltage regulators and switchgear - Interconnectors between transmission systems - Installation of T&D transformers - Equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation - Equipment to increase the controllability and observability of the electricity system and enable the development and integration of renewable energy - Sensors and measurement tools - Communication and control - Equipment to allow for exchange of renewable electricity between users		Ensure access to affordable, reliable, sustainable modern energy for all	Transmission and distribution infrastructure or equipment or projects that complies with the following electrical grid criterion:	HVAC Transmission Lines 2,178
			Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	More than 67% of newly connected generation capacity in the system in which the infrastructure is located is below the generation threshold value of 100g CO2e/kWh measured on a PCF basis over a rolling five-year period	HVAC Substations 2,290
			Take urgent action to combat climate change and its impacts		HVDC Transmission Lines 100
			Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat deforestation, and halt and reverse land degradation and halt biodiversity loss		HVDC Substations 422
		Less direct connection assets to high emissions generation			
Total Eligible Green Assets					4,987

Excluded assets: Any electrical grid infrastructure dedicated to a connection, or creating a connection, or expanding an existing direct connection to generation plant with emissions of more than 100g CO₂e/kWh.

Green Financing Instruments portfolio

Transpower’s Green Financing Instruments are issued under Transpower’s Green Financing Framework, aligned with the Climate Bonds Standard and have been certified under the Criteria.

The proceeds of Transpower’s Green Financing Instruments are applied to funding Eligible Green Assets which have an impact on reducing system generation emissions and enabling electrification and new renewable generation. Transpower’s transmission assets enable New Zealand’s existing highly renewable electrical generation system and new renewable generation connections, addresses climate resilience in the face of climate change risks and do not compromise the climate resilience of the surrounding system.

Transpower published its Green Financing Framework in June 2022 following programmatic certification from the Climate Bond Initiative. All existing financial instruments (bonds and notes) were certified as Green Bonds by the Climate bond initiative as Green Bonds used to finance or refinance Eligible Green Assets. Subsequently Transpower issued eight further notes and bonds used to refinance Eligible Green Assets in the Eligible Green Asset Portfolio. To date new issuance haven’t been classified as New Financing.

	NZX Code/CUSIP/ ISIN	Maturity Date	Currency	Currency Amount	NZD Amount	Existing Bond Certified at inception of Green Financing Framework	Refinancing	Total Allocated Green Financing Instruments (NZ\$m)
Domestic Bond	NZTRPD0070L9	4-Sep-25	NZD	450	450.0	450.0		450.0
Domestic Bond	NZTRPD0080L8	8-Apr-26	NZD	150	150.0	150.0		150.0
United States Private Placement Note	AZ4207710	28-Jun-26	USD	75	110.3	110.3		110.3
Domestic Bond	NZTRPD0090L7	8-Sep-26	NZD	200	200.0	200.0		200.0
Domestic Bond	NZTRPD0926L2	14-Sep-26	NZD	200	200.0		200.0	200.0
United States Private Placement Note	AZ4207686	13-Oct-26	USD	70	85.8	85.8		85.8
Domestic Bond	NZTRPD0100L4	16-Sep-27	NZD	200	200.0		200.0	200.0
Swiss Bond	CH0461238997	16-Dec-27	CHF	125	196.8	196.8		196.8
Domestic Bond	NZTRPD0328L1	15-Mar-28	NZD	100	100.0	100.0		100.0
United States Private Placement Note	AZ4207728	28-Jun-28	USD	75	110.3	110.3		110.3
Australian Medium- Term Note	AU3CB0294528	29-Nov-28	AUD	200	216.2		216.2	216.2
Swiss Bond	CH0522158838	16-Mar-29	CHF	160	241.4	241.4		241.4
Swiss Bond	CH1376931601	4-Feb-30	CHF	120	233.4		233.4	233.4
Australian Medium -Term Note	AU3CB0300655	30-Jun-30	AUD	300	325.5		325.5	325.5
Swiss Bond	CH1290871032	21-Mar-31	CHF	150	276.7		276.7	276.7
Australian Medium- Term Note	AU3CB0319432	12-Mar-32	AUD	270	298.7		298.7	298.7
Swiss Bond	CH1376931619	4-Feb-33	CHF	130	252.9		252.9	252.9
Total Green Financing Instruments								3,648

Impact reporting

Aotearoa New Zealand has a target of net-zero emissions by 2050, which is driving the increasing electrification of its economy and communities. Transpower has a significant role to play in enabling the transition from a predominantly fossil-fuel based energy sector, to one that is based on renewable resources.

In August 2025, Transpower published its second disclosure of climate-related risks and opportunities in its annual [Climate Statement](#), prepared in compliance with the Aotearoa New Zealand Climate Standards (NZ CS 1, NZ CS 2 and NZ CS 3).

Transpower is a signatory to the Climate Leaders Coalition and has been publicly reporting its Greenhouse Gas (GHG) emissions since 2005, setting emissions targets, and working with suppliers to reduce their emissions.

Although Transpower has a major enabling role in decarbonisation of the New Zealand electricity sector through enabling new renewable generation, in building and operating our assets, some activities may result in a negative impact on the environment. These impacts arise from our day-to-day operational and maintenance activities of the national grid, including from the effects of generation of waste, minor biodiversity effects arising from the maintenance of clear zones around our assets and through construction, maintenance and upgrading of transmission lines, substations and transmission infrastructure. Transpower also generates carbon emissions from the operation of assets – primarily a result of GHG emissions from transmission losses, energy consumption, or leakage of SF6 from higher voltage switch gear. It works to reduce negative impacts on the environment and communities as much as possible and has established operational practices to enable this.

Transpower strives to enable positive environmental impacts through its activities in operating and maintaining New Zealand’s national electricity transmission network where possible, for example by including measures that improve biodiversity in the design and operation of assets.

Its most material positive environmental impact is through the decarbonisation of New Zealand’s energy sector through its role in enabling the connection and supply of more renewable energy sources to the grid, thus avoiding carbon emissions from conventional fossil-based energy sources such as coal. By enabling electrification and supporting the decarbonisation of the national grid through the connection of new renewable generation, Transpower’s work has a significant positive impact on New Zealand’s overall GHG emissions and therefore a net benefit for the environment.

Transpower conducts a variety of work programmes to better monitor, report and reduce negative impacts and to provide positive environmental impacts where possible. These are outlined in the [Sustainability Strategy](#).



Impact - selected metrics

The following selected metrics are calculated to measure the environmental benefits related to Eligible Green Assets. The reporting period includes the most up to date information published at the date of the report.

CBI Eligibility Criteria and Eligible Green Assets	Eligible Green Assets (NZ\$m)	Share of Total portfolio Financing	Eligibility for Green Financing instruments	Renewable energy installed Capacity (MW)	Newly Installed Renewable Energy Capacity over past 5-years (MW)	Net Renewable Energy Production (GWh) (per annum)	Five-year Avoided CO ₂ Emissions (t CO ₂ e/GWh)	Transpower's CO ₂ emissions reduced/ (increased) (year to June 2025) (t CO ₂ e)	Reduction/ (increase) of Emissions to Air (t CO ₂ e) (SF ₆ and other fugitive gasse)	Contribution to Specific UN Sustainable Development Goals
Transmission and distribution infrastructure or projects	4,987	100%	100%	8,688	1,259	36,729	3,896 to 8,890	(31,591)	(277)	Affordable and Clean Energy Industry Innovation and Infrastructure Climate Action Life on Land

Source: Transpower, Transpower’s [Integrated Report](#), Transpower’s [GHG Inventory Report](#), [em6 Carbon Methodology August 2024](#) and MBIE Electricity Statistics (published August 2025).

Methodology for determining renewable generation capacity and avoided emissions

Renewable Energy – Installed capacity / Newly installed generation capacity / Net Renewable Energy Production figures are determined using energy statistics published quarterly from MBIE. The most recent reporting incorporates data collected and reported to December 2024.

Avoided CO₂e emissions – are estimated based upon the emissions factor of connected thermal generation plant offset by new renewable generation below the 100g CO₂e/kWh. Transpower has used a range comprising gas at an emissions factor of 0.4426 tCO₂e/MWh (proportional average across gas generation) and coal at an emissions factor of 1.010 tCO₂e/MWh (coal plant emissions factor for Huntly generation).

Transpower’s CO₂, SF₆ and other fugitive gas emissions reductions are described and disclosed to the public and investors in Transpower’s annual [Integrated Report](#), [Climate Statement](#) and [GHG emissions inventory report](#).

Transpower’s direct impact reporting alignment with the Sustainable Development Goals

Alignment with UN Sustainable Development Goals	Material Impacts	Relevant section of Integrated Report
 7 AFFORDABLE AND CLEAN ENERGY	Ensure access to affordable, reliable, sustainable modern energy for all	Impact to consumers due to disrupted electricity supply Planning for potential power supply disruptions arising from insufficient electricity generation Delivering more by partnering with others
		Increasing the electricity supply by connecting a growing number of new renewable generation customers Facilitating and enabling the increased demand for new renewable electricity generation customer connections Managing our assets wisely Delivering more by partnering with others
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	Support the transition to a low carbon economy Electrification leads to decarbonisation, enabling net zero carbon goals Managing our assets wisely
		Long-term planning and integrated thinking Ensuring longer-term electrification and decarbonisation strategy is not delayed by short-term financial drivers Managing our assets wisely Delivering more by partnering with others
		Increased adoption of new technologies in the electricity market Supporting research and innovation and adopting new technologies to improve the operational performance of the national grid Managing our assets wisely Choosing a sustainable future
		Regulatory changes to achieve a more efficient and effective electricity system Proactive engagement and advocacy to ensure the ongoing development and maintenance of the national grid infrastructure Delivering more by partnering with others
 13 CLIMATE ACTION	Take urgent action to combat climate change and its impacts	Responsibility for greenhouse gas emissions GHG emissions from operating and building our assets, focusing on minimising transmission losses and SF ₆ gas use across the national grid and influencing our supply chain emissions Choosing a sustainable future
		Promoting renewable energy generation and carbon reduction initiatives Reducing the impacts of the electricity system by enabling and incentivising renewable energy generation Managing our assets wisely Delivering more by partnering with others
 15 LIFE ON LAND	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat deforestation, and halt and reverse land degradation and halt biodiversity loss	Visual impact of our towers and transmission lines Communities are affected by the physical presence of transmission lines and associated structures Choosing a sustainable future
		Harm to the natural and physical environment Minimising adverse effects on the environment associated with the operation and maintenance of the national grid Delivering more by partnering with others Choosing a sustainable future

Adaptation & Resilience

1. Transpower’s infrastructure and critical interdependencies

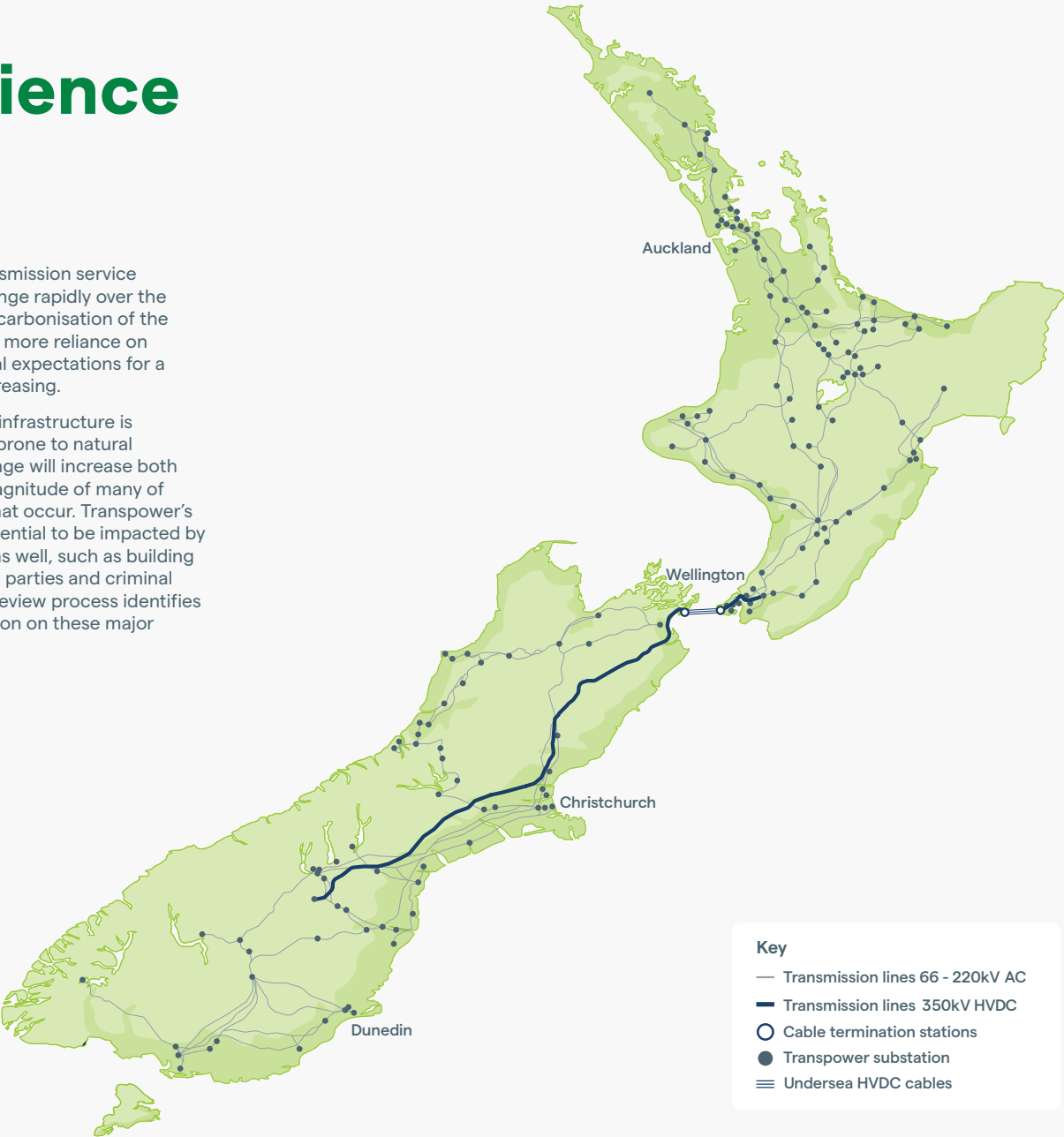
Transpower’s transmission network extends across both the North and South Island of New Zealand. Transpower’s transmission assets are predominantly interconnection assets and support the transmission of electricity from generators to electricity distribution networks and large direct connect customers. Transpower does not generate electricity or operate lower voltage distribution networks. Substations and protection equipment separate Transpower’s assets and connected third parties.

The estimated weighted average of useful lives by Transpower’s asset category is as follows:

Period Eligible Green Assets Ye	Years
HVAC transmission lines	58
HVAC transmission high voltage cables	45
HVAC transmission lines (tower painting)	15
HVAC substations	43
HVDC substations (including submarine cables)	28
HVDC transmission lines	55

Factors affecting transmission service requirements will change rapidly over the next 30 years. The decarbonisation of the energy sector will see more reliance on electricity and societal expectations for a resilient service is increasing.

A large proportion of infrastructure is situated within areas prone to natural hazards. Climate change will increase both the frequency and magnitude of many of the natural hazards that occur. Transpower’s infrastructure has potential to be impacted by other major hazards as well, such as building fires, damage by third parties and criminal sabotage. A site-risk review process identifies and collects information on these major hazards.



2. Transpower’s infrastructure and risk management framework

Managing risk is an integral element of asset management and aligns with Transpower’s corporate risk strategy. It is not a standalone activity, but integrated and evolving over time to ensure delivery to strategic priorities. The approach to risk management and assurance is aligned with Transpower’s Risk Management Policy and guidelines.

Transpower identifies and monitors risks as part of regular risk management reviews. Risks are managed to ensure adequate mitigations and controls are in place to bring the risks down to manageable levels, within Transpower’s Risk Appetite Statement and tolerances.

Critical risks related to transmission infrastructure are identified in Transpower’s annual Asset Management Planning Report (**Asset Management Plan**). This applies a criticality framework to systematically consider consequences of these risks including service performance, public safety, worker safety, environmental, and direct cost impacts.

Transpower actively manages risks to assets through risk, hazard and environment assessments, technical specifications for assets and operations, design testing and build standards and regular monitoring and measurement of the transmission network.

The transmission network is operated to a high level of reliability, availability and security. Transpower measures and reports on a range of service measures, including grid

performance measures such as the number and duration of unplanned interruptions. Network performance and targets are summarised and disclosed annually in the **Integrated Report**.

Transpower continues to develop its asset and resilience strategies to meet changing climate, electrification demand, and shifting generation mix trends. The Commerce Commission has allowed expenditure for a proactive resilience programme for 2025-2030. The expenditure covers investments in risk reduction and readiness.

Three climate scenarios have been developed to help identify Transpower’s climate-related risks and opportunities, and to better understand the resilience of its strategies, assets, and business operations to climate change. Climate risk scenarios used are informed by international and New Zealand-based research and sector insights.

Transpower’s climate change scenarios are based on degrees of temperature rise due to global warming out to 2100 and consider a wide range of information to represent possible global, national, and industry-specific developments. They are split into three-time horizons:

- Short term (2025 - 2040)
- Medium term (2041 - 2060)
- Long term (2081 - 2100)

Transpower has adopted three climate scenarios:

- 1.5°C scenario - A narrow path towards sustainability. This scenario describes a highly electrified economy, while recognising the need for industry to adapt to the effects of climate change.
- 2.5°C scenario - A continuation of historical socio-economic trends, leads to increasing inequality. A lack of industry coordination exacerbates inequality and slows investments required for Aotearoa New Zealand to meet its climate ambitions.
- 3.5°C scenario - Increasing competition and regional conflicts, resulting in national and regional security issues. This scenario describes a world that is unable to decarbonise fast enough, and where most resources need to be directed towards climate change adaptation.

The **Climate Statement** provides further information about how Transpower applies these climate scenarios. These scenarios are also used in our **Climate Adaptation Plan** which sets out possible climate impacts and adaptation responses for the national grid, together with an action plan for the next five years. Transpower continues to further mature its approach and integrate climate change within existing asset and risk management approaches.



3.Transpower’s climate related critical interdependencies

Critical interdependencies between the transmission infrastructure, the system it operates in and climate resilience benefits of the system include, but are not limited to:

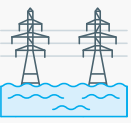
Critical Interdependencies	Potential Impacts from Transpower’s Infrastructure	Enhancements and Benefits of Transmission Infrastructure	Management Description
The effects of supply disruption or interruption on dependent electricity users or populations	• Constraints on new renewable generation and electrification • Insufficient connections of renewable generation or to new/increasing consumption • Transmission asset outages	• Transpower plays an active role in enabling new connections to the electrical system including new renewable generation and changing customer demand needs • System security and redundancy are actively managed to high service levels supporting asset resilience and service quality • Service performance is measured and monitored including grid interruptions and grid availability and published annually	• Transmission and electricity supply outages have been trending downwards over the past ten years • Transpower manages assets and operations to technical standards for design, operation and service • Minimum service standards are agreed with regulators, monitored and reported • Transpower maintains a procurement policy and asset fleet strategies and management plans to mitigate against the potential for supply disruption
Exacerbation of wildfires	• Transpower’s assets can cause and are exposed to wildfire/bushfire risk with the risk to assets and transmission disruption • Reliability of supply will impact electrification	• Transpower’s transmission lines are protected by transmission corridors with minimum lines clearance requirements. These are regularly monitored and maintained reducing the risk of wildfires from Transpower’s activities and risks to Transpower’s assets and security of electricity supply • Transpower’s substation assets are designed and maintained with a focus on fire risk mitigation and reduction • Enabling renewable generation, displacing thermal generation reduces GHG emissions	• Transpower maintains transmission lines specifications and standards for clearances and vegetation management. In addition, minimum operating and protection specifications and standards are used to reduce fire risks • Transpower’s substation assets are designed with fire risk design specifications, fire mitigation controls and low combustible materials • Transpower monitors system threats and conditions in real-time with active management of lines under threat of wildfire, such as deenergising lines at risk
Relationships of the asset/project to nearby flood zones	• Transpower’s substation assets are exposed to risks from river (fluvial), rain (pluvial), and coastal flooding risking transmission disruption and supply issues	• Transpower has identified substation sites and transmission towers and infrastructure prone to flood risk • System redundancy is built into the transmission network to reduce risk of supply disruption from weather and flooding • Transpower is active in managing adaptation and resilience responses to local hazards, including flood risks	• Substation locations are assessed for flood risk • Transpower has identified sites at risk of fluvial, pluvial, and coastal flooding • Flood risk mitigation works is undertaken on a prioritised basis, and Transpower has processes for ongoing assessment and monitoring of risks
Reduction in pollinating insects and birds	• Transpower’s assets have an impact on pollinating insects and birds through substation sites and transmission lines	• Transpower has environmental policies and service specifications which specify the requirements for managing effects on the environment and environmental compliance relating to the construction, maintenance and upgrade of Transpower’s assets • Transpower’s Environmental Policy and Planning Group manage environmental functions including: ◦ developing and managing Transpower’s environmental management system ◦ developing best practice approaches in environmental processes ◦ facilitating compliance with environmental legislation ◦ building effective relationships with external stakeholders (such as councils, central government)	• Transpower’s Biodiversity Strategy outlines its aspiration of: ◦ Avoiding further decline in biodiversity by taking steps to maintain biodiversity ◦ Create a net biodiversity gain for projects ◦ Leave the environment in a better state, by taking a Kaitiakitanga² approach and working collectively with iwi³, hapū⁴ and other parties to nurture and protect biodiversity

Critical Interdependencies	Potential Impacts from Transpower’s Infrastructure	Enhancements and Benefits of Transmission Infrastructure	Management Description
Reduction in biodiversity or High Conservation Value habitat	• Transpower’s assets are adjacent to and run across conservation habitats	• Transpower undertakes environmental impact assessments and seeks to minimise its impact on the environment • Our approach to biodiversity protects and nurtures the ecosystems and species we come into contact with	
Fire and other practices that affect air quality	• Transpower’s operations do not involve combustion, fire or thermal generation • Transpower operates with a small volume of GHG’s such as SF₆ • Transpower’s operations and transmission enable New Zealand’s high renewable generation and reduce dependence on thermal generation	• Transpower actively manages the fire risk from our assets through segregation, transmission line corridors, minimum clearance, active and passive fire monitoring and suppression systems • Transpower actively manages and monitors its use of SF₆ and GHG emissions arising out of its operations and transmission losses • Transpower’s HVDC transmission lines shift renewable hydro generation from the lower South Island to North Island with reduced transmission losses, reducing system requirements for thermal generation	• Transpower’s sustainability strategy and performance targets include GHG emissions reduction targets • Transpower’s SF₆ strategy aligns with Transpower’s 2030 emission reduction target and aspiration to achieve net zero by 2050. The SF₆ strategy prioritises proactive leak detection and maintenance for existing assets, replacement of low-voltage switchgear with SF₆-free alternatives at end of life where suitable, and continued monitoring of international best practice for SF₆-free switchgear in high voltage systems.
Damage or reduction in value of neighbouring property due to boundary structures at risk of falling during storm events	• Transpower’s transmission lines neighbour and cross third-party landowner properties	• Transpower recognises the potential impact our work can have for landowners. We work extensively with landowners and communities to build and maintain positive relationships that benefit all parties and ensure we can collectively carry on with our activities	• Transpower actively works to minimise impact of assets and operations on neighbouring property and landowners • Maintains asset and risk management practices to reduce risk of asset failures during storm events • Maintains service specifications for environment and landowner management • Risk-based asset management practices to reduce the risk of asset failures during storm events • Whilst Transpower can acquire land through a compulsory acquisition process set out in the Public Works Act, Transpower prefers not to appropriate, or acquire land via compulsion • Where required Transpower acquires access rights via easement agreements for lines assets or freehold rights for substation assets. Obligations and compensation are determined via a negotiated process
Appropriation of land or economic assets from nearby vulnerable groups			

2 Kaitiakitanga - guardianship and protection. It is a way of managing the environment, based on the Māori world view.
3 Iwi - Extended kinship group in Māori society, larger than hapū but still descended from a common ancestor.
4 Hapū - The primary political and social unit in traditional Māori society, consisting of a number of families (whānau) sharing descent from a common ancestor.

4.Transpower’s key physical climate hazards vulnerabilities and mitigations

Transpower’s major climate related threats and mitigations are described below:

Critical Interdependencies	Potential Impacts from Transpower’s Infrastructure	Enhancements and Benefits of Transmission Infrastructure	Management Description
 Land stability	• Towers, poles, access ways and communication cables • Landslides damaging buildings and structures	• Board governance oversight of critical risks and mitigations including an Audit and Risk Board Committee which meets quarterly and reviews critical risks • Transpower has a Risk Management Policy and risks are actively managed in operations • Asset management planning has a risk based, approach, included within asset class strategies and portfolio management plans • Implementation of a Grid Resilience Strategy • Transpower invests in risk reduction and readiness in accordance with a Resilience Portfolio Management Plan • Maintains technical standards for transmission lines and substations including design and operating specifications • Transpower published a Climate Adaptation Plan in September 2024 and implementation is underway	• Geotechnical reviews undertaken • Identification of at-risk sites • Monitoring and proactive remediation of identified high risk sites • Regular maintenance on access ways, and targeted resilience investments for bridges and access tracks • Engage with research initiatives to develop and improve probabilistic risk models for landslide hazards
 Flooding	• Towers, poles, access ways and communication cables • Towers and poles in braided rivers • Substations, control equipment and cables	• Design and operation management is informed by site risk and hazard assessments • Regular monitoring and maintenance programmes are linked to asset health and asset criticality framework and monitoring	• Identification of assets exposed to pluvial (rain), fluvial (river) and coastal flooding • Targeted resilience investments to reduce flood risks to substations and transmission lines, including elevating critical equipment, installing bunds, drainage; and strengthening and protecting assets in or near rivers
 Severe weather, wind and tornadoes	• Substation asset damage • Transmission lines and optical ground wire failures • Lightning strikes • Increased bush fire risk	• Design and operation management is informed by site risk and hazard assessments • Regular monitoring and maintenance programmes are linked to asset health and asset criticality framework and monitoring • Continuous monitoring and management of system risks and threats is undertaken across the network • Geospatial modelling and analysis of assets versus risks is adopted • System redundancy, critical spares and readiness plans maintained and practiced with power industry and maintenance crews	• Vegetation management is undertaken on regular cycles, to manage vegetation encroachment on transmission corridors and reduce risk • Design specifications for assets apply site-specific wind loading • Condition assessments are regularly undertaken and reported • Weather monitoring geospatial tools are utilised • Strengthening HVDC towers that are vulnerable to high winds • Lightning risk monitoring, measurement and detection
 Snow & ice	• Increased mechanical loadings on lines and optical ground wires • Increased mechanical loading on buildings		• Weather monitoring geospatial tools are utilised • Design specifications require assets are built to withstand local hazards, including snow and ice loading
 Increased temperatures	• Derating of all current carrying assets and a shift to a summer peak • Insufficient cooling of control equipment particularly at stations		• Minimum clearance distances for transmission lines • Operating policies, specifications and standards
 Wildfire	• Wildfire encroaching assets • Transpower starting wildfire		• Transmission corridor management and landowner liaison • Vegetation management undertaken on regular cycles, incorporating LIDAR surveys to identify, prioritise and manage vegetation encroachment on transmission corridors and reduce risks • Regular monitoring and maintenance of high-risk assets and areas • Real-time monitoring of fire weather and risks for operations

In measuring the effectiveness of Transpower’s operations and risk management, Transpower assesses performance against key service standards as well as asset health and other measures identified by Transpower in its annual Statement of Corporate Intent (**SCI**). Performance is disclosed annually in the Our Targets and Performance disclosure in the **Integrated Report**. Transpower has also commenced regular reporting on material climate-related risks in its annual **Climate Statement**.

Glossary

GW/GWh	Gigawatt / Gigawatt Hours
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
MBIE	Ministry of Business, Innovation and Employment - is the public service department of New Zealand charged with "delivering policy, services, advice and regulation"
MW/MWh	Megawatt / Megawatt Hours
SF ₆	Sulphur Hexafluoride - gas used as insulation in some of Transpower’s electrical switchgear



TRANSPOWER NEW ZEALAND LIMITED - CBS
VERIFICATION OPINION



Document Title: Transpower New Zealand Limited Programmatic Verification Opinion
Prepared By: DNV Business Assurance Australia Pty Ltd
Location: Sydney, Australia
Date: 4th November 2025
DNV Reference: DNV-2025-ASR-10455264



DNV VERIFICATION OPINION

Scope and Objectives

Transpower New Zealand Limited (“Transpower” or “Issuer”) has issued Green Financing Instruments against its pool of eligible projects and assets. From 2022, Transpower has elected to conduct its Certified Green Bond Issuance in a Programmatic format as facilitated by the Climate Bonds Standard v4.1 (“CBS”), which is consistent with the Climate Bonds Standard v3.0.

Transpower Green Financing Instruments that have been issued and are outstanding as at 30 June 2025 for verification include:

	NZX Code/CUSIP/ISIN	Maturity Date	Total Allocated Green Financing Instrument (NZDm) as of 30 June 2025
Domestic Bond	NZTRPD0070L9	4-Sep-25	450.0
Domestic Bond	NZTRPD0080L8	8-Apr-26	150.0
United States Private Placement Note	AZ4207710	28-Jun-26	110.3
Domestic Bond	NZTRPD0090L7	8-Sep-26	200.0
Domestic Bond	NZTRPD0926L2	14-Sep-26	200.0
United States Private Placement Note	AZ4207686	13-Oct-26	85.8
Domestic Bond	NZTRPD0100L4	16-Sep-27	200.0
Swiss Bond	CH0461238997	16-Dec-27	196.8
Domestic Bond	NZTRPD0328L1	15-Mar-28	100.0
United States Private Placement Note	AZ4207728	28-Jun-28	110.3
Australian Medium- Term Note	AU3CB0294528	29-Nov-28	216.2
Swiss Bond	CH0522158838	16-Mar-29	241.4
Swiss Bond	CH1376931601	4-Feb-30	233.4
Australian Medium- Term Note	AU3CB0300655	30-Jun-30	325.5
Swiss Bond	CH1290871032	21-Mar-31	276.7
Australian Medium- Term Note	AU3CB0319432	12-Mar-32	298.7
Swiss Bond	CH1376931619	4-Feb-33	252.9
Total Green Financing Instruments			3,648



Transpower has used the proceeds of the Instruments to finance the nominated projects and assets falling under the following categories:

- Electrical Grids and Storage

DNV Business Assurance Australia Pty Ltd (henceforth referred to as “DNV”) has been commissioned by Transpower to provide the Annual Programmatic Verification of the Bonds as an independent and approved verifier under the Climate Bonds Standard. Our criteria and information covered to achieve this is described under ‘Work Undertaken’ below.

No assurance is provided regarding the financial performance of the Bonds, the value of any investments in the Bonds, or the long-term environmental benefits of the transaction. Our objective has been to provide an assessment that the Bonds have met the criteria of the Climate Bonds Standard Version 4.1 (“CBS”) and the associated Technical Criteria on the basis set out below.

The scope of this DNV opinion is limited to the Climate Bonds Standard Version 4.1 and the following associated Sector Technical Criteria:

- Electrical Grids and Storage (v1)

The nominated projects and assets which fall under the Electrical Grids and Storage category have been certified in the Pre-Issuance verification under the Electrical Grids and Storage Criteria v1. As confirmed through discussion with CBI, these assets were certified, have been earmarked, and continue to be recognised as eligible by CBI. Any new assets introduced into the pool will have to align with the criteria applicable at the time of being admitted.

Responsibilities of the Management of Transpower and DNV

The management of Transpower has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform Transpower’s management and other interested stakeholders in the Framework as to whether the Framework is aligned with the Principles & Standards. In our work we have relied on the information and the facts presented to us by Transpower. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by Transpower’s management and used as a basis for this assessment were not correct or complete.

Basis of DNV’s Opinion

DNV has conducted the verification against the CBS V4.1, associated Sector Criteria through the creation and execution of a verification protocol addressing each requirement of the CBS V4.1 and the relevant Sector Criteria. The detail of areas covered in the DNV verification is summarised in Schedule 2 below.

DNV has conducted the verification against CBS V4.1 and the Electrical Grids and Storage Criteria v1.

Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by Transpower in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation and execution of a Climate Bond Standard Protocol, adapted to include the relevant Sector Technical Criteria for the Bonds nominated projects and assets, as described above and in Schedule 2 to this Assessment;
- Assessment of documentary evidence provided by Transpower on the Bonds and supplemented by high-level desktop research, onsite visit for documentation review and interviews with key



personnel from the issuer Transpower. These checks refer to current assessment best practices and standards methodology;

- Review and testing of impact reporting data where possible;
- Discussions with Transpower management, and review of relevant documentation;
- Documentation of findings against each element of the criteria.



Findings and DNV’s Opinion

DNV has performed the Pre and Post Issuance Verification of the Climate Bonds. It is DNV’s responsibility to provide an independent verification statement on the compliance of the Bonds with the **Climate Bonds Standard V4.1**.

DNV conducted the verification in accordance with the Principles & Standards and with International Standard on Assurance Engagements *3000 Assurance Engagements other than Audits or Reviews of Historical Information*. The verification included i) checking whether the provisions of the Principles & Standards were consistently and appropriately applied and ii) the collection of evidence supporting the verification.

DNV’s verification approach draws on an understanding of the risks associated with conforming with the Standards and the controls in place to mitigate these. DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give limited assurance that the Framework, and other associated documentation, meet the requirements of the Standards.

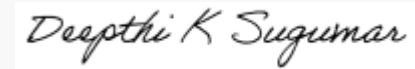
Based on the limited assurance procedures conducted, nothing has come to our attention that causes us to believe that the Climate Bonds are not, in all material respects, in accordance with the Pre and Post Issuance requirements of the CBS and Electrical Grids & Storage Sector Criteria.

For DNV Business Assurance Australia Pty. Ltd.

Sydney, Australia, 4th November 2025


Thomas Leonard
Quality Reviewer


David McCann
Lead Verifier


Deepthi K Sugumar
Verifier

About DNV

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers’ decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight. With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.



SCHEDULE 1: DESCRIPTION OF NOMINATED ASSETS

CBI Sector Criteria	CBI Subcategory	Eligible Assets	Location	Asset Category	Asset Book Value (NZDm) as of 30 June 2025	Total Allocated Green Financing Instruments (NZDm) as of 30 June 2025
Electrical Grids & Storage	Energy - Transmission and Distribution Infrastructure	Transmission and distribution infrastructure or equipment or projects that complies with the following electrical grid criterion: More than 67% of newly connected generation capacity in the system in which the infrastructure is located is below the generation threshold value of 100g CO ₂ e/kWh measured on a PCF basis over a rolling five-year period	New Zealand	HVAC – Transmission Lines	2,178	3,648
				HVAC - Substations	2,290	
				HVDC – Transmission Lines	100	
				HVDC - Substations	422	



SCHEDULE 2: CLIMATE BONDS STANDARD VERIFICATION CRITERIA

Summary criteria for assertions of compliance with the Climate Bonds Standard V4.1

A full verification is provided in the associated Verification protocol.
The criteria against which Transpower and its nominated projects & assets have been reviewed prior to inclusion in the Climate Bonds are grouped under the requirements as detailed within the CBS including:

Part A: Pre-Issuance Requirements

Area	Requirement
Use of Proceeds	Nominated projects & assets which are proposed to be associated with the Bonds and which have been assessed as eligible activities under the CBS related Sector Criteria
Project Selection	Establish, document and maintain a decision-making process which it uses to determine the eligibility of the Nominated Projects & Assets
Management of Proceeds	The systems, policies and processes to be used for management of the Net Proceeds shall be documented by the Issuer
Reporting Prior to Issuance	Issuer shall prepare a Green Financing Framework and make it available prior to Issuance or at the time of issuance to lenders
Reporting	Reporting on use of proceeds and nominated projects and assets

Part B: Post-Issuance Requirements

Use of Proceeds	Nominated Projects & Assets which are proposed to be associated with the Bonds and which have been assessed as likely to be Eligible Projects & Assets
Project Selection	Establish, document and maintain a decision-making process which it uses to determine the eligibility of the Nominated Projects & Assets
Management of Proceeds	The systems, policies and processes to be used for management of the Net Proceeds shall be documented by the Issuer
Reporting	Reporting on use of proceeds and nominated projects and assets



Part C: Eligible Projects and Physical Assets

Nominated projects and assets include financing or refinancing of or investments in equipment and systems which enable the mitigation of greenhouse gases, as detailed in Schedule 1.

Eligible Criteria	Eligible Criteria and Description
Electrical Grids & Storage	More than 67% of newly connected generation capacity in the system in which the infrastructure is located is below the generation threshold value of 100g CO ₂ e/kWh measured on a PCF basis over a five-year period.

Part D: Certification under the Climate Bonds Standard

Area	Requirement
Pre-Issuance Certification	The Issuer of a Climate Bonds Standard Certification must satisfy the Pre-Issuance Certification requirements including the completion of all forms, Pre-Issuance Verification by an approved verifier and provision of relevant information.
Post-Issuance Certification	The Issuer of a Climate Bonds Standard Certification must satisfy the Post-Issuance Certification requirements including the completion of all forms, Post-Issuance Verification by an approved verifier and provision of relevant information.
Maintaining Certification	The Issuer shall provide annual reporting to the CBI and comply with non-conformance correction as required.



SCHEDULE 3: ALIGNMENT WITH UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Alignment of the Use of Proceeds against the United Nations Sustainable Development Goals (UN SDG).

In addition to the Programmatic verification, DNV has reviewed the Use of Proceeds and nominated assets associated with the Transpower Green Bonds for alignment with the UN SDGs in the following table.

Use of Proceeds	UN SDG	UN SDG Target		Assessment of Contribution to Achieving the SDG
Energy – Transmission and Distribution Infrastructure	7. Affordable and Clean Energy	7.1	By 2030, ensure universal access to affordable, reliable and modern energy services	Compliance with CBI Electrical Grids and Storage criteria. This includes a mitigation component to confirm any claims of GHG abatement or avoidance and an adaptation and resilience component that evaluates the planning, design, risks and impacts of the asset. It is noted that, energy transmission and distribution assets have become a piece of critical infrastructure in New Zealand due to an expected 80% increase in electricity demand by 2050. Compliance with the CBI Electrical Grids and Storage criteria demonstrates a contribution towards UN SDG 7, Target 7.1.
	9. Industry, Innovation and Infrastructure	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, with all countries	Compliance with CBI Electrical Grids and Storage Criteria is consistent with the development of and investment in critical energy transmission and distribution infrastructure providing climate adaptation and resilience benefits. DNV confirms that this demonstrates a contribution towards UN SDG 9, Target 9.4.



			taking action in accordance with their respective capabilities	
	13. Climate Action	13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Compliance with CBI Electrical Grids and Storage criteria. The energy transmission and distribution infrastructure assets are part of the Transpower strategic investment plans to support adaptation and resilience in New Zealand. Compliance with the CBI Electrical Grids and Storage criteria demonstrates a contribution towards UN SDG 13, Target 13.1.
	15. Life on Land	15.5	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Compliance with CBI Electrical Grids and Storage criteria. Transpower’s Sustainability Strategy 2024/25 outlines ongoing environmental stewardship initiatives that support KPIs that aim to deliver a net biodiversity gain, and improve water quality and reduce contamination risks. Compliance with the CBI Electrical Grids and Storage criteria demonstrates a contribution towards UN SDG 15, Target 15.1.



TRANSPower