



TRANSPOWER

Greenhouse Gas Emissions Inventory Report

Transpower New Zealand Limited

Version: Final

Inventory Period: 1 July 2025 to 30 June 2026

Date: 27 August 2026



This Greenhouse Gas Emissions Inventory Report is dated
27 August 2026 and is signed on behalf of the Board by:



Michele Embling
Board Chair

27 August 2026



Kevin Palmer
Audit and Risk Committee Chair

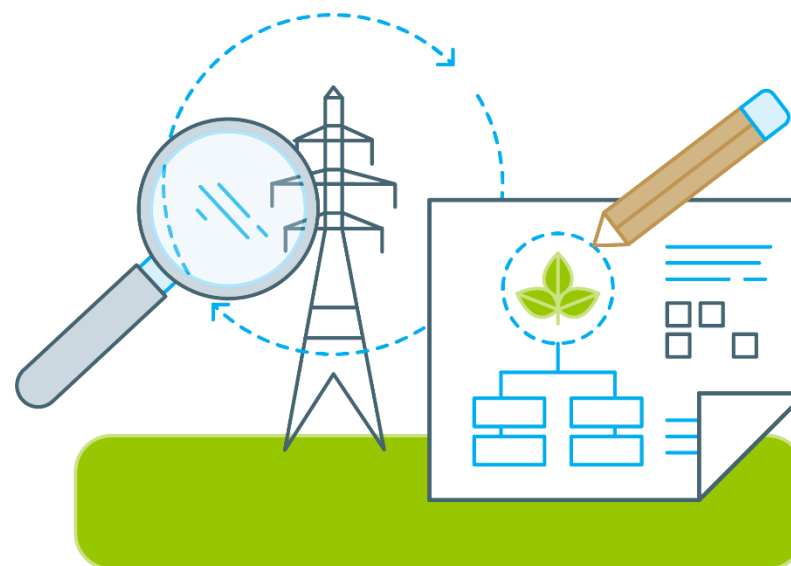
27 August 2026



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Greenhouse Gas Emissions Inventory Summary

Transpower New Zealand Limited’s (Transpower’s) total gross Greenhouse Gas (GHG) emissions for FY26 were calculated at 147,903 tonnes of carbon dioxide equivalent (tCO₂e). Figure 1 and Table 1 below summarise the main sources of emissions for the financial year 1 July 2025 – 30 June 2026 (FY26).

All emissions in this GHG Emissions Inventory Report (GHG Inventory Report) are gross emissions. Gross emissions are total GHG emissions excluding any removals, and excluding any purchase, sale or transfer of GHG emission offsets or allowances – as opposed to net GHG emission reductions, which are GHG emissions less offsets via carbon sequestration.

Figure 1. GHG Emissions Inventory Summary for Reporting Period 1 July 2025 to 30 June 2026

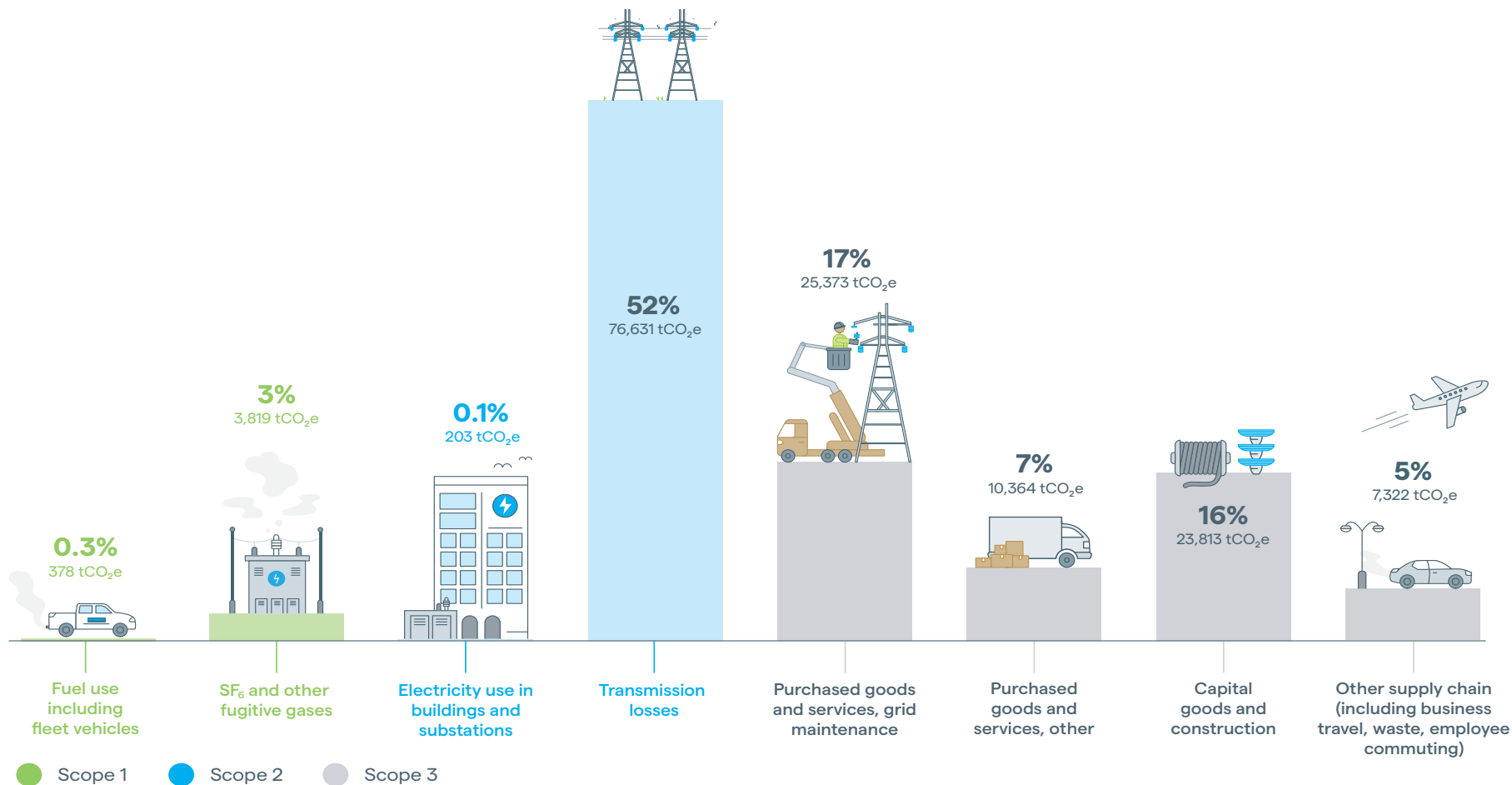


Table 1. Transpower FY26–FY24 GHG Emissions Comparisons by GHG Protocol Breakdown (tCO₂e)

Scope	GHG Protocol Category		Subcategory	FY26	FY25	FY24 ¹
Scope 1	Mobile combustion	Diesel		140	137	126
		Petrol		186	188	167
	Mobile combustion total			326	325	293
	Stationary combustion	Fuel		9	0	0
		Natural gas		43	40	50
	Stationary combustion total			52	40	50
	Fugitive gases	Refrigerants		104	106	114
		SF ₆		3,715 ^{2,3}	3,376	3,091 ⁴
	Fugitive gases total			3,819	3,482	3,205
Scope 1 total				4,197	3,847	3,548
Scope 2 (location-based)	Electricity use	Non-operational buildings		126	250	236
		Operational buildings		77	133	116
	Electricity use total			203	383	352
	Transmission losses	Transmission losses		76,631	153,775	135,928
Scope 2 total				76,834	154,157	136,280
Scope 3	Category 1: Purchased goods & services	Grid maintenance		25,373	20,203	18,512
		Engineering services		1,921	1,843	1,841
		IT services		2,602	2,259	2,213
		Other		5,841	3,816	3,481
	Purchased goods and services total			35,737	28,121	26,047

¹ Following publication of the FY25 GHG Inventory Report, a minor omission was identified in the prior-year restatement process. Historical electricity-use emissions (FY24) have been corrected where used in this GHG Inventory Report to align with the updated methodology applied to transmission loss emissions. The impact on reported emissions totals was not material. These restated figures have not been subject to assurance procedures. More information on the restatement can be found in [Section 6](#).

² As noted in [Section 4.1](#), FY26's SF₆ figure includes 12 kg (282 tCO₂e) from FY25 emissions entered after the cutoff date and so were not included in the FY25 GHG Inventory Report.

³ As noted in [Section 4.1](#), Transpower uses the SF₆ GWP required by NZ ETS participants, which is based on IPCC AR5. An IPCC AR6 has been released with an updated GWP for SF₆, which if used would result in Transpower's SF₆ emissions being 3,842 tCO₂e for FY26 (3,550 tCO₂e excluding the 12 kg from FY25, which would be 292 tCO₂e).

⁴ FY24 SF₆ emissions were calculated from gas-transaction data (fills and degassing). The system also identifies cylinder-weight anomalies; these totalled a 4.3 kg SF₆ delta (101 tCO₂e), which was excluded from reported emissions. If included, total SF₆ emissions would have risen by ~3% to 3,192 tCO₂e.

Scope	GHG Protocol Category	Subcategory	FY26	FY25	FY24 ¹
Scope 3	Category 2: Capital goods	Construction	12,574	18,358	11,111
		Electrical equipment	10,361	11,320	9,335
		Other	878	588	448
	Capital goods total		23,813	30,266	20,894
	Category 3. Fuel & energy related activities	Electricity T&D losses	23	27	18
		Gas T&D losses	1	1	2
	Fuel & energy related activities total		24	28	20
	Category 4. Upstream transportation and distribution	Upstream transportation and distribution	4,989	5,793	4,329
	Category 5. Waste generated in operations	Waste generated in operations	372	630	315
	Category 6. Business travel	Hotel stay	41	43	42
		Air travel	844	846	804
		Vehicle use	94	90	100
	Business travel total		979	979	946
	Category 7. Employee commuting	Employee commuting	898	500	425
		Working from home	22	6	4
	Employee commuting total		920	506	428
	Category 9. Downstream transportation & distribution	Postal services	38	28	30
Scope 3 total			66,872	66,351	53,009
Total gross emissions			147,903	224,356	192,838

1. Introduction

This GHG Inventory Report describes Transpower's FY26 emissions. A summary of this GHG Inventory Report is also published in Transpower's *Integrated Annual Report 2025/26* and its *Climate Statement 2025/26* (both published August 2026 on [Transpower's website](#)).

1.1 Statement of Intent

Transpower prepares this GHG Inventory Report annually to provide a transparent and consistent account of its greenhouse gas emissions. It has been prepared in accordance with the following best practice standards:

- Aotearoa New Zealand Climate Standards (External Reporting Board, 2022) – NZ CS;
- *ISO 14064-1 Greenhouse Gases – Part 1 Standard* (International Standards Organisation, 2018) – ISO 14064-1;
- the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (World Resources Institute, 2004) – GHG Protocol;
- the *Greenhouse Gas Protocol Scope 2 Guidance* (World Resources Institute, 2015) – GHG Protocol S2 Guidance; and
- *The Greenhouse Gas Protocol Corporate Value Chain Standard* (World Resources Institute, 2011) – GHG Protocol CVCS.

1.2 Organisation Description

Transpower owns and operates Aotearoa New Zealand's high voltage electricity transmission system (the national grid) and, as System Operator, manages real-time operation of the transmission system and wholesale market. It is a limited liability company and a State-Owned Enterprise, with shares held on behalf of the Crown by the Minister of Finance and the Minister for State-Owned Enterprises. Further information about Transpower is available at <https://www.transpower.co.nz/about-us>.

Transpower supports Aotearoa New Zealand's transition to a net-zero economy by enabling electrification and expanding access to renewable generation. Its work to connect new generation and load, invest in grid infrastructure, and operate the system efficiently helps decarbonise electricity and reduce emissions in transport and process heat. New Zealand's electricity system is already around 90% renewable and expected to increase further. To maintain a safe, secure, and reliable supply, Transpower continues to invest in infrastructure and system operation.

Transpower aims to reduce emissions from its own operations and strengthen the resilience of its assets to climate change, working closely with service providers and suppliers across the national grid.

Strategic publications *Whakamana i Te Mauri Hiko*, *Transmission Tomorrow*, and the *Electrification Roadmap* outline how the grid will evolve as electricity demand grows and more renewable generation, solar, batteries, and electrified process heat come online.

Transpower's *Sustainability Strategy* guides work across climate change, environmental stewardship, and sustainable business, with goals aligned to the United Nations Sustainable Development Goals (SDGs 7: Affordable and Clean Energy; 9: Industry, Innovation, and Infrastructure; 12: Responsible Production and Consumption; 13: Climate Action; and 15: Life on Land).

2. Purpose, Scope, and Reporting Boundary

2.1 Purpose of Report

This GHG Inventory Report discloses Transpower's gross Scope 1, Scope 2 (location-based), and Scope 3 emissions for the reporting period and outlines the methodologies, assumptions, exclusions, and data sources applied. The GHG Inventory Report supports internal and external climate reporting, including disclosures required under the NZ CS. It does not include any future forecasts.

2.2 Scope of Reporting

Transpower's data is structured around GHG Protocol Scopes 1–3, with corresponding ISO 14064-1 category mapping also provided. Source inclusions and exclusions are detailed in [Appendices 1 and 2](#).

Scope 1: direct emissions from fuel combustion and fugitive gases (SF₆ and refrigerants).

Scope 2: electricity use and transmission losses. All Scope 2 emissions disclosed in this report are location-based.

Scope 3: upstream and downstream emissions: purchased goods and services, capital goods, transmission and distribution (T&D) losses for purchased energy, business travel, waste, commuting, freight, postal services.

2.3 Consolidation Approach

Organisational and Operational Boundaries

Transpower applies the operational control approach, which covers operational activities across Transpower's offices, warehouses, substations, grid assets, and service provider work undertaken within Transpower's operational control.

Transpower's organisational structure includes several subsidiaries and related entities, which are Halfway Bush Finance Limited, TB and T Limited, Risk Reinsurance Limited, and emsTradepoint Limited. Halfway Bush Finance Limited and TB and T Limited are party to a cross-border lease over most of the South Island heating, ventilation and air conditioning (HVAC) assets.

The organisational boundary for this GHG Inventory Report includes the operations and associated emissions of Transpower and its subsidiaries. Halfway Bush Finance Limited and TB and T Limited have no active operations and therefore no associated emissions. Risk Reinsurance Limited, Transpower's captive insurance subsidiary, also has no emissions. emsTradepoint Limited operates from Transpower's offices with a

small staff and its emissions are de minimis, which are included within Transpower's reported emissions.

3. Governance, Responsibility, and Assurance

The Sustainability Team compiles the inventory using activity data and emissions factors sourced from internal business units and service providers.

[Sections 2, 3, and 4](#) and [Appendices 1 and 2](#) have been subject to independent limited assurance in accordance with the NZ SAE 1 *Assurance Engagements over Greenhouse Gas Emissions Disclosures* and ISAE (New Zealand) 3410 *Assurance Engagements on Greenhouse Gas Statements* as part of the assurance requirements of Transpower's Climate Statement prepared in accordance with the Aotearoa New Zealand Climate Standards.

4. Methodologies, Data Sources, and Uncertainties

4.1 Measurement Standards

Transpower has presented its emissions in accordance with ISO 14064-1, GHG Protocol, GHG Protocol S2 Guidance, and GHG Protocol CVCS methodologies. Emissions factors and activity data are sourced from:

- Ministry for the Environment (MfE): Measuring Emissions Guide (2026);
- Energy Market Services (EMS): electricity data hub, em6 (2026);
- Ministry for Business, Innovation and Employment (MBIE): Quarterly Electricity Liquid Fuel Emissions Data (2026);
- thinkstep-anz: Spend-Based Emission Factors for New Zealand (2023 – adjusted for inflation); or
- Intergovernmental Panel on Climate Change (IPCC): Fifth Assessment Report (AR5) Global Warming Potential (GWP) (consistent with the emission factor

applied to sulphur hexafluoride (SF₆) by the New Zealand Emission Trading Scheme (NZ ETS) as part of Transpower's annual SF₆ surrender).

4.2 Assumptions and Limitations

This GHG Inventory Report includes a range of activity sources, calculation methods, emission factors, and estimates. Where actual activity data is unavailable, Transpower uses the most appropriate available proxy, spend-based calculation, or conservative assumption. The key assumptions and limitations are summarised below, with further source-level detail provided in [Appendix 1](#).

- Where electricity meters are not installed at a Transpower site, usage is estimated using data from a comparable site and submitted to BraveGen.⁵ As this electricity is supplied directly from the transmission system, the resulting emissions are reported within transmission loss emissions.
- Emission factors for the national grid transmission losses are calculated using the most recent generation emission data from the em6 dataset.
- This transmission loss-derived generation emission factor is also applied to operational and non-operational building electricity use in GHG Protocol Scope 2 (ISO 14064-1 Category 2), as there is no more accurate factor available.
- Scope 3 emissions calculated using spend-based emission factors rely on industry-average factors rather than supplier-specific data. Additional estimates are applied for certain categories, including freight and waste, where some activity-level data is not available.
- ADEME (The French Agency for Ecological Transition) emission factors are used for some supplier provided emissions data.
- Air travel emissions include radiative forcing for domestic flights and radiative forcing plus a 9% uplift for international flights.
- Refrigerant gas (hydrofluorocarbons – HFCs) emissions are estimated using leakage and equipment assumptions where asset-level refrigerant data is incomplete.

- All GHG quantities are converted to tCO₂e using GWP factors from IPCC's *The Physical Science Basis* (2013), Table 8.A.1.
- A 100-year time horizon is applied for all GWPs in this GHG Inventory Report.

4.3 Changes to Approach Used Previously

Transpower has updated its approach for electricity use and transmission-loss calculations to a quarterly cycle. Electricity consumption data and the relevant emission factors are now processed using the latest EMS generation data each quarter. Transmission loss emissions are similarly recalculated to reflect changes in the generation mix across the year.

The methodology for calculating Transpower's staff commuting and working from home emissions has been updated in FY26 to better reflect both transport mode usage and commuting distance based on employee survey responses. The revised approach also refines assumptions related to office attendance patterns. This update has resulted in higher reported emissions compared with previous years but does not represent the correction of an error and therefore, in addition to the low materiality of these emissions, has not resulted in a restatement of prior reporting periods.

4.4 Impact of Uncertainty

Some level of uncertainty is associated with the preparation of a GHG emissions inventory. Whilst Transpower data sources are verifiable, [Appendices 1](#) and [2](#) of this GHG Inventory Report outline our approach to uncertainty considerations. For those emissions where estimates are required, Transpower has adopted more conservative estimates.

⁵ A centralised carbon reporting software tool. This software uses a calculation methodology for quantifying the GHG inventory using emission source activity data multiplied by relevant GHG emissions factors.

4.5 Activity Data Sources

Data was obtained from:

- EMS (electricity, transmission losses);
- Primary Assets Engineering (SF₆ inventory and losses);
- Facilities Management (energy, fleet, diesel generators);
- Procurement (spend-based and supplier-provided Scope 3 data);
- Finance and Performance (travel, rental, claims);
- Service providers and other key suppliers (actual emissions data where available).

4.6 Emission Factor Sources

Emission factor sources are summarised in [Appendix 1](#).

5. Emissions by GHG Protocol Scope and ISO 14064-1 Category

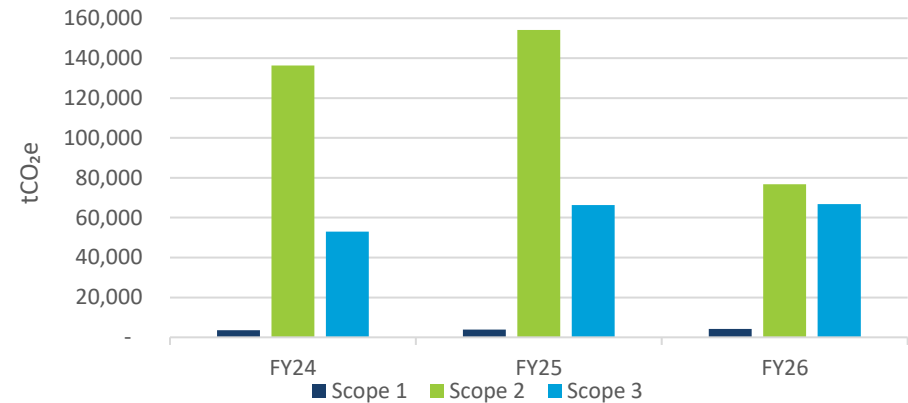
5.1 GHG Emissions Summary

Transpower's total emissions for FY26 were calculated at 147,903 tCO₂e, a decrease of 76,453 tCO₂e (or 34%) from that reported for FY25.

A comparison of Transpower's total emissions for FY24–FY26 by GHG Protocol Scope is shown in Figure 2. Further details on the main movements and underlying drivers for each GHG Protocol Scope are provided in [Section 5.2](#).

A GHG removal is defined by the GHG Protocol as an “*absorption or sequestration of GHGs from the atmosphere*”. No GHG removals, offsets, credits, or other market-based instruments were used to reduce the emissions reported in FY26.

Figure 2. Transpower historical GHG emissions by GHG Protocol Scope



Of Transpower's total tCO₂e emissions, 55% can be allocated to a specified gas type as set out in Table 2 below. The remaining 45% are Scope 3 emissions reported directly as tCO₂e from our suppliers or tCO₂e spend-based data where the specific gases are unknown. PFCs and NF₃ are not present in Transpower's network and are therefore not covered in this GHG Inventory Report.

Table 1. Total FY26 GHG Emissions by Greenhouse Gas

GHG Protocol Scope & ISO 14064-1 Category	tCO ₂ e	tCO ₂	tN ₂ O	tCH ₄	tSF ₆	tHFC	Unknown
Direct emissions (Scope 1, Category 1)	4,197	369	0.03	0.1	0.2	0.1	0
Indirect emissions (Scope 2, Category 2)	76,834	74,363	0.5	84	0	0	0
Indirect emissions (Scope 3, Categories 3, 4, 6)	66,872	964	0.03	3	0	0	65,813
Total	147,903	79,388	0.56	87.1	0.2	0.1	65,813

5.2 Total Emissions by GHG Protocol Scope and ISO 14064-1 Category

GHG Protocol Scope 1 & ISO 14064-1 Category 1: Direct Emissions from Fugitive Gases and Fuel Usage

In FY26 Transpower's Scope 1 emissions were calculated at 4,197 tCO₂e, a 9% increase from FY25 (3,847 tCO₂e). A comparison of Scope 1 emissions from FY24 to FY26 is shown in Figure 3.

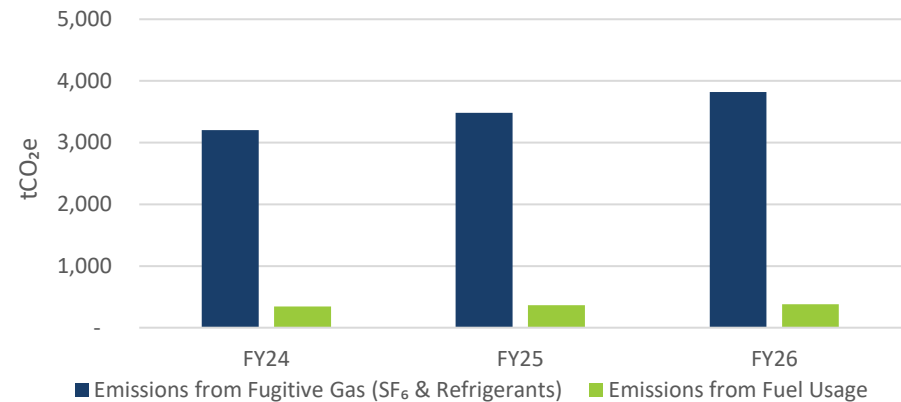
Transpower's SF₆ emissions increased 10% from 3,376 tCO₂e reported in FY25 figures to 3,715 tCO₂e in FY26. Of the FY26 total, 3,433 tCO₂e relates to FY26 emissions. The remaining 282 tCO₂e are FY25 emissions that were late SF₆ transactions not included in the FY25 GHG Inventory Report and were therefore added into the inventory for FY26. FY26 SF₆ emissions would have decreased by 6% had these emissions been included in FY25 instead.

Managing SF₆ emissions remains a key focus for Transpower. Through its *Sustainability Strategy* and *SF₆ Management Strategy*, Transpower is implementing initiatives to improve SF₆ handling, strengthen maintenance programmes, and progressively replace lower-voltage SF₆ switchgear in support of its FY30 and long-term emissions reduction targets.

Of the FY26 SF₆ emissions, 22 kg of SF₆ (517 tCO₂e) resulted from five leaking circuit breakers that required top-ups prior to repair. While leak-prone assets have either been repaired or have repairs planned, these events highlight the impact that unplanned equipment failures can have on annual emissions performance and reinforce the importance of continuing to reduce underlying SF₆ emissions across the fleet, as highlighted in Transpower's *SF₆ Management Strategy*.

Emissions from Transpower's fuel usage, including from fleet vehicles, increased 3% from FY25 figures (a total of 378 tCO₂e reported in FY26). As outlined in its *Sustainability Strategy*, Transpower continues its long-running work programme to switch to electric vehicles where suitable options exist.

Figure 3. Transpower Scope 1 Emissions

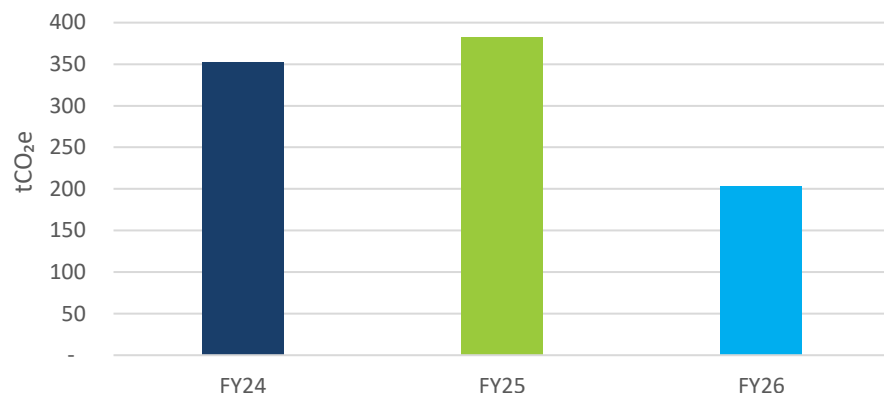


GHG Protocol Scope 2 & ISO 14064-1: Indirect Emissions from Electricity Usage

In FY26 Transpower's Scope 2 emissions were calculated at 76,834 tCO₂e, a 50% decrease from FY25 (154,157 tCO₂e). A comparison of Scope 2 emissions from FY24 to FY26 is shown in Figures 4 and 5.

Transpower's emissions from electricity usage in its buildings and retailer-metered substations decreased from 383 tCO₂e in FY25 to 203 tCO₂e in FY26 (a 47% reduction). Although electricity consumption increased slightly during the year, a higher proportion of renewable generation reduced the emissions intensity of grid electricity, resulting in lower Scope 2 emissions.

Figure 4. Emissions arising from Electricity Usage

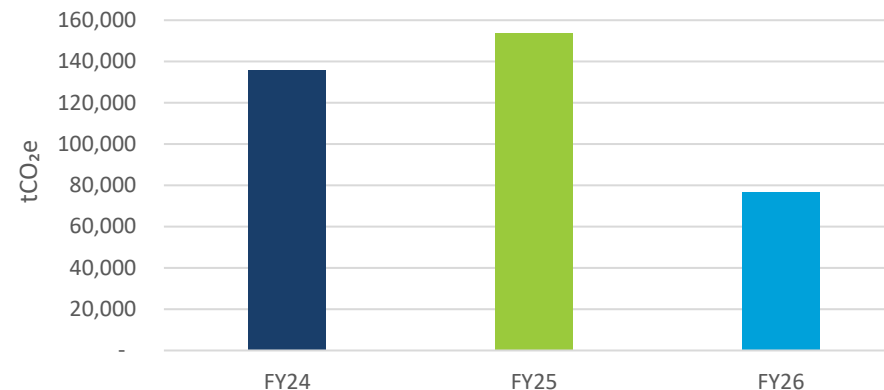


In FY26, transmission loss emissions were calculated at 76,631 tCO₂e, a 50% decrease from FY25, which was driven by the generation mix. Transmission losses remain Transpower's largest emissions source and arise from electrical resistance in national grid assets. The associated emissions reflect the carbon intensity of the generation mix and include alternating current (AC) and direct current (DC) grid losses.

These emissions are largely outside Transpower's control, but Transpower continues to monitor and report them and is exploring where it may be able to influence outcomes. Annual fluctuations are driven by climatic conditions and generation dispatch decisions, which determine the type and location of generation and the distance electricity travels, and the changing mix of generation connected to the national grid. Hydrology, plant availability, and major outages also affect the generation mix and resulting emissions.

As a State-Owned Enterprise, Transpower is investing significantly in upgrading the national grid to support Aotearoa New Zealand's electrification goals and the growth of renewable generation. While expanded and larger-scale infrastructure will increase physical transmission losses, the associated emissions are expected to decline over time as the electricity supply becomes increasingly renewable.

Figure 5. Emissions arising from Transmission Losses



GHG Protocol Scope 3 & ISO 14064-1 Categories 3, 4, and 6: Indirect Emissions from Supply Chain

As shown in Figure 6, Transpower's Scope 3 emissions were calculated at 66,872 tCO₂e in FY26, a 1% increase from FY25.

As Transpower enables Aotearoa New Zealand's electrification, Scope 3 emissions are expected to increase due to expanded grid development. Transpower continues to improve the accuracy of Scope 3 reporting through its *Sustainability Strategy* by increasing the use of supplier emissions data, enabling a better understanding of emissions trends and opportunities for emissions reduction.

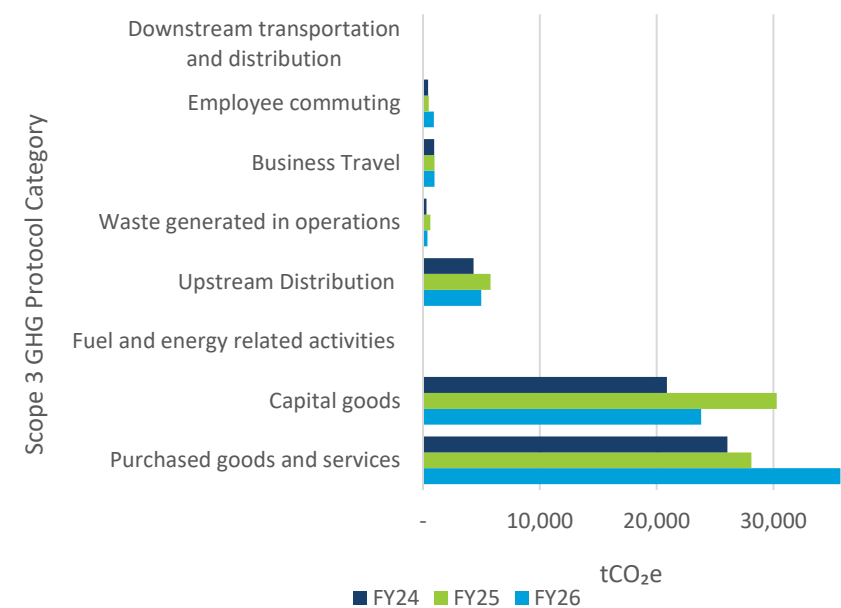
In FY26, actual emissions data was obtained for 47% of suppliers across Purchased Goods and Services, Capital Goods, and Upstream Transportation and Distribution, with 60% of Purchased Goods and Services emissions, 38% of Capital Goods, and 2% of Upstream Transportation and Distribution emissions calculated using supplier provided data.

The most significant changes in FY26 occurred in Purchased Goods and Services and Capital Goods. Purchased Goods and Services emissions increased 27%, including a 26% increase in the Grid Maintenance subcategory, reflecting both increased supplier

data coverage and the scale-up of grid development and maintenance activities. As many of these emissions arise from work undertaken by service providers on Transpower’s behalf, Transpower continues to work closely with them to support sustainable delivery.

Capital Goods emissions decreased 21% in FY26, including a 32% decrease in Construction emissions. While future growth in construction-related emissions is anticipated as grid investment continues, lower capital expenditure during FY26 resulted in lower emissions for the reporting period.

Figure 6. Transpower Scope 3 Indirect Emissions



6. Base Year and Restatements

Transpower’s base year is FY21, which was chosen as it is reflective of major projects undertaken and of a typical year of forecasted activity.

We will recalculate our base year from FY21 if any of the following apply:

- significant structural changes to Transpower, including change of ownership or control;
- material changes in methodology used to calculate emissions, e.g., significant changes to emission factors; and/or
- discovery of an error or miscalculation that is cumulative and collectively significant.

There were no material restatements in the FY26 reporting period.

Following publication of the FY25 GHG Inventory Report, a minor omission was identified in the prior-year restatement process. Historical electricity-use emissions for FY24 were subsequently corrected in this FY26 GHG Inventory Report to align with the updated methodology applied to transmission loss emissions. The correction was made to ensure consistency and alignment within Transpower's carbon reporting system.

FY24 electricity-use emissions from non-operational buildings were previously reported as 187 tCO₂e and have been revised to 236 tCO₂e, resulting in a change of 49 tCO₂e. FY24 electricity-use emissions from operational buildings were previously reported as 92 tCO₂e and have been revised to 116 tCO₂e, resulting in a change of 24 tCO₂e. These changes result in total FY24 Scope 2 electricity emissions that were previously reported as 279 tCO₂e having now been revised to 352 tCO₂e, an increase of 73 tCO₂e. The corresponding FY24 Scope 2 total and total gross emissions have also been updated.

The revised FY24 comparative figures included in this report have not been subject to external assurance procedures. The assurance engagement undertaken for the FY25 GHG Inventory Report covered the figures as reported at that time and did not include review of these subsequently revised comparative disclosures.

7. Emission Targets

Table 3 provides a summary of all targets from the baseline year to FY26, with a breakdown of each target in the subsequent sections. Transpower does not intend to rely on any carbon offsets in relation to its short-term targets.

The Board will decide whether Transpower may rely on any carbon offsets in relation to its long-term targets closer to FY40 and FY50, respectively.

Table 3. Summary of Transpower's emission targets (tCO₂e)

Target type	Target description	FY21 ⁶ Baseline	FY22	FY23	FY24	FY25	FY26	Target	Progress trajectory
Scope 1 and 2 short-term	Achieve a 44% reduction of Scope 1 and 2 emissions (excluding transmission loss emissions) by FY30	6,154	4,974	6,727	3,900	4,230	4,400	3,484	Not tracking to meet target
Scope 1 and 2 long-term	Achieve net-zero Scope 1 and 2 emissions (including transmission loss emissions) by FY40, with an absolute target of a 90% reduction	202,698	152,369	94,885	139,828	158,005	81,031	20,270	Tracking to meet target
Scope 3 short-term	Achieve less than a 64% increase of Scope 3 emissions by FY30	37,837	37,165	35,906	53,009	66,351	66,872	58,643	Not tracking to meet target
Scope 3 long-term	Achieve net-zero Scope 3 emissions by FY50, with an absolute target of a 90% reduction of Scope 3 emissions by FY50	37,837	37,165	35,906	53,009	66,351	66,872	3,753	Not tracking to meet target
Total emissions short-term	Achieve a 15% decrease of overall Scope 1, 2, and 3 gross emissions by FY30	240,536	189,535	130,791	192,838	224,356	147,903	204,455	Ahead of target

⁶ Following publication of the FY25 GHG Inventory Report, a minor omission was identified in the prior-year restatement process. Historical electricity-use emissions (FY21–FY24) have been corrected in this table to align with the updated methodology applied to transmission loss emissions. The impact on reported emissions totals was not material.

7.1 Scope 1 and 2 Emissions Reduction Targets

Scope 1 and 2 Short-term Emissions Target

Target: Achieve a 44% reduction of Scope 1 and 2 emissions (excluding transmission losses) by FY30, against an FY21 baseline of 6,154 tCO₂e.

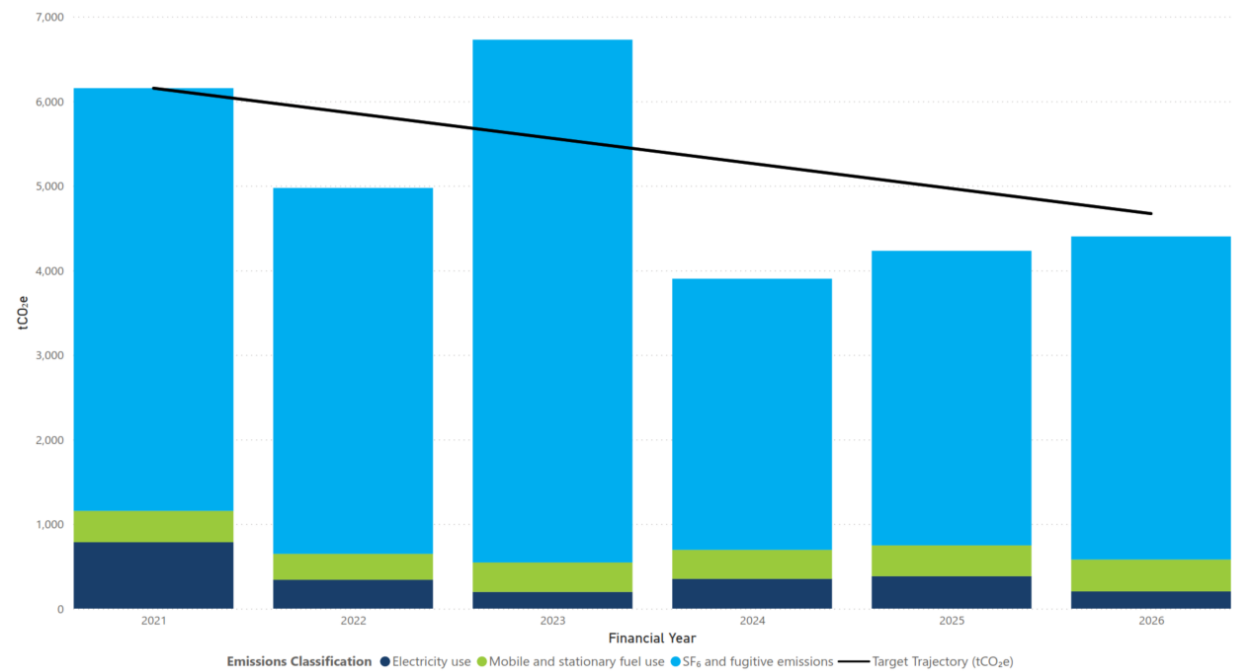
This target focuses on emissions within Transpower’s control and as such excludes transmission losses. This target aligns with recognised best practice approaches but is not accredited under the Science Based Targets initiative (SBTi).

Transpower’s FY26 Scope 1 and 2 emissions (excluding transmission loss emissions) were calculated at 4,400 tCO₂e, a 29% reduction from the FY21 baseline. As at FY26,

this equates to an achievement of 66% of Transpower’s stated 44% emission reduction target for FY30.

Figure 7 summarises historical emissions from FY21 to FY26 and demonstrates that the later financial years’ performance from FY24, when taken as a trajectory, is not consistent with Transpower tracking to achieve the FY30 target.

Figure 7 Historical Scope 1 and 2 Emissions Against Short-term Reduction Target (Excluding Transmission Losses)



Scope 1 and 2 Long-term Emissions Target

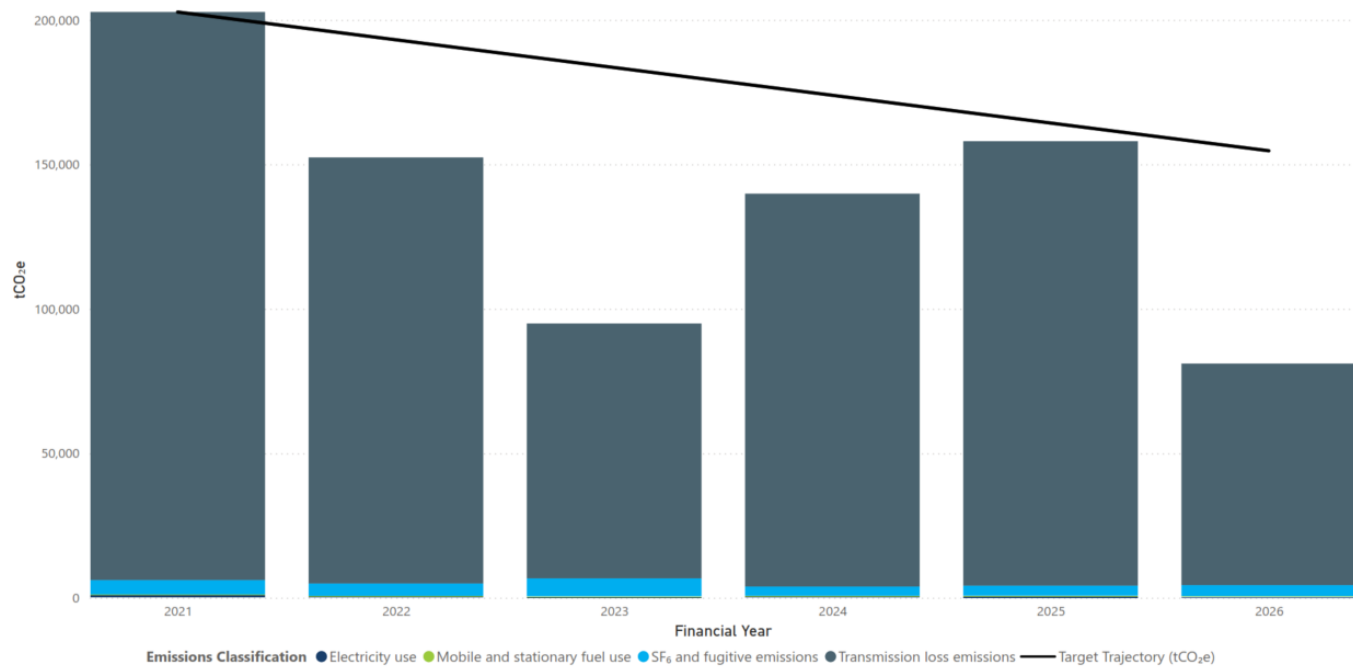
Target: Achieve net-zero Scope 1 and 2 emissions by FY40 with an absolute target of a 90% reduction, against a baseline of FY21 (202,698 tCO₂e), of Scope 1 and 2 emissions (including transmission loss emissions).

This target includes transmission loss emissions to reflect Transpower’s broader role in enabling electrification and connecting new renewable generation. While physical losses may rise as the grid is further developed, associated emissions are expected to decline as the electricity system becomes more renewable.

Transpower’s Scope 1 and 2 emissions were calculated at 81,007 tCO₂e, a 60% decrease compared to our FY21 baseline. As at FY26, this equates to an achievement of 67% of Transpower’s stated overall long-term emission reduction target (20,270 tCO₂e) for FY30.

Figure 8 below shows historical Transpower Scope 1 and 2 emissions from the FY21 base year to FY26. Transpower’s Scope 1 and 2 emissions are currently consistent with achieving the FY40 target.

Figure 8. Historical Scope 1 and 2 Emissions Against Long-term Reduction Target (Including Transmission Losses)



7.2 Scope 3 Emissions Targets

Scope 3 Short-term Emissions Target

Target: to achieve less than a 64% increase of Scope 3 emissions by FY30, against a FY21 baseline of 37,837 tCO₂e.

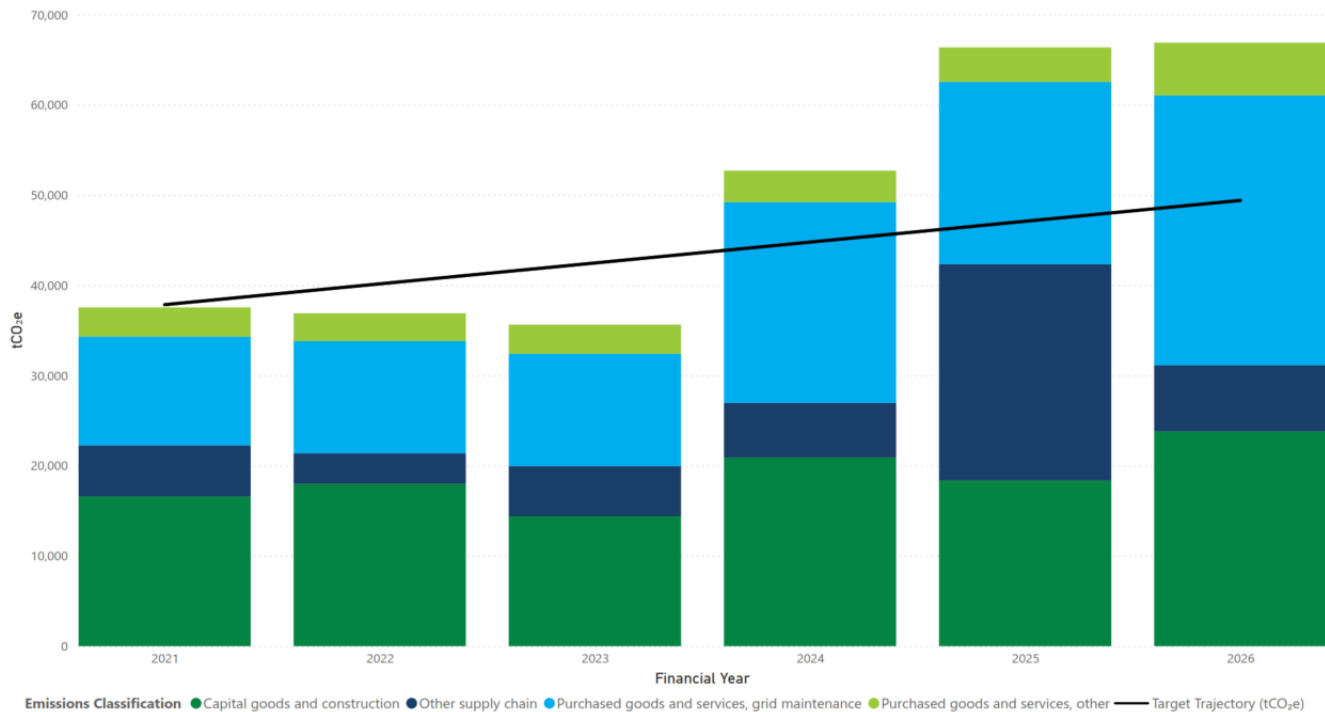
This short-term Scope 3 target reflects Transpower’s growing carbon footprint from its electrification work programme. It is also a 35% reduction against Transpower’s forecast FY30 Scope 3 emissions of 90,220 tCO₂e.

Transpower has engaged with the Climate Leaders Coalition and has received an exception from an overall emissions reduction requirement under the Statement of Ambition.

Transpower’s Scope 3 emissions were calculated at 66,872 tCO₂e in FY26, a 77% increase compared to its FY21 baseline (37,837 tCO₂e). As a result, currently Transpower has overshoot its stated short-term Scope 3 emissions target for FY30 (58,643 tCO₂e).

Figure 9 below depicts historical Transpower Scope 3 emissions from the FY21 base year to FY26. As shown, current performance is behind the level required to achieve this target.

Figure 9. Historical Scope 3 Emissions Against Short-term Target



Scope 3 Long-term Emissions Target

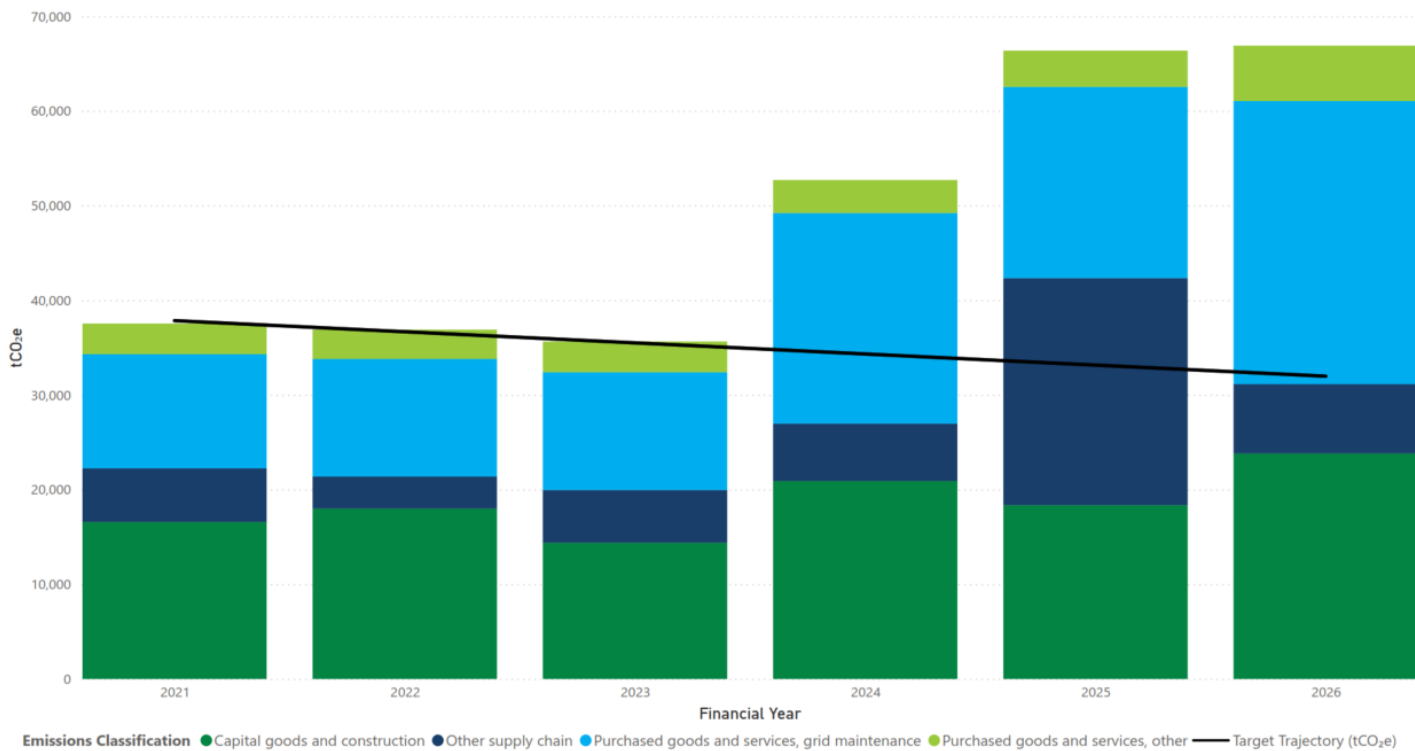
Target: achieve net-zero by FY50, with an absolute target of a 90% reduction of Scope 3 emissions by FY50, against a FY21 baseline of 37,837 tCO₂e.

This target reflects Transpower’s commitment to reducing supply chain emissions over time while continuing to develop the infrastructure needed for national decarbonisation. Near-term increases are expected and reflect the build-out required to support New Zealand’s transition.

Transpower’s Scope 3 emissions were calculated at 66,872 tCO₂e in FY26, a 77% increase compared to its FY21 baseline (37,837 tCO₂e), meaning Transpower is currently above its stated emission reduction target (3,784 tCO₂e) by 85%.

Figure 10 below shows historical Transpower Scope 3 emissions from the FY21 base year to FY26, showing that significant reductions are required over the long-term to meet the FY50 target.

Figure 10. Historical Scope 3 Emissions Against Long-term Reduction Target



7.3 Short-term Overall Emissions Reduction Target

Target: achieve a 15% decrease of overall Scope 1, 2, and 3 emissions by FY30, against a FY21 baseline of 240,536 tCO₂e.

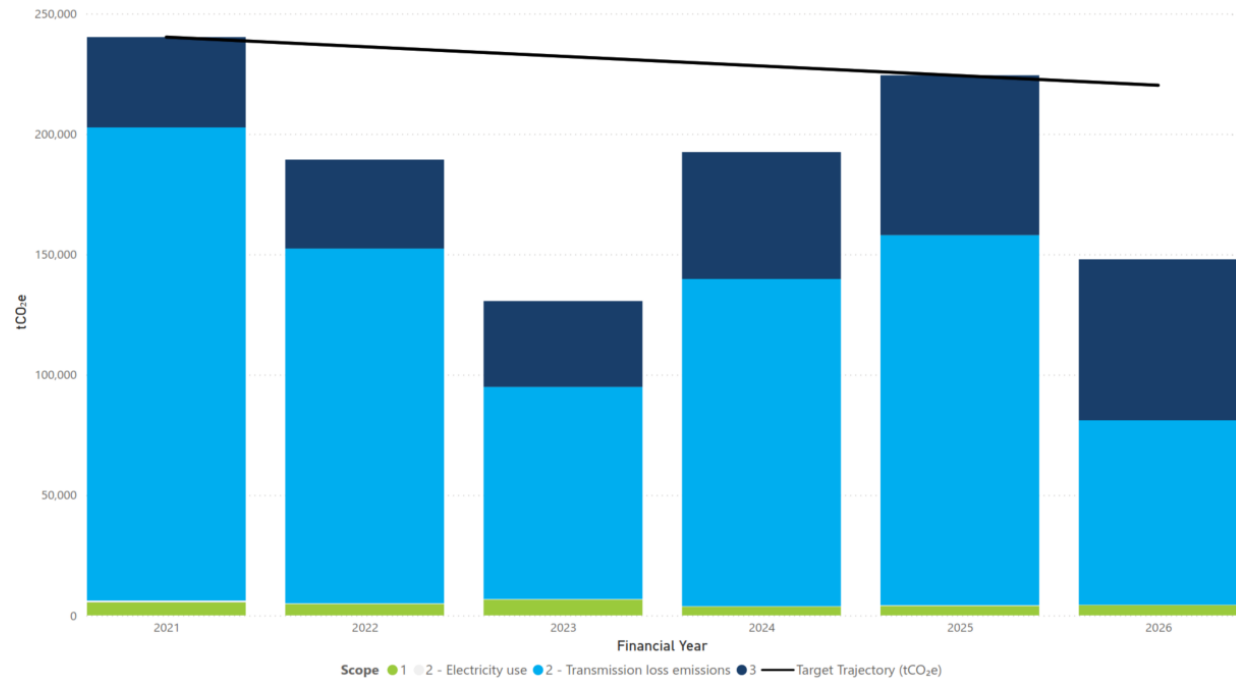
Our short-term overall target cannot align with SBTi due to the significant increase in activity needed to support electrification. Over the longer term, overall emissions are expected to decline as the electricity system becomes increasingly renewable and emissions from transmission losses fall.

Transpower’s *Sustainability Strategy* continues to guide efforts to reduce emissions where possible, improve data quality, and work closely with service providers and suppliers across all scopes.

Transpower’s overall gross emissions calculated at 147,903 tCO₂e, a 39% decrease compared to its FY21 baseline. As of FY26, Transpower’s current performance exceeds the reduction required to achieve its target for FY30 (204,455 tCO₂e).

Figure 11 below summarises historical Transpower gross emissions from the FY21 base year to FY26.

Figure 11. Historical Overall Emissions Against Short-term Reduction Target



8. NZ Emissions Trading Scheme

Transpower surrenders New Zealand Units (NZUs) annually for fugitive SF₆ emissions on a calendar year basis. FY26 SF₆ emissions will be reconciled across NZ ETS 2025 and 2026 returns.

9. NZ CS Reporting Sections

Table 4 sets out where in the GHG Inventory Report for FY26 the NZ CS information can be found.

Table 4. Location of NZ CS requirements in the GHG Inventory Report

Requirement	NZ CS Reference	Section in GHG Inventory Report
Gross Scope 1, 2 (location-based), and 3 emissions	NZ CS 1, Section 22(a)	Inventory Summary, Section 5
GHG Emissions Targets	NZ CS 1, Sections 23(a)–(e)	Section 7
Measurement standards	NZ CS 1, Section 24(a)	Section 4
Consolidation approach	NZ CS 1, Section 24(b)	Section 2
Emission factor sources	NZ CS 1, Section 24(c)	Section 4, Appendix 1
Emission exclusions	NZ CS 1, Section 24(d)	Appendix 2
Methodologies and assumptions	NZ CS 3, Section 52	Section 4, Appendix 1
Emission uncertainties	NZ CS 3, Section 53	Section 4, Appendix 1
Base year restatement information	NZ CS 3, Section 54	Section 6

Appendices

Appendix 1. Summary of GHG Emissions Source Inclusions

Details on the emissions sources that inform this GHG Inventory Report are described in Table 5 below. The methodology and emission factors (EFs) outlined in the table below are derived from management's assessment of the most accurate data available, considering materiality, the feasibility of acquiring the necessary data, and compliance with reporting standards.

Transpower does not report on the other GHG Protocol Scope 3 Categories as they are not relevant or applicable to its operations.

Table 5. Summary of Emissions Sources and Associated Methodology by GHG Protocol Scope and Category

Scope	GHG Protocol Category	Emissions source	Method & Data Source	Data collection unit	Emission factor source	Data quality	Key Assumptions, Limitations and Uncertainties
Scope 1	Fugitive emissions	Fugitive emissions from SF ₆	Average-based; ⁷ Transpower SF ₆ inventory database – data input by service providers	Primary Assets Engineering Team	IPCC AR5 (NZ ETS alignment)	Fair	Based on records of operational gas holdings, top-ups, and recovery during asset decommissioning entered by service providers. Data is entered into the inventory database with a cut-off period for the reporting year. Occasional cylinder anomalies and/or late transactions.
		Fugitive refrigerant emissions from air conditioning units	Average-based; using leakage/replacement estimates	Asset Planning and Sustainability Team	IPCC AR5	Fair	Estimates-based approach using assumed leakage rates applied across units. Estimates also applied where asset equipment-level data is incomplete.
	Mobile combustion	Car travel (owned, leased, rented)	Average-based; fuel card and rental provider records	Fuel card records and expense management systems	MfE	Good	Litres of fuel are taken from fuel card transaction records. Gaps may occur where cards are not used.
	Stationary combustion	Combusted diesel used in back-up generators	Average-based; Operational records and/or estimates	Service providers and/or Service Delivery Team	MfE	Fair	Records of operational diesel use. Where records are not available, estimates have been made. Estimates may also exclude some smaller sources of stationary fuel consumption where data is not available.
		Natural gas used in HVAC systems	Average-based; landlord meter reports	Building landlord	MfE	Good	Assumes landlord reporting completeness/accuracy.

⁷ Average-based data is calculated by multiplying the quantity of data (e.g. litres or kilograms) by the relevant emission factor.

Scope	GHG Protocol Category	Emissions source	Method & Data Source	Data collection unit	Emission factor source	Data quality	Key Assumptions, Limitations and Uncertainties
Scope 2	Electricity use	Electricity used in offices and warehouses	Average-based; Installation Control Points (ICPs) billing systems	Retail providers	EMS	Good	Accurate records from billing system. Applies generation mix factor.
		Electricity consumed in substations	Average-based; metering and engineering estimates	EMS, Finance and Performance Team, and Substation Engineering Team	EMS	Fair	Substation electricity is sourced from retailer ICPs or from consumption embedded within the transmission system. Retailer-supplied ICPs are reported as Scope 2 emissions. Where no ICP is present, consumption is captured within transmission losses and classified as out of scope to avoid double counting.
	Transmission losses	National grid transmission line losses	Average-based; net metering of grid inputs/outputs; em6 generation	EMS	EMS/em6	Good	Accurate net metering of national grid inputs and outputs. This emissions source also captures substation electricity consumption where a retailer ICP is not in place (refer commentary in Scope 2 – Electricity use above). Emissions are driven by the generation mix and largely outside operational control.
Scope 3	1. Purchased goods and services	Upstream emissions associated with good and services	Spend-based ⁸ for emissions data not provided from service providers; Procurement spend mapped to EFs	Procurement Team	Thinkstep-anz (inflation adjusted)	Good financial data; emissions estimates are fair due to low specificity in EFs	Uncertainty stems from limited product-specific data and reliance on industry-average factors. Where multiple options existed, the basic-price factor was applied as most spend is direct.
	1. Purchased goods and services	Upstream emissions associated with good and services	Direct data provided from service providers; actuals from suppliers/service providers	Supplier/ Service Providers,	MfE, thinkstep-anz, ADEME	A mix of good quality supplier actuals and fair quality supplier estimates based on spend	Methodology is understood by Transpower, with data supplied directly by service providers. Some 'actuals' still include spend-based estimates calculated by suppliers. For related limitations see Scope 3 Category 1, spend-based method.
	2. Capital goods	Upstream emissions associated with national grid assets and capital equipment purchased	Spend-based for emissions data not provided from service providers; Procurement records	Procurement Team	MfE, thinkstep-anz, ADEME	Good financial data; emissions estimates are fair due to low specificity in EFs	For limitations related to spend-based emissions, see Scope 3 Category 1: Purchased goods and services, spend-based method.

⁸ Spend-based data is calculated by multiplying the financial spend by the relevant emission factor.

Scope	GHG Protocol Category	Emissions source	Method & Data Source	Data collection unit	Emission factor source	Data quality	Key Assumptions, Limitations and Uncertainties
Scope 3	2. Capital goods	Upstream emissions associated with national grid assets and capital equipment purchased	Direct data provided from service providers; Supplier data	Supplier/Service providers	Thinkstep-anz	A mix of good quality supplier actuals and fair quality supplier estimates based on spend	Methodology is understood by Transpower, and data is supplied directly by service providers. Some 'actuals' still include spend-based estimates calculated by suppliers. For related limitations see Scope 3 Category 1, spend-based method.
	3. Fuel and energy related activities (not included in Scope 1 or 2)	T&D losses associated with purchased electricity used in offices and substations, purchased gas in offices	Average-based; metering and engineering estimates	ems, Finance and Performance Team, Substation Engineering Team	MfE	Good	T&D losses applied to the purchased electricity reported in Scope 2 and gas in Scope 1 Categories. Uses national-average EF; estimation required for some sites.
	4. Upstream transportation and distribution	Estimated using a freight factor applied to spend on overseas-manufactured electrical equipment	Spend-based; Procurement records	Procurement Team	Thinkstep-anz	Fair	Relies on an estimated percentage factor applied to overseas-manufactured electrical equipment and is therefore subject to estimation uncertainty. For limitations related to spend-based emissions, see Scope 3 Category 1: Purchased goods and services, spend-based method.
	5. Waste	Waste to landfill from offices and operations	Average-based for office landfill, spend-based for other waste; Procurement records, supplier data, and estimates	Procurement Team, waste management providers	Thinkstep-anz, MfE	Fair	For operations: estimated waste factor applied to civil construction and asbestos removal. For offices: actual landfill waste records obtained from each office and warehouse. Data from service providers is captured in their primary category type and is not separated out into the waste category.
	6. Business travel	Air travel - domestic and international	Distance-based; ⁹ Travel provider reports based of internal purchases	Travel management provider	MfE	Good	Supplier flight records are used to calculate emissions, based on distances travelled by sector (domestic, short-haul, long-haul) and class of travel.
		Car travel (taxis and rideshare)	Spend-based for taxis and staff claims, distance-based for rental cars; Purchase records expense management system	Finance and Performance Team	MfE	Good	For limitations related to spend-based emissions, see Scope 3 Category 1: Purchased goods and services, spend-based method.

⁹ Distance-based data is calculated by collecting distance and mode of transport information and multiplying by the relevant emission factor.

Scope	GHG Protocol Category	Emissions source	Method & Data Source	Data collection unit	Emission factor source	Data quality	Key Assumptions, Limitations and Uncertainties
Scope 3		Hotel accommodation	Average-based; Purchase records from suppliers and internal systems	Travel Management Provider	MfE	Good	Hotel nights provided by travel provider, categorised by country/continent: NZ, Australia, Europe, Africa, North America, and Asia.
	7. Employee commuting and working from home (WFH)	Employer travel to and from work (in private vehicles and public transport)	Distance-based for employee commuting, average-based for WFH; Estimated values	Sustainability Team	MfE	Fair	Estimated using FY26 office occupancy and commuting survey data; results affected by number of responses, self-reporting bias, and uncaptured household variability.
	9. Downstream transportation and distribution	Postal services	Spend-based; Purchase records	Procurement Team	Thinkstep-anz	Fair	For limitations of spend-based emissions, Scope 3 Category 1: Purchased goods and services, spend-based method.

Appendix 2. Excluded Emissions Sources

The emissions sources outlined in Table 6 below have been excluded from this GHG Inventory Report. It was not technically feasible to obtain this data at the time of GHG Inventory Report preparation, and the associated emissions are not considered to be material in the context of this GHG Inventory Report. All GHG Protocol categories not reported have been deemed not applicable.

Table 6. Emissions Sources Excluded

GHG Protocol Scope	Category	GHG emissions source	Reason for exclusion
Scope 1 Direct GHG emissions	Fugitive emissions	Fugitive emissions from fridges and vehicle air conditioning systems	Difficult to obtain the data, emissions estimated to be <i>de minimis</i> from Transpower-contracted equipment maintenance specialists

Other GHG Emissions – Biogenic Emissions

There were no biogenic emissions during the reporting period, as Transpower did not combust any biomass.

Appendix 3. ISO 14064-1:2018 Breakdown

Table 7 provides a reference to the breakdown of Transpower's total GHG emissions for FY24–FY26 by ISO 14064-1 Category.

Table 7. Transpower's total emissions broken down by ISO Category (tCO₂e)

Category	FY26	FY25	FY24
Category 1: Direct emissions	4,197	3,847	3,548
Category 2: Indirect emissions from energy	76,834	154,157	136,280
Category 3: Indirect emissions from transportation	6,904	7,300	5,729
Category 4: Indirect emissions from products used by organisation	35,737	28,121	26,047
Category 5: Indirect emissions associated with the use of products from the organisation	N/A	N/A	N/A
Category 6: Indirect emissions from other sources	24,231	30,930	21,233
Total	147,903	224,356	192,838

