



Climate Statement

GENESIS ENERGY LIMITED
CLIMATE STATEMENT
FOR THE REPORTING PERIOD
1 JULY 2024 TO 30 JUNE 2025
25 AUGUST 2025

Table of contents

1.	Message from the Chair and Chief Executive	1	5.	Risk management	13	7.	Targets	43
2.	About this report	2	5.1	Risk identification	13	8.	Metrics	47
3.	About Genesis and the context in which we operate	4	5.2	Risk assessment	14	8.1	Our GHG emissions	47
3.1	Our business model	4	5.3	How we prioritise climate-related risk relative to other types of risk	14	8.2	Transition risk metrics	50
3.2	The context in which we operate	7	5.4	How we manage our climate-related risks	14	8.3	Physical risk metrics	53
4.	Governance	8	5.5	Time horizons and how these link to strategic planning horizons and capital deployment plans	15	8.4	Climate-related opportunity metrics	54
4.1	Oversight of climate-related risks and opportunities	8	5.6	Value chain exclusions	15	8.5	Capital deployment metrics	55
4.2	Management’s role in assessing and managing climate-related risks and opportunities	11	6.	Strategy	16	8.6	Internal emissions price	56
			6.1	Scenarios and scenario analysis	16	8.7	Remuneration metrics	56
			6.2	Current climate-related impacts	22	Appendices		57
			6.3	Material climate-related risks and opportunities	23	Appendix I: Climate scenarios – assumptions and reference models		57
			6.4	Transition plan aspects of our strategy	33	Appendix II: GHG inventory report		59
			6.5	Managing through the transition and key dependencies	41	Appendix III: GHG inventory assurance report		69
			6.6	How we align transition plan aspects of our strategy with internal capital deployment and funding decisions	42	Appendix IV: Description of physical assets and PPAs linked to physical assets		73
						Appendix V: Glossary and definitions		74

1. Message from the Chair and Chief Executive

Powering a Sustainable and Thriving Aotearoa

Genesis Energy ('Genesis') has a unique role in supporting New Zealand's transition to a net zero future by 2050. Climate change presents one of the most significant challenges of our time, and reducing greenhouse gas emissions is a strategic imperative that sits at the heart of our purpose: *powering a sustainable and thriving Aotearoa*.



Malcolm Johns
CHIEF EXECUTIVE

Barbara Chapman CNZM
CHAIR

In FY24, we released our Gen35 strategy – a long-term plan to guide our actions over the next decade. This strategy focuses on three key pillars: growing renewable generation, supporting customers to electrify, and using our flexibility to help manage the volatility of generation from New Zealand's growing pool of renewable sources.

New Zealand's climate legislation and international commitments has made it clear that net zero 2050 is the country's destination. To get there, 60% of New Zealanders' energy must come from electricity. Achieving this will require a step-change in how we power our homes, businesses, and communities. Energy underpins our economy, and access to affordable, reliable electricity is essential to give people and businesses the confidence to decarbonise and embrace electrification.

Leading the transition

Genesis plays a central role in enabling this national transformation. We are committed to investing in new renewable generation to help decarbonise the energy system.

The transition of Huntly Power Station to the Huntly Portfolio gained momentum this year with the commencement of construction of our first grid-scale battery and progressing our investigation into biomass as a sustainable alternative to coal. We're also exploring development of a new fast start multi-fuel peaker plant to help support grid stability during peak demand or when supply dips from renewable generation.

Our renewable portfolio also shifted into a higher gear. We opened Lauriston, our first solar farm¹ and have three more solar sites advancing in our pipeline. At the same time, our investment in ChargeNet is helping grow New Zealand's largest electric vehicle charging network.

As the domestic gas supply continues to decline, we are responding proactively through strategic agreements such as those with Methanex, and the development of the Tariki gas field.

Navigating a challenging year

FY25 was a particularly challenging year for generation. Hydrology conditions fluctuated significantly, while gas supply continued to decline. These factors highlight the important and unique role our thermal assets perform in New Zealand's electricity market. Our generation portfolio proved resilient, enabling us to deliver strong financial results whilst stepping in to support the stability of the grid during supply dips from renewable generation.

However, increasing our thermal generation to support the stability of the grid came with trade-offs. In the absence of available gas, we had to rely more heavily on coal to meet demand. This saw us miss our FY25 greenhouse gas emissions reduction target for generation – but we were still below our FY20 baseline. This highlights the reality that emissions reduction is rarely linear.

Science Based Targets and long-term goals

Our current SBTs, aimed for a 36% reduction in generation emissions and 21% reduction in emissions from sold products (gas and LPG sales) compared to our FY20 baseline. The emission reduction target for FY25 from sold products was met.

Through FY25, we faced several challenges that impacted our ability to achieve our scope 1 and 2 SBT (generation) target. Actual emissions in FY25 were 6% lower than FY20 baseline, compared to the target of 36%. A range of factors impacted our ability to achieve the target, including the speed at which the market is developing renewables, hydrology conditions, and most significantly, the stressed gas market.

Despite the conditions in FY25, we remain committed to reducing our emissions. We were proud to receive Science Based Targets initiative (SBTi) verification of our net zero 2040 goal this year, aligning our strategy to support New Zealand's journey to net zero 2050.

While our emissions profile may vary year to year, the importance lies in the direction of travel over time, and our long-term commitment to decarbonisation.

Working together to deliver change

We know the scale of the challenge cannot be met by any one player alone. Genuine long-term partnerships between business, government, iwi, and households are essential. We won't always agree, but where there is consensus, we will act, within and beyond our sector, to ensure progress while delivering value to our shareholders.

Transparency remains a priority for us. We are pleased to release our second Climate Statement, prepared under the Financial Markets Conduct Act 2013. It describes how we are managing climate-related risks and opportunities, and how our strategy to support the transition is evolving.

Ngā mihi nui,

Barbara Chapman CNZM
CHAIR

Malcolm Johns
CHIEF EXECUTIVE

¹ Jointly owned with FRV Australia.

2. About this report

Reporting entity

Genesis is a Climate Reporting Entity (CRE) under the Financial Markets Conduct Act 2013 and, as such, is required to prepare a Group Climate Statement. This report includes climate-related disclosures for Genesis, its subsidiaries, controlled entities and the Group's interests in associates and joint arrangements (together, 'Genesis' or the 'Group'). The Group structure used in this report aligns with that used for Genesis' FY25 Consolidated Financial Statements.



Basis of preparation and statement of compliance

These climate-related disclosures comply with the Aotearoa New Zealand Climate Standards (NZ CS) as issued by the External Reporting Board (XRB).

In preparing these climate-related disclosures, Genesis has elected to use adoption provision 2: Anticipated financial impacts contained within NZ CS 2. This adoption provision exempts Genesis from disclosing the anticipated financial impacts of climate-related risks and opportunities reasonably expected by Genesis, the time horizons over which they could reasonably be expected to occur and why quantitative information is unable to be provided.

This report was authorised for issue, for and on behalf of the Board on 25 August 2025.

Barbara Chapman
CHAIR OF THE BOARD

Catherine Drayton
CHAIR OF THE AUDIT COMMITTEE

Reporting period and currency

This report covers the period from 1 July 2024 to 30 June 2025 ('FY25'). FY24 refers to the period from 1 July 2023 to 30 June 2024, similarly for any other financial year referenced in this report. Any reference to \$ in this report refers to New Zealand dollars.

Materiality

Information required by NZ CS must be disclosed if it is material; this requires us to apply our judgement when determining what to disclose. NZ CS 3 states that 'information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that primary users make on the basis of an entity's climate-related disclosures'. NZ CS 3 defines primary users of this report as our existing and potential investors, lenders and other creditors.

To aid with making materiality judgements, we determine materiality by considering internal and external factors, such as whether the matter:

- could plausibly have a material impact on Genesis in the short, medium, and/or long-term;
- could reasonably be expected to influence an investment decision;
- has been consistently raised by our primary users or is considered of high interest to them or is something they would expect to see being disclosed;
- could have a significant impact on our reputation or our transition to a low emissions future; or
- is relevant and needed to provide context.

When disclosing current financial impacts, we apply the same materiality as applied by our auditors for the Consolidated Financial Statements (refer to Deloitte's Audit Report in the [FY25 Integrated Report](#)).

The quantitative threshold used for our Consolidated Financial Statements is not considered appropriate when determining which climate-related risks and opportunities should be disclosed given: (i) we are considering the potential impact over multiple years out to 2050; (ii) the size of our balance sheet; and (iii) the complexity of our operations.

2. About this report continued

Disclaimer

This report contains forward-looking statements, such as potential impacts, climate scenarios, targets, forecasts and statements of our current intentions. Forward-looking statements are statements that are based on historical experience and various other factors that are reasonable under the circumstances. They are statements regarding our intent, belief or current expectations with regard to our business and operations and other climate and sustainability related commitments, targets, projections, scenarios, risk and opportunity assessments, pathways, forecasts, metrics and other proxy data.

Words such as 'will', 'may', 'expect', 'intend', 'seek', 'would', 'continue', 'plan', 'estimate', 'potential', 'anticipate', 'believe', 'risk', 'aim', 'forecast', 'assumption', 'projection', 'target', 'goal', 'guidance' or other similar words, are used to identify forward-looking statements. These statements reflect our current views on future events and are subject to change due to certain known and unknown risks, uncertainties, assumptions and other factors which are, in many instances, beyond our control, and have been made based on management's expectations or beliefs concerning climate change and its potential impact on Genesis.

This report uses relatively lengthy time frames and plausible scenarios to assess potential impacts. Statements in this report use a greater number of assumptions and estimates than our Consolidated Financial Statements. These assumptions and estimates are subject to change over time, and, when coupled with the longer timeframes used in these disclosures, make any assessment of materiality inherently uncertain. In addition, our climate scenarios and strategic plan and the data underlying used to construct them and our climate-related risk and impact assessment capabilities continue to evolve. The market practice in relation to these disclosures also remain subject to evolution and change over time.

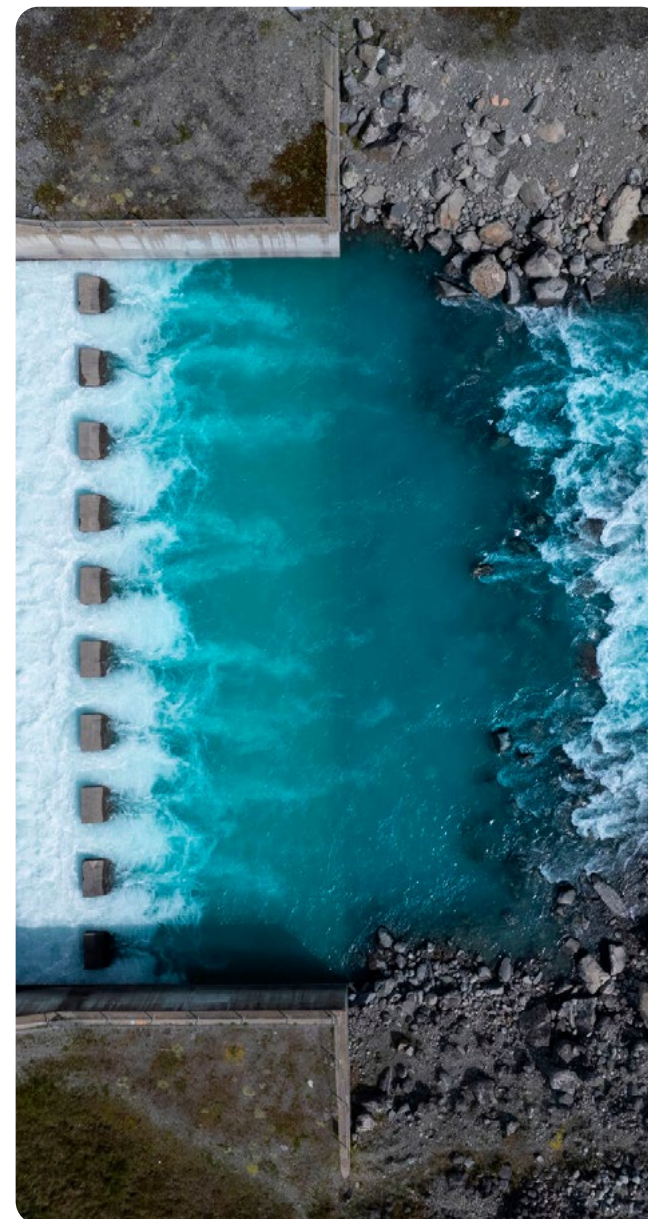
The information in this report includes metrics, estimates and other information that is subject to significant uncertainty. The uncertainty may relate to the collection of data, and methodologies to analyse the data, which involves various estimates and assumptions, and/or underlying data that is obtained from third parties, some of which cannot be independently verified. As a result, we expect that certain disclosures made in this report may be amended, updated, recalculated, and restated in the future as the quality and completeness of our data and methodologies continues to improve. For clarity, Genesis makes no commitment to update the information in this report.

The forward-looking statements made in this report are not guarantees or predictions of future performance and there is a risk that estimates, judgements, assumptions, views, scenarios or projections may turn out to be incorrect and that these risks may cause actual outcomes to differ materially from those expressed or implied in this report. In particular, there is inherent uncertainty around future climate-related policy and legislation, current scientific understanding of climate change and its impacts.

Accordingly, Genesis gives no representation, warranty or assurance (including as to the quality, accuracy or completeness of any forward-looking statements set out in this report), that the occurrence of the events expressed or implied in any forward-looking statement made in this report will occur.

Enquiries

For any questions or comments regarding this report, please contact investor.relations@genesisenergy.co.nz.



3. About Genesis and the context in which we operate

3.1 Our business model

Genesis is a vertically integrated energy business. Our operations include generation and wholesale procurement of energy, trading energy and the sale of energy to residential, business and wholesale customers. We supply electricity, LPG and natural gas to more than 520,000 customers in New Zealand through three retail brands (Genesis, Frank*Energy and Ecotricity). On 10 June 2025 we announced we will consolidate our three retail brands into a single unified Genesis brand. In FY25 34% of our customers used at least one fossil fuel (FY24: 39%) and the majority of these customers used a combination of fossil fuels and electricity (FY25: 71%, FY24: 79%).



Genesis generates electricity from a diverse portfolio of assets across New Zealand², including hydro, solar³ and fossil fuel thermal generation. The geographic spread and diversity of our generation assets provides vital support to the country's electricity sector. Genesis sits at the intersection of supply and demand for several energy sources as well as providing back-up generation for New Zealand's electricity supply when renewable sources are unable to meet demand. The Huntly Power Station is located near three major population centres: Auckland, Tauranga and Hamilton. Its strategic position provides access to cooling water and minimal transmission constraints. The station plays a critical role supporting the security of supply in New Zealand's highly renewable electricity system.

New Zealand's renewable energy grid is significantly influenced by weather conditions. In FY25, 58% of electricity we generated came from fossil fuel thermal⁴ (FY24: 55%) and 42% came from hydro (FY24: 45%).

Genesis owns a 46% share of the Kupe Joint Venture (JV), which owns the Kupe gas field⁵. Kupe gas field is a vital part of our vertically integrated gas portfolio, providing Genesis with access to gas for our operations and our customers. Diagram 2 provides an overview of our integrated value chain.



ChargeNet

Genesis also owns a 65.29% share of ChargeNet NZ Limited ("ChargeNet"). ChargeNet is a provider of electric vehicle charging solutions which includes New Zealand's largest and most accessible network of national electric vehicle fast-charging stations. Genesis supply's electricity to ChargeNet and offers an EV Everywhere add on to EV plans that enables Genesis customers to use ChargeNet stations but pay the same price as charging at home.

Genesis gross margin is predominately driven by the sale of electricity (FY25: 78%, FY24: 73%), sale of gas (FY25: 6%, FY24: 7%), sale of LPG (FY25: 8%, FY24: 8%) and Kupe (FY25: 8%, FY24: 8%).

2. Huntly Power Station, and Tongariro, Waikaremoana and Tekapo Power Schemes. Refer to Diagram 1 for an overview of our generation asset locations and Power Purchase Agreements (PPAs), [Appendix IV](#) for a description of our physical assets and PPAs linked to physical generation assets and refer to our website for further information on our generation sites.
3. Via Genesis' 40% share of Lauriston Solar Project Limited Partnership which owns and operates Lauriston solar farm.
4. Based on GWh
5. Refer to [Appendix IV](#) for a description of Kupe JV's physical assets and contractual arrangements.

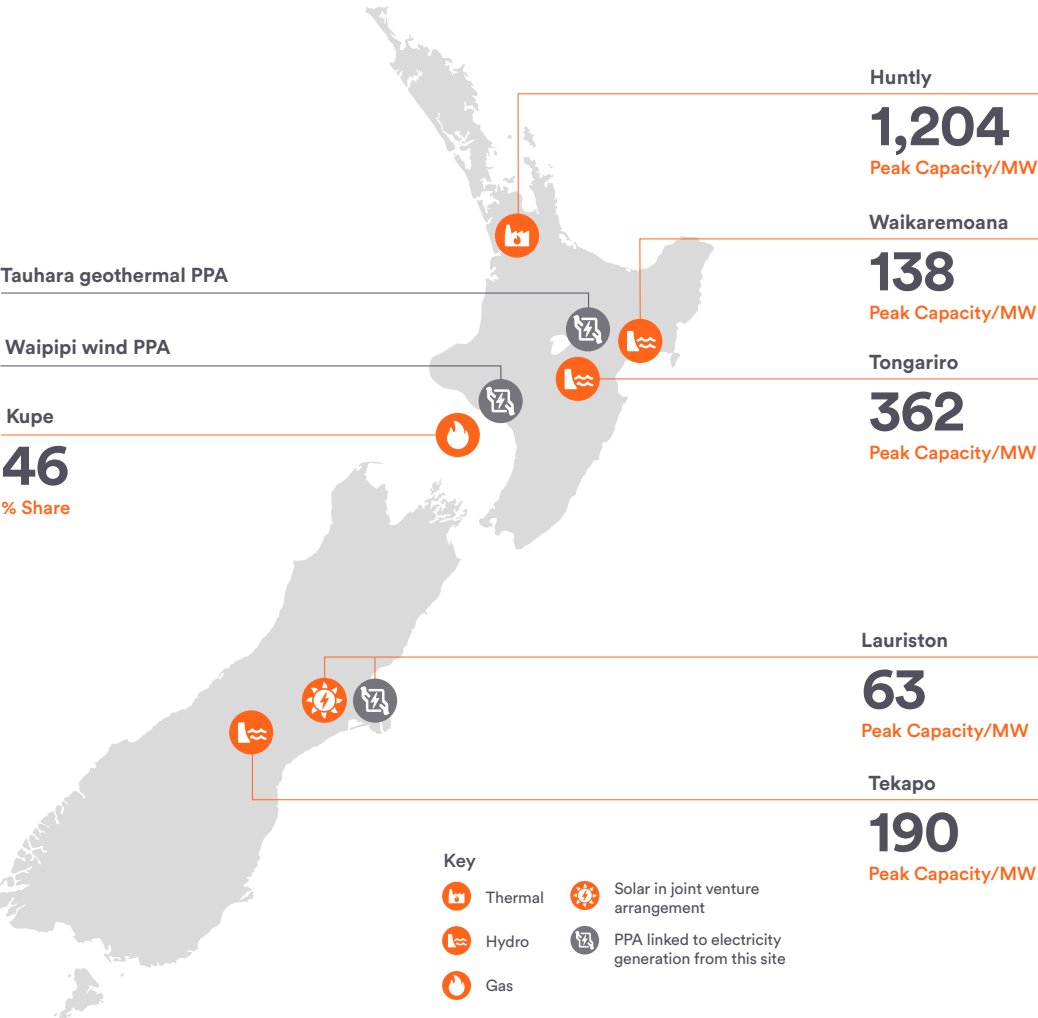
3.1 Our business model continued

We remain focused on evolving our business model to integrate new grid technologies into our portfolio (including solar generation, utility scale batteries and in time new forms of storage and flexible generation) as well as customer-side technologies aimed at delivering less expensive energy to customers with lower emissions (including electricity plans and offerings for EV owners, other distributed energy more resources, and electrification opportunities).

Genesis is a mixed ownership model company, listed on the New Zealand Stock Exchange and the Australian Securities Exchange with majority Crown ownership (51%).

For further information about Genesis, refer to our [FY25 Integrated Report](#).

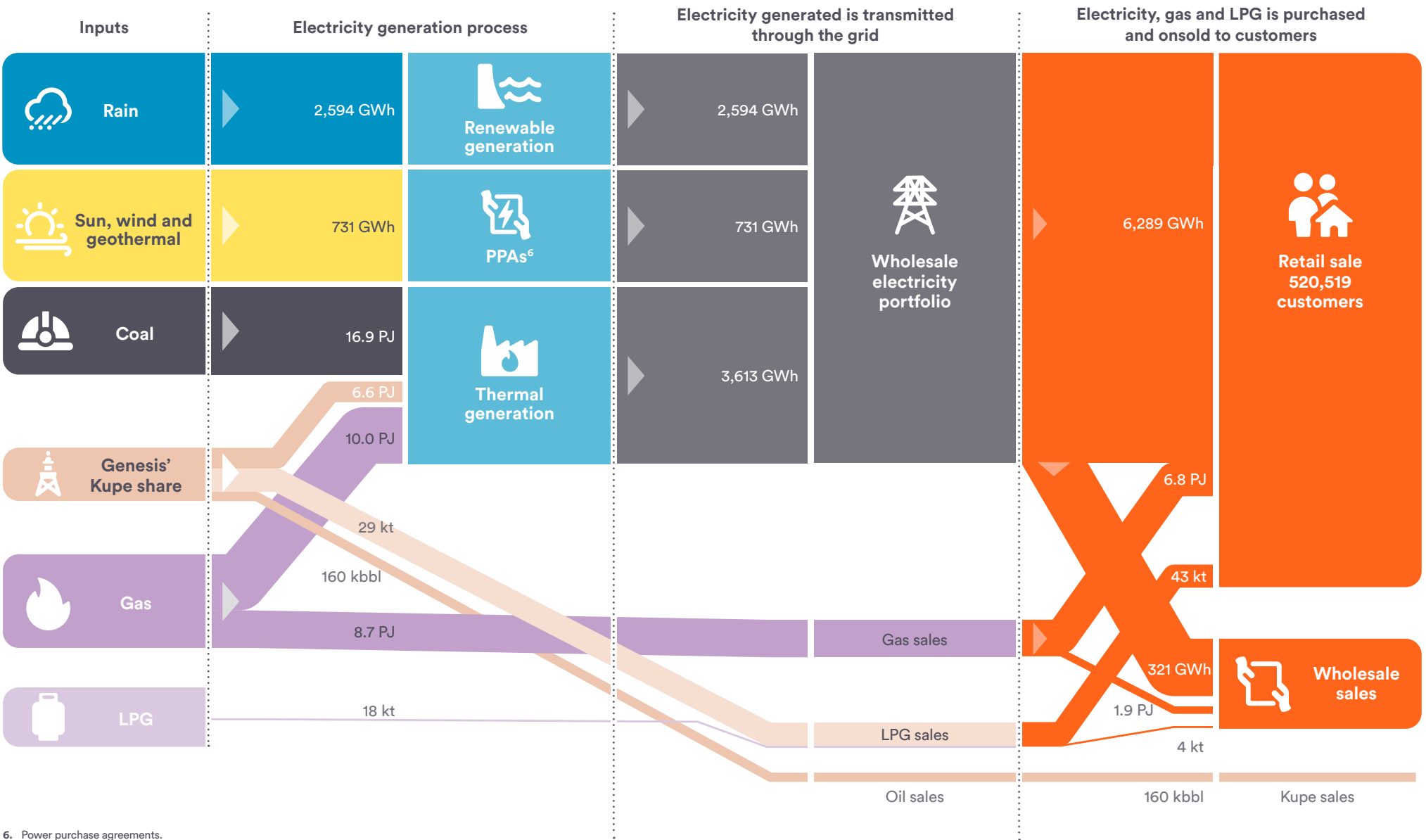
Diagram 1: Generation assets and Power Purchase Agreements (PPAs) linked to physical generation assets



<p>RETAIL</p> <p>3 Brands Genesis, Frank*Energy and Ecotricity</p> <p>3 Fuels Electricity, gas, LPG</p> <p>520k+ Customers spread across NZ</p> <p>27 LPG depots and delivery agents delivering from Northland to Southland</p>	<p>WHOLESALE</p> <p>4 Diverse generation options Hydro, gas, coal, diesel</p> <p>4 Wholesale markets we operate in Electricity, gas, carbon, and LPG</p> <p>4 Power schemes 3 hydro and 1 thermal</p> <p>40% Share in Lauriston solar farm</p>	<p>KUPE</p> <p>46%</p> <p>Share in Kupe joint venture Provides access to fuel Supports the transition</p>
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3.1 Our business model continued

Diagram 2: Overview of our integrated value chain



6. Power purchase agreements.

3.2 The context in which we operate

Through the Zero Carbon Act⁷, New Zealand has committed to achieving net zero emissions for most sectors of the economy by 2050 (net zero 2050). This national commitment, alongside similar global actions is shaping the long-term operating environment for businesses. In alignment with this and the business' long-term trajectory, Genesis has set a Science Based Target (SBT) to reach net zero emissions by 2040 (net zero 2040). This earlier target reflects the Science Based Targets initiative's (SBTi) guidance, which recognises the power sector's critical role in enabling economy-wide decarbonisation. Genesis' net zero 2040 target has been independently validated by the SBTi and aligns with the sector-specific pathway required to support New Zealand's broader climate ambition.

Decreasing New Zealand's reliance on fossil fuels for electricity generation and electrification of activities like transport and heating is expected to drive a significant portion of the transition to a net zero economy. Electrification will create more demand for electricity.

Renewable electricity supply will need to increase substantially to meet the anticipated growth in electricity demand. Wind and solar power are now the cheapest forms of new electricity generation and are expected to expand to displace base load thermal generation, moving the remaining thermal generation to play a critical firming role for New Zealand.

Flexible generation will be required to ensure electricity is available when needed, and the electricity supply remains affordable and reliable to support electrification.

To achieve net zero by 2050 as a country, the Climate Change Commission data⁸ and Boston Consulting Group analysis indicates that:

- renewable electricity could constitute nearly 60% of energy consumption in 2050 (up from 19% in 2022)⁹;
- over 95% of electricity generation would be renewable; and
- the supply of electricity will need to be 100% reliable and secure.



7. Climate Change Response (Zero Carbon) Amendment Act 2019.

8. Emissions Budget 4 Advice, Climate Change Commission, November 2024.

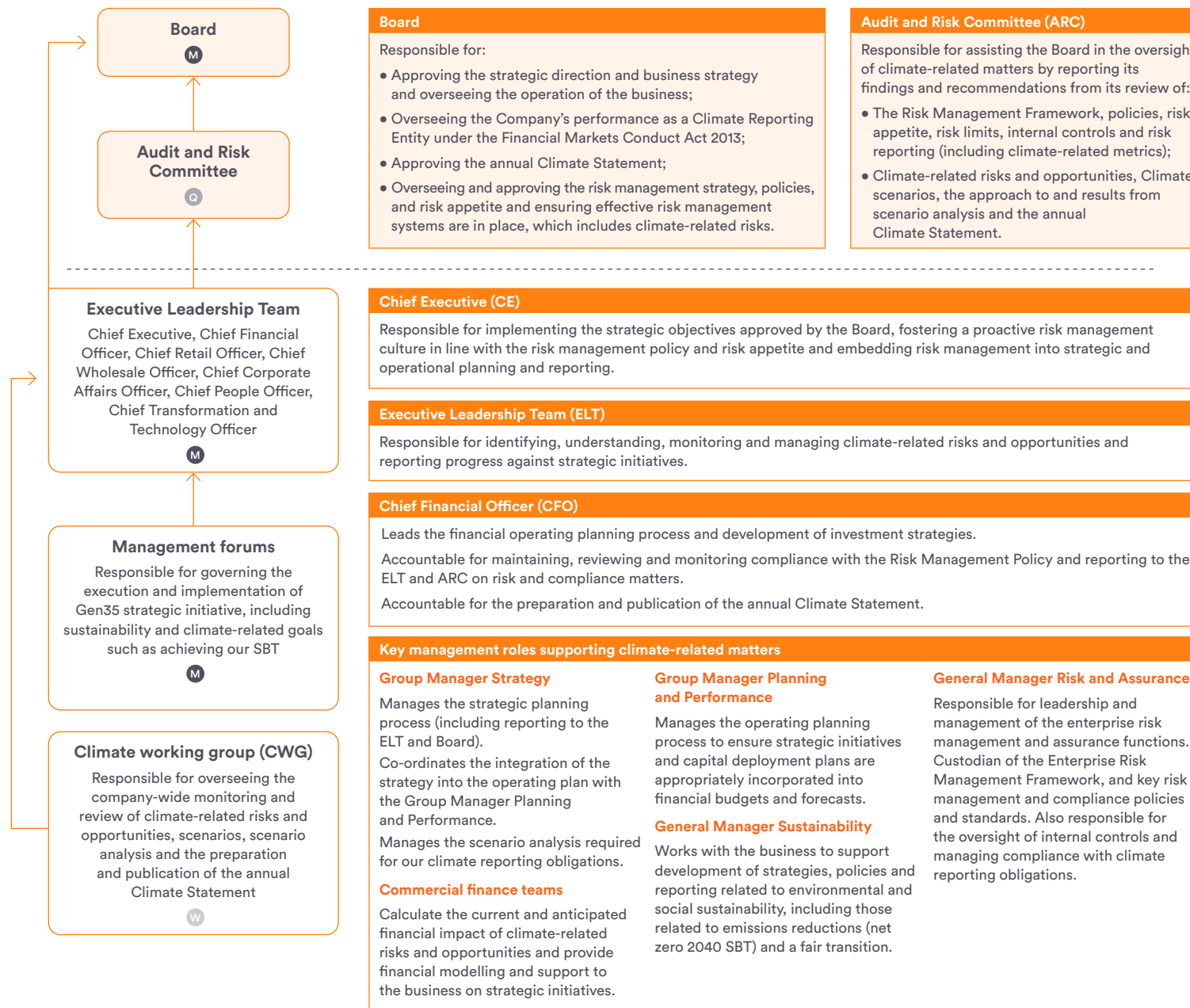
9. The Future is Electric, Boston Consulting Group, October 2022.

4. Governance

4.1 Oversight of climate-related risks and opportunities

The Board of Directors (Board) is responsible for the oversight of material climate-related risks and opportunities. Up until 30 June 2025, the Audit and Risk Committee (ARC), a subcommittee of the Board, assisted the Board in carrying out its responsibilities. On 1 July 2025, the ARC was dissolved and replaced by two separate committees: the Markets and Risk Committee and the Audit Committee. The Markets and Risk Committee will oversee climate-related risk management, while the Audit Committee will oversee climate reporting obligations. Diagram 3 defines the key responsibilities for each body in relation to identifying, assessing, monitoring and managing material climate-related risks and opportunities.

Diagram 3: Organisational structure for the oversight, assessment and management of climate-related risks and opportunities



KEY – Meeting frequency

(M) Monthly¹⁰

(Q) Quarterly

(W) Weekly

10. With the exception of July 2024, November 2024 and January 2025 for the Board. The Board met twice in August 2024 and October 2024.

4.1 Oversight of climate-related risks and opportunities continued

How the Board and ARC were informed about climate-related risks and opportunities

The processes that enabled Board and ARC oversight of material climate-related risks and opportunities included formal reporting through ARC and Board meetings, and sessions with the Chief Executive and members of the Executive Leadership Team (ELT).

The Board also keeps up to date with climate-related matters through education sessions. During FY25 the Board was briefed about global developments in climate disclosures and nature-related impacts, dependencies and risks which are interconnected with climate-related risks and opportunities.

The Board receives updates on various matters including strategic initiatives which often address climate-related risks and opportunities, progress on our Sustainability Framework goals and decarbonisation commitments and climate-related legal matters.

Climate risk governance

Oversight of climate-related risks is embedded within our established governance structures and processes (including through our enterprise Risk Management Framework and our strategic governance processes).

A climate specific risk and opportunity review is completed and reported to the ARC annually, most recently in April 2025. The ARC reported its findings and recommendations to the Board for consideration and approval in June 2025.

Our material climate-related risks and opportunities are incorporated into our principal risks¹¹. The ARC oversaw Management's assessment of principal risks through quarterly risk reporting. Refer to [sections 4.2](#) and [5.1](#) for more information.

Climate-related risks and opportunities, and associated metrics, are monitored through our climate dashboard. The dashboard was presented to the ARC three times in FY25¹². Going forward it will be presented annually, and by exception, when material changes occur.

The scenarios and scenario analysis process and outcomes were reviewed by the ELT and ARC in April 2025 and approved by the Board in June 2025.

How the Board considers climate-related risks and opportunities when developing and implementing strategy and setting targets

The Board considers material climate-related risks and opportunities as part of the annual strategic and operating planning processes. For example, considerations in the strategy development process include key driving forces of climate-related risks and opportunities such as government priorities and regulatory change, change in consumer demand and preferences, advances in technology and competitor analysis.

Diagram 4 shows how consideration of material risks and opportunities (including climate-related risks and opportunities) is integral to the strategy setting process.

Management is responsible for reviewing the Company strategy and associated targets annually, and more frequently if adjustments are considered necessary to accommodate the changing landscape. Any proposed adjustments are presented to the Board for review and approval.

How the Board ensures that the appropriate skills and competencies are available to provide oversight of climate-related risks and opportunities

The members of the Board are outlined on page 61 of the [FY25 Integrated Report](#).

Directors are elected to the Board by shareholders. The Nominations Committee, a subcommittee of the Board, is responsible for identifying and recommending suitably qualified and experienced prospective candidates to the Board for shareholder approval. These nominations are presented based on candidates meeting the agreed skills matrix.

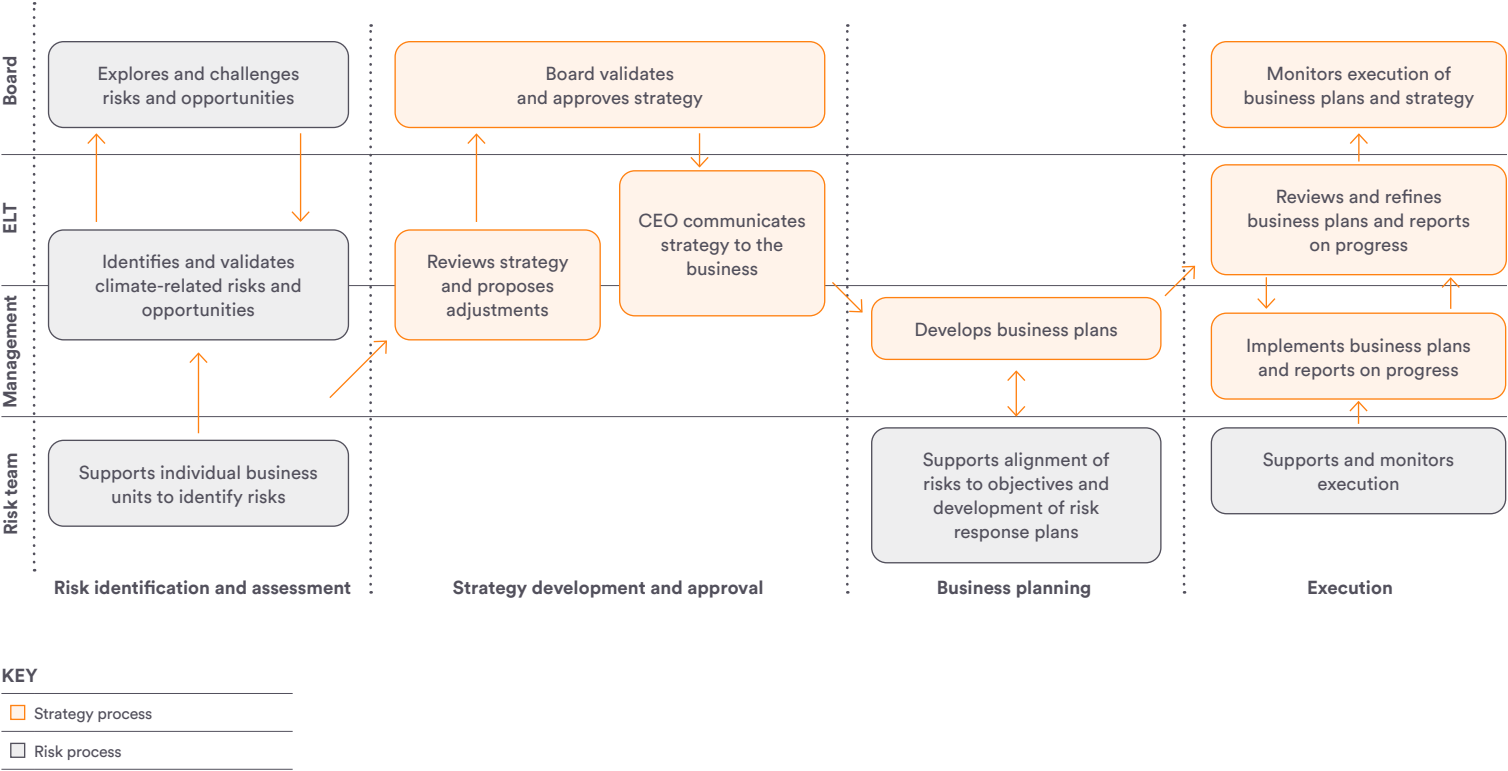
The Nominations Committee holds the authority to review and recommend changes to the Director skills matrix. These accountabilities are set out in the Nominations Committee Charter. Refer to the 'Corporate governance' section of the [FY25 Integrated Report](#) for an assessment of the Directors experience against the current skills matrix.

11. 'Principal risks' are risks for which the potential consequences are so pervasive and significant to Genesis that they require oversight (understand, align, assess and steer) at ELT and ARC level. ARC oversight occurred twice in FY25 and going forward will occur quarterly. Refer to our [Corporate Governance Statement](#) for further information on our principal risks.

12. November 2024, February 2025 and June 2025.

4.1 Oversight of climate-related risks and opportunities continued

Diagram 4: Integration of climate-related risk and opportunities into strategy development



How the Board monitors progress against metrics and targets

Climate-related targets are integrated into our strategy. Refer to [section 7](#). Achievement of these targets has been assigned to individual ELT members and strategic initiative owners by the Chief Executive. The ELT have established metrics to measure and monitor performance. The Board receives reporting on these metrics at regular intervals via scheduled Board meetings, through key milestone reporting against stated Gen35 initiatives, and in advance of publication of the scorecard showing progress against the FY28 goals at the full and half year reporting periods.

Incentivisation and remuneration

The Human Resources and Remuneration Committee, a subcommittee of the Board, oversees the ELT remuneration. In FY25 32% of the ELTs' (and Senior Leaders who qualify) short-term incentive was based on achievement of climate-related goals. The 'Executive remuneration' section of the [FY25 Integrated Report](#) provides a summary of these goals.

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

Executive Leadership Team

Accountability for execution and delivery of our company strategy and day to day business operations lies with the ELT. Members of the ELT are outlined on page 62 of the [FY25 Integrated Report](#).

The ELT has overall accountability for actions and commitments to embed material climate-related risks and opportunities into risk management, and the strategic and operating planning (budgeting) process. This includes:

- working with the Board on strategy development (which incorporates managing climate-related risks and maximising climate-related opportunities);
- successful execution and implementation of the approved strategy including considering and managing actual and emerging risks that may impact achievement of the strategy;
- supporting and embedding the Risk Management Framework and processes including the three lines operating model¹³;
- adhering to risk management processes, including half yearly risk reviews, monitoring the external and internal contexts for new risks and opportunities (including climate-related risks and opportunities), ensuring owners are identified for risks and that the owners have appropriate knowledge, authority and resources to manage risks effectively;
- ensuring that risks, including climate-related risks and opportunities, in their business units are promptly identified, understood, managed, monitored and escalated appropriately;

- reviewing climate-related risk and opportunities and associated metrics;
- reviewing scenarios, scenario analysis and the Climate Statement; and
- reviewing updates on progress against sustainability goals (which include SBTs).

Individual ELT members are accountable for each climate-related risk and opportunity and individuals within the business are responsible for managing the risk/opportunity at an operational level and reporting back to the accountable ELT member.

Many of the climate-related risks and opportunities have been incorporated into Gen35 (refer to [section 6.4](#) for initiatives and [section 7](#) for targets).

Management forums, with ELT members, have been established to govern the execution and implementation of Gen35. These forums are responsible for prioritisation of resources, approval of business cases and funding requests for new projects, changes to existing projects within their approved delegated authority and monitoring budgets. Business cases and funding requests outside their delegated authority are presented to the relevant ELT member and / or the Board for approval as appropriate and in accordance with our Delegations of Authority Policy.

The ELT monitors performance against the Gen35 goals through key milestone updates for individual initiatives. The ELT also reviews performance against the FY28 scorecard goals at the half year and full year.

Diagram 5: Process and frequency management is informed about, makes decisions on and monitors climate-related risks and opportunities

KEY – Reporting frequency			
A	Annually	Q	Quarterly
H	Half yearly	M	Monthly

PROCESS / FORUM / REPORT	REPORTED TO	FREQUENCY	INFORM	MAKE DECISIONS	MONITORS
Strategic planning	ELT Board	A	✓	✓	
Operating planning	ELT Board	A	✓	✓	
Strategic initiatives via Management Forums and ELT individuals ¹⁴	ELT	M	✓	✓	✓
Gen35 scorecard (FY28 goals)	ELT Board	H			✓
Principal risk oversight and monitoring ¹⁵	ELT ARC	Q	✓	✓	✓
Climate specific risk assessment	CWG ELT ARC Board	A	✓	✓	
Climate dashboard ¹⁶	ELT ARC	Q			✓
Climate reporting obligations	ELT ARC Board	As appropriate	✓	✓	✓

The ELT is informed about, makes decisions on and monitors climate-related risks and opportunities at multiple levels within Genesis, depending on how the risk or opportunity is being managed. For example, the ELT is informed about, and makes decisions on, climate-related risks and opportunities through the annual strategic and operating planning processes and monitors risks through management forums and quarterly risk metric reporting. Diagram 5 summarises how this works in practice.

13. The three lines model describes the different levels of responsibility and accountability for managing risk in an organisation.
14. ELT meet monthly and review progress against Gen35 initiatives on a key milestone basis as appropriate.
15. During FY25, as part of further refinement of the Enterprise Risk Management Framework, formal monitoring and oversight of principal risks has become more frequent with the ARC review moving from a half yearly basis to a quarterly basis. Due to the timing of the change the ARC reviewed the overall principal risk environment twice in FY25 and considered 3 deep dives into aspects of principal risks.
16. During FY25 the climate dashboard was reported three times to the ELT and ARC. Going forward it will be reported annually, and by exception, when material changes occur.

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

Climate Working Group

The Climate Working Group typically meets on a weekly basis and is responsible for:

- ensuring a cohesive and unified approach by supporting the business to identify, assess, manage, monitor and report on climate-related risks and opportunities using established internal business processes;
- overseeing the company-wide monitoring and review of climate-related risks and opportunities, scenarios and the approach to and results from scenario analysis;
- keeping abreast of changing national and international developments in relation to climate science, the climate transition, and climate reporting;
- developing and delivering climate-related training for employees and the Board, as required;
- preparing and publishing this document (the Climate Statement in accordance with NZ CS) annually and ensuring appropriate records are maintained to support the disclosures; and
- informing the climate-related information outlined above and reporting this to the ELT, ARC and Board at least annually.

The Climate Working Group consists of the General Manager Risk and Assurance, the Group Manager Strategy, the General Manager Sustainability, the ESG Reporting Manager, a representative of West Nine Consulting Limited and other members of the risk, strategy, and finance teams.

Risk team

The risk team's responsibilities include maintaining the Risk Management Framework, which includes:

- designing and implementing processes, tools and methodologies to manage risk across the organisation (refer to [section 5](#) for more information);
- monitoring internal and external contexts for emerging risks;
- managing enterprise risk registers;
- regular reporting on principal risks (into which climate-related risks and opportunities are integrated); and
- quarterly reporting on risk metrics for financial, operational, market and material climate-related risks.

Strategy team

The strategy team is responsible for ensuring the strategy reduces exposure to climate-related risks and maximises value from climate-related opportunities, and that the scenario analysis results are considered in the strategic and operating planning process. Strategic assumptions, including those related to climate-related risks and opportunities, are reviewed annually as part of the strategic and operating planning processes. This last occurred in September 2024.

Individual business units

The identification and management of climate-related risks is distributed throughout the business. Individual business units are responsible for ensuring that key business risks (which may include climate-related risks) are identified, understood, managed, monitored and escalated appropriately.

Finance team

The commercial finance teams calculate the current and anticipated financial impact of climate-related risks and opportunities and provide financial modelling and support to the business on strategic initiatives (many of which address climate-related risks and opportunities).

The planning and performance team manages the operating planning process, working closely with the strategy and commercial finance teams to ensure strategic initiatives and capital deployment plans are appropriately incorporated into financial budgets and forecasts.

The financial control function manages compliance with climate reporting obligations and oversees the internal financial control environment (including in relation to climate-reporting).

5. Risk management

Our Risk Management Framework guides the integration of Genesis' risk requirements into a cohesive whole, which is particularly necessary for a cross-cutting¹⁷ risk such as climate change. The Risk Management Framework is based on internationally recognised standards and practices¹⁸.

Our Risk Management Framework:

- includes a risk taxonomy that explicitly identifies climate-related risks (including the separate aspects of 'transition' and 'physical' risks);
- recommends that risk management practices be tailored to the requirements and level of risk being managed, so materially significant risks (such as climate-related risks) warrant more rigorous risk management practices;
- includes reference to a 'Guide on Risk Management Tools' which outlines various methods, techniques and software applications that can be used to support the risk management process, including those used to identify and assess climate-related risks;
- emphasises the importance of materiality when considering climate-related risks;
- provides a specific process to integrate strategy and risk; and
- requires monitoring, review, and assurance activities. It also caters for the cadence of specific governance review and assurance requirements.

Our risk appetite statement indicates where risk responses need to be risk seeking versus risk averse. As climate-related risks cut across a number of principal risks, our risk appetite varies depending on the nature of each particular risk. We have established a risk appetite for all our principal risks that encompass our climate-related risks.

The following subsections outline the processes used to identify, assess, and manage climate-related risks, and how these processes are integrated into our overall Risk Management Framework.

5.1 Risk identification

We use a range of tools and methods to identify climate-related risks including:

1. Trend analysis
2. Stakeholder engagement
3. Exposure analysis
4. Scenario analysis

1. Trend analysis

Trend analysis is the process of analysing the past to predict how the external environment might impact the future. It was undertaken in FY25 to identify current and emerging risks within the industry, the wider economy, and across international markets over the short- and medium-term time horizons.

We utilised STEEP, a specific type of trend analysis, focused on Social, Technological, Economical, Environmental and Political factors. It is completed each time we refresh our scenario analysis (refer to [section 6.1](#)) and annually for risk identification and strategic planning purposes. The output included a list of driving forces and critical uncertainties.

2. Stakeholder engagement

Stakeholder engagement is used to identify risks in the short, medium- and long-term time horizons. We use a 'top-down' and 'bottom-up' approach to identify and assess risks to our business.

The 'top-down' review focuses on principal risks. Principal risks are those for which the potential consequences are so pervasive and significant that they require oversight by the ELT and Board.

The ELT undertook a comprehensive review of principal risks during FY25, and the results were presented to the ARC in April 2025. The review included consideration of key business risks (which include climate-related risks) previously identified by individual business units through the 'bottom-up' approach discussed below. The review also considered other risks present in the energy sector, both nationally and internationally.

The formal six monthly 'bottom-up' review of key business risks identified by individual business units in September 2024 and May 2025 supports the identification and reporting of principal risks. The bottom-up reviews included consideration of the results from the annual strategy workshops held in September 2024 and the climate-specific risk assessment discussed below. The results were discussed with the ELT in October 2024 and May 2025.

In FY25, the Climate Working Group also reviewed and updated the climate register using information obtained from the annual strategy workshops, climate scenario refresh, initial quantification results of anticipated financial impacts, consultation with subject matter experts within Genesis, review of public information (e.g. flood maps, NIWA climate projections) and discussions with third parties. The results were discussed with the ELT and reported to the ARC in April 2025.

¹⁷ Climate change is considered a cross-cutting risk because it impacts multiple risk categories (such as reputational, environmental, financial and operational).

¹⁸ The International Standard ISO 31000:2018 *Risk management – Principles and Guidelines*, The Committee of Sponsoring Organizations of the Treadway Commission (COSO):2017 *Enterprise Risk Management—Integrating with Strategy and Performance*, and World Business Council for Sustainable Development (WBCSD) and COSO: 2018 *Applying Enterprise Risk Management to Environmental, Social and Governance-Related Risks*.

5.1 Risk identification continued

3. Exposure analysis

Exposure analysis is used to identify risks in the short-, medium- and long-term time horizons. The analysis is carried out when we undertake significant capital projects which are considered susceptible to physical risks associated with climate change (e.g. solar development, canal remediation) or there is a material change in climate science.

In FY23 we engaged an external consultant to undertake an initial exposure analysis to identify potential physical risks associated with our generation assets. The results were received and analysed in FY24. The analysis used Representative Concentration Pathways consistent with those used in our climate scenarios discussed in [section 6.1](#) and time horizons outlined in this section. In FY25 we completed further analysis of our exposure to flooding and heat/bush fire risk for specific assets. We also completed a review of public information (e.g. flood maps, NIWA climate projections) as outlined in the 'Stakeholder engagement' section.

4. Climate-related scenario analysis

Scenario analysis is a method used to explore the impact of different plausible future states, associated outcomes and actions under uncertainty.

Climate scenarios are used to identify material climate-related risks and opportunities over the short-, medium- and long-term time horizons, support strategic planning and decision-making and test the resilience of our strategy to climate change.

Our Climate-related Scenarios and Scenario Analysis Policy is used to guide the updating of our climate scenarios and scenario analysis.

During FY25, the scenario analysis was completed through risk mapping and qualitative analysis. No quantitative modelling was undertaken.

The scenarios were reviewed by risk owners and subject matter experts within the business. Refer to [section 6.1](#) for the scenario analysis work undertaken in FY25.

5.2 Risk assessment

The enterprise risk matrix includes the likelihood of occurrence of a risk and the severity of the consequence (size of potential impact), which allows us to determine the appropriate corresponding level of impact and response for each risk. The enterprise risk matrix sets out not only the potential financial impact but also the potential impact on operations, reputation, compliance, the environment, and the safety of our people.

Climate-related risks are assessed and prioritised using our enterprise risk matrix with one amendment in relation to EBITDAF, a lower EBITDAF threshold was applied to enable a more detailed examination to be undertaken.

One key difference between climate-related risks and other risks is the 'likelihood' aspect which is difficult to accurately quantify over the long-term. Accordingly, for climate-related risks, greater weighting is placed on 'consequence' than 'likelihood' in the risk rating process. As part of the risk rating process, Management also considers vulnerability. If an asset is considered highly vulnerable to the risk, the impact rating is increased.

We assess the significance of climate-related risks based on their inherent risk rating, which ensures an appropriate level of emphasis is placed on mitigating the risks ahead of time.

5.3 How we prioritise climate-related risk relative to other types of risk

Climate-related risks are prioritised using the results of the risk assessment process. They are also evaluated using a materiality assessment, which includes considering the views of existing and potential investors, lenders, and other creditors when determining which risks are material. The materiality assessment helps reprioritise risks for consideration.

We also consider proportionality. The higher the likelihood and potential impact of a climate-related risk relative to other risks and the greater its potential impact on other risks, the higher priority it receives.

5.4 How we manage our climate-related risks

Refer to [section 6.3](#) for details on how we manage each of our material climate-related risks and [sections 4.1](#) and [4.2](#) for details on how we monitor them.

5.5 Time horizons and how these link to strategic planning horizons and capital deployment plans

The impact of climate-related risks is considered across short-, medium- and long-term time horizons. The table below outlines the time horizons and how they link to our strategic planning process.

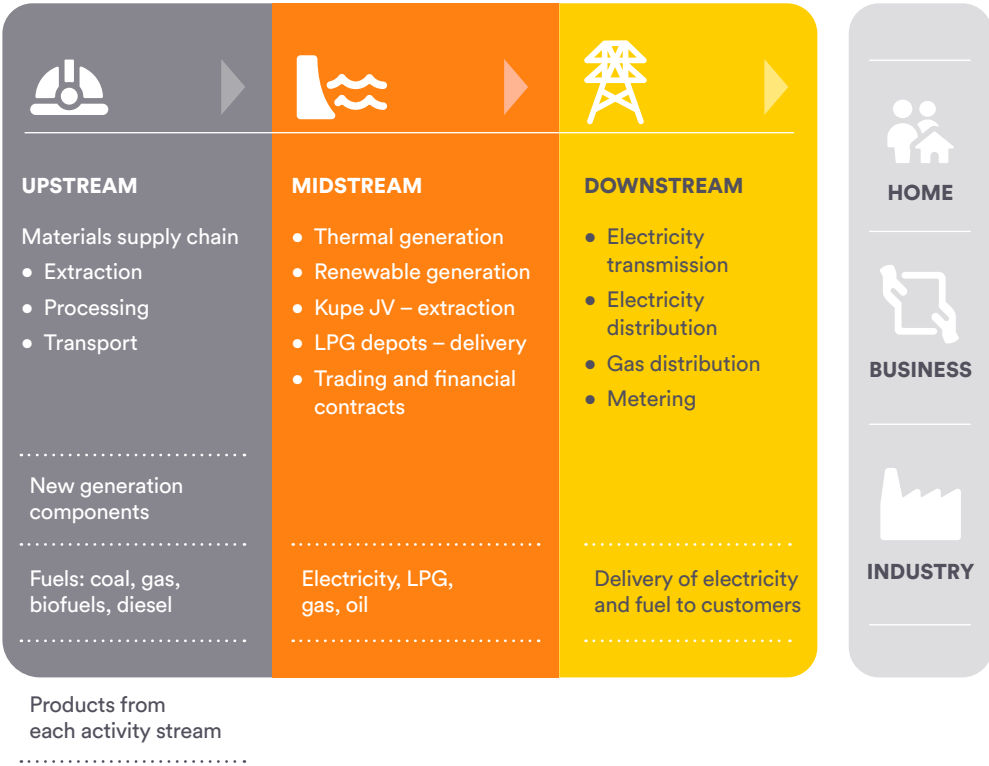
TERM	PERIOD	RATIONALE
Short	1-5 years (2030)	Aligns with the time horizon used for Genesis' operating plan and closely aligns with our FY28 goals which we refer to as our '8 by 28'.
Medium	6-15 years (2040)	Closely aligns with the time horizon used for Genesis' corporate strategy (Gen35) which looks out to 2035 and our net zero 2040 SBT.
Long	16-25 years (2050)	Aligns with the Intergovernmental Panel on Climate Change (IPCC) findings that to limit the temperature increase to 1.5°C above pre-industrial levels, emissions would have to peak now and reduce by around half by 2030, and globally net zero emissions need to be attained by 2050. The only exception to this is the length of time considered for physical risks to our generation assets which is considered through to 2100 to align with their useful lives.

Capital deployment plans can be short, medium or long-term depending on the nature of the project, the expected return on investment period and the expected useful life of any assets that are created. Some capital deployment plans, such as our investment in solar generation assets, use slightly longer time horizons (35 years rather than 25 years). In addition, our hydro generation assets have expected useful lives that exceed the time horizons set out above. While this is the case, the physical impact of climate change on these assets has been considered out to 2100 using the Representative Concentration Pathways used in our scenarios (refer to [section 6.1](#)).

5.6 Value chain exclusions

No parts of our value chain outlined in Diagram 6 have been excluded. As we enhance our risk identification processes over time, it is expected that our consideration of our value chain will continue to evolve and extend.

Diagram 6: Our value chain



6. Strategy

6.1 Scenarios and scenario analysis

Scenarios

The scenarios used in FY24 were refreshed to consider the Energy Sector Climate Scenarios¹⁹ published by Aotearoa Circle in June 2024, the latest climate change scenarios for New Zealand published by NIWA in September 2024²⁰ and the latest Climate Change Commission modelling released in April 2024.

The narratives and data sets used to develop the Energy Sector Climate Scenarios were reviewed and incorporated into our existing scenarios where applicable. We combined the results of various models²¹ for some data points, such as carbon pricing and electricity supply and demand forecasts, to ensure our scenarios represented a range of plausible outcomes. For this reason, some data points are not the same as those disclosed in the Energy Sector scenarios.

The review resulted in changes to our existing scenarios and the introduction of a new scenario. Refer to [pages 17-21](#) for a summary of our four climate scenarios. Further information on key drivers and the sources of data used to construct our scenarios can be found in [Appendix I](#).

The scope of operations covered in our climate scenarios includes energy generation and retailing in New Zealand as well as energy distribution and transport activities that could impact energy generation and retailing activities (such as the development of distribution networks and distributed energy services and electrification of transport). Our climate scenarios incorporate global trends which are expected to impact the New Zealand energy sector such as the cost and availability of alternative technologies.

Scenario analysis

During FY25, we undertook scenario analysis using the refreshed scenarios. Using these four climate scenarios, we tested the resilience of our business strategy against a broad selection of climate-related risks and opportunities.

We have been working to integrate scenario analysis into our strategic planning process. However, the review and refresh of our climate scenarios was not completed in time to enable full integration and, as a result, the scenario analysis process was completed as a standalone process in FY25.

Scenario analysis process

1

Identified and prioritised

In September 2024, the Strategy team held three workshops with senior leaders from across the business to identify risks and opportunities, review and update underlying planning assumptions and refine and update Gen35. The strategy team utilised the outputs of these workshops to update and refresh the driving forces used in the development of our scenarios.

2

Developed focal question / defined the problem

We determined the boundaries of our analysis by defining time horizons and the extent of our value chain. We develop our climate scenarios around the focal question “How could climate change plausibly affect our business, what should we do and when?”

3

Identified driving forces

The outputs from the STEEP analysis carried out in the strategy workshops were organised according to their influence and uncertainty. The highest rated driving forces from a long list compiled using the Energy Sector Scenarios and Genesis’ FY23 driving forces were grouped into key themes and used to identify important data for analysis.

4

Developed scenarios

We used the driving forces identified in step 3, the latest climate change scenarios for New Zealand published by NIWA, the latest climate modelling published by the Climate Change Commission and the Energy Sector Climate Scenarios published by Aotearoa Circle to refresh our climate scenarios. This analysis resulted in changes to our three existing scenarios and the creation of a new scenario.

5

Determined impact

We mapped our material climate-related risks and opportunities to key revenue streams and qualitatively assessed the impact they would have under each of our four climate scenarios and three-time horizons (refer to [section 5.5](#) for information on the different time horizons). A heatmap of ratings was developed to create a visual analysis of the resilience of the business to cumulative risks and opportunities.

6

Assessed strategic resilience

Risk owners and subject matter experts reviewed and validated the analysis completed in step 5 and considered how resilient each of our key revenue streams were under each climate scenario and time horizon. They also considered how effective the company strategy was in managing the climate-related risk/opportunity and identified considerations for the future.

19. [Energy Sector Climate Scenarios – The Aotearoa Circle](#).

20. [Climate change scenarios for New Zealand | NIWA](#).

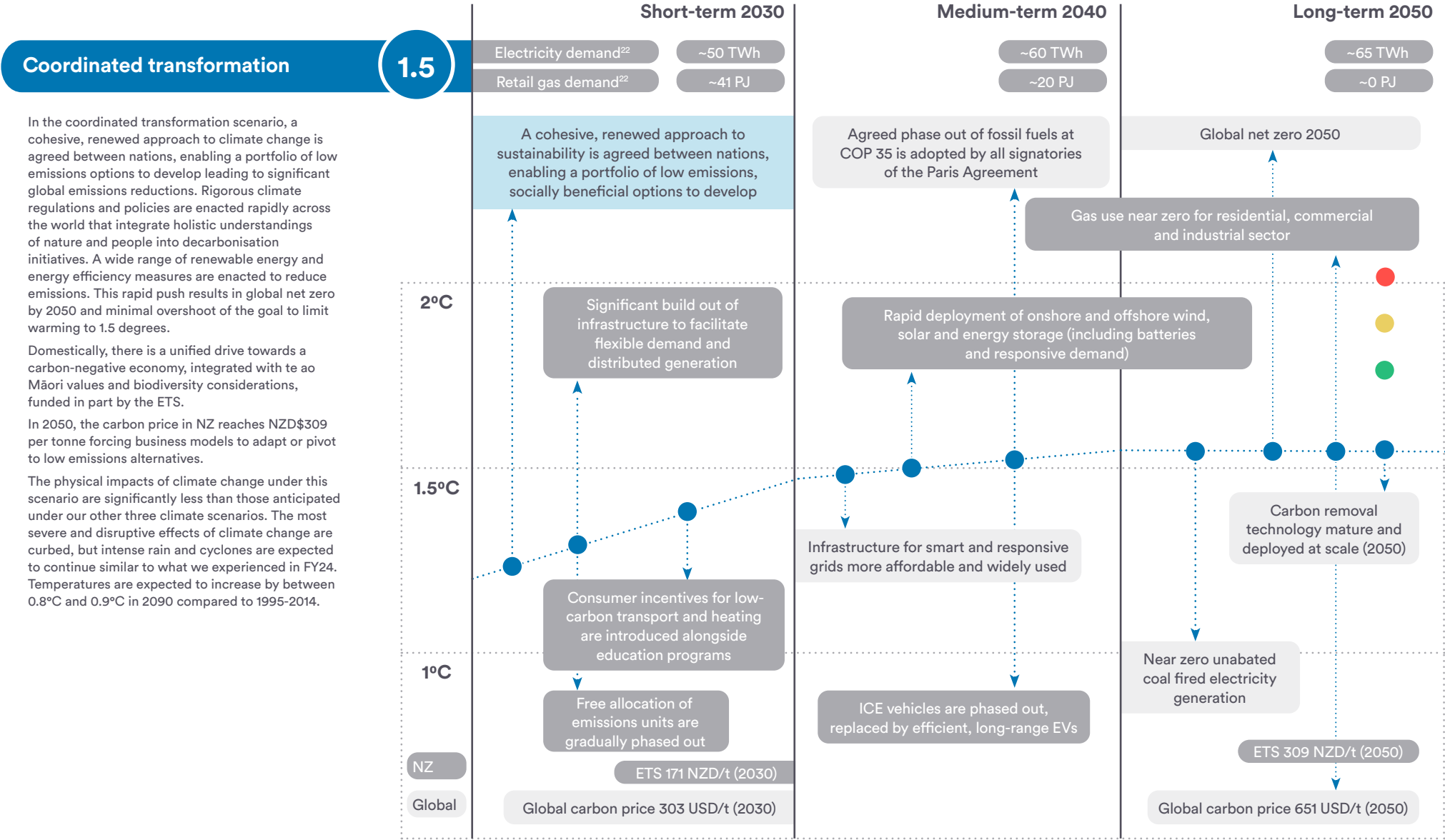
21. CCC EB4 modelling, BCG modelling and Transpower data.

6.1 Scenarios and scenario analysis continued

Overview of our climate-related scenarios

	Coordinated transformation	Green tape	Delayed transformation	Hot house
Key assumption	Cohesive approach to climate change agreed between nations, enabling a portfolio of low-carbon options to develop	Transformation driven by domestic government legislation and more sustainable choices by consumers	New Zealand begins to adopt low emissions technology by 2040 in the tailwinds of others' technological progress	Greenhouse gas emissions continue to increase. Government response based on adaptation, not mitigation
Rationale for selecting the scenario	The coordinated transformation (1.5°C) recognises that a swift highly regulated, globally aligned approach is now required in order to limit global warming to 1.5 degrees. Favourable international conditions, (primarily the falling costs of low emissions technologies) drives most countries' decarbonisation trajectories. The coordinated transformation scenario aligns with New Zealand's commitment to achieving net zero by 2050. This scenario aligns with the requirements of NZ CS.	The green tape (2.2°C) scenario considers a world where New Zealand decarbonises faster than some other nations. However, this results in higher transition costs initially and slower technology development due to a fragmented response to climate change.	The delayed transformation (2.6°C) scenario tests the impact in a world where New Zealand is slow to regulate and transition to a low emissions future. In this scenario, New Zealand benefits from the efforts of others' technological developments but is hindered by a regulatory environment that supports the status quo.	The hot house scenario (>3°C) presents a scenario where physical risks are extremely high. This scenario aligns with the requirements of NZ CS.
°C warming at 2100	1.5°C	2.2°C	2.6°C	3.3°C
Pathways	RCP 2.6 SSP 1-1.9	RCP 4.5 SSP 4-3.4	RCP 4.5 SSP 2-4.5	RCP 8.5 SSP 3-7.0
Global policy ambition	Highly ambitious and coordinated	Moderate overall, highly differentiated	Moderate overall, highly differentiated	Low
NZ policy ambition	Immediate and smooth, globally coordinated	Immediate and bold	Slow and lagging globally (delayed to 2030's)	Limited
Access to financial services (e.g. some forms of capital and insurance)	Lenders and insurers enforce strict environmental and social conditions	Financing for transition technologies becomes accessible, supported by government incentives	Financing is challenging as lenders look to other countries with more favourable policy settings	Access to capital for fossil-fuelled assets is accessible into the mid 2030s
Demand change	Moderate / fast	Fast	Gradual	Slow / moderate
Technology change	Fast (late 2020s)	Moderate (late 2020s)	Moderate (early 2030s)	Slow (not focused on climate)
Customer preference change	Fast	Fast	Moderate (early 2030s)	Slow (not front of mind)
Physical risk severity	Low	Moderate	Moderate	Extreme
Transition risk severity	Moderate / high	High	Low / moderate	Low / moderate

6.1 Scenarios and scenario analysis continued



22. All demand figures are taken from the CCC's draft EB4 modelling.

6.1 Scenarios and scenario analysis continued

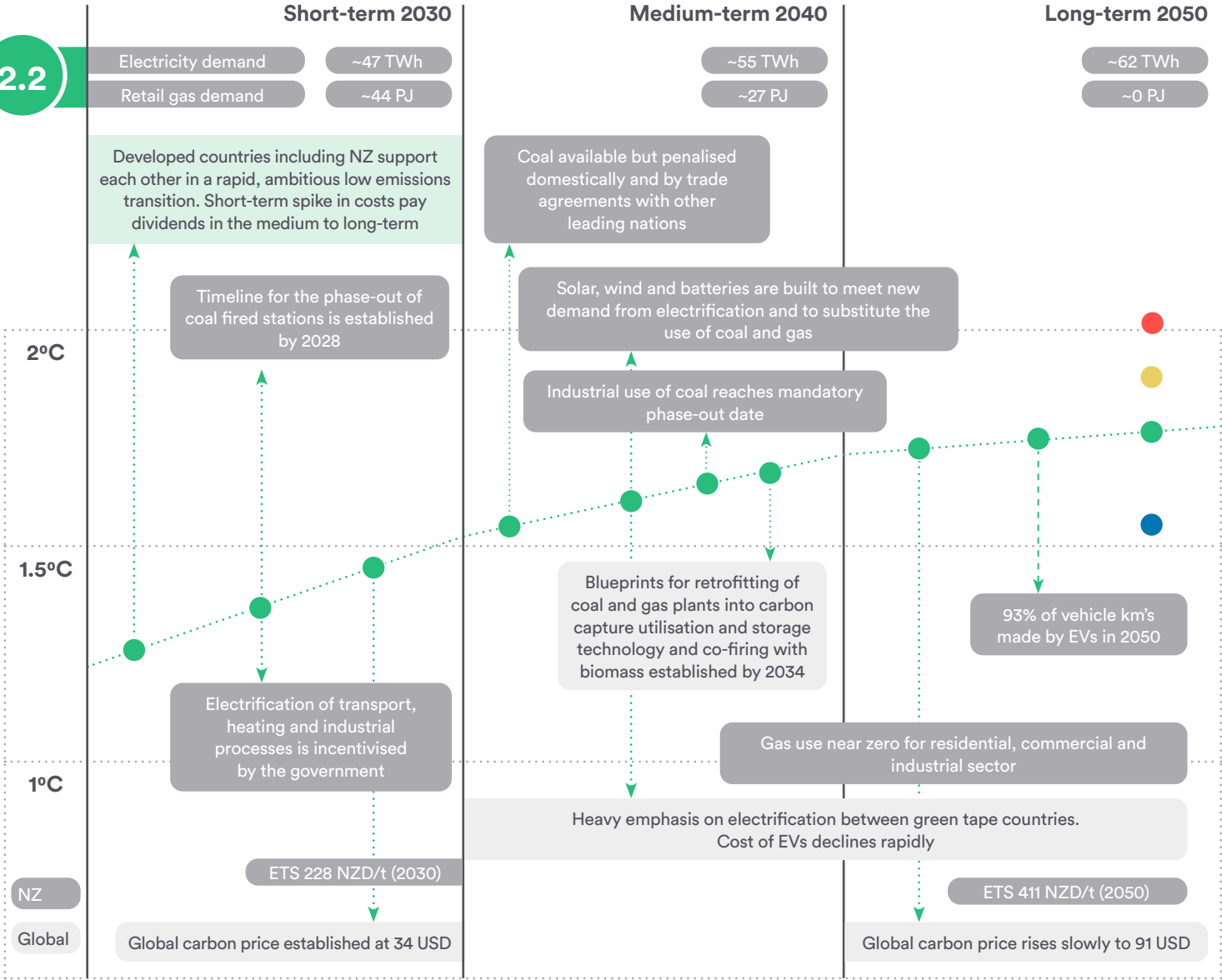
Green tape 2.2

In the green tape scenario, New Zealand establishes itself among developed nations driving the low emissions transition. Agreements and resource-sharing initiatives are formed with other “green tape” nations and the EU, leading to rapid investments in low emissions technologies between 2028 and 2035 despite high initial costs.

The response to climate change is more fragmented than in the coordinated transformation scenario. New Zealand and several other jurisdictions decarbonise faster, reflecting disparities in resources and capabilities. Technological development is slower due to less coordinated international conditions.

Green tape nations prioritise the deployment of existing technologies such as solar, wind, battery storage and electric vehicles (EVs). Following significant investment in research and development, carbon capture technology also begins to mature in the mid 2030s, providing an option to phase out fossil fuelled assets ahead of their complete lifetime.

Storms and weather events increase in intensity and frequency. Drought and flooding become more common, and the supply chain is disrupted occasionally because of storms or heat waves.



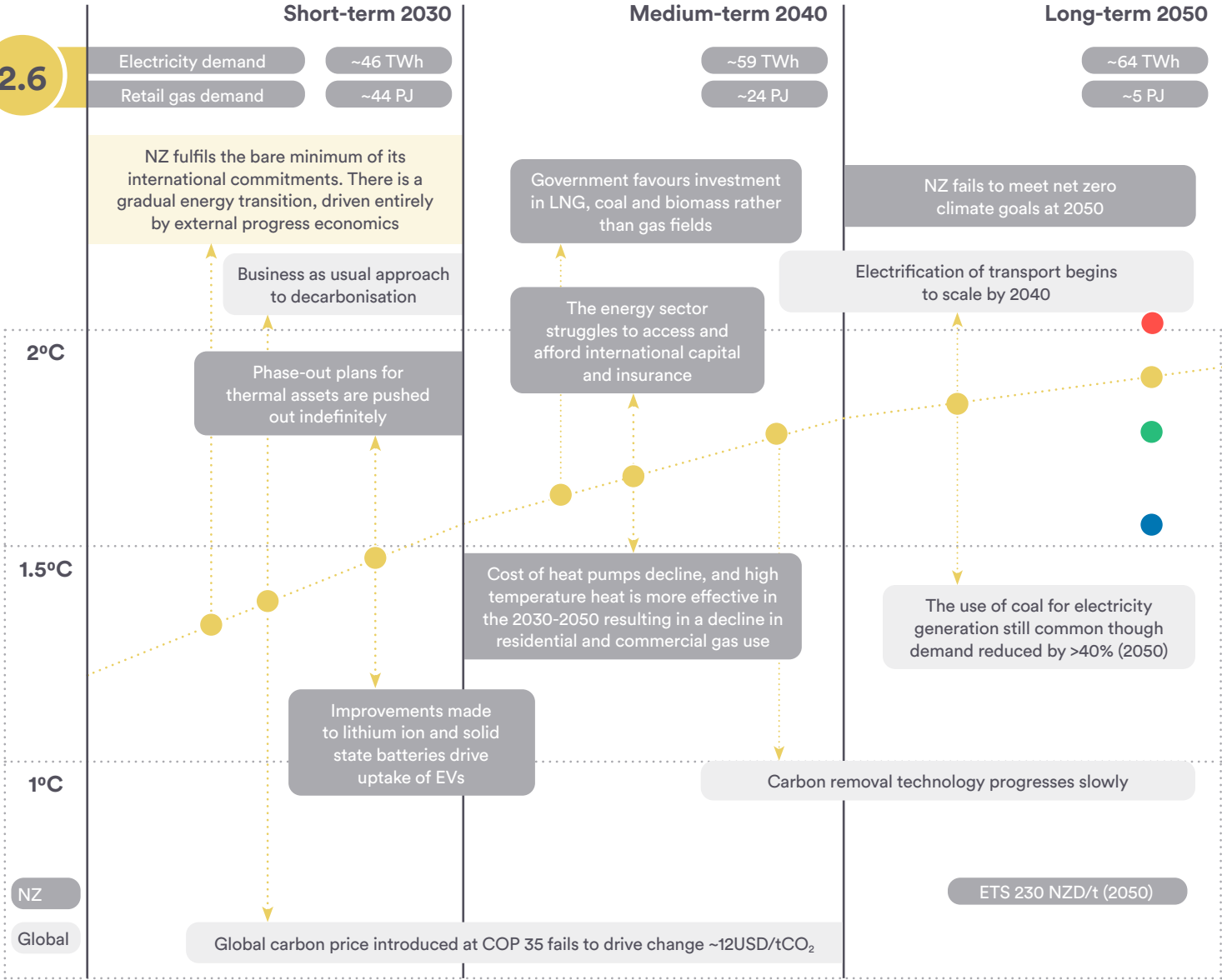
6.1 Scenarios and scenario analysis continued

Delayed transformation 2.6

In the delayed transformation scenario, current plans to meet decarbonisation goals are widely seen as “ambitious enough” and there is a fragmented international response to further progress. Global forecasts consistently predict a failure to meet decarbonisation goals and governments focus on the need for adaptation measures in place of mitigation.

In New Zealand, the delayed transformation scenario is characterised by a long period of limited progress, without political support for the transition. In the late 2020s, phase-out plans for fossil fuel thermal generation is pushed out indefinitely, leaving phase-out decisions to the private sector. In the tailwinds of others’ technological progress, New Zealand begins to adopt low emissions technology with greater speed by 2040. The carbon price in NZ reaches a peak in 2050 of 230 NZD/tonne.

Severe weather and intense rainfall events are common in this scenario particularly in the late 2030s. Storms become more frequent resulting in an increase in flooding and supply chain disruption and less predictable hydro inflows and hydro generation. Less rainfall and more dry days are projected for 2090 compared to 1995 to 2014 for all three of our hydro catchments and the average daily air temperature is expected to increase by between 2.0°C and 2.1°C.



6.1 Scenarios and scenario analysis continued

Hot house 3.3

The hot house scenario is a world of minimal and fragmented efforts being made towards avoiding the effects of climate change. With little change to global use of fossil fuels for energy generation, transport and heating, emissions continue to rise.

Domestically, New Zealand's government responds to global energy security concerns by making gas and oil drilling a political priority by the mid-2020s. While the ETS remains active, it is not emphasised as a mechanism for emissions reductions, only as a revenue source. By 2030, a much wider supply of minerals and other resources is available domestically, including coal.

Climate change is expected to cause shifts in rainfall patterns in the long-term, leading to more intense and frequent storms in some areas, and prolonged droughts in others.

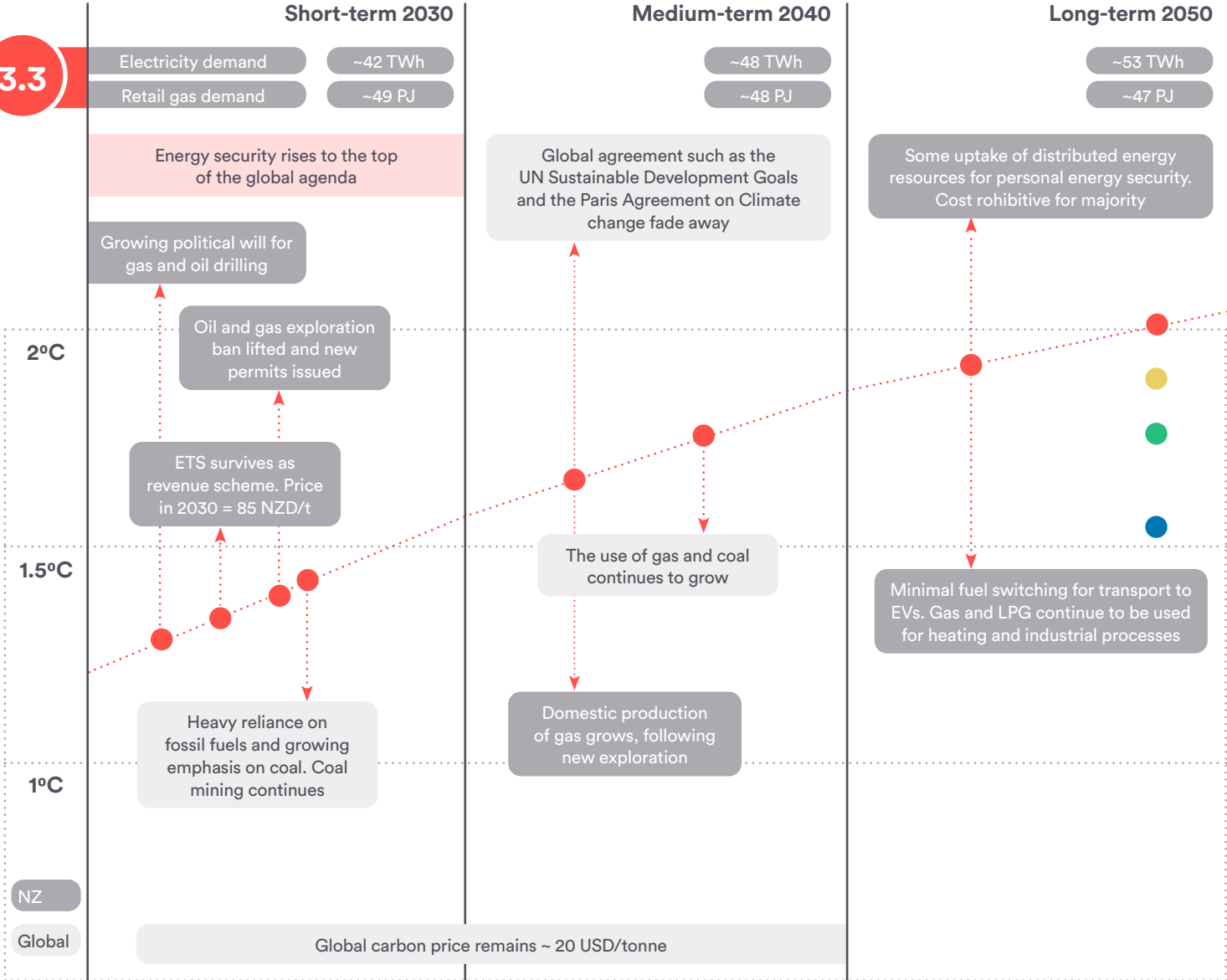
There is projected to be less rainfall and more dry days in 2090 compared to 1995 to 2014 for Tongariro and Waikaremoana areas²³ whereas the Tekapo area is projected to have slightly more rainfall and more dry days in 2090²⁴.

Warmer temperatures²⁵ may also lead to earlier snowmelt which would alter the timing of inflows into hydro catchments, impact seasonal demand for electricity (less demand in winter and more demand in summer) and result in proliferation of invasive weeds in our hydro catchments resulting in increased maintenance costs.

Weather patterns are less predictable making it difficult to predict hydro inflows used for electricity generation. Heatwaves and prolonged periods of high temperatures increase demand for cooling, putting strain on the electricity grid.

Extreme weather events (storms and droughts), heatwaves and bushfires occur frequently. These events increase the risk of damage to hydro infrastructure, electricity transmission and distribution lines used to deliver our electricity, and roading and communication networks used to access our assets.

This scenario results in the most severe physical impacts of climate change, with extreme costs associated with adaptation to natural disasters in the 2040s onwards.



23. Based on NIWA downscaled data the projected mean decrease in annual rainfall for the Tongariro area is 6.1% and 7.4% for the Waikaremoana area and the mean increase in number of dry days is 8.4 and 7.8 respectively. Seasonal changes are projected to be higher than annual changes with Spring having the greatest change.

24. Based on NIWA downscaled data the projected mean increase in rainfall for Tekapo area is 0.7% and the mean increase in number of dry days is 4.2. Seasonal changes are projected to be higher than annual changes with Summer having the greatest change.

25. Based on NIWA downscaled data average daily air temperatures are anticipated to be between 3.1°C and 3.2°C warmer by 2090 in Tongariro, Waikaremoana and Tekapo. Waikaremoana area has the highest increase in the number of hot days in 2090 at 55.7 compared to 48.1 for Tongariro area and 26.3 for Tekapo area.

6.2 Current climate-related impacts

During FY25, our operational and financial performance were materially impacted by two climate-related factors:

1. variable weather conditions (physical risk impact); and
2. gas supply constraints (transition risk impact).

As these factors are closely linked to several of our material climate-related risks and opportunities, they are addressed collectively in this section. Current impacts relating to individual climate-related risks and opportunities are discussed in [section 6.3](#).

Variable weather conditions

FY25 saw hydrology conditions fluctuate significantly from one period to the next. Winter 2024 was marked by low hydro lake levels caused by extended periods of well below average inflows and limited wind generation resulting in reduced renewable generation and the need for more thermal generation. These factors combined with the constrained domestic gas supply, increased the need to use coal-fired and diesel-fired thermal generation. This led to a sharp rise in wholesale electricity prices – from around \$300 per MWh in early July to \$820 per MWh in early August²⁶. These conditions placed significant stress on the electricity market. The actions implemented by us and other sector participants to address these challenges are detailed on [page 31](#). We estimate that winter 2024 resulted in a reduction in our gross margin of \$59 million compared to FY24. This includes the impact of higher fuel costs as a result of the gas supply constraints, below average hydro generation, offset by an increase in flexible thermal generation.

Variable weather conditions continued throughout the year with thermal generation needing to fill the generation gap between February and April 2025. Our diverse portfolio

enabled us to adapt to these changing conditions by increasing our thermal generation when lake levels were low and prices were high and limiting our thermal generation (instead purchasing from the market) when lake levels were high and prices were low. This flexibility enabled us to increase our gross margin by approximately \$121 million compared to FY24. This estimate is based on the difference between the cost of running thermal generation and the cost of purchasing from or selling to the wholesale market. It excludes the increase in flexible thermal generation associated with winter 2024.

As hydrology and wind generation are influenced by seasonal and cyclical phenomena like El Niño/La Niña, it is difficult to determine how much influence climate change had on the variable weather experienced in FY25.

Gas supply constraints

New Zealand's domestic gas supply constraints from FY24 persisted in FY25. While the shortage in New Zealand's domestic gas supply is attributed to multiple factors, the Government's decision in 2018 to halt new gas exploration to support the transition to a low emissions future is a key contributing factor. This decision contributed to a lack of investment in the oil and gas sector which has contributed to the gas supply constraints currently being experienced.

Gas supply constraints contributed to a \$4.8 per GJ (47%) increase in the weighted average cost of gas compared to FY24 and kept coal generation volumes elevated. The operational impact of this was our inability to meet our FY25 greenhouse gas emissions reduction target for generation. Coal imports resumed in FY25, due to the significant depletion of the coal stockpile during winter 2024, putting more pressure on thermal generation costs; coal prices rose by \$2.5 per GJ (32%) in FY25 relative to FY24.

Elevated thermal fuel costs, including the cost of carbon, reduced gross margin by approximately \$88 million compared to FY24. This excludes the impact associated with winter 2024. The increased cost of gas was passed onto retail customers.

The increase in thermal generation costs partly contributed to higher wholesale electricity prices which remained elevated during the dry periods in FY25. This resulted in an increase in electricity revenue and electricity purchases. The average price received for wholesale electricity generated in FY25 was \$236 per MWh compared to \$188 per MWh in FY24 and the average price paid for electricity purchases in FY25 was \$210 per MWh compared to \$182 per MWh in FY24. The impact of these changes on gross margin are included within the quantification outlined previously.

With current challenges expected to continue, wholesale electricity prices are forecasted to remain elevated in the short-term due to a combination of fuel and generation capacity related drivers including gas supply constraints and the resultant need to use coal in its place. This has impacted the carrying value of our generation assets and electricity swaps and options and PPAs, which are carried at fair value on our balance sheet. The projected gas supply constraints also impacted Unit 5's forecasted generation volumes.

The fair value of generation assets increased by \$324 million and electricity swaps and options and PPAs increased by \$121 million compared to FY24 (refer to note B1 and F1 in our FY25 Consolidated Financial Statements for more information).

The majority of the increase in generation assets was recognised in the 'change in asset revaluation reserve' line in the statement of changes in equity (\$330 million) offset by

\$6 million that was recognised in the 'revaluation of generation assets' line in the income statement. Change in fair value also impacts deferred tax and depreciation expense in the period following the revaluation. Refer to the statement of changes in equity, note A6 and note B1 in the FY25 Consolidated Financial Statements for more information.

The majority of the increase in electricity swaps and options and PPAs (\$90 million) was recognised in the 'change in fair value of financial instruments' line in the income statement and \$31 million was recognised in 'change in cash flow hedge reserve' line in the statement of changes in equity.

It is not possible to isolate the impact of gas supply constraints on the forecasted wholesale price path and, as a result, we are unable to quantify the financial impact separately from other changes in fair value for these assets.

Other current impacts

The only other material impact identified in FY25, but which is not included in [section 6.3](#) relates to the increase in gas transmission and distribution costs.

Gas transmission and distribution pricing is regulated by the Commerce Commission, which sets a default price path for these businesses every four years. The most recent price path covers 1 October 2022 to 30 September 2026. In FY22, the Commerce Commission permitted gas transmission and distribution companies to reduce asset lives from their physical lifespan to economic life to address the possibility of stranded assets during the transition to a low emissions future. As a result, transmission and distribution costs will increase by 2.2% to 6.2% per annum over this period. The increased cost has been passed through to retail customers, and as a result, there has been no material impact on EBITDAF in FY25.

26. [Refer to Review of winter 2024](#) published by the Electricity Authority for more information.

6.3 Material climate-related risks and opportunities

The table below outlines our identified material climate-related transition and physical risks and opportunities and the time horizons in which we reasonably anticipate them to manifest the most. The risks and opportunities are discussed on [pages 24-31](#). Given the future is unknown, actual results may differ from those noted on [pages 24-31](#).

KEY

TR Transition risk

PR Physical risk

O Opportunity

THEME	TYPE	RISK / OPPORTUNITY TITLE	TIME HORIZON		
			SHORT	MEDIUM	LONG
Customer	O	Electrification of homes, industry and transport increases electricity demand, resulting in increased electricity sales and opportunities to develop new customer propositions that increase earnings ²⁷	✓	✓	
	TR	Customers transition away from fossil fuels, resulting in lower gas and LPG demand, reduced earnings and potential impairment of LPG assets ²⁸	✓	✓	
Renewables	O	The anticipated increase in electricity demand and lower renewable construction costs increases the investment value proposition for renewable generation, creating an opportunity to transition away from fossil fuel generation and increase earnings ²⁹	✓	✓	
	PR O	Warmer temperatures and longer dry spells are expected to change the volume and timing of catchment inflows and are likely to result in less predictable hydro generation volumes and earnings ³⁰	✓	✓	✓
	PR	More frequent and intense rain / cyclone events cause damage to hydro assets and/or related infrastructure, resulting in increased capital expenditure costs and/or lower generation volumes and earnings			✓
Flexibility	O	An acceleration of renewable generation to support electrification necessitates an increase in flexible/firming generation supply, creating an opportunity to earn more from existing and new assets	✓	✓	
	TR	Fossil fuel generation ramps down at a faster rate than expected due to an accelerated pace of renewable generation, renewable fuels options, storage solutions and/or Government regulations, resulting in reduced earnings ³¹	✓	✓	
	TR	Increasing threats of supply disruption and/or unacceptably high wholesale prices results in Government regulating thermal asset operations, resulting in reduced earnings	✓	✓	

27. Combination of previously disclosed opportunities called 'Increased electricity demand through electrification' and 'Technological developments enable existing and new customers to decarbonise'.

28. Combination of previously disclosed risks called 'Shift in customer preferences away from fossil fuels', 'Speed of LPG and gas sales decline' and 'Decarbonisation products and services offered by competitors'.

29. Includes the previously disclosed risk 'Ability to execute and deliver new renewable generation projects'.

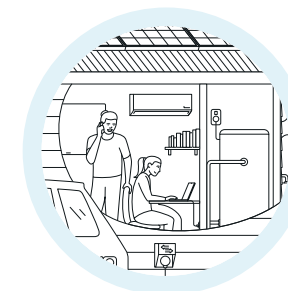
30. Includes the risk previously disclosed called 'Warmer temperatures and longer dry spells impacting hydro generation' and the opportunity previously disclosed called 'Improved alignment of hydro inflows and electricity demand'.

31. Includes the previously disclosed risk called 'Changes to the Emissions Trading Scheme (ETS)'.

● OPPORTUNITY

Electrification of homes, industry, and transport increases electricity demand, resulting in increased electricity sales and opportunities to develop new customer propositions that increase earnings.

Technological advancements and affordability of alternative technologies create new opportunities for customers to reduce reliance on fossil fuels in their homes, business and transport. These technologies include distributed solar and batteries³², electric vehicles and smart appliances and equipment. Combining data platforms, AI and smart devices will enable new customer propositions through concepts such as virtual power plants³³ that 'extend beyond the meter'. Electrification of industry, transport and heating will increase electricity demand over the coming decades as consumer preferences change and carbon alternatives become more affordable.



Anticipated impact

Technology advancements and electrification of transport provides an opportunity for Genesis to increase retail revenue and earnings through strategic partnerships and vertical integration of offerings to EV owners.

Electrification is expected to increase demand and load on the National Grid, leading to increased retail and wholesale revenue and earnings. This also provides the opportunity to develop new renewable generation assets, which is discussed in the 'Renewables' section on [page 26](#).

Business unit impacted: Retail

Increased sales and earnings from increased electricity demand and new products and services.

Time horizon: Short to medium

Metrics

- NZ electricity consumption
- Genesis share of NZ electricity consumption
- Products or services that support a low emissions future
- Refer to [section 8.4](#) for analysis of metrics

Strategy to manage opportunity

- Refer to 'Customer' section in [section 6.4](#).
- For existing customers, this opportunity is managed through our product, sales and partnership capabilities.
- For future propositions, this opportunity is managed through a dedicated team focused on identifying emerging customer and market needs, developing the technology and partnerships required to deploy future products and services to market and development of strategic initiatives focused on reducing reliance on fossil fuels.

Current impact

Electricity demand has not materially increased this year, with national consumption in FY25 down 2.9% (1,230 GWh³⁴) compared to FY24, mainly due to lower industrial demand³⁵. Gas supply constraints, low flows, and reduced wind in winter 2024 led Meridian to activate a demand response arrangement with New Zealand Aluminium Smelter, which had a significant impact on national demand. The decrease is also due to the closure of several industrial companies.

Our retail electricity sales volumes in FY25 increased by 6.2% compared to FY24. This is largely driven by the inclusion of Ecotricity from 29 November 2024. Our retail sale volume, excluding Ecotricity, decreased by 2.1% compared to FY24.

In FY25 we:

- Commenced a 12-month hot water control trial to test how the platform could reduce electricity demand in peak periods and to help customers reduce their power bills. As at 30 June 2025 we had 17,000 customers enrolled in the trial giving us 50 MW of flexible load under management. The trial has successfully shifted around 1.43 GWh over the past 10 months.
- Teamed up with WEL Networks to trial a new energy management platform, TradeWEL which is designed to flex a business's electricity demand to avoid peak times, reducing costs and load on the grid without causing disruption to productivity. TradeWEL was trialed by longstanding Genesis customer Van Lier Nurseries.
- Increased the number of customers on our EV plan by 39% despite growth in EV's registrations being 7%³⁶ in FY25.
- Acquired 65.29% share of ChargeNet. The funding from our investment will enable ChargeNet to more than double its charging points by 2030, enhancing the accessibility and convenience of EV charging infrastructure. This supports the government's goal of having a national network of 10,000 chargers by 2030.
- Acquired the remaining 30% of Ecotricity, New Zealand's first and only Toitū climate positive certified electricity retailer. The acquisition will enable us to offer a wider range of products to customers to help them electrify.

The acquisition of ChargeNet resulted in the recognition of an investment in joint venture of \$64 million, offset by \$4 million share of losses recognised in the income statement. Refer to note D3 in the FY25 Consolidated Financial Statements for more information.

The acquisition of the remaining 30% of Ecotricity resulted in the recognition of a business combination. Refer to note H1 in the FY25 Consolidated Financial Statements for the financial impact of this. Ecotricity has been consolidated into the group from 29 November 2024.

The other activities resulted in the recognition of \$3 million of expenditure in the income statement. The cash outflow associated with all the activities noted above was \$79 million.

³². Solar electricity produced by households using rooftop systems and stored in batteries which are connected to the electricity grid.

³³. Virtual power plants are a network of assets connected to the electricity grid that you can control to provide support to the grid when demand is high and supply is low.

³⁴. Based on information published by the Electricity Authority on 10 July 2025.

³⁵. [Was electricity demand higher in 2024? | Electricity Authority](#).

³⁶. Based on data published by the Ministry of Transport.

Customer

● TRANSITION RISK

Customers transition away from fossil fuels, resulting in lower gas and LPG demand, reduced earnings and potential impairment of LPG assets.

For New Zealand to meet its Paris Agreement commitments, there is a need to transition away from the use of fossil fuels. This shift could be driven by changes in consumer preferences, government policies, affordability of alternative technology, or availability and pricing of domestic gas and LPG.



Anticipated impact

Greater awareness of climate change impacts, supply constraints and/or affordability of fossil fuels or changes in government regulations may lead customers to abandon fossil fuels or transition away from businesses who use or sell fossil fuels creating a risk that retail gas and LPG sales and earnings decline.

Emerging technologies and products that have a lower emissions footprint compared to existing products present both a risk and an opportunity for Genesis. There is a risk that customers may prefer competitor offerings, which could result in a decline in retail gas and LPG sales and earnings. However, this also presents an opportunity to develop new revenue streams. The opportunity is discussed further on [page 24](#).

Business unit impacted: Retail

Reduced customer numbers and reduced gas and LPG volumes resulting in reduced gas and LPG sales and earnings. Potential increase in electricity sales and earnings depending on whether customers transition with Genesis. Potential impairment of LPG related assets.

Time horizon: Short to medium

Metrics

- Retail gas and LPG sales and gross margin
- Wholesale gas and LPG sales and gross margin
- Number of retail customers using fossil fuels
- Net customer churn
- NZ gas and LPG consumption
- NZ active gas ICPs
- Carrying value of LPG assets
- Refer to [section 8.2](#) for analysis of metrics

Strategy to manage risk

- Refer to 'Customer' section in [section 6.4](#).
- We have a dedicated team focused on identifying emerging customer and market needs, developing the technology and partnerships required to deploy future products and services to market and development of strategic initiatives focused on decarbonisation.
- We operate a portfolio of diversified brands, providing customers with a range of product offerings. Ecotricity is New Zealand's first and only Toitū climate positive certified electricity provider and we monitor progress towards our SBT which have been validated by the SBTi.

Current impact

In FY25, the number of active gas ICPs in New Zealand fell by 1,265 (0.4%)³⁷, the first annual decrease since we began monitoring this metric in FY15.

The number of our retail customers using fossil fuels also declined in FY25 by 7% compared to FY24. The decrease was mainly due to the strategic decision to discontinue gas and LPG services for Frank*Energy. This led to a reduction in the total number of gas and LPG customers and a small reduction in gas and LPG sales volumes compared to FY24. This decrease is not climate related.

Refer to [section 8.2](#) for further analysis of individual metrics.

This risk has not had a material financial impact in FY25.

³⁷. Based on a comparison of active gas ICPs as at 30 June 25 and 30 June 24 published by the Gas Industry Co.

● OPPORTUNITY

The anticipated increase in electricity demand and lower renewable construction costs increases the investment value proposition for renewable generation, creating an opportunity to transition away from fossil fuel generation and increase earnings.

The anticipated increase in electricity demand as customers choose to electrify their homes, business and transport coupled with lower construction costs and improved speed to deliver renewable generation assets makes investment in solar and wind generation assets more feasible.

The government's commitment to net zero and the favourable economics of new renewable generation increases interest in these projects. This is expected to lead to increased competition for commercially viable generation sites, project delays due to connection and consent backlogs, and supply chain and contractor availability issues, impacting the timing and delivery of new renewable projects.



Anticipated impact

Generation from new renewable assets will enable Genesis to:

1. replace baseload fossil fuel generation volumes and earnings and reduce operating costs;
2. increase generation volumes and earnings by capturing additional generation volumes expected from customers choosing to electrify their homes, businesses and transport; and
3. use displaced baseload fossil fuel generation to provide flexible generation to firm the grid. This opportunity is discussed on [page 29](#).

Business unit impacted: Wholesale

Increased capital outlay from investment in new renewable generation and increased borrowing which will create pressure on debt metrics in the short-term but will increase earnings and reduce operating costs once the assets are operational.

Time horizon: Short to medium

Metrics

- NZ electricity consumption
- Increase in renewable generation (progress against target)
- Refer to [section 7](#) for progress against target and [section 8.4](#) for analysis of metrics

Strategy to manage opportunity

- Refer to the 'Renewables' section in [section 6.4](#).
- To achieve this growth we are pursuing multiple pathways including:
 1. Developing and investing in solar generation.
 2. Contracting 3rd party renewable generation through PPAs.
 3. Developing a pipeline of options for wind generation.
 4. Maintaining a watching brief on emerging technologies.

Current impact

We made good progress toward our renewable generation targets in FY25, despite limited growth in electricity demand. In FY25:

- Lauriston solar farm, a joint arrangement with FRV Australia, began generating in November 2024. It is currently New Zealand's largest operating solar farm built to date. It produced 40 GWh of electricity in FY25. Genesis has an offtake agreement for all of its output and green products.
- Development rights were acquired for a 127 MWp consented solar site at Edgecumbe in the Bay of Plenty. The 207-hectare site is expected to generate approximately 230 GWh of renewable electricity annually.
- A conditional agreement was entered to purchase a 67 MWp consented solar site near Leeston in Canterbury. The 111-hectare site is expected to generate about 110 GWh of renewable electricity per year.
- We continued to progress:
 - Foxton solar farm (220 MWp) through consenting and connection processes; and
 - Castle Hill windfarm (up to 300 MW) through consenting and transmission solutions.
- Renewable generation sourced through PPAs increased by 274 GWh compared to FY24, representing a 60% year-on-year increase. This was attributed to the commencement of the Tauhara PPA in January 2025 and Lauriston PPA in November 2024.

We spent \$29 million in FY25 on investigation and development of opportunities, of which \$3 million was recognised in the income statement, \$16 million was capitalised to property, plant and equipment in the balance sheet and \$10 million was recognised in investments in joint ventures in the balance sheet.

The increase in renewable generation sourced through PPAs had a positive impact on gross margin given the cost associated with the alternative (coal-fired generation). We are unable to disclose the financial impact given the confidential nature of these arrangements.

● PHYSICAL RISK AND OPPORTUNITY

Warmer temperatures and longer dry spells are expected to change the volume and timing of catchment inflows and are likely to result in less predictable hydro generation volumes and earnings.

Climate change is expected to cause shifts in rainfall patterns leading to more intense and frequent storms in some areas, and prolonged droughts in others. These changes are likely to result in less predictable hydro inflows. Changes in seasonal temperatures and precipitation are expected to be more significant than annual changes. Warmer temperatures may lead to earlier snowmelt, altering the flow patterns in rivers and reservoirs for Tekapo's catchments. These changes could result in better alignment of hydro inflows and electricity demand. Changes in temperatures could have a wider effect such as shifting energy usage in New Zealand: increasing summer temperatures could increase electricity demand for cooling, while warmer winters could reduce electricity demand for heating. Given hydro inflows are expected to become less predictable over time, this change creates both a risk and an opportunity to Genesis.



Anticipated impact

As weather patterns shift, warmer temperatures and longer dry spells may become more frequent. This could:

- alter catchment inflows. This is a risk as well as an opportunity as hydro flows may better align with electricity demand, which could help manage price volatility and increase generation revenue;
- result in proliferation of weed (including new species) or new pests (such as golden clams), which would increase maintenance costs and reduce, or constrain, generation output if not well managed.

More volatile inflows are also expected to increase the need for flexible generation to firm the grid. This opportunity is discussed on [page 29](#).

Business unit impacted: Wholesale

The earnings and carrying value of hydro generation assets could either increase or decrease depending on supply and demand for electricity at the time.

Time horizon: Short, medium and long

Metrics

- Hydro generation in GWh
- Hydro generation as a % of total generation
- Carrying value of hydro generation assets
- Refer to [section 8.3](#) for analysis of metrics

Strategy to manage risk / opportunity

- Refer to the 'Renewables' and 'Flexibility' sections in [section 6.4](#).
- We continue to track and monitor the impacts of climate change on our generation assets and, where appropriate, make generation decisions based on these impacts.

Current impact

Total hydro inflows into our catchments were 5% higher in FY25 (~P40³⁸) than in FY24 (~P20). However, FY25 saw both very dry and wet periods.

National hydro storage declined from April to August 2024 due to well below-average inflows, contributing to high wholesale electricity prices (refer to [page 31](#)) and a stressed electricity market.

Inflows into the Tekapo Power Scheme were well above average at the end of Q1 and most of Q2 but reached record low inflows in Q3. The Tongariro power scheme experienced dry conditions in Q2 and Q3.

Because inflows are heavily influenced by weather events and seasonal shifts, it is difficult to determine the impact of climate change on hydro inflows.

The financial impact of the variable weather conditions has been summarised on [page 22](#).

³⁸. Percentile is based on 95 years of historical hydro inflow data for Tekapo, 58 years for Tongariro and 59 years for Tekapo.

Renewables

● PHYSICAL RISK

More frequent and intense rain / cyclone events cause damage to hydro assets and/or related infrastructure, resulting in increased capital expenditure costs and/or lower generation volumes and earnings.

More frequent intense rain/cyclone events due to climate change have the potential to:

- cause loss of structural integrity of generation and ancillary infrastructure (e.g. dams, spillways, storage ponds);
- damage electricity transmission lines, communication networks or road access;
- impact our ability to operate if intense rain and flooding cause lake levels to rise or increase spilling, or cause sedimentation issues restricting the ability to divert water between catchments.



Anticipated impact

Loss of structural integrity of generation and ancillary infrastructure could result in increased operating and capital expenditure costs and/or loss of generation revenue.

Damaged electricity transmission lines, communication networks or road access could impact generation revenue and increase operating and capital expenditure costs.

Business unit impacted: Wholesale

Reduced earnings because of increased operating or capital expenditure costs and reduced revenue / carrying value³⁹ of hydro generation assets.

Time horizon: Long

Metrics

- Carrying value of hydro generation assets
- Refer to [section 8.3](#) for analysis of metric

Strategy to manage risk

- Refer to the 'Renewables' and 'Flexibility' sections in [section 6.4](#).
- We continually assess our infrastructure for improvements and actively review and update our asset management system, which is aligned with the principles of ISO 55000. Our asset management plans include lifecycle management and strategies to manage and track performance over time. Regular monitoring and inspections are completed to understand the health and performance of our assets.
- As part of our Dam Safety Management System, we undertake periodic reviews of potential extreme flood estimates to assess capacity and resilience of dam and reservoir assets. Where potential issues are identified, these are managed through the deficiency management process outlined in the Dam Safety Management System. This can result in operational and/or physical changes to appropriately manage these risks.
- Genesis is also an active contributor to the Dam Safety Hydrology Group (DSHG) and has helped to fund recent research and development of an updated Probable Maximum Precipitation (PMP) methodology which incorporates climate change scenarios. This allows dam and reservoir owners to better understand potential risks associated with climate change and helps inform decisions around capacity and resilience.
- When developing asset management plans, we incorporate relevant industry practice and guidance to assess our portfolio against various performance criteria, including natural hazards, as well as considerations of future changes to these hazards. We also consider the existing asset specifications, the current and anticipated efficiency, flexibility, capacity, and reliability of the asset and future resilience requirements.
- Asset health, criticality, risks and improvement opportunities are all considered when making decisions for investment and for the ongoing safe and reliable operation of our assets.

Current impact

There were no significant adverse weather events that impacted hydro generation in FY25 and therefore no material financial impact.

³⁹. Generation assets are recorded at fair value in the balance sheet. The valuation is based on a discounted cash flow model. Refer to note B1 of the Consolidated Financial Statements for more information.

Flexibility

● OPPORTUNITY

An acceleration of renewable generation to support electrification necessitates an increase in flexible/firming generation supply, creating an opportunity to earn more from existing and new assets.

Electrification and growth in intermittent renewable generation increases volatility in the electricity system which impacts the reliability and security of the electricity network, increasing the need for flexible generation to meet demand when intermittent renewable generation is unable to. The number of major disruptions is likely to increase as New Zealand decarbonises. Different assets and a range of flexible fuel options will be needed to meet future demand in a highly renewable electricity network. Batteries and fuel flexibility will be required to manage short-term capacity constraints, whereas flexible gas arrangements, the use of coal and biofuels (such as biomass) where they can be procured to displace coal will be required to manage inter-year disruption from energy constraints.



Anticipated impact

Development of fuel and asset flexibility allows Genesis to optimise wholesale generation mix, manage price volatility and support security of supply. Development of a flexible fuel and asset portfolio could extend the useful life and earnings from our thermal generation assets.

Business unit impacted: Wholesale

Increased capital expenditure / investment in assets to support a flexible portfolio / increased earnings and increased carrying value of thermal generation assets.

Time horizon: Short to medium

Metrics

- NZ electricity consumption
- Increase in flexible generation (progress against targets)
- Refer to [section 7](#) for progress against target and [section 8.4](#) for analysis of metric

Strategy to manage opportunity

- Refer to the 'Flexibility' section in [section 6.4](#).

Current impact

As noted on [page 27](#), FY25 included periods of both dry and wet weather. Thermal generation was needed to compensate for low hydro generation during July–August and February–April. Our diverse portfolio enabled us to adapt to the changing weather conditions by increasing our thermal generation when lake levels were low and prices were high and purchasing from the market when lake levels were high and prices were low. The financial impact of the variable weather conditions has been summarised on [page 22](#).

In FY25 we:

- Commenced the construction of a 100 MW / 200 MWh battery at Huntly Power Station which is expected to be operational by Q1 FY27 and commenced a feasibility study for a second stage battery.
- Executed a non-binding term sheet with Foresta for the development of a 180 kt black pellet plant in Kawerau, as well as a memorandum of understanding with Carbona to establish a plant of the same capacity in the Central North Island. We have also been working with three other consortia, who are actively progressing projects to develop plants in other biomass feedstock catchments across the North Island.
- Completed an agreement with the Tariki gas field joint venture in Taranaki to secure 2 PJ of gas from the field, and a 12-month right to assess the potential for Tariki as a gas storage facility. The Tariki operator, NZEC, anticipates completion of dynamic subsurface modelling and surface facility concept studies during August 2025 and we will jointly assess the project after this point. Alongside Tariki, we're investigating other gas flexibility options including other fields, LNG and demand response.

We spent \$39 million in FY25 on the activities discussed above, of which \$2 million was recognised in the income statement and \$37 million was capitalised to property, plant and equipment in the balance sheet.

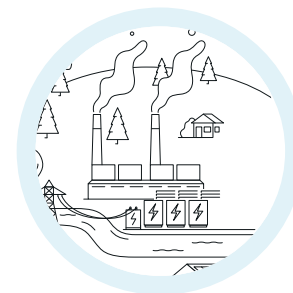
● TRANSITION RISK

Fossil fuel generation ramps down at a faster rate than expected due to an accelerated pace of renewable generation, renewable fuel options, storage solutions and/or Government regulations, resulting in reduced earnings.

There is an expectation that electricity generation using fossil fuels will decline over time. Key drivers behind the decline include:

1. Government regulation that leads to restrictions in the development of oil and gas infrastructure, supply or use of fossil fuels or increases the cost of using fossil fuels (e.g. changes to ETS settings);
2. development of, access to, and relative economics of using, low emissions fuel alternatives (such as biomass);
3. construction of renewable generation assets and energy storage solutions such as batteries;
4. commercial arrangements that include demand response features that provide alternative firming solutions.

These drivers could result in reduced demand for fossil fuel generation.



Anticipated impact

If Genesis does not transition its thermal generation away from the use of fossil fuels it could lead to lower earnings from electricity generation and potentially increase Genesis' exposure to wholesale spot prices (where electricity generation volumes are less than retail purchase volumes). Exposure to higher wholesale spot prices could result in lower earnings whereas lower wholesale spot prices could result in higher earnings. If Genesis cannot mitigate its exposure to high wholesale spot prices, then it may need to reduce its retail customer base to mitigate the exposure to high wholesale prices.

Business unit impacted: Wholesale

Reduced earnings and carrying value of thermal generation assets / increased exposure to wholesale electricity prices where the transition occurs faster than anticipated. If the transition occurs more slowly than anticipated, it could have the opposite impact.

Time horizon: Short to medium

Metrics

- Thermal generation in GWh
- % of retail purchases covered by thermal generation
- Forecasted number of full years of carbon hedging in place at year end
- Carrying value of thermal generation assets
- Refer to [section 8.2](#) for analysis of metrics

Strategy to manage risk

- Refer to the 'Managing the transition from fossil fuels' section in [section 6.5](#).
- [Section 6.5](#) also outlines how we are 'Managing our exposure to carbon prices'.

Current impact

Since September 2023, approximately 641 MW of new generation capacity has been added to the electricity system, contributing around 2 TWh⁴⁰ of electricity generation in FY25—5% of total generation in FY24.

New Zealand's domestic gas supply constraints that began in FY24 persisted throughout FY25⁴¹, resulting in a \$4.8 per GJ (47%) increase in the weighted average cost of gas compared to FY24. Consequently, coal generation volumes remained high, affecting our ability to achieve our scope 1 and 2 SBT. Coal imports recommenced in FY25 due to elevated coal-fired generation during FY24 and FY25, resulting in a \$2.5 per GJ (34%) increase in the weighted average cost of coal compared to FY24.

Despite these factors our fossil fuel generation increased by 10% mainly driven by variable weather conditions experienced in FY25. These factors highlight the important and unique role our thermal assets perform in New Zealand's electricity market.

The financial impact of these factors has been summarised on [page 22](#).

⁴⁰. First generation from Harapaki, Rangitaiki and Tauhara generation sites occurred in FY24 however full operations or commissioning occurred either towards the end of FY24 or the start of FY25.

⁴¹. The current gas supply constraint is considered linked to climate related drivers as the Governments decision in 2018 to ban new gas exploration to support the transition to a low emissions future (as well as onerous rehabilitation provisions) contributed to the lack of investment in the oil and gas sector. This in turn has contributed to the gas supply constraints currently being experienced.

● TRANSITION RISK

Increasing threats of supply disruption and/or unacceptably high wholesale prices results in Government regulating thermal asset operations, resulting in reduced earnings.

Anticipated impact

Unacceptably high wholesale prices and / or supply disruption could result in government regulating the use of thermal assets which could impact earnings.

Business unit impacted: Group structure or the Wholesale business unit

Changes could impact earnings / carrying value⁴² of thermal generation assets.

Time horizon: Short to medium

Metrics

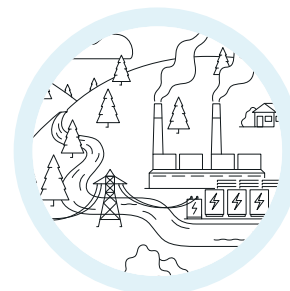
- Number of customer advice notices for low residual situations and grid emergency and warning notices associated with supply risk
- Refer to [section 8.2](#) for analysis of metric

Strategy to manage risk

The 'Flexibility' section in [section 6.4](#) outlines how we manage this risk. In addition to this we:

- Actively engage with regulators and industry groups to support the sector to align on the direction and effective regulations that will help New Zealand move quickly, and safely, towards a low emissions future.
- Seek to offer long-term capacity contracts that provide revenue certainty for large thermal assets and smooth the wholesale price impact of their operation.
- Continually assess our infrastructure for improvements and actively review and update our asset management system, which is aligned with the principles of ISO 55000. Refer to [page 28](#) for information on how we manage our assets.

Increased reliance on more intermittent sources of renewable generation (wind, solar, hydro) has implications for security of supply and increased price volatility. Whilst flexible thermal generation is expected to be required less frequently, as reliance on intermittent renewables increases, its importance to system security becomes more critical. System security or risk refers to the risk of failure of one or more key components of the electricity supply chain leading to interruptions to electricity supply (i.e. blackouts). The frequency of such failures is at risk of increasing through a combination of factors including: (a) increased reliance on intermittent renewable generation as aggregate demand increases through electrification; (b) a lack of adequate firming generation capacity to back-up a more renewable system; (c) greater reliance on aging thermal assets and infrastructure to provide firming generation as a back-up. As thermal assets are used less, and in the absence of long-term contracts to support ongoing operating costs, they will cost more to run when they are required which could result in unacceptably high wholesale prices when the market experiences capacity constraints (including unplanned outages or plant failure) or interruptions to fuel supply.



Current impact

In winter 2024, low hydro lake levels, limited wind generation, and reduced domestic gas supply placed significant stress on the electricity market and led to a sharp rise in wholesale electricity prices—from around \$300 per MWh in early July to \$820 per MWh in early August⁴³.

Electricity market participants responded by invoking demand response arrangements and purchasing extra gas from Methanex. Heavy rainfall in late August, especially in the South Island, helped lower prices to around \$100 per MWh by September 2024.

Genesis' actions included:

- acquiring 2.4 PJ of gas from Methanex to enable Unit 5 to return to full capacity;
- maintaining the availability of three Rankine Units, thereby contributing an additional 240 MW of capacity to the market, with all three units operating for 35 days during July and August; and
- increasing coal purchases to replenish the stockpile and prepare for winter 2025 given the persistence of dry periods during FY25. We made this commitment to energy security despite the expense and the risk that rain could top up the hydro lakes ahead of winter 2025, which by May 2025 proved to be the case. This led to a substantial increase in both the quantity and carrying value of coal on hand as at 30 June 2025, which was \$142 million higher than 30 June 2024.

The financial impact of winter 2024 has been outlined on [page 22](#).

The events of winter 2024 saw the Government commission Frontier Economics to conduct an independent review of electricity market performance. This review has been completed, and it is understood the conclusions are being considered by Government. The Government is expected to release its findings in September 2025. No regulatory or policy change resulting from the review had been announced at the time of writing this report.

Following entering into a heads of agreement in February 2025 and a detailed terms sheet in June 2025, Genesis, Mercury, Meridian and Contact have been negotiating contractual arrangements (referred to as 'Huntly Firming Options' or 'HFO's') intended to support keeping a Huntly Rankine unit, that was due to be retired in early 2026, in the market to support market security of supply. Formal agreements were executed in August 2025 and remain subject to a Commerce Commission authorisation process. The proposed arrangements would see the third Huntly Rankine Unit maintained out to around 2035 (alongside the other two Rankine Units).

At year end the useful lives of the Rankine units were extended to 31 December 2035, given the negotiated arrangement outlined above. The valuation methodology has been updated to reflect the anticipated stand ready function of these units over the next 10 years. For further details, refer to note B1 of the FY25 Consolidated Financial Statements.

⁴². Generation assets are recorded at fair value in the balance sheet. The valuation is based on a discounted cash flow model. Refer to note B1 of the Consolidated Financial Statements for more information.

⁴³. Refer to [Review of winter 2024](#) published by the Electricity Authority for more information.

6.3 Material climate-related risks and opportunities continued

Other climate-related risks and opportunities

The three risks outlined below were considered material climate-related risks in FY24. While these risks remain important risks to monitor and manage, these risks are not anticipated to have a material financial impact on Genesis and therefore are not considered material climate-related risks in FY25. However, this judgment may change depending on future developments. We manage these risks primarily through Gen35, SBT, engagement with stakeholders, investors, lenders, and insurers. There were no material climate-related impacts (including financial impacts) from these risks in FY25.

KEY	
TR	Transition risk
PR	Physical risk
O	Opportunity

THEME	TYPE	RISK TITLE	TIME HORIZON		
			SHORT	MEDIUM	LONG
Other transition risks	TR	Increased risk of climate litigation due to our use of fossil fuels		✓	
	TR	Increased risk of funding withdrawal due to our use of fossil fuels		✓	
	TR	Increased risk of insurance withdrawal due to our use of fossil fuels		✓	

Kupe’s earnings and associated assets

The transition away from gas and LPG is not anticipated to have a material financial impact on Kupe’s earnings and associated assets given the projected natural decline in field reserves as it reaches its end of life in the 2030’s and given the current gas supply constraints. Kupe’s production is anticipated to reduce in line with our SBTs. There was no material climate-related impact (including financial impact) from this risk in FY25.

6.4 Transition plan aspects of our strategy

Gen35

Gen35 and our net zero 2040 ambition

Our strategy, Gen35, creates a pathway through the energy sector's transition towards net zero, centred around empowering customers to make their own transition, developing renewables, and providing flexible assets to support a reliable and secure supply of electricity.

We believe the successful execution of Gen35 will support us to navigate the transition by capturing opportunities, managing risks, and as such create long-term value for shareholders.

Gen35 directs the business towards areas that have proven financial value. Renewable energy, flexible generation and electrification have consistently been referenced in global and international research as cost-effective pathways that maximise transition value and mitigate risks.

Building in optionality to adapt and navigate change is essential for managing the risk of over- and under-investment, especially given the uncertain future conditions of the energy market.

We have chosen to align our strategy with a net zero future by extending our GHG emissions reduction targets out to FY40. Our net zero 2040 target was validated by the SBTi in FY25. It includes near-term targets (FY30) to ensure alignment with our net zero 2040 ambition (refer to [section 7](#)).

The decision to set and verify GHG emission reduction targets was made to ensure Gen35 is aligned with a low emissions future.

Gen35 involves transitioning from coal to biomass to reduce our scope 1 generation emissions, provide fuel flexibility, and provide additional capacity to support increased demand.

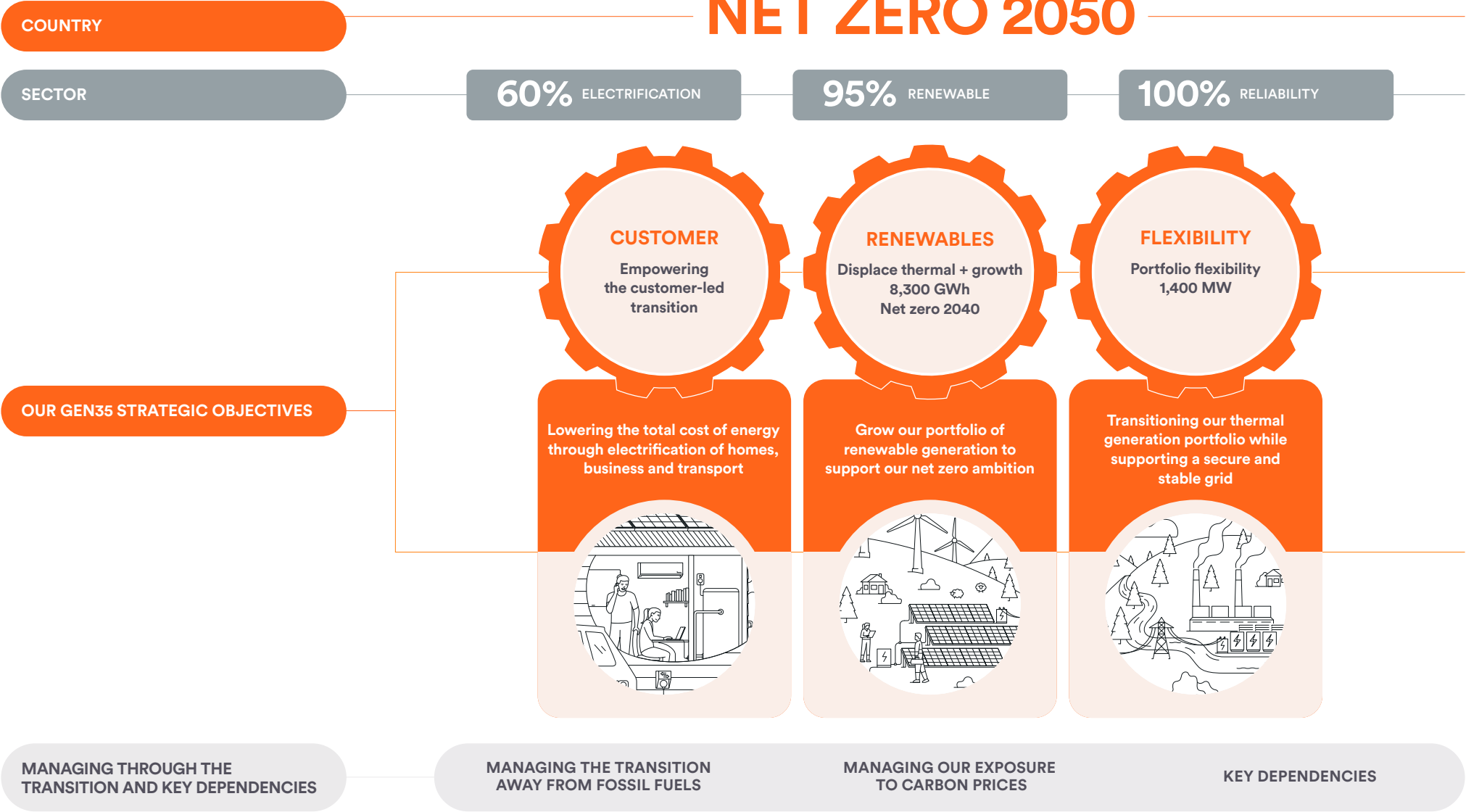
We sell gas and LPG to homes and businesses, but we expect, at some point over the coming decade, market changes such as regulation, gas scarcity/prices, electrification and technology improvements will accelerate the phase out of gas. Gen35 involves developing electrification product options to support customers to transition from gas and LPG when it becomes desirable for customers.



6.4 Transition plan aspects of our strategy continued

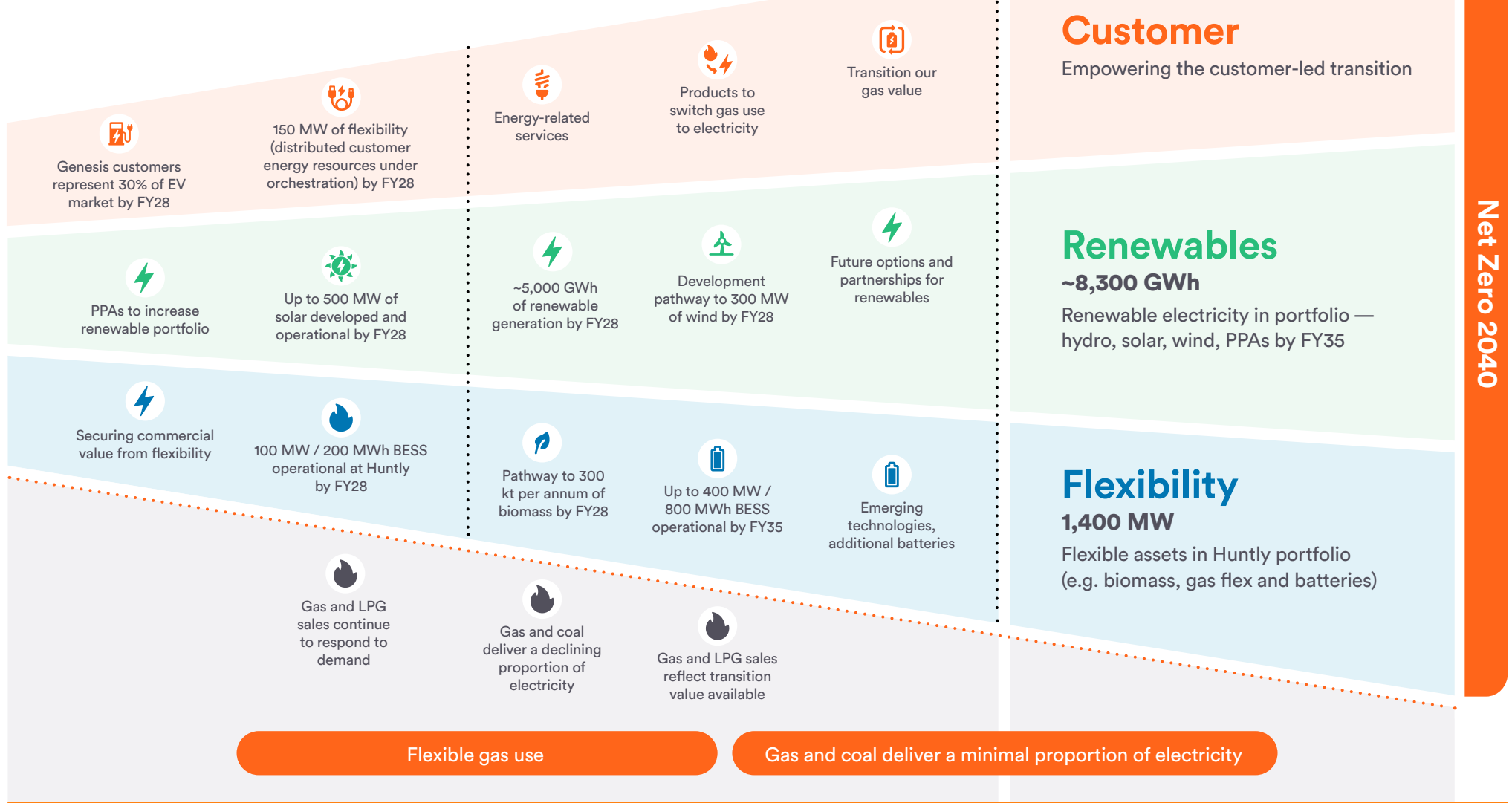
Our transition plan to a low emissions future

NET ZERO 2050



6.4 Transition plan aspects of our strategy continued

Diagram 7: Climate-related transition plan aspects of Gen35



Today

FY28

FY30 SBT

FY35

Horizon 2

Horizon 3

6.4 Transition plan aspects of our strategy continued

CUSTOMER Empowering the customer-led transition



While New Zealand's net zero commitment will drive a transition away from fossil fuel in homes and businesses, we recognise that LPG and gas currently provide an essential option for many of our customers. The pace of this transition remains uncertain, shaped by factors including technology readiness, cost dynamics, and policy direction.

Our vision is for a customer-led transition that lowers the total cost of energy for New Zealanders by accelerating the shift to an electrified economy and reducing reliance on more expensive fossil fuels. The smarter our electricity system becomes, the more value we can unlock for customers, Genesis, and our shareholders.

The expected growth in electrically powered assets provides an opportunity for us to grow our product offerings, electricity sales, and a generation portfolio to match increasing demand. These options are also expected to help reduce customer churn.

Options focus on:

- Unlocking value with customers through energy resource management and innovation
- Helping residential and business customers manage their energy transition
- Striving for retail excellence and lowering our cost to serve customers

Options we are exploring include demand response technologies, and energy-related services such as solar, batteries, heat pumps and product offerings that support the use of EVs.

Unlocking value with customers through energy resource management and innovation

There are a large and growing number of digitally connected energy storing devices in customers' homes and businesses, like hot water storage, electric vehicles, or battery systems. By controlling and optimising when large energy devices charge, we will be able to reduce electricity system costs and deliver value for our customers.

Genesis is trialling customer-led device flexibility through management of electric hot water systems using a cloud-based orchestration platform. Genesis currently has 50 MW of flexible load under management. Once we've proven the approach, we will increase the scale to orchestrate 150 MW of distributed customer energy resources by FY28.

Helping residential and business customers manage their energy transition

We empower our residential customers through Energy IQ, electric vehicle charging technology and our [Electrification Hub](#).

Genesis acquired a 65% stake in ChargeNet, New Zealand's largest nationwide electric vehicle public charging network, as part of our commitment to accelerate the country's transition to sustainable transport, a key driver of reducing emissions and lowering the total cost of energy to New Zealanders.

Our goal is to have Genesis' customers representing 30% of EV market by FY28. Electric vehicle usage is supported by our EV plan and EEverywhere add-on products, and with the addition of ChargeNet, has the most comprehensive customer EV journey in the market.

We continue to investigate technology that can help business customers transition to lower emissions options.

Gen35 involves collaboration with our customers to support their electrification journeys.

We have identified 11 key industries to focus our efforts on, with the goal of creating detailed case studies for each industry to inspire and motivate others to move towards electric options.

Striving for retail excellence and lowering our cost to serve customers

We are simplifying our products, processes, and platforms to reduce complexity, improve customer experience, and lower our cost to serve. Our R2G2 programme is a key enabler - consolidating multiple legacy systems into a single future-fit retail platform to support scale, automation, and efficient growth.

We're investing in data-driven customer journeys, automation, and service channel optimisation to improve satisfaction and reduce support costs. This includes driving uptake of digital self-service tools and proactive customer support interventions.

By focusing on operational efficiency and delivering a consistently high-quality customer experience, we are creating a stronger foundation for long-term margin growth and loyalty. These changes also support a more just energy transition by improving access, affordability, and service equity for all customers.

6.4 Transition plan aspects of our strategy continued

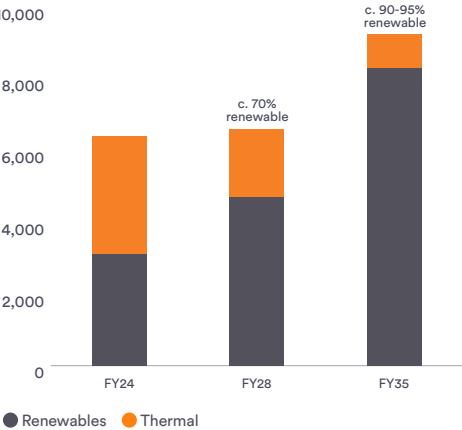
RENEWABLES

Grow our portfolio of renewable generation to support our net zero ambition

We are aiming to grow our renewable portfolio to ~5 TWh by FY28 and ~8.3 TWh by FY35. [Section 6.5](#) outlines the key dependencies for reaching this target. Diagram 8 provides an indicative view of how our portfolio is anticipated to change over time. We have adjusted our FY28 renewable generation target down from ~5.5 TWh to ~5 TWh which reflects the constrained availability of advanced-stage renewable projects. While demand growth has also been slower than anticipated, the primary driver of this revision is the current supply-side development pipeline.

- To achieve this growth, we are pursuing multiple pathways as outlined in Diagram 9. These include:
- 1. Developing and investing in solar generation.
 - 2. Contracting 3rd party renewable generation through PPAs.
 - 3. Developing a pipeline of options for wind generation.
 - 4. Maintaining a watching brief on emerging technologies.
- Our renewable energy project pipeline includes various initiatives which, if successful, support the delivery of our FY28 renewable generation target.

Diagram 8: Indicative portfolio change (GWh)



1. Developing and investing in solar generation

We have developed, and continue to optimise, a pipeline of solar farm projects which we expect to take through development to operations. For example, Lauriston 63 MWp solar farm reached commercial operations in H2 FY25. This was a project jointly developed with FRV Australia.

We will continue to leverage partnership models where it makes sense to enable project finance to deliver efficient use of capital and off-balance sheet treatment of these projects.

2. Contracting 3rd party renewable generation through PPAs

To date we have signed PPAs for approximately 1,300 GWh of new renewable generation including the offtake of solar, wind and geothermal energy. We continue to develop our PPA portfolio.

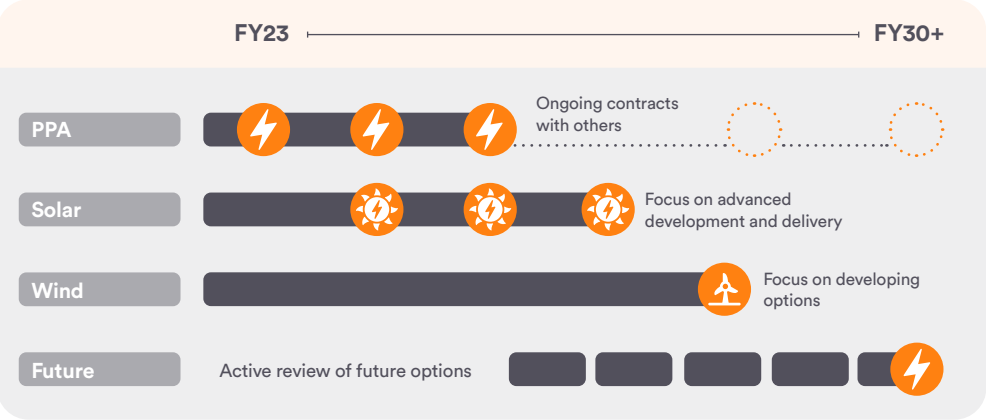
3. Developing a pipeline of options for wind generation

While onshore wind development in New Zealand remains challenging, we continue to explore new opportunities and are developing a pipeline of wind generation options through partnerships and balance sheet opportunities.

4. Maintaining a watching brief on emerging technologies

There are new technologies being developed which could form part of a lower emissions electricity system. We continue to keep a watching brief on viable opportunities.

Diagram 9: Renewable generation pathways



6.4 Transition plan aspects of our strategy continued

FLEXIBILITY

Transitioning our thermal generation portfolio while supporting a secure and stable grid

Our existing generation portfolio provides flexibility and firming for the electricity system in New Zealand. Our strategic position between the electricity and fuel markets, combined with our flexible assets, gives us optionality over how and when we utilise our fuels. This places us well to coordinate electricity and fuel supply deals and offer services to help manage security of supply.

The transition to a low emissions future is expected to result in an increase in weather-dependent forms of generation like solar, wind, and hydro. This increase is expected to make the wholesale market more volatile, leading to greater electricity price fluctuations across various timescales, from seasonal through to intra-day.

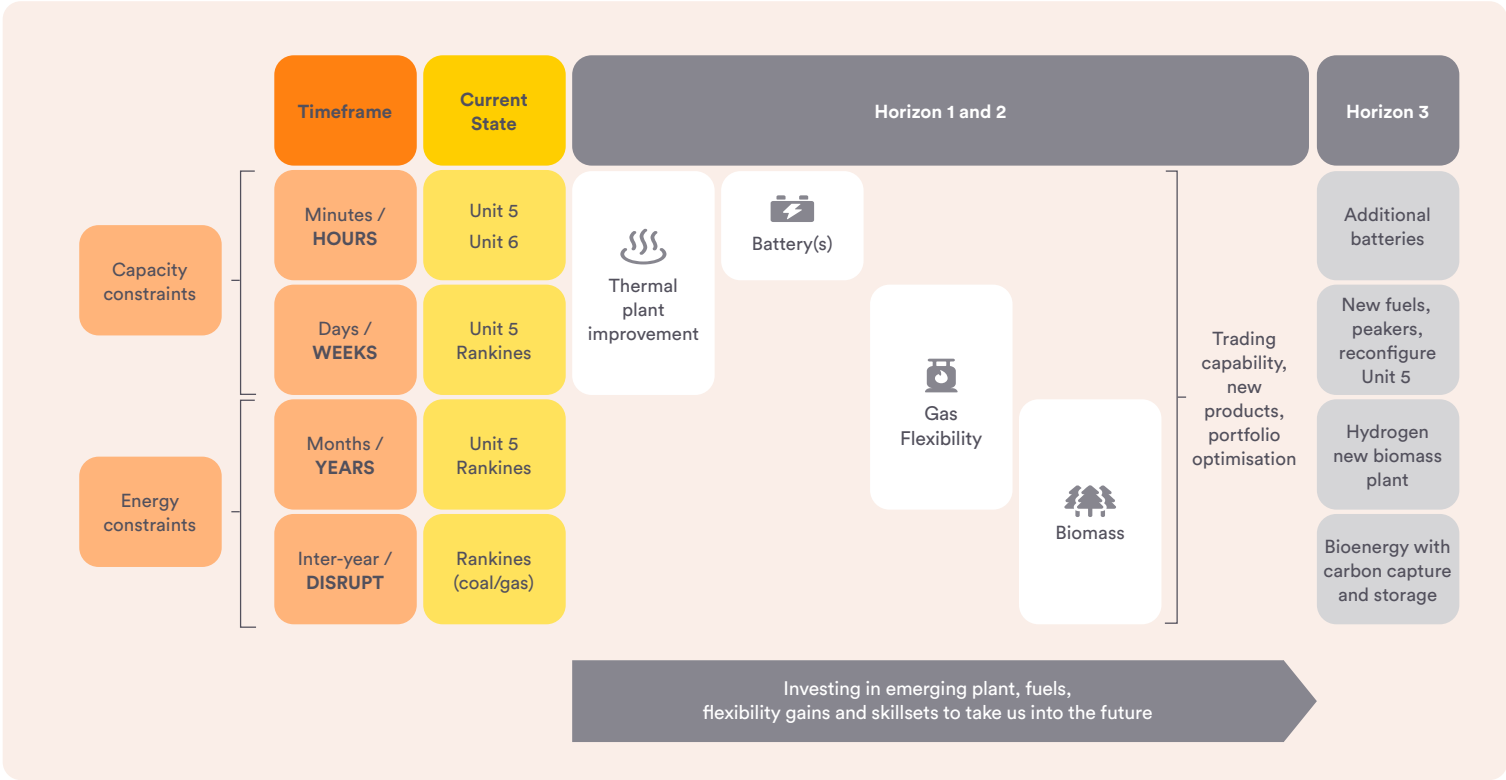
To support the delivery of 100% reliable and secure electricity in the future a mix of flexible assets and fuels will be necessary to manage variability from increased renewable generation and higher peak capacity demands due to electrification.

By FY35, we aim to operate a total of 1,400 MW of flexible assets in a suite of options centred around Huntly (the Huntly Portfolio as outlined in Diagram 10). [Section 6.5](#) outlines the key dependencies for reaching this target. While the Huntly Portfolio will centre around the power station site, it may also encompass additional flexible assets that can be optimised collectively

such as distributed batteries, smart EV charging or other distributed energy resources.

Combined with our existing 640 MW of hydro capacity (which can also be configured and operated to provide additional flexibility), our market share of the flexible capacity required to meet peak demand in FY35 is expected to be close to 20%⁴⁴.

Diagram 10: Huntly portfolio can deliver future flexibility needs



44. Based on the Boston Consulting Group, 'The Future is Electric' report, estimates for dispatchable capacity to meet highest peak demand.

6.4 Transition plan aspects of our strategy continued

We are progressing a range of flexibility opportunities including:

1. Investing in utility scale batteries
 - ▶ Hourly flexibility
2. Contracting for gas flexibility
 - ▶ Weekly flexibility
3. Developing a biomass option
 - ▶ Yearly flexibility
4. Securing commercial value from flexibility
5. Pursuing plant and operational options to improve the flexibility of our hydro generation assets
6. Maintaining a watching brief on new technologies

1. Investing in utility scale batteries

▶ Hourly flexibility

Batteries offer versatile energy storage that can create value through price arbitrage, portfolio optimisation and ancillary products. They offer 'fast start' capabilities, and their cost has been decreasing.

We have commenced construction and are on track to complete a 100 MW / 200 MWh battery at Huntly in FY26, and further capacity exists within the transmission connection to expand with additional battery capacity in the future. We have identified physical space at Huntly Power Station for up to 400 MW / 800 MWh of batteries with more land available in time.

2. Contracting for gas flexibility

▶ Weekly flexibility

Gas scarcity and the transition to a low emissions future means gas generation is transitioning away from traditional baseload operations towards a more flexible firming role to deliver electricity when renewable generation availability is low and to meet peak demand needs. To deliver this we are pursuing greater plant flexibility and gas fuel supply flexibility.

Fuel flexibility could be achieved through flexible supply contracts, flexibility in demand built into supply contracts, or contracting for gas storage. In FY25 we completed an agreement with the Tariki gas field joint venture in Taranaki to secure 2 PJ of gas from the field, and a 12-month right to assess the potential for Tariki as a gas storage facility. Tariki operator, NZEC, will complete initial modelling in September 2025 and we will jointly assess the storage potential after this point. Alongside Tariki, we're investigating other gas flexibility options including other fields, LNG and demand response.

3. Developing a biomass option

▶ Yearly flexibility

Today, coal fired generation at the Huntly Power Station provides a significant share of the yearly flexibility needed to maintain a reliable and secure electricity supply. Currently, there are limited commercially viable lower-emissions alternatives to manage seasonal demand variability and hydro variability (dry-year risk) in New Zealand.

We continue to explore alternative fuel options such as biomass to improve supply flexibility and resilience. The use of biomass could also extend the useful life and economic value of the units past their current asset valuations.

We successfully completed a biomass trial in FY23, a significant step in our search for alternative fuel options for the Rankine units and we continue to explore commercially viable biomass supply options. This year we advanced discussions with five potential suppliers of biomass, signed a Memorandum of Understanding with Carbona and a term sheet with Foresta. We are also in the process of negotiating supply agreements with other consortia across the central North Island. Our goal is to have a pathway to 300 kt per annum of biomass by FY28.



Artist impression of grid scale battery at Huntly.

6.4 Transition plan aspects of our strategy continued

4. Securing commercial value from flexibility

The Rankine Units perform a critical role supporting the electricity system as more intermittent wind and solar generation is added. Independent analysis by KPMG and Concept Consulting⁴⁵ confirmed that firming capacity will remain essential over the coming decades, and that the Rankine units at Huntly represent the lowest-cost option to provide this firming. These units provide crucial flexible generation, and their continued operation is a means to maintain affordability and security of supply, particularly given gas supply uncertainties.

In August 2025, Genesis, Mercury, Meridian, and Contact signed detailed agreements to establish a strategic energy reserve centred on Huntly Power Station. These agreements provide security to help mitigate conditions like those of winter 2024, where the market experienced a pinch point on energy supply due to a combination of a faster than expected decline in the national supply of natural gas, low hydro lake levels and low wind conditions. The medium-term outlook for gas supply is also a key factor.

These agreements are for 10-year Huntly Firming Options (HFOs) which support the establishment of a strategic fuel reserve and enable greater Rankine capacity to remain in the market through to 2035. The proposal is currently under review by the Commerce Commission. Once finalised, it will offer security in addition to the Huntly Firming Options we brought to market last year and will enable us to offer future HFOs and other risk products to the wider market.

5. Pursuing plant and operational options to improve the flexibility of our hydro generation assets

With increasing amounts of intermittent generation coming into the electricity system, the operational role of our hydro assets is changing, and flexibility is becoming more valuable. As part of our ongoing asset management activities, Genesis continues to investigate additional capacity, efficiency gains, faster start capability and other flexibility initiatives at our hydro plants.

Some current examples include:

- Increasing Tekapo A station's efficiency through optimisation of wicket gate and turbine blade position
- Improving start times and ramp rates at both Kaitawa and Rangipo
- Optimising the capacity of the Tuai station when a unit is offline

6. Maintaining a watching brief on new technologies

There are a range of new and emerging technologies and alternative fuels that may become commercially viable and could form part of the Huntly Portfolio. We are keeping a watching brief on options, including:

- New or alternative fuels that could be used in existing assets, such as imported LNG, biodiesel or hydrogen, and new plant that could use new fuels.
- The potential for Biomass with Carbon Capture and Storage (BECCS) which could deliver negative emissions if combined with a sustainable source of bioenergy (e.g. waste or sustainably grown biomass).

⁴⁵. [The need for energy storage – KPMG New Zealand](#).

6.5 Managing through the transition and key dependencies

In this section, we outline our strategy to manage the transition away from fossil fuels, our exposure to carbon prices, and the key factors our strategic goals depend upon.

MANAGING THE TRANSITION FROM FOSSIL FUELS

Fossil fuels currently play an important role in providing affordable and reliable energy to New Zealand. For example, coal can provide large amounts of energy on demand and for sustained periods. The attributes of this fuel means the sector relies on Genesis and the use of coal to manage dry-year risk, or other events such as unplanned outages of generation plant, gas production constraints or delays in new renewable generation development. For this reason, Genesis plays a pivotal role in New Zealand's energy transition.

We need to reduce our reliance on gas and coal if New Zealand is to meet its net zero commitments.

The process of transitioning from fossil fuels, whilst expected over the next few decades, creates risks for Genesis. Our transition can be considered in three parts:

1. Transitioning from coal generation
2. Transitioning from gas generation and the role of Kupe
3. Engaging with industry and regulators

1. Transitioning from coal generation

While renewable electricity will significantly displace the existing role of thermal generation, there will be an increased need for firming and peaking products to ensure a secure and reliable electricity system. This will continue to be powered by coal until such time that biomass or alternative biofuels options are proven to be commercially viable. Due to the uncertain speed of the transition and the variability in year-to-year hydrology, it is not clear how much coal will be needed and for how long.

As discussed in the 'Flexibility' section, we are working on securing biomass to replace coal, however it is reliant on securing a commercially viable, cost competitive, convenient to procure, and emissions reducing source(s).

2. Transitioning from gas generation and the role of Kupe

It's important that we work to maintain a sufficient supply of gas and coal to help maintain security of supply for the electricity system and to homes and businesses that use gas. In the near term that means buying more gas and working to match our fuel supplies with the broader needs of the electricity system and our customers.

Kupe gas field remains an important asset in New Zealand's energy transition particularly given the accelerating decline of available reserves in New Zealand⁴⁶ and the uncertainty of new gas availability going forward. Our partial ownership of Kupe, and contracts for gas supply from the Kupe field, provides access to gas and LPG through the transition. Production at Kupe is anticipated to decline as the field approaches end of life in the 2030s.

The 'Renewables' and 'Flexibility' sections outline how we aim to grow our generation portfolio and change the way we operate our existing assets which should reduce our reliance on gas in the long-term.

3. Engaging with industry and government

For the transition to a low emissions future to be efficient and effective it is important that industry and government work together. For example, poor regulatory or policy settings disincentivises electrification through a higher-cost and less reliable electricity system.

We actively work with government and industry groups to support the transition. In FY25 this included working with the Government-convened Gas Security Response Group to navigate an unexpected and rapid decline in availability of natural gas, including through understanding the feasibility or otherwise of LNG importation to address the domestic supply shortfall. Huntly Power Station's fuel diversity plays an important role in supporting the electricity system in this context.

We have been working with Government on the future role of Huntly which included extensive engagement on our goal to have a pathway to 300 kt per annum of biomass by FY28 to displace coal generation. This goal was recognised in the Government's second Emissions Reduction Plan⁴⁷. Further investigations are underway into what role alternative fuels such as biogas and hydrogen may play in Genesis' portfolio in future, and we seek to align these plans with Government priorities.

Genesis has also worked hard to ensure compliance with the Consumer Care Obligations for electricity, which transitioned from being voluntary to a regulatory requirement in the second half of FY25. Genesis is also aligned with the voluntary Gas Consumer Care Guidelines.

Genesis participated in more than 40 regulatory and policy change processes over FY25, ensuring our unique perspective was taken into account.

46. MBIE noted in their most recent reserves update that natural gas reserves continue to reduce faster and sooner than previously forecast. In 2024 natural gas proven plus probable (2P) reserves reduced from 1,300 PJ to 948 PJ. The reduction in natural gas reserves is largely driven by field operators reducing their estimates of gas readily extractable in the ground by 234 PJ. The remaining reduction of 119 PJ reflects the portion of gas reserves that were used during the year ([Gas supply reducing faster and sooner than previously forecast | Ministry of Business, Innovation & Employment](#)).

47. Initial government estimates suggest our biomass goal could deliver reductions of 1.1 Mt CO₂e in the EB2 period and 1.6 Mt CO₂e in the EB3 period ([New Zealand's second emissions-reduction plan-202630.pdf, page 41](#)).

6.5 Managing through the transition and key dependencies continued

MANAGING OUR EXPOSURE TO CARBON PRICES

We manage the risk of changes to ETS settings by continually monitoring, and reviewing, proposed regulatory changes to the ETS and providing submissions when relevant.

Genesis has a policy to manage the price risk associated with carbon over the short-term. Prices are managed using forward contracts and options. We have invested in two forestry partnerships that provide valuable access to carbon units to enable us to meet our obligations under the ETS, and help manage the cost of thermal generation.

6.6 How we align transition plan aspects of our strategy with internal capital deployment and funding decisions

KEY DEPENDENCIES

Achieving Gen35 and our net zero 2040 SBT are dependent on many factors with the most impactful outlined below.

STRATEGIC GOAL	DEPENDENCY
Customer Empowering a customer-led transition	Commercially viable solutions being available which are influenced by: <ul style="list-style-type: none">• government policies (e.g. incentives, subsidies, financing arrangements)• customer preferences (e.g. growing demand for electric and smart products)• cost of living and economic conditions (e.g. affordability, inflationary pressures)• technology improvements (e.g. advancement in EVs, solar panel efficiency and battery capacity)• market factors (e.g. cost of gas, LPG, electricity)
Renewables Displace fossil fuel thermal generation and grow renewable generation FY35 target = 8,300 GWh	Commercially viable solutions being available which are influenced by: <ul style="list-style-type: none">• the availability, quantity, and quality of potential partners and projects from which to build a pipeline• market prices, influenced by the pace of demand growth and the supply/demand balance• access to liquidity/funding options, which is one of our principal risks outlined in our Corporate Governance Statement
Flexibility Portfolio flexibility FY35 target = 1,400 MW	Commercially viable solutions being available which are influenced by: <ul style="list-style-type: none">• securing supply chain options for biomass and/or sell flexible generation that is commercially competitive with coal and other fuels. In the near term, coal feedstock will be needed to ensure security of supply• availability and commercial viability of gas flexibility options (e.g. suitable gas storage reservoirs, confidence in gas availability)• market prices for flexible generation, influenced by the generation mix
Ensuring the reliability and affordability of our existing assets through the transition	Commercially viable solutions being available which are influenced by: <ul style="list-style-type: none">• the availability and cost of fuel in wholesale markets• changes to the ETS and other regulatory settings or government actions Both of these are principal risks outlined in our Corporate Governance Statement .

When completing our annual strategic and operating planning processes we considered the capital required to execute Gen35 and funding options. We consider the value of asset ownership against partnerships and other contractual arrangements. We assess the capacity of our balance sheet to support investments and consider implications for financial settings such as our investment

grade credit rating and our required return on investment. As part of this process, we also considered future earnings, our dividend policy and funding capacity.

There are multiple ways to fund Gen35. Our approach is flexible, utilising a variety of commercial partnerships and contracts to provide balanced investments that enable growth in renewables, including through PPAs

and development with equity partners. For example, the renewable generation developed by our solar JV with FRV Australia, was financed through non-recourse project finance. This approach of leveraging non-recourse project finance will be used in future as these arrangements reduce the level of capital outlay required by Genesis. Using a mixture of funding methods should enable us to maintain our BBB+ credit rating.

7. Targets

The table below outlines our Gen35 targets which address our climate-related risks and opportunities and our progress towards achieving them.

GEN35 STRATEGIC OBJECTIVE	HORIZON 2 TARGET (8 BY 28) / SBT TARGET	BASELINE, TARGET, AND PERFORMANCE	PERFORMANCE COMMENTARY	MEASUREMENT METHOD AND ASSUMPTIONS
Customer Empowering the customer-led transition	Unlock 150 MW of flexibility by FY28 (distributed customer energy resources under orchestration)	Base year: FY24 = 0 MW Target year: FY28 = 150 MW Current year: FY25 = 50 MW Comparatives: N/a target set in FY24	In FY25 we commenced a 12-month hot water control trial. As at 30 June 2025 we had 17,000 customers enrolled in the trial giving us 50 MW of flexible load under management.	Orchestration means the point at which the customer installed distributed customer energy resources (solar, EV, battery, hot water, heat) are flexibly used to optimise value for customers and Genesis in response to the market. MW is based on peak capacity of the assets under orchestration. Performance is measured using the MW of assets under orchestration at 30 June.
	Genesis customers represent 30% of EV market by FY28	Base year: FY24 = 7% Target year: FY28 = 30% Current year: FY25 = 9% Comparatives: N/a target set in FY24	As at 30 June 2025, we had 11,607 customers on our EV plan, a 39% increase compared to 30 June 2024. This growth exceeds the 7% increase in registered electric vehicles and plug-in hybrids during the same period. Customers on our EV plan represent 9% of New Zealand's EV and plug-in hybrid market as at 30 June 2025. Genesis reaches more than 30% of New Zealand's EV and plug-in hybrid market through our EV plan and ChargeNet retail channel.	Number of customers on our EV plan compared to the number of registered EV and plug-in hybrids in New Zealand ⁴⁸ .
	Reduce absolute scope 3 emissions from use of sold products by 21% by FY25 against a FY20 baseline	Base year: FY20 = N/a target is a relative % decrease Target year: FY25 = 21% reduction Current year: FY25 = 55% reduction Comparatives: FY24 = 60% reduction, FY23: 49% reduction	The target has been met and exceeded since FY22.	Absolute target, aligned with a 1.5°C pathway, approved by SBTi measured in t/CO ₂ e using GHG protocol. Performance is measured as the % difference between actual emissions for the year compared to the base year. The target and actual performance do not include the use of offsets.
Renewables Grow our portfolio of renewable generation to support our net zero 2040 ambition Aim is to have ~8,300 GWh of renewable generation by FY35	~5,000 GWh ⁴⁹ of renewable generation by FY28	Base year: FY20 = 2,344 GWh ⁵⁰ Target year: FY28 = ~5,000 GWh Current year: FY25 = 3,325 GWh Comparatives: FY24: 3,134 GWh, FY23: 4,105 GWh	Renewable generation (including PPAs) increased by 191 GWh compared with FY24. The increase is largely driven by the commencement of the Tauhara and Lauriston PPAs. The target to develop up to 500 MW of solar noted on page 44 feeds into the delivery of this target.	Includes actual renewable generation from assets controlled by Genesis and actual renewable generation under PPA contracts.

48. A customers could own more than one EV or plug-in hybrid, therefore an adjustment should be made to the number of registered vehicles to reflect this. As this information is not currently available no adjustment has been made. The reported progress could be understated as a result.

49. We have adjusted our FY28 renewable generation target down from ~5.5 TWh to ~5 TWh reflecting the constrained availability of advanced-stage renewable projects.

50. The base year has been restated to reflect actual generation in FY20. The base year disclosed previously included Waipipi PPA which was not operational in FY20.

7. Targets continued

GEN35 STRATEGIC OBJECTIVE	HORIZON 2 TARGET (8 BY 28) / SBT TARGET	BASELINE, TARGET, AND PERFORMANCE	PERFORMANCE COMMENTARY	MEASUREMENT METHOD AND ASSUMPTIONS
Renewables Grow our portfolio of renewable generation to support our net zero 2040 ambition Aim is to have ~8,300 GWh of renewable generation by FY35	Up to 500 MW of solar developed and operational by FY28	Base year: FY20 = 0 MW Target year: FY28 = 500 MW Current year: 63 MW Comparatives: FY24 = 0 MW, FY23 = 0 MW	Lauriston solar farm (63 MWp) was commissioned in February 2025. Other projects in the development pipeline include: <ul style="list-style-type: none"> • Edgecumbe (127 MWp)⁵¹ - acquired development from Helios in August 2024. FID is targeted for Q2 FY26. • Leeston (67 MWp) – conditional agreement to purchase the development rights of a fully consented large scale development in the Canterbury region. Land secured with resource consent. FID is targeted for Q3 FY26. • Foxton (220 MWp) – the project is progressing through consenting and connection processes. It is listed in New Zealand's 'Fast-track' Approvals Act. 	MW is based on peak capacity. The MW are included when the project reaches first generation. If the project is developed through a JV arrangement the MW are based on the peak capacity for the whole project to align with the PPA.
	Development pathway to 300 MW of wind in FY28	Base year: FY25 = 0 MW Target year: FY28 = 300 MW Current year: 0 MW Comparatives: N/a target set in FY25	Partnership and acquisition opportunities continue to be progressed with various parties and we continue to progress the consenting and transmission solutions required to unlock value from Castle Hill (a consented site for up to 300 MW of wind).	A development pathway is a pipeline of opportunities that could be developed over time if the projects are technically and commercially feasible. We will measure the achievement of this goal in FY28 based on the options which we have in the development pathway which are considered technically and commercially viable at that time and which could be operational by FY35. The MW is based on peak capacity. Even if the project meets these criteria, a project is subject to FID and therefore may or may not be constructed.
	Reduce absolute scope 1 and 2 GHG emissions by 36% by FY25 against a FY20 baseline	Base year: FY20 = N/a target is a relative % decrease Target year: FY25 = 36% reduction Current year: FY25 = 6% reduction Comparatives: FY24: 9% reduction, FY23: 60% reduction	We were unable to meet our SBT target due to a range of factors, including the speed at which the market is developing renewables, hydrology conditions, and most significantly, the constrained gas market. Genesis had to rely more heavily on coal given the gas shortages to support New Zealand's electricity demands. Refer to page 45 for more information.	Absolute target, aligned with a 1.5°C pathway, approved by SBTi. Measured in t/CO ₂ e using GHG protocol. Performance is measured as the % difference between actual emissions for the year compared to the base year. The target and actual performance do not include the use of offsets.
Flexibility Transition our thermal generation portfolio Aim is to have 1,400 MW flexible assets at Huntly by FY35	100 MW / 200 MWh BESS operational at Huntly by FY28	Base year: FY24 = 0 MW Target year: FY28 = 100 MW Current year: FY25 = 0 MW Comparatives: N/a target set in FY24	During the year we commenced the construction of a 100 MW / 200 MWh battery at Huntly Power Station which is expected to be operational by Q1 FY27.	MWh is based on the total energy storage capacity. Operational means able to be discharged into the market.
	Pathway to 300 kt per annum of biomass by FY28	Base year: FY24 = 0 kt Target year: FY28 = 300 kt Current year: FY25 = 0 kt Comparatives: N/a target set in FY24	In FY25, we executed a non-binding term sheet with Foresta for the development of a 180 kt black pellet plant in Kawerau, as well as a memorandum of understanding with Carbona to establish a plant of the same capacity in the Central North Island. We have also been working with three other consortia, who are actively progressing projects to develop plants in other biomass feedstock catchments across the North Island.	The goal is met when we have supply agreements in place and projects delivered with the total capacity to produce at least 300 kt of biomass.

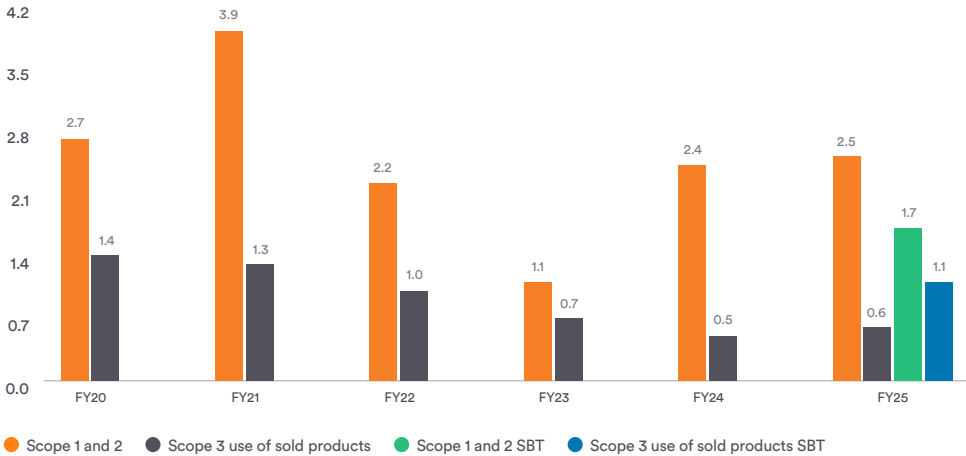
51. 100% owned by Genesis.

7. Targets continued

FY25 SBTs

As indicated in the targets table on [pages 43 and 44](#), we achieved one of two SBTs in FY25. Diagram 11 provides an overview of our year-on-year performance compared to our FY25 SBTs and diagram 12 details the factors influencing our ability to achieve our scope 1 and 2 SBT. Additional information regarding our emissions can be found in [Appendix II](#).

Diagram 11: Actual reported emissions compared to FY25 SBTs (MtCO₂e)

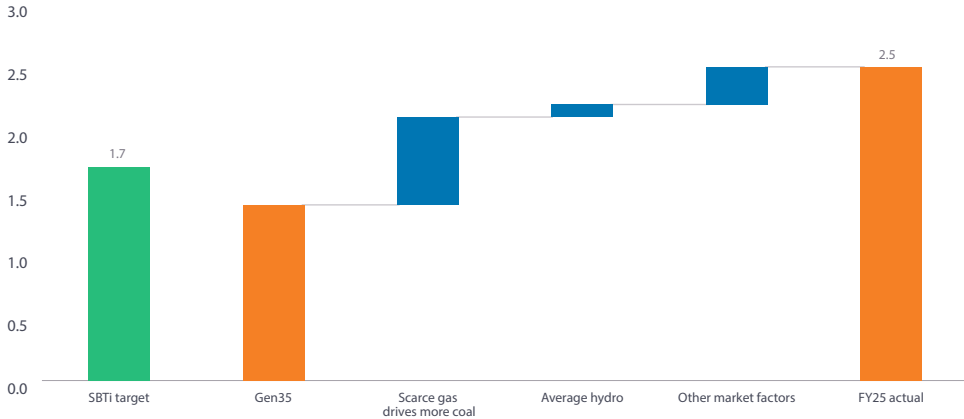


Net zero 2040

In FY24, we committed to achieving net zero emissions across our value chain by FY40, and in FY25, our net zero 2040 target was validated by the SBTi. The target reflects our plans to reduce emissions in line with New Zealand's goal of net zero emissions by 2050. Our net zero 2040 target is based on the SBTi requirements for the electricity sector. The earlier timeline to net zero is in recognition of the important role the electricity sector plays as an enabler of other sector's decarbonisation pathways.

We remain committed to our long-term decarbonisation goals, despite being unable to achieve our scope 1 and 2 SBT in FY25. We recognise that progress toward net zero is unlikely to be linear due to factors beyond our control and our responsibility to help maintain a reliable electricity system in New Zealand.

Diagram 12: Decomposition of factors influencing our ability to achieve our scope 1 and 2 FY25 SBT (MtCO₂e)



The table on [page 46](#) details our validated net zero 2040 targets, which we will report on in FY26. These targets are an extension of our FY25 SBTs, outlined on [pages 43 and 44](#).

The updated targets reflect our decarbonisation ambition which will be delivered through the following Gen35 goals discussed on [pages 36 to 40](#): grow renewable generation, empower a customer-led transition, and build portfolio flexibility. Key enablers include the development of flexible and low emission generation assets, such as new renewable generation and biomass to substitute the use of coal. The demonstration pathway used to set our net zero 2040 targets assumed the successful implementation of these Gen35 initiatives.

We do not currently rely on the use of offsets to achieve the targets outlined on [page 46](#). Given the technical pathways and guidance for decarbonisation solutions and carbon removal continues to develop rapidly, we continue to develop our position on the use of offsets for emissions that may remain in FY40.

7. Targets continued

NET ZERO 2040 TARGETS VALIDATED BY SBTi	TARGET TYPE	TARGET UNITS	BASELINE FY20	INTERIM TARGET FY30	NET ZERO TARGET FY40	DEPENDENCIES AND ASSUMPTIONS
Reduce scope 1 and 2 GHG emissions by 76.0% per GWh by FY30 and 97.7% per GWh by FY40 ⁵²	Intensity	tCO ₂ e/GWh	396	95	9	<p>The target it is dependent on:</p> <ul style="list-style-type: none"> Securing a commercially viable supply chain of biomass for 300 kt per annum Electricity market is ~95% renewable in 2030 and a range of renewable alternatives for firming electricity are available by 2040 <p>Key assumptions used when calculating the target:</p> <ul style="list-style-type: none"> Average (P50) hydrological conditions Genesis grows its renewable portfolio of electricity generation to ~8,300 GWh
Reduce scope 1 and 3 GHG emissions from fuel and energy related activities covering all sold electricity by 75.9% per GWh by FY30 and 96.2% per GWh by FY40 ⁵²	Intensity	tCO ₂ e/GWh	241	58	9	
Reduce absolute scope 3 GHG emissions from use of sold products for sold and distributed fossil fuels 60.2% by FY30 and 90.0% by FY40	Absolute	ktCO ₂ e	1,367	544	137	<p>The target it is dependent on:</p> <ul style="list-style-type: none"> A cost effective path for customers to decarbonise homes and businesses emerging in the 2030's, supported by technology improvements, regulations and/or other market factors like fuel or carbon costs <p>Key assumptions used when calculating the target:</p> <ul style="list-style-type: none"> Production at Kupe and other fields is anticipated to reduce in line with the SBT Kupe gas field approaches end of life in the mid-2030s
Reduce absolute scope 3 GHG emissions from use of sold products for sold and distributed fossil fuels 90.0% by FY40	Absolute	ktCO ₂ e	412	N/a	41	

52. The target boundary includes land-related emissions and removals from bioenergy feedstocks.

8. Metrics

This section includes the metrics outlined in NZ CS 1, industry-based metrics and other key performance indicators used to measure and manage our climate-related risks and opportunities. We used the industry-based guidance⁵³ published by the International Sustainability Standards Board (ISSB) to determine which industry-based metrics to include.

8.1 Our GHG emissions

Total scope 1 and 2 greenhouse gas (GHG) emissions⁵⁴ for the year ended 30 June 2025 were 2,541,334 tCO₂e. This is 4% more than FY24 and 136% more than FY23 but 6% less than our FY20 base year. Higher emissions in FY25 and FY24 were mainly driven by higher thermal generation and, in particular, higher coal burn due to gas supply constraints and lower hydro inflows. In addition to this FY23 had exceptionally high hydro inflows which enabled a decrease in the volume of coal burnt, whereas record low inflows were recorded for Tekapo in Q3 FY25 and very dry conditions were experienced for Tongariro in Q2 and Q3 of FY25. These hydrological conditions, combined with constrained gas supply (and unplanned plant outages in FY24 and low wind in FY25) resulted in coal burn increasing from 57 kt in FY23 to 729 kt in FY24 and 818 kt in FY25.

Scope 3 emissions for the year ended 30 June 2025 were 1,045,339 tCO₂e. This is 33% more than FY24 and 10% more than FY23. The increase is primarily due to upstream emissions associated with the importation of coal (1,285 kt was imported in FY25 compared with nil in FY24) and an increase in volume of wholesale gas sold mainly due to the use of gas swap arrangements that helped secure gas for winter 2025 and optimise portfolio benefits (1.9 PJ in FY25 compared to 0.2 PJ in FY24 – refer to [section 8.2](#)). Capital goods emissions were also higher in FY25 due to the commencement of the 100 MW / 200 MWh battery at Huntly Power Station.



53. 'Electric Utilities and Power Generators' and 'Gas Utilities and Distributors'.

54. Throughout this document 'emissions' means greenhouse gas emissions.

8.1 Our GHG emissions continued

Appendix II includes a breakdown of emissions by category since our FY20 base year.

SCOPE	CATEGORY	FY25 tCO ₂ e	FY24 tCO ₂ e	FY23 tCO ₂ e
Direct emissions (Scope 1)	Attributable to customers	2,319,288	2,395,183	1,072,507
	Attributable to thermal backed electricity contracts	219,534	45,094	–
	Stationary combustion attributable to thermal generation	2,538,822	2,440,277	1,072,507
	Mobile combustion	2,233	2,185	1,738
	Fugitive emissions	–	113	1,745
	Total scope 1	2,541,055	2,442,575	1,075,990
Indirect emissions (Scope 2)	Electricity consumption (location-based)	279	154	160
	Total scope 2 (location-based)	279	154	160
Indirect emissions (Scope 3)	Purchased goods and services	15,191	15,290	16,480
	Capital goods ^	29,526	9,364	–
	Fuel and energy related activities (upstream emissions)	380,934	213,413	234,351
	Upstream transport and distribution ^	246	–	–
	Waste generated in operations	104	174	16
	Business travel	791	573	409
	Employee commuting ^	1,306	1,108	1,748
	Downstream transport and distribution ^	16	–	–
	Use of sold products	613,569	544,714	692,204
	Investments	3,656	3,777	4,789
	Total scope 3	1,045,339	788,413	949,997
	Total scope 1, 2 & 3	3,586,673	3,231,142	2,026,147
ITEMS EXCLUDED FROM SCOPE 1-3 IN ACCORDANCE WITH THE GHG PROTOCOL				
Biomass – CO₂	Stationary combustion of biomass attributable to thermal generation	–	–	857

^ FY25 is the first year that upstream and downstream transportation and distribution have been disclosed. FY24 was the first year that capital goods was disclosed and FY23 was the first year that employee commuting was disclosed. The comparative periods were not restated for these changes.

8.1 Our GHG emissions continued

How we calculate our GHG emissions

Our GHG emissions have been calculated in accordance with the GHG Protocol, using the operational control consolidated approach. We use the Ministry for the Environment's Greenhouse Gas Reporting emission factors for all scopes and categories except for:

- Scope 3 purchased goods and services and capital goods where we use the emission factors from the Consumption Emissions Modelling Report (Market Economics Limited, 2023) prepared for Auckland Council (prior to FY24 the Department for Environment Food and Rural Affairs (DEFRA) lifecycle emission factors were used); and
- Scope 3 fuel and energy related activities where we use Agrilink lifecycle emission factors.

Refer to [Appendix II](#) for a summary of the significant uncertainties and the Global Warming Potential (GWP) used to calculate tCO₂e, [Appendix II](#), Table 2 for a summary of scope 3 items which have been excluded from the GHG inventory and [Appendix II](#), Table 3 for the calculation methods and assumptions, and the limitations associated with each method.

Assurance of GHG inventory

Deloitte Limited on behalf of the Auditor General has issued an unqualified reasonable assurance opinion on scope 1 and 2 emissions and an unqualified limited assurance opinion on scope 3 emissions in the FY25 GHG inventory (refer to [Appendix III](#)). [Appendix II](#) provides an overview of the assurance issued on the comparative emissions information.

New Zealand's regulatory regime

New Zealand has several regulations aimed at limiting emissions. One of the key mechanisms is the ETS which requires businesses to measure and report their greenhouse gas emissions and surrender emission units for each tonne of emissions they emit. Genesis is a participant under the scheme for coal purchases (if the thresholds under the scheme are met) and Genesis' 46% share of Kupe production. Emission units are also payable to most other entities who supply Genesis with gas. Where they are not separately payable, the cost of the emissions is included in the purchase price. For this reason all of our scope 1 emissions are either covered directly or indirectly by a program intended to reduce emissions.

GHG emissions intensity

The emissions intensity of thermal generation is influenced by the proportion of different fuels used. Gas produces approximately half the emissions of coal. Thermal generation intensity increased in FY25 and FY24 due to greater reliance on coal, primarily because of national gas supply constraints. In FY25, 43% of thermal generation was coal-fired, compared to 41% in FY24 and 5% in FY23. Further details about thermal generation by fuel type can be found in [section 8.2](#).

Total generation intensity is influenced by the factors outlined above as well as the proportion of generation from renewable assets. The FY23 generation intensity was notably lower than FY24 and FY25 (62% in FY23 compared to 45% in FY24 and 42% in FY25), primarily due to

higher-than-normal hydro generation resulting from exceptional high hydro inflows and the previously discussed changes in the fuel mix. Further details about hydro generation can be found in [section 8.3](#).

Retail emissions intensity in FY25 increased slightly from FY24 due to higher emissions associated with electricity generation. This

change was mainly attributable to greater reliance on coal-fired electricity generation which was largely influenced by national gas supply constraints. Emissions are calculated using the most recent emission factor published by the Ministry for the Environment, which is based on data from the previous calendar year.

GHG EMISSIONS INTENSITY	FY25	FY24	FY23
Generation emissions intensity			
Thermal generation (GWh)	3,613	3,282	2,177
Thermal generation emissions intensity (tCO₂e * / thermal generation GWh)	703	744	493
Total generation (GWh)	6,207	5,960	5,858
Total generation emissions intensity (tCO₂e * / total generation GWh)	409	409	183
Retail emissions intensity			
Retail revenue (\$m) ~	2,118	1,833	1,656
Retail emissions (ktCO ₂ e) ^	1,170	967	962
Emissions intensity of retail revenue (kg of CO ₂ e / retail revenue \$m)	0.55	0.53	0.58

* Scope 1 stationary combustion attributable to thermal generation.

~ Retail revenue from electricity, gas, LPG and emissions on fuel sales and electricity contracts as outlined in note A1 of the Consolidated Financial Statements.

^ Retail emissions from electricity purchases is based on factors published by the Ministry for the Environment (MfE) so that the metric is comparable with other entities.

8.2 Transition risk metrics

ASSETS VULNERABLE TO TRANSITION RISK *	FY25	FY24	FY23
Carrying value net of deferred tax *			
Thermal generation assets (fair value)			
Rankine units (gas and coal fired) (\$m)	77.5	92.2	78.1
Unit 5 (gas fired) (\$m)	256.2	175.5	272.4
Thermal generation assets as a % of total generation fixed assets	12%	10%	15%
Retail LPG assets			
LPG (\$m)	72.0	72.9	74.2
Total carrying value of assets vulnerable to transition risks net of deferred tax (\$m) *	405.7	340.6	424.7

* Assets vulnerable to transition risks are defined as assets that have the potential to become stranded or where their carrying value could be materially impacted (either through reduction in fair value or impairment) because of the transition risks outlined in [section 6.3](#). Deferred tax includes the movement associated with a change in fair value or impairment but excludes the impact arising from disposal of assets.

Thermal generation assets

The Rankine units and Unit 5 are carried at fair value, calculated using a discounted cash flow model over a finite period (FY25: 10 years for the Rankine units and seven years for Unit 5). For the Rankine units, which are valued on a capacity basis given the role they play in the market, the key assumptions are the value of capacity, operating and capital expenditure estimates, the discount rate, and the remaining economic useful life of the assets. For Unit 5, the key assumptions informing the fair value include the wholesale electricity price path, generation volumes, discount rate, and the remaining economic useful life of the assets.

The wholesale price path has increased year on year. The increase in FY25 was primarily due to a combination of fuel and generation capacity related drivers including gas supply constraints and the resultant need to use coal in its place which is projected to continue in the short-term. The increase in the price path observed in FY24 was due to the confirmed continued operation of Tiwai, changes in future build assumptions, and increased thermal fuel costs resulting from restricted gas supply and the projected need

to import coal to meet demand. For Unit 5, the impact of a higher wholesale electricity price path was partially reduced by lower generation volumes and the passage of time, as the asset's remaining useful life is unchanged. The FY23 valuation of Unit 5 was also affected by an outage on 30 June 2023, which led to lower forecasted generation volumes.

As mentioned on [page 31](#), the useful lives of the Rankine units were extended to 31 December 2035, based on the arrangement referenced on that page. Additionally, the valuation methodology has been revised to be on a capacity basis, taking account of the anticipated stand ready function of these units over the next decade. Further information is available in note B1 of the FY25 Consolidated Financial Statements.

Retail LPG assets

LPG assets are carried at historic cost and depreciated over their useful lives. The carrying value includes LPG depots, reticulated networks and customer installs. The carrying value has declined due to annual depreciation and amortisation charges, offset by new asset additions.

8.2 Transition risk metrics continued

EARNINGS VULNERABLE TO TRANSITION RISK *	FY25	FY24	FY23
Thermal generation			
Thermal generation (GWh)	3,613	3,282	2,177
Generation by fuel source			
Gas	33%	32%	35%
Coal	25%	23%	2%
Total thermal generation	58%	55%	37%
% of retail purchases covered by thermal generation ^	50%	50%	31%
Grid stability			
Number of customer advice notices for low residual situations and grid emergency and warning notices associated with supply risk	6	10	29
Retail and wholesale			
Retail gas sales (PJ) #	6.8	7.0	7.2
Wholesale gas sales (PJ)	1.9	0.2	2.8
Gas gross margin (\$m) ~	49.9	53.8	47.3
Retail LPG sales (t) #	42,591	43,339	43,874
Wholesale LPG sales (t)	3,826	6,246	7,262
LPG gross margin (\$m) ~	64.9	59.7	45.7

* Earnings vulnerable to transition risks are defined as earnings from business activities that have the potential to be materially impacted by the transition risks outlined in [section 6.3](#).

^ Wholesale electricity generation is usually higher than retail electricity purchases (i.e. long). As we are disclosing the vulnerable portion of retail electricity purchases to spot prices, we have calculated the thermal portion as being the difference between total retail electricity purchases and renewable electricity generation including PPAs divided by total retail electricity purchases.

Refer to our [FY25 ESG Datasheet and GRI Index](#) for a breakdown of sales by customer segment.

~ Gross margin is the lowest level of earnings reported for gas and LPG.

Thermal generation

Thermal generation increased by 10% in FY25 compared to FY24 and by 66% relative to FY23. Exceptionally high hydro inflows in FY23 contributed to elevated hydro generation and a corresponding reduction in coal-fired thermal generation. Gas supply constraints during FY25 and FY24 constrained gas-fired thermal generation.

The proportion of retail purchases supported by thermal generation was higher in both FY25 and FY24, reflecting the aforementioned factors as well as year-on-year growth in retail purchase volumes (6% and 5%, respectively). The increase in retail purchase volumes in FY25 was mainly driven by the consolidation of Ecotricity from 29 November 2024. However, this growth was offset by greater notional purchase volumes under renewable PPA agreements, following the commencement of the Tauhara PPA in January 2025 and Lauriston at the end of November 2024. PPA volumes rose by 60% in FY25, increasing from 457 GWh to 731 GWh.

Grid stability

The number of customer advice notices for low residual situations, grid emergency and warning notices associated with supply risk have decreased year on year. This is primarily due to improvements in forecasting accuracy and earlier communications by Transpower.

Gas

Retail gas sales volumes declined by 3% in FY25 compared to FY24, and by 5% relative to FY23. The reduction in FY25 is primarily attributable to the strategic decision to discontinue gas sales through the Frank*Energy brand. In addition, ongoing gas supply constraints contributed to lower sale volumes in both FY24 and FY25.

The decline in wholesale gas sales during FY24 was primarily attributed to gas supply constraints, as all available gas was allocated to electricity generation and retail customers. Although these constraints continued in FY25, wholesale gas sales increased, mainly due to the use of gas swap arrangements that helped secure gas for winter 2025 and optimise portfolio benefits. This was achieved by selling gas and purchasing electricity when market prices were low, then repurchasing gas when electricity prices were higher. These arrangements, together with increased gas costs resulted in a decrease in the gas gross margin with an offsetting increase in the electricity gross margin.

LPG

Retail LPG sales volumes decreased by 2% in FY25 compared to FY24, and by 3% compared to FY23. The decline in FY25 is due to the decision to discontinue LPG sales under the Frank*Energy brand.

Wholesale LPG sales decreased by 39% in FY25 compared to FY24, and by 47% relative to FY23, primarily due to the decision to reduce the volume of LPG purchased from third parties. LPG gross margin has increased over time following changes in retail pricing. FY23 gross margin was impacted by a contractual price adjustment related to FY22.

8.2 Transition risk metrics continued

EARNINGS VULNERABLE TO TRANSITION RISK *	FY25	FY24	FY23
Retail customers using fossil fuels (count)			
Gas only	15,671	10,821	11,918
LPG only	35,612	29,871	34,275
Multi fuel	127,278	150,557	142,987
Percentage of our customer base	34%	39%	39%
Net customer churn			
Genesis	12.2%	13.5%	12.1%
Frank*Energy	32.8%	16.2%	17.9%
New Zealand gas and LPG consumption (PJ) +			
Residential and commercial gas	<	15.3	14.7
Industrial gas	<	48.4	50.5
LPG (all categories)	<	9.9	9.6
Active gas ICPs in New Zealand >	306,756	308,021	307,376
Carbon hedging			
Forecast number of full years of carbon hedging in place at year end ^	1	2	6

* Earnings vulnerable to transition risks are defined as earnings from business activities that have the potential to be materially impacted by the transition risks outlined in [section 6.3](#).

+ As published by the Ministry of Business, Innovation and Employment (MBIE).

< FY25 Q4 information for New Zealand gas and LPG consumption had not be released by MBIE at the time of writing this report.

> As reported by the Gas Industry Co as at 30 June.

^ The forecast uses 90 years of historical hydro inflow data to calculate the average thermal generation forecasted to occur and assumes expected plant and gas availability at year end.

Retail customers using fossil fuels

The number of our retail customers using fossil fuels declined by 7% in FY25 compared to FY24 and 6% compared to FY23. The decline is attributed to the decision to discontinue gas and LPG sales under the Frank*Energy brand. This also impacted the composition of single fuel and multi fuel customers in FY25.

Net customer churn

The significant increase in Frank*Energy customer churn in FY25 is attributed to the decision to discontinue gas and LPG sales for this brand as discussed earlier.

New Zealand retail gas and LPG consumption

NZ residential and commercial gas and LPG consumption has remained relatively static year on year, but industrial gas consumption has been in decline since Covid mainly due to the closure of several large industrial users and more recently gas supply constraints. The number of active gas connections decreased for the first time in FY25, decreasing by 1,265 compared to June 2024.

Carbon hedging

The duration of carbon hedging is impacted by median hydrology, expected coal and gas conditions and renewable development. The decrease in FY25 and FY24 is due to forecasted domestic gas supply constraints, delay in market-wide renewable development (both of these impacts result in a forecasted need to burn more coal) and a refresh of our approach to carbon hedging.

8.3 Physical risk metrics

ASSETS AND EARNINGS VULNERABLE TO PHYSICAL RISK	FY25	FY24	FY23
Carrying value net of deferred tax *			
Hydro generation assets (fair value) (\$m)	2,433.3	2,342.4	2,040.4
Earnings vulnerable to physical risks ^			
Hydro inflows (GWh) ~	2,541	2,470	3,993
Hydro generation (GWh)	2,588	2,664	3,669
Hydro generation as a % of total generation	42%	45%	63%

* Assets vulnerable to transition risks are defined as assets that have the potential to become stranded or where their carrying value could be materially impacted (either through reduction in fair value or impairment) because of the physical risks outlined in [section 6.3](#). The main reason that hydro generation assets have been included here is because they are carried at fair value in the Consolidated Financial Statements. Hydro generation assets are unlikely to become stranded or written off as a result of the physical risks however the earnings from these assets could be impacted, which would in turn impact their fair value. For this reason, they have been disclosed as assets vulnerable to physical risks. Deferred tax includes the movement associated with a change in fair value or impairment but excludes the impact arising from disposal of assets.

^ Earnings vulnerable to physical risks are defined as earnings from business activities that have the potential to be materially impacted by the physical risks outlined in [section 6.3](#).

~ Based on the aqueduct tool on the World Resource Institute's website no catchments in New Zealand are rated high or extremely high. Refer to our [FY25 ESG Datasheet and GRI Index](#) for more information on our use of water.

Hydro generation assets

Hydro generation assets are carried at fair value, calculated using a discounted cash flow model. The fair value is materially impacted by long-term wholesale electricity prices and discount rates. The increase in FY25 and FY24 is primarily due to the forecasted increase in wholesale electricity prices.

Hydro inflows are significantly impacted by acute weather events and seasonal variations. Near record inflows were recorded in FY23, which enabled increased hydro generation. In contrast, hydro inflows for Tekapo and Tongariro were below average in FY25 and FY24.

8.4 Climate-related opportunity metrics

	FY25	FY24	FY23
Electricity consumption			
New Zealand electricity sales (consumption) (GWh) ~	<	40,349	39,479
Genesis retail electricity sales (GWh)*	6,289	5,919	5,663
Genesis % share of New Zealand electricity sales	<	15%	14%
Electricity generation			
New Zealand electricity generation from hydro (GWh) ~	<	24,784	27,976
New Zealand hydro generation as a % of total electricity sales (consumption)	<	61%	71%
Genesis % share of New Zealand hydro generation	<	11%	13%
Cumulative increase in renewable energy generation from plant efficiencies (GWh)+	29	29	29
Products or services that support a low emissions future			
Number of customers on an EV plan at 30 June	11,607	8,325	4,153

~ As published by MBIE. These volumes are updated each reporting period to align with the most recently published data.

< FY25 Q4 information for New Zealand electricity sales (consumption) and hydro generation had not been released by MBIE at the time of writing this report, as a result Genesis % share is unable to be disclosed.

* Refer to our [FY25 ESG Datasheet and GRI Index](#) for a breakdown of sales by customer segment.

+ From an FY22 base year. In addition to the GWh efficiencies reported above work has also been completed which increased the individual capacity of three generators at Tuai by 2 MW. The total GWh efficiency gained depends on whether all three generators are run at the same time. Due to constraints on the station the full impact of the efficiency is only gained when the station is operating below the maximum output of 60 MW. For this reason, this efficiency gain has not been included in the reported numbers.

Electricity consumption

National electricity consumption, and Genesis' share of that consumption, have remained relatively consistent. National consumption in FY25 is expected to be lower than FY24. The drivers of the decrease are discussed on [page 24](#).

Our retail electricity sales volumes in FY25 increased by 6.2% compared to FY24. This is largely driven by the inclusion of Ecotricity from 29 November 2024. Our retail sale volume, excluding Ecotricity, decreased by 2.1% compared to FY24.

Electricity generation

National hydro electricity generation peaked in FY23 due to near record inflows. Genesis' share of hydro generation has remained relatively consistent. We continue to invest in hydro assets to improve efficiencies. Most of the work undertaken in FY25 and FY24 focused on extending the life and reliability of assets as well as increasing the efficiency of our units within certain operating conditions rather than increasing the total maximum capacity. Refer to our [FY25 Integrated Report](#) for further information on generation site upgrades.

Products or services that support a low emissions future

We continue to see an increased uptake for our EV plans and products. The growth rate has slowed since January 2024, driven by the decrease in EV sales following the removal of government incentives.

8.5 Capital deployment metrics

	FY25	FY24	FY23
Investments held at 30 June			
Solar partnerships (\$m)	8.0	0.6	–
Forestry partnerships (\$m)	97.4	72.5	53.7
ChargeNet (\$m)	60.4	–	–
Capital contributions/expenditure on climate-related initiatives during the year			
Climate-related initiatives (\$m) ^	143.7	6.7	0.9
Forestry partnerships (\$m)	26.5	20.5	23.3
Unit upgrades and efficiencies (\$m) ~	8.9	11.8	11.6
Research and development on climate-related initiatives during the year (\$m)	3.6	0.6	2.7
Capital committed to climate-related initiatives at 30 June *			
Climate-related initiatives (\$m)	78.8	10.1	1.9
Forestry partnerships (\$m)	1.4	27.9	48.4
Unit upgrades and efficiencies (\$m)	21.3	1.2	3.8

^ This includes capital contributions to solar partnerships, our share of net profit/loss from the solar JV, internal labour and third-party costs (both capitalised and expensed).

~ Total expenditure on projects which have increased the capacity or operating efficiency of the units when compared to their original design.

* This represents the amount of funding committed to JVs, partnerships or projects but not yet spent at 30 June. This is a broader definition than the commitments in our Consolidated Financial Statements which are based on the contractual commitments of each of our associates or JVs in accordance with New Zealand Equivalents to International Accounting Standard 16.

Investments

In FY24 Lauriston Solar Project (2023) Limited Partnership, was established with FRV Australia to construct and operate Lauriston solar farm. The project is funded by a non-recourse loan as well as contributions from ourselves and FRV Australia.

Our investment in our two forestry partnerships (which are designed to provide lower cost emission units that will be used to meet our obligations under the ETS) have increased year on year as the partnerships develop their forestry portfolios.

In FY25 we acquired a 65.29% share of ChargeNet.

Capital contributions/expenditure

We continue to invest in climate-related initiatives that help our business transition to a low emissions future and improve operating efficiencies of our assets. The work completed on climate-related initiatives in FY25 is discussed on pages [24](#), [26](#) and [29](#).

Capital expenditure on unit upgrades and efficiencies fluctuates year on year depending on when multiyear projects are completed. In FY25 work began on a \$60 million upgrade at the Kaitawa Power Station, replacing the original generators with two new ones. Once complete, this will increase the station's capacity by around 2.8%. The expenditure in FY24 and FY23 primarily related to the upgrade of the Tuai generators, planning for Kaitawa (FY24) and completion of Piripaua generator overhaul (FY23).

Research and development

Research and development activities involve developing the biomass supply chain, investigating LNG, trialling technologies associated with customer flexibility solutions and developing EV products.

Capital committed

Capital commitments on climate-related initiatives increased in FY25 primarily due to the construction of a 100 MW / 200 MWh battery at Huntly Power Station and the acquisition of development rights for a solar site at Edgumbe. The increase in FY24 related to the to the commencement of the Lauriston solar farm development.

Forestry partnerships capital commitments peaked in FY22 due to the establishment of Forest Partners Limited Partnership and have subsequently declined year on year due to the establishment of the forest portfolios.

Capital commitments on unit upgrades and efficiencies increased in FY25 mainly due to the commencement of the upgrade at Kaitawa Power Station discussed previously.

8.6 Internal emissions price

	FY25	FY24	FY23
Internal emission price (\$/tCO ₂ e)	\$62	\$56	\$64

The internal emissions price is a key input in calculating the wholesale electricity price path and determining the cost of thermal generation used in our operating and investing decisions. The internal emission price for the starting period is based on the current market price. The starting price is adjusted over time to match the target price published by the Climate Change Commission (in FY25 and FY24 it was \$230/tCO₂e in 2050 in real terms and in FY23 it was \$250/tCO₂e in 2050 in real terms). The table includes the average starting price for the next financial year calculated as at 30 June.

The starting price is updated monthly based on current market prices. The change in the internal emission price is reflective of the change in market prices over time.

Wholesale electricity prices from two independent third parties are also used to assess investment decisions. These wholesale electricity prices incorporate an emission price assumption.

8.7 Remuneration metrics

	FY25	FY24	FY23
Short-term incentives linked to climate-related objectives	32%	32%-37%	12%
Long-term incentives linked to SBTs	–	20%	20%

The 'Executive remuneration' section of the [FY25 Integrated Report](#) provides a summary of the objectives included in short-term incentives for FY25.

The SBT emission reduction hurdle was removed from the long-term incentive in FY25 for two key reasons:

- Our emissions are significantly impacted by external factors such as variability in hydrological conditions, fuel availability and

the phasing of renewable development. As a result, our emission reduction journey will not be linear, making it difficult to set accurate emission reduction targets for a given year.

- The revised short-term incentive scorecard is heavily weighted to Gen35 deliverables which are directly linked to renewable development and emissions reduction, increasing the risk of duplication of the same deliverables in both short- and long-term incentive results.

Appendix I: Climate scenarios – assumptions and reference models

The table below outlines the assumptions underlying the emission reduction pathways used in our climate scenarios. The assumptions used in Genesis' updated scenarios align with the Aotearoa Circle's Energy Sector scenarios where not covered in the core narratives or otherwise stated.

Driving force	Coordinated transformation	Green tape	Delayed transformation	Hot house
Socioeconomic assumptions	Domestic Over time, energy poverty decreases as renewable energy reduces consumer prices. In the medium-term, government incentives and redistribution policies are implemented to address social disparities and combat energy poverty.	Domestic Early and advanced government action to decarbonise the energy sector leads to a divergent public view. As a leader internationally, New Zealand's net migration increases, attracting many people from overseas. Government support is required to assist some households through high pricing in the short- to medium-term.	Domestic Unsustainable actions deter investment, and New Zealand's energy sector struggles to attract necessary talent. Export markets and tourism suffer, harming the economy and reputation.	Domestic Rising operating costs are transferred to consumers, putting pressure on low-income families.
	Global Economic goals gradually shift to prioritise broader human and planetary well-being, including social, environmental, and cultural indicators. In the long-term, a new wave of green growth boosts the economy.	Global Household energy prices initially rise as lower emissions energy is prioritised. This causes social strain as low-income households push back against pricing. Eventually, new renewable generation stabilises prices.	Global Sustainable investors move away from markets like New Zealand that lag in decarbonisation progress, falling behind the rest of the world's progress.	Global Vulnerable regions, like Pacific nations, become uninhabitable, leading to increased displacement of people. Strained national budgets hinder global economic growth. Unequal resource distribution and adaptation capabilities widen economic disparities between countries.
Macroeconomic trends	Aligned with Aotearoa Circle's Energy Sector Scenario 'Coordinated Effort' where not otherwise explicitly covered in the scenario narratives.	Aligned with Aotearoa Circle's Energy Sector Scenario 'Trailblazers' where not otherwise explicitly covered in the scenario narratives.	Aligned with Aotearoa Circle's Energy Sector Scenario 'Slow Followers' where not otherwise explicitly covered in the scenario narratives.	Aligned with Aotearoa Circle's Energy Sector Scenario 'Hot House' where not otherwise explicitly covered in the scenario narratives.
Carbon sequestration from afforestation	Exotic afforestation: 0.57Mha from 2021-2050 Native afforestation: 0.67Mha from 2021-2050	Exotic afforestation: 0.76Mha from 2021-2050 Native afforestation: 0.44Mha from 2021-2050	Exotic afforestation: 0.96 Mha from 2021-2050 Native afforestation: 0.13 Mha from 2021-2050	Exotic afforestation: 0.96 Mha from 2021-2050 Native afforestation: 0.13 Mha from 2021-2050
Carbon sequestration from nature-based solutions (NbS)	NbS, including reforestation, afforestation, and ecosystem restoration, are assumed to be widely implemented to enhance carbon sequestration and biodiversity conservation. Policies and incentives are in place to encourage the protection and restoration of natural ecosystems, including forests, wetlands, and coastal areas.	NbS, such as sustainable agriculture, forest management, and coastal protection, are moderately implemented to enhance carbon sequestration, water management, and biodiversity conservation in the medium to long-term.	Limited emphasis on NbS due to the high reliance on fossil fuels and slower transition to sustainable development. Some localised NbS initiatives, such as community-based conservation and restoration projects, are implemented to address local adaptation challenges such as sea level rise in the long-term.	Limited emphasis on NbS. Some localised NbS initiatives, such as community-based conservation and restoration projects, are implemented to address local adaptation challenges such as sea level rise in the long-term.
Technology assumptions including negative emissions technology	Demand for carbon capture and storage: high, early emphasis Rapid technological investments and development lower costs and increase deployment.	Demand for carbon capture and storage: low, growing in the medium-term Technological barriers and high costs due to low demand provide barrier to uptake in the short to medium-term.	Demand for carbon capture and storage: moderate Technological barriers and high costs due to low demand provide a barrier to uptake.	Demand for carbon capture and storage: low The cost of Carbon Capture and Storage (CCS) technologies remain relatively high, making their adoption less economically viable.

Appendix I: Climate scenarios – assumptions and reference models continued

The table below outlines the reference models used to develop our climate scenarios.

Reference scenarios	Coordinated transformation	Green tape	Delayed transformation	Hot house
Aotearoa Circle Energy Sector Scenario	Coordinated effort	Trailblazers	Slow followers	Hot house
NIWA climate change scenarios for New Zealand	Uses SSP 1-1.9	Uses SSP 2-4.5 (as per energy sector scenarios)	Uses SSP 2-4.5	Uses SSP 3-7.0
IPCC – Representative Concentration Pathway (RCP)	RCP 2.6	RCP 4.5	RCP 4.5	RCP 8.5
IPCC – Shared Socioeconomic Pathway (SSP)	SSP 1-1.9	SSP 4-3.4	SSP 2-4.5	SSP 3-7.0
International Energy Agency (IEA) Climate Scenarios	Orderly (Net Zero 2050)	Orderly (Announced Pledges Scenario)	STEPS (Stated Policies Scenario)	Hot house (Current Policies) ⁵⁵
Climate Change Commission (CCC) 2021	Tailwinds	Headwinds	Current Policy Reference (CPR)	Current Policy Reference (CPR)
Climate Change Commission (CCC) 2024	HTHS	LTHS	HTLS	Reference scenario
CCC carbon pricing	Central/central	Central/central	Low/Central	Low/Low
CCC gas pricing	High/high	High/high	Low/Central	Low
BCG	P2: Smart system evolution (short-term), P5 Green export powerhouse (medium- to long-term)	P3: Renewable energy pioneer	P1: Business as usual	P1: Business as usual
Transpower – Whakamana I Te Mauri Hiko	Accelerated electrification	Mobilise to decarbonise	Measured action	Business as usual
Treasury carbon pricing	Central	High	–	–
MBIE – electricity demand and generation (EDGS) scenarios	Innovation	Environmental	Growth	Constraint

55. Varies from Aotearoa Circle's Energy Sector Scenario.

Appendix II: GHG inventory report

Purpose

The GHG inventory has been prepared in accordance with the requirements of the GHG Protocol which is an internationally recognised framework for carbon reporting. Using a recognised and widely adopted framework contributes to transparency, robustness and consistency in approach across the energy sector.

Organisational boundaries

Organisational boundaries determine the parameters for emissions reporting and ensure consistency when determining which factors to include. Genesis' boundaries have been set in accordance with the methodology outlined in the GHG Protocol.

The GHG Protocol allows two distinct approaches to consolidate emissions: the equity share approach or the control approach (control can be defined in either financial or operational terms).

Genesis has applied the **operational control consolidation approach**, which ensures we focus on those emission sources that we have control over and therefore the ability to manage. Operational control is defined in the GHG Protocol as having the full authority to introduce and implement operating policies at the operation under consideration. Under the operational control approach, an entity accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control.

The organisation boundary includes Genesis and all its subsidiaries (refer to our [FY25 Integrated Report](#) for a list of subsidiaries).

Business units excluded

All of Genesis' joint ventures, joint operations and associates are excluded from scope 1 and 2 emissions on the basis that Genesis does not have operational control of these entities. Refer to our [FY25 Integrated Report](#) for a list of entities.

Operational boundaries

The emission sources included in this report were identified with reference to the methodology outlined in the GHG Protocol.

Scope 1 – Direct emissions

Scope 1 includes emissions from sources that are owned or controlled by Genesis. This includes electricity generation, fuel used in vehicles owned or leased by Genesis and any fugitive emissions released.

During FY23 we successfully completed a biomass burn trial at Huntly Power Station. The CO₂ from combustion of the biomass has been excluded from scope 1 emissions and has been reported separately in accordance with the GHG Protocol.

Scope 2 – Indirect emissions, electricity

Scope 2 includes emissions from purchased electricity consumed by Genesis and therefore brought into our organisational boundary. It includes electricity that is consumed at LPG branches and depots, corporate offices and office buildings at generation sites where the electricity is drawn from the grid. It excludes electricity consumed at generation sites where the electricity was not drawn from the grid.

As all of the electricity consumed is in a market that has contractual instruments, scope 2 emissions have been calculated using both location-based and market-based emissions factors. Location-based emissions are used to calculate total emissions. BraveTrace's residual mix factor is used to calculate scope 2 market-based emissions as no contractual instruments are acquired. Location-based emissions are used for goal setting.

Scope 3 – Other indirect emissions

Scope 3 emissions are a consequence of Genesis' activities but occur from sources not owned or controlled by us. Reporting on these emissions is optional under the GHG Protocol but is required under NZ CS 1.

The Corporate Value Chain (Scope 3) Accounting and Reporting Standard (a supplement to the GHG Protocol) categorises scope 3 emissions into 15 distinct categories. Genesis has determined which scope 3 categories are relevant using the following criteria:

- (a) relevance to our operations;
- (b) significant contributor to overall emissions;
- (c) availability of data; and
- (d) ability to influence and/or reduce.

Table 1 details which categories have been included and the boundary applied and **Table 2** details which categories have been excluded and why.

Appendix II: GHG inventory report continued

Table 1: Scope 3 inclusions

CATEGORY	BOUNDARY APPLIED
Purchased goods and services	This category includes goods and services purchased in the financial year and that are not disclosed in another category noted below.
Capital goods	This category includes emissions on goods and services that have been capitalised for accounting purposes. Emissions are recognised as the spend is incurred.
Fuel and energy related activities	<p>This category includes upstream emissions on fuels purchased for use in the generation of electricity as well as fuels sold to customers. Upstream emissions on coal and LPG are accounted for when the fuel is purchased rather than when it is burnt or sold to customers. Coal purchases in transit at year end are recognised as purchases in the financial year the coal is recorded on the coal stockpile.</p> <p>It also includes emissions associated with transmission and distribution of electricity purchased for our own use and emissions associated with electricity purchased and on sold to our customers. As the electricity we generate is sold to the grid (scope 1 emissions) and then purchased back for our retail customers, the volume we generate is netted off the volume of electricity purchased so that we do not double count the emissions associated with electricity generation in our inventory. The calculation is performed on an annual basis. No emissions are recognised in this category if we generate more than we purchase for our customers.</p>
Upstream transportation and distribution	This category includes transportation emissions associated with transportation of pond ash from Huntly Power Station to end users. Upstream emissions associated with transportation and distribution of fuels are included in the lifecycle emission factors used to calculate fuel and energy related activities.
Waste generated in operations	This category includes waste for Auckland, Hamilton, and Christchurch corporate offices and Huntly Power Station ⁵⁶ . General waste produced at operational sites other than Huntly is not currently measured. Given the nature of operations, emissions from general waste are not expected to be material.
Business travel	This category includes air travel, accommodation and taxi services.
Employee commuting	This category includes emissions associated with employee's transportation to and from work and working from home.
Downstream transportation and distribution	This category includes transportation emissions associated with transportation of fly ash from Huntly Power Station to end users. There is no transportation or distribution of fuel related products after the point of sale.

56. Waste for Huntly has only been reported since FY24.

CATEGORY	BOUNDARY APPLIED
Use of sold product	This category includes gas, LPG and coal sold to customers. The sale of oil produced by the Kupe JV is excluded because this process is managed by the Operator, Beach Energy, and therefore is outside Genesis' operational control.
Investments	<p>This category includes 46% of Kupe JV's scope 1 and 2 emissions relating to the production of oil. The 46% share of Kupe JV's scope 1 and 2 emissions relating to the production of gas and LPG have been included in scope 3 fuel and energy related activities category. The 46% share of Kupe JV's scope 3 emissions have been excluded because this information is not currently reported by the JV.</p> <p>Emissions associated with DrylandCarbon One Limited Partnership, Forest Partners Limited Partnership, Solar-gen Joint Venture, Lauriston Solar Project (2023) Limited Partnership and ChargeNet NZ Limited have been excluded as emissions reporting is not currently completed by these entities. Given the nature of these entities, the scope 1 and 2 emissions from these activities are not expected to be material.</p> <p>Ecotricity Limited Partnership ceased to be classified as an investment on 29 November 2024, when Genesis assumed control of the entity. From this date forward, Ecotricity Limited Partnership has been incorporated within Genesis' organisational boundary.</p>

Table 2: Scope 3 exclusions

CATEGORY	JUSTIFICATION FOR EXCLUDING
Upstream leased assets	Emissions from upstream leased assets are included in scope 1 and 2.
Processing of sold products	Genesis does not sell intermediate products therefore there is no processing of sold products.
End of life treatment of sold products	Sold products are consumed by customers therefore there are no end-of-life emissions to account for.
Downstream leased assets	Emissions from downstream leased vehicles are included in the fuels and energy related activities category and emissions associated with leased LPG bottles and tanks are included in the use of products sold category.
Franchises	Genesis does not have anything that falls within this category.

Appendix II: GHG inventory report continued

Base year

The base year is 1 July 2019 to 30 June 2020 (FY20), which is consistent with the base year used for our SBTs. Total scope 1 and 2 emissions for FY20 were 2,690,253 tCO₂e and scope 3 were 1,804,749 tCO₂e.

Base year recalculation

The base year or any other reported year included in this document must be recalculated and restated in accordance with the GHG Protocol if any of the following circumstances result in a 5% or more change in total reported scope 1, 2 and 3 emissions⁵⁷:

- Change in structure (acquire or sell a business)
- Change in calculation methodology such as improved emission factors or activity data
- Change in consolidation approach or operating boundary
- Discovery of an error

The base year or any other reported year may be restated for changes less than 5% if the Chief Financial Officer considers the change necessary to provide a consistent and meaningful comparison of the GHG inventory over time.

There were no significant changes during 1 July 2024 to 30 June 2025 that required the base year or any other reported year to be recalculated and restated.

Methodology

This GHG inventory has been calculated using activity data multiplied by an emission factor. We have used emission factors published by the Ministry for the Environment (MfE)⁵⁸ for all scopes and categories except for:

- Scope 3 purchased goods and services and capital goods where we use the emission factors from the Consumption Emissions Modelling Report (Market Economics Limited, 2023) prepared for Auckland Council (prior to FY24 the Department for Environment Food and Rural Affairs (DEFRA) lifecycle emission factors were used); and
- Scope 3 fuel and energy related activities where we use Agrilink⁵⁹ lifecycle emission factors.

The MfE emission factors are based on the 100-year Global Warming Potential (GWP) values from the IPCC's Fifth Assessment Report (AR5) and Agrilink emission factors are based on the 100-year GWP values from the IPCC's Fourth Assessment Report (AR4). The emission intensities published in the Consumption Emissions Modelling Report prepared for Auckland Council used StatsNZ's 2019 Production-based GHG Emissions Accounts which used the 100-year GWP values from the IPCC's Fourth Assessment Report (AR4).

Uncertainties

Quantification of emissions is subject to inherent uncertainty because the scientific knowledge and methodologies used to determine the emission factors and processes to calculate and estimate quantities of emissions are still evolving. As a result, the GHG inventory is subject to more inherent limitations and uncertainties than financial information.

All material emission calculations are prepared by our financial reporting system using data collated for financial reporting purposes. There are however inherent limitations when using published emission factors as they:

- Are not specific to individual entities, they are based on industry averages;
- Are often inferred using data collated for other purposes and assumptions are required where scientific data is incomplete; and
- Are based on data collected in previous years, countries or use studies performed several years ago. This particularly impacts the Agrilink and DEFRA lifecycle emission factors which is discussed further in the significant uncertainties section.

These inherent limitations mean that the GHG inventory represents our best estimate of our emissions using the best data available at the time the information is reported. It is possible disclosures made in this report may be amended, updated, recalculated, and restated in the future if the scientific knowledge and methodologies used to determine emission factors are found to materially change previously reported numbers. The calculation methods and assumptions, and the limitations associated with each method are shown in **Table 3**.

Significant Uncertainties

Certain scope 3 emission categories are required to be measured using lifecycle analysis (LCA) methodology. There are currently a limited number of New Zealand specific lifecycle emission factors available mainly due to the ability to access information and the process involved in calculating the emission factors, as a result lifecycle emission factors are often based on data collected in previous years, countries or use studies performed several years ago.

The calculation of scope 3:

- Purchased goods and services for FY20 through to FY23 were calculated using DEFRA lifecycle emission factors which are based on 2011 data. Purchased goods and services in FY23 made up less than 1% of our emissions; and
- Fuel and energy related activities (upstream emissions) relating to thermal generation and use of sold products are calculated using Agrilink lifecycle emission factors which are based on 2010 data published by the Ministry of Economic Development. These subcategories make up approximately 9% of our emissions in FY25.

The application of these emission factors creates a significant uncertainty in relation to the calculation of scope 3 emissions as they may be out of date. A reasonableness test was first performed on the Agrilink emission factors in FY22 using data from other sources, this test was completed again using nine months of FY25 data. Based on this testing we determined that Agrilink emission factors were the most representative lifecycle emission factors to use for fuel and energy related activities. We review the market and consider whether the emission factors used in our GHG inventory remain the most appropriate on an annual basis.

57. The 5% threshold is calculated using total reported scope 1, 2 and 3 emissions for the base year or reported year impacted by the change.

58. 2025 Emissions Factors Workbook and the 2025 Emission Factors Flat File have been used to calculate the FY25 emissions.

59. New Zealand fuel and electricity total primary energy and life cycle greenhouse gas emission factors 2023.

Appendix II: GHG inventory report continued

Table 3: Calculation methods, assumptions, and limitations

SCOPE	CATEGORY	EMISSION SOURCE	CALCULATION METHOD	EMISSION FACTOR SOURCE	DATA SOURCE	% OF EMISSIONS USING SUPPLIER DATA	ASSUMPTIONS AND LIMITATIONS
SCOPE 1	Stationary combustion	Fuel used for electricity generation (includes gas, coal, LPG and diesel)	Average-data method ⁶⁰	MfE	Volume of fuels burnt is obtained from our financial reporting system which is also used for our ETS returns. The volumes are entered into the financial reporting system from data provided by the fuels team which is based on meter readings.	100%	The calculation uses MfE emission factors, which may result in emissions that differ from those calculated using supplier-specific factors. A reasonableness test was conducted in FY25 to verify that the MfE factors materially represented the emissions associated with stationary combustion.
	Mobile combustion	Fuel used in vehicles (owned and leased)	Average-data method	MfE	Volume of fuels used is obtained from our financial records for plant vehicles (refer to 'stationary combustion' above for more information). Volume of fuel used for all other vehicles is obtained from a report provided by our fleet manager.	100%	The calculation of emissions associated with non-plant vehicles is reliant on our fleet manager providing complete and accurate data.
	Fugitive emissions	Fugitive emissions of Sulphur Hexafluoride (SF ₆)	Average-data method	MfE	Volume of SF ₆ gas leakage is determined using contractor reporting for gas transferred from storage cylinder to circuit breaker. The gas cylinder is weighed before and after the gas transaction.	100%	There is an assumption that leakage is equivalent to the amount of gas required to top up the asset. Fugitive emissions associated with air conditioning units and our LPG business have been excluded as they are not material.
SCOPE 2	Electricity	Electricity consumed at LPG branches and depots, corporate offices and office buildings at generation sites where the electricity is drawn from the grid	Average-data method	MfE (location-based) BraveTrace (market-based)	Volume of electricity purchased in kWh is obtained from our billing system.	100%	Where auxiliary power is consumed it is excluded as it has not yet gone to the grid. The volume data is reviewed, and an estimate is added for any unbilled periods.

⁶⁰. The average-data method estimates emissions by collecting data on the quantity (e.g. kilograms, gigajoules, litres) of product used multiplied by an appropriate emission factor.

Appendix II: GHG inventory report continued

Table 3: Calculation methods, assumptions, and limitations continued

SCOPE	CATEGORY	EMISSION SOURCE	CALCULATION METHOD	EMISSION FACTOR SOURCE	DATA SOURCE	% OF EMISSIONS USING SUPPLIER DATA	ASSUMPTIONS AND LIMITATIONS
SCOPE 3	Purchased goods and services	Extraction, production, and transportation of goods and services acquired but not included in the other categories	Spend-based method ⁶¹	Consumption Emissions Modelling Report prepared for Auckland Council ⁶²	Dollar spend is obtained from our financial records.	0%	The calculation requires judgement choosing an emission factor to apply to each category of spend. The results are therefore only an approximation.
	Capital goods	Goods and services capitalised for accounting purposes	Spend-based method	Consumption Emissions Modelling Report prepared for Auckland Council ⁶²	Dollar spend is obtained from our financial records.	0%	The calculation requires judgement choosing an emission factor to apply to each capital project. The results are therefore only an approximation. An emission factor is selected for each capital project with spend greater than \$400k, the results are extrapolated to estimate the emissions for all capital projects with spend less than \$400k. More detailed analysis was completed for the battery project given the size and nature of this project.
	Fuel and energy related activities	Extraction, production, and transportation of fuel and energy acquired and consumed in the generation of electricity or sold to customers	Average-data method	Agrilink	Volume data is the same as that used for 'stationary combustion' and 'Use of sold products'.	100%	The calculation uses Agrilink emission factors, which may result in emissions that differ from those calculated using supplier-specific factors. A reasonableness test was conducted in FY25 to verify that the Agrilink factors materially represented the emissions associated with upstream fuel and energy related activities.
		Transmission and distribution of electricity purchased for our own use	Average-data method	MfE	Volume data is the same as that used for scope 2 'electricity' purchases.	100%	No material assumptions, limitations or uncertainties.

⁶¹. The spend-based method estimates emissions by collecting data on the cost of goods and services purchased multiplied by an appropriate emission factor.

⁶². The emission factors from the Consumption Emissions Modelling Report (Market Economics Limited, 2023) prepared for Auckland Council have been adjusted for inflation.

Appendix II: GHG inventory report continued

Table 3: Calculation methods, assumptions, and limitations continued

SCOPE	CATEGORY	EMISSION SOURCE	CALCULATION METHOD	EMISSION FACTOR SOURCE	DATA SOURCE	% OF EMISSIONS USING SUPPLIER DATA	ASSUMPTIONS AND LIMITATIONS
SCOPE 3	Fuel and energy related activities	Electricity purchased and on sold to our customers (where purchases exceed generation)	Average-data method	MfE	Volume data in MWh is based on information from our reporting system. The data is based on a mixture of actual meter readings and estimated meter readings.	100%	There is an assumption that all the electricity we generate is on sold to our customers (refer to Table 1 for more information). We will be changing the approach in FY26 to align with the methodology agreed with the SBTi when setting our net zero targets. We have not adopted the new methodology in FY25 as it requires restating our base year which would impact our FY25 SBT.
	Upstream transportation and distribution	Transportation of pond ash from Huntly Power Station to end users	Fuel-based method ⁶³	MfE and DEFRA for well to tank related emissions	Number of trips travelled, and fuel consumption rate is obtained from our transportation contractor.	100%	The calculation is reliant on our transportation contractor providing complete and accurate data. The calculation assumes the distance travelled is the same for each trip.
	Waste generated in operations	Disposal and treatment of waste	Waste type specific method ⁶⁴	MfE	Volume of waste collected is obtained from our cleaning contractor.	97%	The calculation assumes waste is taken to a landfill without a gas recovery system.
	Business travel	Employees travelling nationally and internationally for business purposes	Distance based method ⁶⁵ for air travel, spend-based method for taxis and ubers and average-data method for accommodation	MfE	Our corporate travel manager provides a usage report. The report includes travel distances and class of travel. Hotel information includes location and number of nights.	99%	The calculation is reliant on our corporate travel manger providing complete and accurate data.

⁶³. The fuel-based method estimates emissions by collecting data on the quantity of fuel consumed multiplied by an appropriate emission factor.

⁶⁴. The waste type specific method estimates emissions by collecting data on the quantity of waste produced multiplied by emission factors for specific waste types and waste treatment methods.

⁶⁵. The distance-based method estimates emissions by collecting data from service providers and employees on the volume, distance and mode of transport used multiplied by an appropriate emission factor.

Appendix II: GHG inventory report continued

Table 3: Calculation methods, assumptions, and limitations continued

SCOPE	CATEGORY	EMISSION SOURCE	CALCULATION METHOD	EMISSION FACTOR SOURCE	DATA SOURCE	% OF EMISSIONS USING SUPPLIER DATA	ASSUMPTIONS AND LIMITATIONS
SCOPE 3	Employee commuting	Employees travelling to and from work and working from home	Distance-based method for travel and average-data method for working from home	MfE	Employee surveys.	50%	The calculation is impacted by how employees interpret and respond to survey questions and by the number of responses received. The results of the survey are extrapolated to include employees who do not complete the surveys. One survey was undertaken in FY25. Headcount at half year and year end were used in the extrapolation process. The results are therefore only an approximation.
	Downstream transportation and distribution	Transportation of fly ash from Huntly Power Station to end users	Fuel-based method	MfE and DEFRA for well to tank related emissions	Volume of fuel used is obtained from our transportation contractor.	100%	The calculation is reliant on our transportation contractor providing complete and accurate data.
	Use of sold products	Usage of LPG, gas and coal sold to customers	Direct use-phase method ⁶⁶	MfE	Volume of LPG, gas and coal sold is obtained from our financial reporting system.	100%	Retail sale volumes include estimated volumes for unbilled amounts at the end of the reporting period.
	Investments	Scope 1 and 2 information for Kupe JV	Investment-specific method ⁶⁷	Field specific factors for scope 1 and MfE for scope 2	The calculation uses information submitted under ETS returns and electricity consumption from the operator of Kupe JV.	98%	The emissions associated with Kupe JV may be incomplete as Kupe JV does not prepare a GHG inventory. Genesis estimates scope 1 and 2 information using data provided by the Kupe JV operator.
EXCLUDED ITEMS	Biomass	Biomass used for electricity generation	Average-data method	MfE	Volume of biomass burnt was obtained from records maintained by our fuels team. These were agreed to purchase invoices.	100%	The trial involved the use of a black torrefied pellet. No product specific emission factor was available at the time of reporting, so the closest rate published by the MfE was applied. The results are therefore only an approximation.

⁶⁶. The direct use-phase method estimates emissions by collecting data on the products sold to customers multiplied by an appropriate emission factor.

⁶⁷. The investment-specific method estimates emissions by collecting scope 1 and scope 2 emissions from the investee entity and allocating the emissions based upon Genesis share of the investment.

Appendix II: GHG inventory report continued

GHG inventory summary

Our emissions are significantly impacted by environmental conditions and access to fuel. Scope 1 and 2 emissions in FY21 were significantly higher than all other years due to dry year conditions which resulted in high call volumes on thermal backed electricity contracts and extremely high coal fired generation volumes.

Table 4: GHG inventory

SCOPE	CATEGORY	FY25 tCO ₂ e	FY24 tCO ₂ e	FY23 tCO ₂ e	FY22 tCO ₂ e	FY21 tCO ₂ e	FY20 tCO ₂ e
Direct emissions (Scope 1)	Attributable to customers	2,319,288	2,395,183	1,072,507	1,934,978	3,132,879	2,539,863
	Attributable to thermal backed electricity contracts*	219,534	45,094	–	286,398	805,398	149,491
	Stationary combustion attributable to thermal generation	2,538,822	2,440,277	1,072,507	2,221,376	3,938,277	2,689,354
	Mobile combustion	2,233	2,185	1,738	1,733	1,624	579
	Fugitive emissions	–	113	1,745	17	162	80
	Total scope 1	2,541,055	2,442,575	1,075,990	2,223,126	3,940,063	2,690,013
Indirect emissions (Scope 2)	Electricity consumption (market-based)	294	161	165	221	263	241
	Electricity consumption (location-based)	279	154	160	217	262	240
	Total scope 2 (location-based)	279	154	160	217	262	240
	Total scope 1 & 2 (location-based)	2,541,334	2,442,729	1,076,150	2,223,343	3,940,325	2,690,253
Indirect emissions (Scope 3)	Purchased goods and services	15,191	15,290	16,480	15,492	14,898	15,348
	Capital goods ^	29,526	9,364	–	–	–	–
	Fuel and energy related activities (upstream emissions)						
	– Related to thermal generation	259,838	124,980	139,479	286,017	279,781	239,840
	– Related to sold products	76,499	67,376	86,759	124,140	159,031	172,611
	– Transmission and distribution losses on electricity purchases	21	11	19	20	25	24
	– Net retail electricity purchases (after deducting generation)	44,576	21,046	8,094	–	–	–
	Upstream transport and distribution	246	–	–	–	–	–
	Waste generated in operations	104	174	16	21	26	19
	Business travel	791	573	409	146	215	1,975
	Employee commuting ^	1,306	1,108	1,748	–	–	–
	Downstream transport and distribution	16	–	–	–	–	–

Appendix II: GHG inventory report continued

Table 4: GHG inventory continued

SCOPE	CATEGORY	FY25 tCO ₂ e	FY24 tCO ₂ e	FY23 tCO ₂ e	FY22 tCO ₂ e	FY21 tCO ₂ e	FY20 tCO ₂ e
Indirect emissions (Scope 3)	Use of sold products						
	– LPG Retail	124,449	129,459	129,230	130,372	128,665	121,802
	– LPG Wholesale	11,370	18,560	21,578	51,773	46,838	52,820
	– Gas Retail	376,767	383,098	390,937	406,308	441,033	429,893
	– Gas Wholesale	100,983	11,191	150,459	406,233	653,421	762,337
	– Coal Wholesale	–	2,406	–	–	–	–
	Investments	3,656	3,777	4,789	7,184	8,547	8,080
	Total scope 3	1,045,339	788,413	949,997	1,427,706	1,732,480	1,804,749
	Total scope 1, 2 & 3	3,586,673	3,231,142	2,026,147	3,651,049	5,672,805	4,495,002
Items excluded from scope 1-3 in accordance with the GHG protocol							
Biomass – CO₂	Stationary combustion of biomass attributable to thermal generation	–	–	857	–	–	–

* Includes generation emissions associated with Market Security Options (MSOs), Huntly Firing Options (HFOs) and swaptions.

^ FY25 was the first year that upstream and downstream transportation and distribution has been disclosed. FY24 was the first year that capital goods was disclosed and FY23 was the first year employee commuting was disclosed. The comparative periods were not restated for these changes.

Table 5: Emissions by gas component

GAS COMPONENT	SCOPE 1 METRIC TONNES	SCOPE 1 tCO ₂ e	SCOPE 2 METRIC TONNES	SCOPE 2 tCO ₂ e	SCOPE 3 tCO ₂ e	TOTAL tCO ₂ e
CO ₂	2,528,809	2,528,809	271	271	657,623	3,186,703
CH ₄	183	5,133	0.3	7	2,744	7,884
N ₂ O	27	7,113	0.002	1	387	7,501
SF ₆	–	–	–	–	–	–
Unknown*	–	–	–	–	384,585	384,585
Total tCO₂e		2,541,055		279	1,045,339	3,586,673

* The breakdown by gas component is not published for cradle to gate lifecycle emission factors and therefore this information is unable to be disclosed by gas component for some scope 3 emissions.

Appendix II: GHG inventory report continued

GHG holdings

We use sulphur hexafluoride (SF₆) in circuit breakers. SF₆ has a global warming potential much higher than carbon dioxide. We monitor the gas pressure in the circuit breakers to identify and remediate leaks. We also have HFCs in air conditioning units and refrigerators. The table below records the GHG holdings at 30 June each year.

COMPONENT GAS	FY25 KGS	FY24 KGS	FY23 KGS	FY22 KGS	FY21 KGS	FY20 KGS
SF ₆	900	897	897	1,023	1,027	1,033
HFC*	795	—	—	—	—	—

* HFC holdings were not disclosed prior to FY25.

Assurance of GHG inventory

Deloitte Limited on behalf of the Auditor General has issued an unqualified reasonable assurance opinion on scope 1 and 2 emissions and an unqualified limited assurance opinion on scope 3 emissions in the FY25 GHG inventory (refer to [Appendix III](#)).

Deloitte Limited issued a limited assurance opinion over the [FY24](#) GHG inventory in accordance with International Standard on Assurance Engagements (New Zealand) 3410: *Assurance Engagements on Greenhouse Gas Statements* ('ISAE (NZ) 3410').

EY issued limited assurance opinions on the [FY20](#), [FY21](#), [FY22](#) and [FY23](#) GHG inventories in accordance with ISAE (NZ) 3410. Three new categories (purchased goods and services, fuels and energy related activities and investments) were added to the FY22 GHG inventory. The FY21 and FY20 GHG inventories were restated to include these. These new categories were not included in the FY20 and FY21 limited assurance reviews undertaken at that time and therefore were not subject to limited assurance.

Appendix III: GHG inventory assurance report



INDEPENDENT ASSURANCE REPORT TO THE SHAREHOLDERS OF GENESIS ENERGY LIMITED ON THE GHG EMISSIONS DISCLOSURES IN ITS GROUP CLIMATE STATEMENT FOR THE YEAR ENDED 30 JUNE 2025

Under section 461ZH(3) of the Financial Markets Conduct Act 2013 (‘the Act’), the Auditor-General is the assurance practitioner of Genesis Energy Limited (the ‘Company’) and its subsidiaries (the ‘Group’). The Auditor-General has appointed me, Silvio Bruinsma, using the staff and resources of Deloitte Limited, to carry out an assurance engagement, on his behalf, on:

- the greenhouse gas (‘GHG’) emissions disclosed in the Group Climate Statement for the year ended 30 June 2025, prepared in accordance with Aotearoa New Zealand Climate Standards that is required to be the subject of an assurance engagement under section 461ZH(1) of the Act (the ‘mandatory GHG disclosures’); and
- the Greenhouse Gas Inventory Report, included in Appendix II to the Group Climate Statement (the ‘additional GHG disclosures’) for the year ended 30 June 2025, prepared in accordance with the requirements of the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)* (the ‘Applicable Criteria’). For scope 3 emissions the Applicable Criteria includes the *Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)*.

Collectively the subject matter of our assurance engagement is referred to as the Group’s GHG disclosures (the ‘GHG disclosures’).

Scope of the engagement and level of assurance

The additional GHG disclosures are based on historical information and provide further disclosures about the GHG emissions of the Group for the year ended 30 June 2025 to meet the requirements of the Applicable Criteria, in addition to the minimum disclosure requirements of the Aotearoa New Zealand Climate Standards.

As part of our assurance engagement over the Group’s GHG disclosures, we have undertaken a reasonable assurance engagement in relation to the consolidated Scope 1 and 2 GHG emissions disclosures (‘Scope 1 and 2 GHG disclosures’) and a limited assurance engagement in relation to the consolidated Scope 3 GHG emissions disclosures (‘Scope 3 GHG disclosures’), as set out in the tables.

Reasonable assurance

SUBJECT MATTER: SCOPE 1 AND 2 MANDATORY GHG DISCLOSURES	REFERENCE
GHG emissions: gross emissions in metric tonnes of Carbon dioxide equivalent (‘CO ₂ e’) classified as: <ul style="list-style-type: none">Scope 1Scope 2 (calculated using the location-based method)	Page 48
Additional requirements for the disclosures of gross GHG emissions per paragraph 24 (a) to (d) of Aotearoa New Zealand Climate Standard 1: <i>Climate-related Disclosures</i> (‘NZ CS 1’), being: <ul style="list-style-type: none">The statement describing that the Group’s GHG emissions have been measured in accordance with the requirements of the Applicable Criteria, to the extent this pertains to Scope 1 and 2 GHG emissions;The statement that the GHG emissions consolidation approach used is operational control, to the extent this pertains to Scope 1 and 2 GHG emissions; andSources of Scope 1 and 2 GHG emission factors and the global warming potential (‘GWP’) rates used or a reference to the GWP source.	Appendix II Pages 59 to 68
Disclosures relating to Scope 1 and 2 GHG emissions methods, assumptions and estimation uncertainty per paragraphs 52 to 54 of Aotearoa New Zealand Climate Standard 3: <i>General Requirements for Climate-related Disclosures</i> (‘NZ CS 3’): <ul style="list-style-type: none">Description of the methods and assumptions used to calculate or estimate Scope 1 and 2 GHG emissions, and the limitations of those methods.Description of uncertainties relevant to the Group’s quantification of its Scope 1 and 2 GHG emissions, including the effects of these uncertainties on the GHG emissions disclosures.	Appendix II Pages 59 to 68
SUBJECT MATTER: SCOPE 1 AND 2 ADDITIONAL GHG DISCLOSURES	REFERENCE
Scope 1 and 2 GHG emissions and related disclosures, comprising the emissions inventory and explanatory notes prepared in accordance with the requirements of the Applicable Criteria.	Appendix II Pages 59 to 68

Limited assurance

SUBJECT MATTER: SCOPE 3 MANDATORY GHG DISCLOSURES	REFERENCE
GHG emissions: gross emissions in metric tonnes of CO ₂ e classified as: <ul style="list-style-type: none">• Scope 3	Page 48
Additional requirements for the disclosures of gross GHG emissions per paragraph 24 (a) to (d) of NZ CS 1, being: <ul style="list-style-type: none">• The statement describing that the Group's GHG emissions have been measured in accordance with the requirements of the Applicable Criteria, to the extent this pertains to Scope 3 GHG emissions;• The statement that the GHG emissions consolidation approach used is operational control, to the extent this pertains to Scope 3 GHG emissions;• Sources of Scope 3 GHG emission factors and the GWP rates used or a reference to the GWP source; and• The summary of specific exclusions of sources of Scope 3 GHG emissions, including facilities, operations or assets with a justification for their exclusion.	Appendix II Pages 59 to 68
Disclosures relating to Scope 3 GHG emissions methods, assumptions and estimation uncertainty per paragraphs 52 to 54 of NZ CS 3: <ul style="list-style-type: none">• Description of the methods and assumptions used to calculate or estimate Scope 3 GHG emissions, and the limitations of those methods.• Description of uncertainties relevant to the Group's quantification of its Scope 3 GHG emissions, including the effects of these uncertainties on the GHG emissions disclosures.	Appendix II Pages 59 to 68
SUBJECT MATTER: SCOPE 3 ADDITIONAL GHG DISCLOSURES	REFERENCE
Scope 3 GHG emissions and related disclosures, comprising the emissions inventory and explanatory notes prepared in accordance with the requirements of the Applicable Criteria.	Appendix II Pages 59 to 68

Conclusion

Reasonable assurance opinion

In our opinion the Group's Scope 1 and 2:

- mandatory GHG disclosures within the scope of our reasonable assurance engagement for the year ended 30 June 2025, are fairly presented and prepared, in all material respects, in accordance with Aotearoa New Zealand Climate Standards, issued by the External Reporting Board; and
- additional GHG disclosures within the scope of our reasonable assurance engagement for the year ended 30 June 2025, have been prepared, in all material respects, in accordance with the requirements of the Applicable Criteria.

Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Group's Scope 3:

- mandatory GHG disclosures within the scope of our limited assurance engagement for the year ended 30 June 2025, are not fairly presented and not prepared, in all material respects, in accordance with Aotearoa New Zealand Climate Standards, issued by the External Reporting Board; and
- additional GHG disclosures within the scope of our limited assurance engagement for the year ended 30 June 2025, have not been prepared, in all material respects, in accordance with the requirements of the Applicable Criteria.

Other matter – comparative information

The comparative information, being the Group's mandatory GHG disclosures for FY24, FY23, FY22, FY21 and FY20 on [pages 48](#) and [66 to 67](#), have not been the subject of an assurance engagement undertaken in accordance with New Zealand Standard on Assurance Engagements 1: *Assurance Engagements over Greenhouse Gas Emissions Disclosures* ('NZ SAE 1'). As such, these disclosures are not covered by our assurance conclusion.

The comparative information, being the Group's additional GHG disclosures for FY24 on [pages 66 to 67](#) was assured by Deloitte Limited in the firm's own capacity under International Standard on Assurance Engagements (NZ) 3410: *Assurance Engagements on Greenhouse Gas Statements* ('ISAE (NZ) 3410'). Deloitte Limited expressed an unmodified report dated 21 August 2024.

In addition, the comparative information, being the Group's additional GHG disclosures for FY23, FY22, FY21 and FY20 on [pages 66 to 67](#) was assured by another assurance provider under ISAE (NZ) 3410. The assurance provider expressed an unmodified report dated 21 August 2023, 4 August 2022, 11 August 2021, and 19 August 2020 respectively.

The Board of Directors' responsibilities

Subparts 2 to 4 of the Financial Markets Conduct Act 2013 set out requirements for a climate reporting entity in preparing Climate Statements, which includes proper record keeping, compliance with the climate-related disclosure framework and subjecting it to assurance.

The Aotearoa New Zealand Climate Standards have been issued by the External Reporting Board as the framework that applies for preparing and presenting a Climate Statement. The Board of Directors of the Group is therefore responsible for preparing and fairly presenting the Group Climate Statement for the year ended 30 June 2025, in accordance with those standards. In addition, the Board of Directors are responsible for the preparation of the additional GHG Disclosures included as [Appendix II](#) to the Group Climate Statement in accordance with the requirements of the Applicable Criteria.

The Board of Directors is also responsible for the design, implementation, and maintenance of internal control relevant to preparing the Group's Climate Statements that is free from material misstatement, whether due to fraud or error.

Our responsibilities

Section 461ZH of the Financial Markets Conduct Act 2013, requires the mandatory GHG disclosures included in the Group Climate Statement to be the subject of an assurance engagement.

NZ CS 1, paragraph 25 requires such an assurance engagement at a minimum to be a limited assurance engagement, and paragraph 26 specifies the scope of the mandatory assurance engagement on GHG disclosures. We agreed to provide reasonable assurance on the Scope 1 and 2 mandatory GHG disclosures, and limited assurance over the Scope 3 mandatory GHG disclosures. We also agreed to provide similar mixed assurance on the additional GHG disclosures in accordance with our letter of engagement.

To meet these responsibilities, we planned and performed procedures (as summarised below), to provide the level of assurance specified. We conducted our assurance engagement in accordance with NZ SAE 1 for the mandatory GHG disclosures and ISAE (NZ) 3410, issued by the New Zealand Auditing and Assurance Standards Board for both the mandatory and the additional GHG disclosures.

Summary of Work Performed

Reasonable assurance

A reasonable assurance engagement involves performing procedures to obtain evidence about the quantification of emissions and related information in the Group's Scope 1 and 2 GHG disclosures. The nature, timing and extent of procedures selected depend on the assurance practitioner's judgement, including the assessment of the risks of material misstatement, whether due to fraud or error, in the Scope 1 and 2 GHG disclosures.

In making those risk assessments, we considered internal controls relevant to the Group's preparation of the Scope 1 and 2 GHG disclosures. A reasonable assurance engagement also includes:

- Assessing the suitability in the circumstances of the Group's use of Aotearoa New Zealand Climate Standards and the Applicable Criteria as the basis for the preparation of the Scope 1 and 2 mandatory GHG disclosures and Scope 1 and 2 additional GHG disclosures, respectively;
- Evaluating the appropriateness of quantification methods and reporting policies used, and the reasonableness of estimates made by the Group; and
- Evaluating the overall presentation of the Group's Scope 1 and 2 GHG disclosures.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our reasonable assurance opinion.

Limited assurance

A limited assurance engagement involves assessing the suitability in the circumstances of the Group's use of Aotearoa New Zealand Climate Standards and the Applicable Criteria as the basis for the preparation of the Scope 3 mandatory GHG disclosures and Scope 3 additional GHG disclosures respectively, assessing the risks of material misstatement of the Scope 3 GHG disclosures whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Scope 3 GHG disclosures.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgement and included enquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records. In undertaking our limited assurance engagement on the Group's Scope 3 GHG disclosures, we:

- Obtained, through inquiries, an understanding of the Group's control environment, processes and information systems relevant to the preparation of the Scope 3 GHG disclosures. We did not evaluate the design of particular control activities, or obtain evidence about their implementation.
- Evaluated whether the Group's methods for developing estimates are appropriate and had been consistently applied. Our procedures did not include testing the data on which the estimates are based or separately developing our own estimates against which to evaluate the Group's estimates.
- Performed analytical procedures on particular emission categories by comparing the expected GHGs emitted to actual GHGs emitted and made inquiries of management to obtain explanations for any significant differences we identified.

- Evaluated the appropriateness of emission factors applied.
- Considered the presentation and disclosure of the Group's Scope 3 GHG disclosures.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Inherent limitations

Non-financial information, such as that included in the Group's GHG disclosures, is subject to more inherent limitations than financial information, given both its nature and the methods used and assumptions applied in determining, calculating, and sampling or estimating such information. As outlined on [page 61](#), GHG quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Because of the inherent limitations of an assurance engagement, together with the internal control structure, it is possible that fraud or error may occur and not be detected.

Other information

The Group Climate Statement and the Integrated Report contains information other than the Group's GHG disclosures and the assurance report thereon. The Board of Directors is responsible for the other information.

Our assurance engagement does not extend to any other information included, or referred to, in the Group Climate Statement on [pages 1 to 47, 49 to 58](#) and, [69 to 76](#) or the Integrated Report, and therefore, no conclusion is expressed thereon, apart from our opinion on the financial statements. We read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the Group's GHG disclosures, or our knowledge obtained in the assurance engagement, or otherwise appears to be materially misstated.

Where such an inconsistency or misstatement is identified, we are required to discuss it with the Board of Directors and take appropriate action under the circumstances, to resolve the matter. There are no inconsistencies or misstatements to report.

Independence and quality management

We complied with the Auditor-General's independence and other ethical requirements, which incorporate the requirements of Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards)* (New Zealand) ('PES 1') issued by the New Zealand Auditing and Assurance Standards

Board. PES 1 is founded on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. These principles for example, do not permit us to be involved in the preparation of the current year's GHG information as doing so would compromise our independence.

We have also complied with the Auditor-General's quality management requirements, which incorporate the requirements of Professional and Ethical Standard 3 *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* ('PES 3') and Professional and Ethical Standard 4 *Engagement Quality Reviews issued by the New Zealand Auditing and Assurance Standards Board* ('PES 4'). PES 3 requires our firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. PES 4 deals with an engagement quality reviewer's appointment, eligibility, and responsibilities.

In addition to this engagement, our firm is the statutory auditor of the financial statements (on behalf of the Auditor-General) and also carries out other assignments for the Group in the areas of review of the interim financial statements, trustee reporting, limited assurance over the performance data included within the Sustainability Performance Target Compliance Certificate, audit of joint venture special purpose financial statements and an agreed upon procedures engagement for insurance purposes.

We also carried out non-assurance services to the Corporate Taxpayer Group of which Genesis Energy Limited is a member. These engagements are compatible with those independence requirements.

In addition, partners and employees of our firm deal with the Group on arm's length terms within the ordinary course of trading activities of the Group. Other than this engagement and these assignments, we have no relationship with, or interests in, the Group.



Silvio Bruinsma
Partner

for Deloitte Limited
On behalf of the Auditor-General
Auckland, New Zealand
25 August 2025

Appendix IV: Description of physical assets and PPAs linked to physical assets

ASSET	DESCRIPTION
Kupe	<p>We have a 46% interest in the Kupe JV, which owns the Kupe gas field situated off the South Taranaki coast.</p> <p>Kupe's assets comprise three wellheads, an unmanned offshore platform, a 30 km pipeline and subsea utilities umbilical cable to an onshore production station near Hawera, oil storage facilities at New Plymouth, and an onshore gas pipeline.</p> <p>Reflecting our interest in the JV, we have rights to 46% of the natural gas produced by way of a Right of First Refusal mechanism from the original base Gas Supply Agreement entered into to underwrite the original development of the Kupe field. All remaining natural gas in the field shall be offered to us through this contractual right.</p> <p>LPG and oil are secondary products of the field. We receive and on-sell 46% of the LPG and oil produced by the JV.</p>
LPG depots and networks	<p>We own and operate a network of LPG distribution hubs across New Zealand and two reticulated LPG networks (piped LPG) in the South Island: Dunedin and the Faringdon Residential Development.</p>
Huntly Power Station	<p>Huntly Power Station is on the banks of the Waikato River and is close to both Auckland and Hamilton. Several types of thermal generation operate at the power station site to the west of the river.</p> <p>Rankine units Three Rankine cycle units are the original plant, built to be able to operate on either natural gas or coal. Each unit has a nominal capacity of 250 MW.</p> <p>Water cooling for the units from the Waikato River is limited at higher river temperatures, however cooling towers enable one of the Rankine units to operate even when river temperatures are approaching limits.</p> <p>Unit 5 This Combined Cycle Gas Turbine (CCGT) is the most efficient gas generator in New Zealand and has a capacity of up to 403 MW.</p> <p>Unit 6 This is a 50.8 MW open cycle gas turbine, which can burn 100% gas or diesel to generate electricity.</p>
Waikaremoana Hydro scheme	<p>The Waikaremoana Power Scheme is a hydro power development in northern Hawke's Bay and consists of three power stations fed from Lake Waikaremoana. The scheme is located between Te Urewera and Wairoa, along the upper 7 km of the Waikaretaheke River. The 138 MW hydro scheme comprises three power stations – Kaitawa (36 MW), Tuai (60 MW) and Piripaua (42 MW).</p>

ASSET	DESCRIPTION
Tongariro Hydro scheme	<p>The Tongariro Power Scheme comprises three hydro power stations – Rangipo (120 MW, underground), Tokaanu (240 MW) and Mangaio (1.8 MW) and has a catchment area of more than 2,600 km² in the North Island's central volcanic plateau.</p>
Tekapo Hydro scheme	<p>The Tekapo Power Scheme is at the head of the Waitaki Valley in the Mackenzie District of the South Island. It has been owned and operated by us since June 2011 and has a generation capacity of 190 MW and uses water from the glacial-fed Lake Tekapo/Takapō to generate electricity through two power stations – Tekapo A and Tekapo B – connected by a canal. Tekapo B sits in the bed of Lake Pūkaki.</p>
Lauriston solar farm	<p>We have a 40% interest in the Lauriston Solar Project (2023) Limited Partnership which owns and operates the Lauriston solar farm. We have a 10-year PPA for 100% of the offtake from this 63 MWp solar farm.</p>
ChargeNet	<p>We have a 65.29% interest in ChargeNet NZ Limited. ChargeNet is a provider of electric vehicle charging solutions which includes a network of national electric vehicle fast-charging stations.</p>
Power Purchase Agreements	<p>Waipipi We have a 20-year electricity offtake agreement for the energy from Waipipi's 31 wind-turbines. The generation capacity of the site is 133.3 MWp and it produces approximately 450 GWh per year. Waipipi commenced operations in November 2020.</p> <p>Tauhara We have a 15-year electricity offtake agreement commencing 1 January 2025 for the energy from 62.5 MWp of the generating capacity of the Tauhara geothermal generation asset for the first 10 years, reducing year on year to 12.5 MWp in the final year of the contract. Our contractual share of the asset's generation is approximately 549 GWh per year based on 62.5 MWp.</p> <p>Kaiwaikawe We have an electricity offtake agreement for the energy from Kaiwaikawe wind farm. The proposed generating capacity of the site is 72 MWp which is anticipated to produce approximately 225 GWh per year.</p> <p>Lauriston We have a 10-year electricity offtake agreement for 100% of the energy from Lauriston solar farm. The generation capacity of the site is 63 MWp and is estimated to generate 100 GWh per year.</p>

Appendix V: Glossary and definitions

TERM	DEFINITION
Aotearoa New Zealand Climate Standards	Standards issued by the External Reporting Board that comprise the climate-related disclosure framework. Climate-related disclosure framework has the same meaning set out in section 9AA of the Financial Reporting Act 2013.
base year	An historical datapoint (a specific year or an average over multiple years) against which a metric is tracked over time.
BESS	Battery Energy Storage System is a technology that uses batteries to store electrical energy for later use.
carrying value	The value recorded on our balance sheet at 30 June.
climate-related opportunities	The potentially positive climate-related outcomes for Genesis. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as through resource efficiency and cost savings, the adoption and utilisation of lower emission energy sources, the development of new products and services, and building resilience along the value chain.
climate-related risks	The potential negative impacts of climate change on Genesis. See also the definitions of physical risks and transition risks.
climate-related scenario	A plausible, challenging description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces and relationships covering both physical and transition risks in an integrated manner. Climate-related scenarios are not intended to be probabilistic or predictive, or to identify the 'most likely' outcome(s) of climate change. They are intended to provide an opportunity for entities to develop their internal capacity to better understand and prepare for the uncertain future impacts of climate change.
cross-cutting risk	A risk that impacts multiple areas, sectors, or disciplines, rather than being confined to a single domain.
distributed customer energy resources	Customer devices that can generate, store, or manage electricity behind the meter such as hot water cylinders, electric vehicles, rooftop solar and batteries.
EBITDAF	Earnings before net finance expense, income tax, depreciation, depletion, amortisation, impairment, unrealised fair value.
emissions	Refers to GHG emissions calculated in accordance with the GHG Protocol.
emission factor	A factor allowing GHG emissions to be estimated from a unit of available activity data (for example, tonnes of fuel consumed, tonnes of product produced) and absolute GHG emissions.

TERM	DEFINITION
emissions intensity	Intensity ratios used to express GHG emissions impact per unit of physical activity or unit of economic output.
ETS	New Zealand's Emissions Trading Scheme.
EV plan	Genesis' plan for discounted 9pm – 7am purchase of electricity. To be eligible for this plan you must own a plug-in electric car and have a communicating smart meter. Refer to our website for more information (Energy EV Electric Car Plan Genesis NZ (genesisenergy.co.nz)).
financial impact	The translation of impacts into current or anticipated impacts on financial performance, financial position, and cash flows.
Final Investment Decision (FID)	The point at which a company or investor commits significant financial resources to proceed with the project's execution.
flexible assets or flexible generation	Flexible assets / flexible generation are characterised by versatility and responsiveness to increasingly dynamic demands of the energy market. They are characterised by one or more of the following characteristics: (a) fast start capability, (b) fuel storage capacity, (c) energy storage technology, (d) multi-fuel functionality or (e) adaptability to emerging fuels such as hydrogen or biogas.
FY19, FY20, FY21, FY22, FY23, FY24, FY25, FY28, FY35	'FY' refers to Genesis' financial year from 1 July to 30 June. The number refers to the financial year ended 30 June of that calendar year.
Gen35	Genesis' strategy launched in FY24, which outlines Genesis' unique and vital role in energy transition over the next 10 years, for Genesis' customers, country and company through electrification (helping our customers to electrify their lives), growing renewables (investing significantly in renewables) and flexibility (evolving the Huntly Power Station to increase its flexibility).
generation	Electricity generated by physical assets owned by Genesis and PPA's as outlined in Appendix IV .
GHG emissions	Greenhouse Gas Emissions. The greenhouse gases listed in the Kyoto Protocol: carbon dioxide (CO ₂); methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF ₃), perfluorocarbons (PFCs), and sulphur hexafluoride (SF ₆).
GHG Protocol	Greenhouse Gas Protocol: <i>A Corporate Accounting and Reporting Standard (revised edition)</i> and the <i>Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)</i> .
gross margin	Revenue less direct costs. Refer to our FY25 Results Presentation for information on what is included for each of the products we sell.

Appendix V: Glossary and definitions continued

TERM	DEFINITION
GWh	Gigawatt hour is a unit of energy that represents the amount of electricity generated or consumed over a one-hour period. It is equivalent to 1,000 megawatt hours (MWh).
ICP	Installation Connection Point, is a physical point of connection between a network and a consumer's installation.
impacts	The effects (also referred to as consequences or outcomes) of climate change occurring for an entity. These effects will, in turn, depend on the impacts of climate change on the broader socioeconomic and ecological systems an entity operates within (including an entity's value chain).
inflows	The amount of water flowing into a lake or catchment that is connected to one of our hydro schemes noted in Appendix IV .
internal emissions price	A monetary value on GHG emissions that an entity uses internally to guide its decision-making process in relation to climate-related impacts, risks and opportunities.
key business risks	Risks rated as high or extreme using our enterprise risk matrix.
lower emissions	Lower emissions refer to the reduction in GHG emissions released into the atmosphere, such as carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), and other greenhouse gases. These emissions are typically produced by activities like burning fossil fuels for energy, transportation, and industrial processes. Reducing emissions is crucial for mitigating climate change, improving air quality, and protecting public health. Efforts to lower emissions can include using cleaner energy sources, improving energy efficiency, and adopting sustainable practices in various sectors.
MBIE	Ministry of Business, Innovation and Employment.
MfE	Ministry for the Environment.
MW	Megawatt is a unit of power equal to one million watts.
MWh	Megawatt hour is a unit of energy that represents the amount of electricity generated or consumed over a one-hour period. It is equivalent to one-million-watt hours.
MWp	Megawatt peak is a unit of measurement used to describe the maximum electrical output of a power source such as solar or wind under optimal conditions.
net customer churn	Percentage of residential customers that finalise in the financial year.

TERM	DEFINITION
net zero 2040	A commitment to reduce our GHG emissions by >90% from a FY20 base year by 2040. This commitment is based on the Science Based Targets Initiative's <i>Corporate Net Zero</i> guidance which provides companies a clearly-defined path to reduce greenhouse gas emissions in line with limiting global warming to 1.5°C.
net zero 2050	Refers to New Zealand's emission reduction target as outlined in the Climate Change Response (Zero Carbon) Amendment Act 2019 which amended the Climate Change Response Act 2002.
physical risk	Risks related to the physical impacts of climate change. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events. They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise.
PPA	Power Purchase Agreement, is a long-term financial arrangement where the buyer and seller agree on a fixed price for electricity generated from a particular asset, but the generation itself is sold into the national grid at market prices. The buyer either receives or pays the difference between the fixed price and the market price. It is effectively hedging against price volatility. They are often used to support the development of new generation.
principal risk	Principal risks are the most important enterprise-wide risks, as determined by the Board or ELT even if they do not meet 'materiality' thresholds. Refer to our Corporate Governance Statement for a list of our principal risks.
Rankine units	Three Rankine cycle units that utilise boiler and steam turbine technology to generate electricity. Refer to Appendix IV for more information.
RCP	Representative Concentration Pathway.
renewable generation	Renewable generation uses natural resources that can be replenished such as water, sun, wind to generate electricity.
research and development on climate-related initiatives	An activity that is carried out with the purpose of resolving scientific or technological uncertainty or creating new knowledge, or new or improved processed, goods or services associated with climate-related initiatives.
retail customers	Retail electricity and gas customers defined by a single customer view, regardless of number of connections (ICP's)
retail emissions	Greenhouse gas emissions on electricity, gas and LPG purchased and on sold to retail customers. Calculated using the MfE emission factors.
retail revenue	Electricity revenue, gas revenue, LPG revenue and emissions on fuel sales and electricity contracts for our retail business unit as outlined in note A1 of our Consolidated Financial Statements.

Appendix V: Glossary and definitions continued

TERM	DEFINITION
SBT	Science Based Target validated by the SBTi.
SBTi	Science Based Target Initiative.
scenario analysis	A process for systematically exploring the effects of a range of plausible future events under conditions of uncertainty. Engaging in this process helps an entity to identify its climate-related risks and opportunities and develop a better understanding of the resilience of its business model and strategy.
scope 1	Direct GHG emissions from sources owned or controlled by the entity.
scope 2	Indirect GHG emissions from consumption of purchased electricity, heat, or steam.
scope 3	Other indirect GHG emissions not covered in scope 2 that occur in the value chain of the reporting entity, including upstream and downstream GHG emissions. Scope 3 categories are purchased goods and services, capital goods, fuel-related and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting, upstream leased assets, downstream transportation and distribution, processing of sold products, use of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, and investments.
thermal generation	Thermal generation uses steam power created by combusting natural gas, coal or biofuels to rotate generators and create electricity.

TERM	DEFINITION
SSP	Shared Socio-economic Pathway. SSPs are narratives that describe different plausible future developments of human society, especially concerning its use of fossil fuels and the social and economic factors driving that use.
transition risk	Risks related to the transition to a lower emissions, climate-resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.
use of sold products	Emissions from the use of goods and services sold by Genesis to customers. This is a specific category within scope 3 of the Greenhouse Gas Protocol.
Unit 5	Combined cycle gas turbine used to generate electricity.
value chain	The full range of activities, resources and relationships related to an entity's business model and the external environment in which it operates. A value chain encompasses the activities, resources and relationships an entity uses and relies on to create its products or services from conception to delivery, consumption and end of life. Relevant activities, resources and relationships include those in an entity's operations, such as human resource; those along its supply, marketing and distribution channels, such as materials and service sourcing and product and service sale and delivery; and the financing, geographical, geopolitical and regulatory environments in which an entity operates.

