

A photograph of two women wearing white hard hats and high-visibility yellow vests, looking out from the back of a white vehicle. They are in a field with several wind turbines in the background under a cloudy sky. The text is overlaid on the top left of the image.

New Zealand's Electricity Security and Reliability Council FY2026: the year in review

July 2026

Foreword from the Chair

This report covers the period from July 2025 to June 2026, financial year 2026 (FY26). FY26 will be remembered as a year of challenges and change for New Zealand's electricity sector. Those challenges include a tight supply-demand balance, a disruptive shift in the gas outlook, accelerating energy transition with technological changes on both supply and demand sides of the system.

Closure of the Strait of Hormuz has shocked energy markets globally, and in New Zealand, with significant price increases for crude oil, refined products and LNG. These shocks show security of energy supply and fuel diversity are no longer abstract risks.

The Security and Reliability Council (the Council) has also changed to better serve New Zealand amidst growing complexity. Changes include introducing an independent secretariat, adopting a firmer, more direct stance in its advice to the Authority and engaging directly with other agencies and parties where appropriate. These changes help ensure the Council can continue to be New Zealand's 'canary in the coal mine' as the electricity system adapts - identifying electricity system risks and opportunities early.

This is the Council's first 'year in review' report. It aims to make our work more visible and accessible and to complement our published quarterly advice. It summarises the focus of the Council and our advice to the Electricity Authority (the Authority) and other entities. These include:

1. Priority security of supply risks and mitigations
2. Improving the quality of generation and offtake pipelines
3. The role of electrical standards and rules in enabling (or impeding) distributed energy resources (DER)

4. Managing the impact to security and reliability of natural gas production decline
5. Protecting grid stability as the generation mix changes and DER proliferates.
6. The need for action to mitigate growing cost and supply disruption from inadequate tree management
7. The evolving cyber threat landscape.

We think that FY26 will come to be seen as a pivotal year for the electricity system and New Zealand's broader energy system.

On one hand, domestic gas production is in terminal decline and global energy supply chains have been shown to be fragile and susceptible to growing geopolitical instability. On the other hand, EV sales and solar installations are growing, without subsidy, and large-scale electrification projects are progressing while generation investment is contributing to falling forward electricity prices.

This presents tremendous opportunities for New Zealand and challenges to the electricity and energy sectors and their regulators and policy makers. The question is how we can overcome these challenges to deliver for New Zealand.

I express my gratitude to members of the Council, who give up their time and share their expertise for the benefit of electricity users. On behalf of the Council, I also extend thanks to the many organisations and individuals who openly and constructively engaged with the Council during the year. Your engagement greatly enhances the Council's effectiveness.

Hon Heather Roy

Independent Chair, Security and Reliability Council

1 A year in review

FY26 was another testing year for the electricity sector. The headline issue was again energy sufficiency as the continued decline in gas production and mixed hydrology led to tight supply and high prices. As the year progressed, new generation commissioning flowed through to lower futures prices – signalling an improved supply-demand balance.

Closure of the Strait of Hormuz has cast a shadow over the broader energy supply and economy. While this has not yet had a material impact on the electricity system it has highlighted New Zealand's exposure to imported energy and the inherent supply chain risks.

1.1.1 Significant progress by the electricity sector

While the electricity system remains under pressure, and likely will for the next decade, developments during FY26 are encouraging and we appear to be on track towards a healthier supply and demand balance and a more secure electricity system:

- Contribution to a better security of supply through
 - New generation and grid scale batteries
 - Extending the life of the third Huntly Rankine unit and maintaining a larger coal stockpile
- Improving transparency over thermal storage, plant availability, the pipeline of future generation and offtake projects aids planning across the electricity system
- Rule changes and clarity on contingent hydro storage, access to contingent resources and introduction of an Emergency Reserve Scheme all support security of supply

- Improved forecasting of intermittent generation and a thorough review of security of supply forecasting practices better support security of supply as intermittent generation grows
- Recent rule changes bring standards and rules for distributed energy resources (DER) up to date, while reforms to tree regulations improve flexibility for distributors.

This progress and an improving supply-demand balance is reflected in ASX futures prices returning to levels that better reflect the estimated cost of new generation after a protracted period of elevated prices.

1.1.2 A pivotal year for energy

During FY26, it was accepted that the decline in domestic natural gas production is likely terminal while global energy supply chains showed their fragility and susceptibility to growing geopolitical instability. We have been reminded that energy is both the foundation of modern life and a matter of national security.

At the same time, the economics and potential of electricity began to shine through with growth in EV sales, solar deployment and large-scale electrification of industrial processes in New Zealand. Offshore, we have seen a seismic shift in road transport, with EVs surpassing 50% of new truck sales in China.

For our electricity system, new generation commissioning has reduced the energy deficit that crystallised in the first half of the decade and has been exacerbated by a lack of gas availability. By 2027 we will see a 10-fold increase in solar within three years while investment in wind and geothermal continues to grow. However, as outlined in the System Operator's 2025 Security of Supply Assessment, key challenges remain.

1.1.3 Key challenges remain

As we look ahead, key challenges include:

- Continuing and increasing generation build to meet suppressed demand growth (and offset reducing thermal contribution) – requirements increase, not decrease, as we enter the 2030s
- Preserving grid stability as solar generation scales, and amidst broader shifts to more intermittent and inverter-based renewable generation
- Shifting policy and planning from energy silos to whole-of-energy system views as markets for gas, liquid and solid fuels converge with electricity systems
- Finding cost-effective solutions for the near, medium and long term to dry-year risk – a key risk to confidence in the electricity sector and impediment to electrification
- Monitoring the inevitable decline in gas supply and advocating for urgency in managing this through demand and supply actions
- Ensuring transmission and distribution networks can service new generation and offtake requirements while sensibly leveraging DER to avoid inefficient network build
- Reducing exposure, particularly for rural communities, to supply loss arising from inadequate tree management by forest owners
- Resolving these issues in a way that retains affordable electricity, avoids, further deindustrialisation and maintains public support.



Transmission and distribution lines, Wellington, New Zealand

2 FY26 major focus areas and advice

The Council closely follows current year performance and how today's challenges are being met by participants and policy makers.

The Council has a standing briefing and discussion with the Authority and System Operator on security of supply at each meeting. The balance of its focus is on potential blind-spots, future challenges and opportunities to the electricity system. The Council shaped its FY26 programme around these blind spots and future challenges and opportunities, conducting a series of 'deep dives'.

Each deep dive involved presentations from, and in-depth discussions, with experts from across the sector, including regulators and policy makers. They covered persistent challenges such as seasonal firming to the risks and opportunities presented by new / emerging technologies and systemic risks such as from cyber-attacks or other malign influences.

2.1 Security of supply: the enduring priority

The regular joint briefings from the Authority and System Operator include detailed examination of fuel availability (including contingent resources), generation plant performance, demand forecasts, and the pipeline of new generation projects.

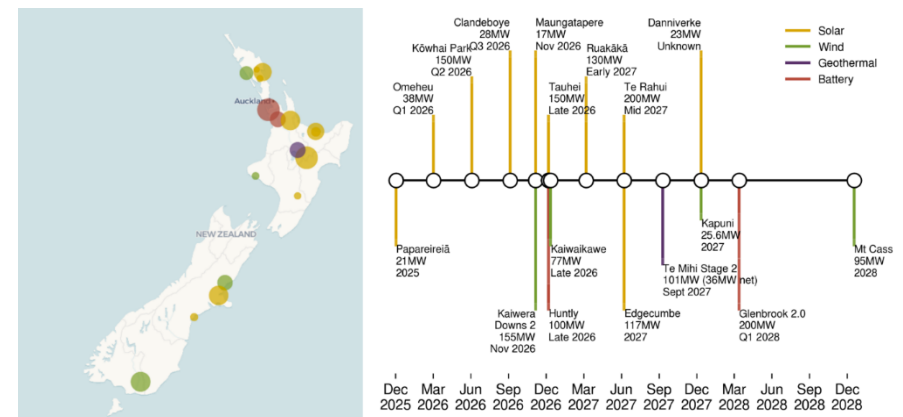
2.1.1 Regular SoS updates: what the Council saw

The Council's scrutiny revealed a more precarious supply-demand balance and near-term outlook than official forecasts suggested.

The standing security of supply briefing and discussion has become a valuable channel for feedback to both the Authority and System Operator on near- and longer-term security of supply issues.

Key feedback themes included:

- New Zealand's supply is increasingly reliant on a shrinking, aging and less diverse thermal fleet, creating energy, capacity and single plant risk
- The need to stress test generation pipeline and to improve visibility of embedded generation and demand growth
- Monitoring the decline in gas supply and advocating for urgency in managing this through demand and supply side actions
- The importance of learning from other countries experience to preserve grid stability as solar (and wind) build scales up.



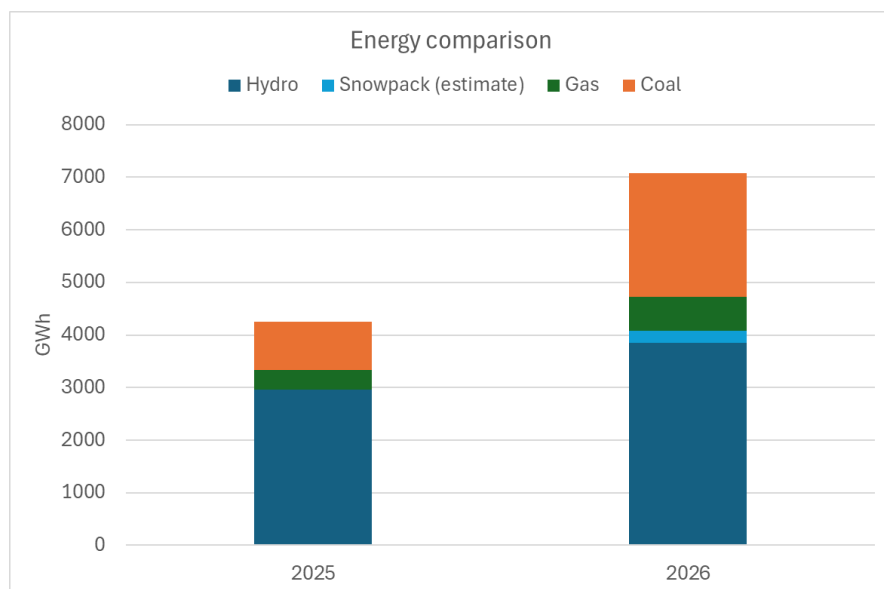
Near term generation pipeline, May 2026, source: Electricity Authority.

2.1.2 The Security of Supply Assessment (SOSA) and SOSFIP

The Council engaged the System Operator on the annual Security of Supply Assessment (SOSA) and its review of the Security of

Supply Forecasting and Information Policy (SOSFIP). The Council noted that:

- The SOSA presents a very tight energy and capacity outlook with little margin for higher-than-forecast demand growth, plant retirement, plant outages, fuel shortage or delayed commissioning of new generation.
- There is a moderate likelihood that faster than projected generation build will be needed to keep winter energy margins above the New Zealand electricity standard.



Stored energy comparison 2025 to 2026, May 2026, Source: System Operator

2.2 System Operator performance

In October 2025 the Council reviewed the System Operators performance self-assessment. In its advice to the Authority, it commended the System Operator on its performance and work to engage with stakeholders while highlighting the need to adapt to the increasing pace of change. The Council reiterated its recommendation for focused and independent assessments of System Operator performance.

2.2.1 Council advice and takeaways

The Council recommended the Authority:

1. Maintain pressure on participants to mitigate near-term energy and capacity risks and to execute on generation build plans.
2. Prioritise enablers for the safe integration of utility-scale solar — which is forecast to grow ten-fold between 2024 and 2027.
3. Improve visibility of embedded generation and demand and account for this in system planning and forecasting.
4. Scrutinise critical paths for new generation projects, including network connections, and mature pipeline reporting so the information can be relied upon.
5. Periodically commission independent reviews of specific aspects of System Operator capability, performance and readiness.

Takeaway: New Zealand's near-term security of supply position has improved from acute to tight, and the joint Authority/System Operator updates have visibly matured. But the medium-term risk remains elevated. Without disciplined execution of the generation pipeline, accelerated regulatory enablers for solar and storage, and active management of the gas decline, the system remains exposed.

2.3 Topic specific deep dives

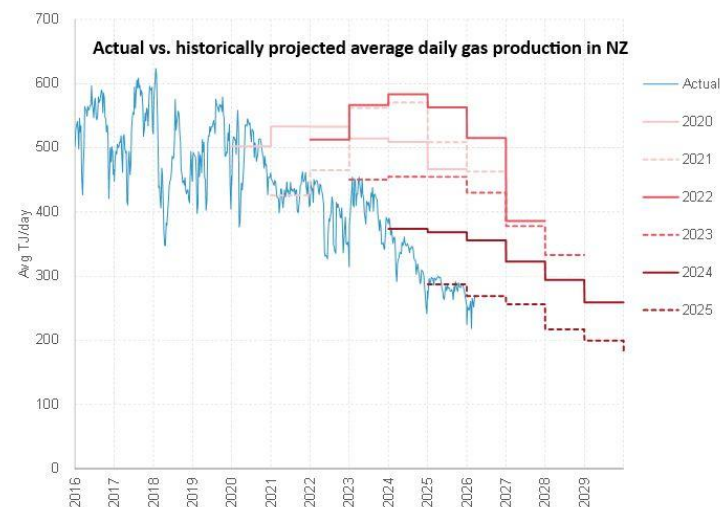
2.3.1 Falling domestic natural gas production

Amongst other uses, gas is an input to electricity production and electricity is a complement to and partial substitute for gas (e.g. for process heat).

In February 2026 the Council met with sector experts to discuss the outlook for domestic natural gas production and the implications for the electricity system and energy policy.

The Council heard that there is near consensus that domestic gas production is in terminal decline. Whether that unfolds over five, ten or twenty years is not yet known. In contrast, it is increasingly clear we can expect more gas supply and price volatility, supply shortfalls and supply and demand shocks.

Supply side measures, including bio-methane and LNG imports, could partially offset falling natural gas production. This could help cushion what might otherwise be a disorderly and disruptive transition from gas.



Producer forecasts of domestic natural gas production, May 2026, Source: Concept Consulting

The consequences of falling gas supply impact electricity system performance and reliability, including through:

- less and more expensive fuel for power generation, undermining its historical role in long-duration firming (dry year cover) and to a lesser extent peaking; while
- increasing electricity demand, and the need for electricity distribution and transmission, as gas users convert to alternative energy, including electricity.

Council Advice and takeaways

The Council recommended the Authority:

1. Counter and resist complacency over gas decline. Domestic gas is in terminal decline; ignoring this risks potentially catastrophic consequences.
2. Advocate for the formulation of a clear, coherent and converged vision for New Zealand's energy future.

Takeaways: *It is increasingly evident New Zealand needs clear, coherent and joined-up all-energy vision for its future. This should factor in growing interdependencies between electricity, gas and liquid fuels and have the express purpose of aiding participants, users, policy makers and regulators planning and decision making.*

2.3.2 A system in change: power system stability

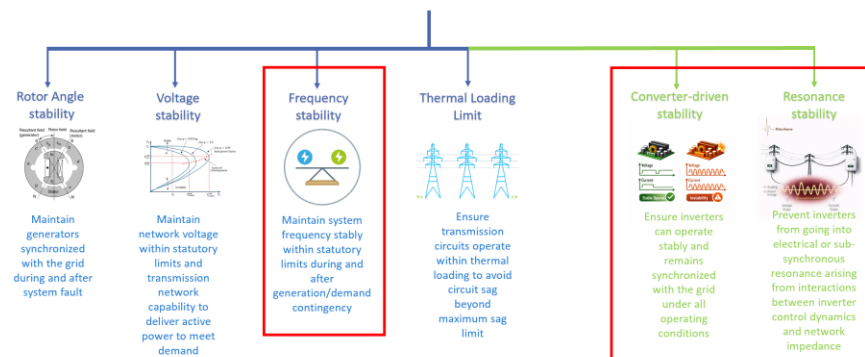
Our system is undergoing profound change with a proliferation of distributed energy resources (DER) and a shift in generation mix as inverter based generation, principally wind, solar and batteries, replaces much of our synchronous thermal generation.

Inverter based resources (IBR) and DER offer tremendous advantages. However, they also bring challenges that the electricity system must adapt to. This deep dive focused on one of the lesser known, but most serious, challenges: maintaining system stability.

System stability is a technical and generally not widely-understood domain. It is, however, critical to electricity system performance as instability can drive higher cost and result in localised or - in extreme cases - widespread or nationwide loss of supply.

The diagram shows the six system stability classifications and the three most impacted by the increasing share of IBR generation and growth in DER.

Power system stability classifications



Power system stability classifications and at risk areas, May 2026, source: System Operator

The Council heard that preparations by the System Operator and Authority, to ensure system stability is preserved as the rapid change in generation mix and scaling of DER, are advanced.

However, significant work is still needed to develop and deploy the tools, guidelines and equipment to confidently understand and mitigate frequency, converter-driven and resonance stability risks.

The Council was encouraged to hear that this work is a top priority for the System Operator and the Authority. Both organisations stressed the focus being given to this work, genuine recognition of the risks and an encouraging degree of apprehension.

Council advice and takeaways

The Council recommended the Authority:

1. prioritise and keep a very close eye on regulatory enablers and System Operator readiness for accelerating, system wide use of inverter based resources.
2. explore opportunities with the System Operator for increased use of sensing and Artificial Intelligence (AI) to understand, forecast and predict the stability of the system and DER performance and behaviour.

Takeaways: *System stability is a complex area that is often taken for granted and not well understood outside expert circles. However, changes now underway introduce new risks that, if not understood and mitigated, bring potentially catastrophic consequences. New Zealand must heed lessons from overseas and, specifically, ensure that governance (regulation) and system operations capabilities scale at the same pace as, or ideally ahead of, asset deployment on the power system.*

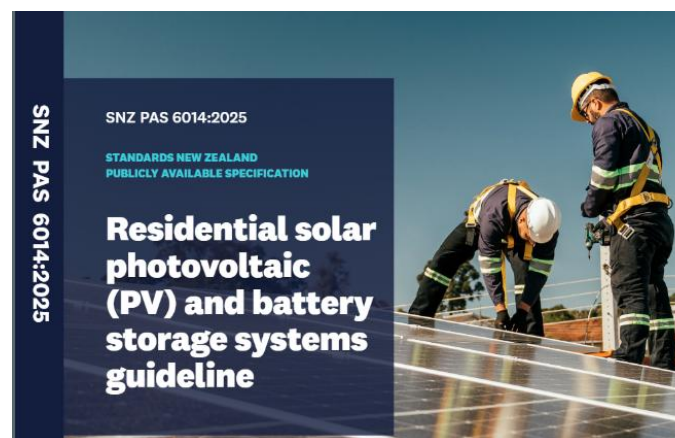
2.3.3 Technical standards and DER: unlocking the future

In October 2025 the Council discussed technical standards and rules for distributed energy resources (DER), with a particular focus on inverters used in solar PV systems and EV chargers.

The session brought together the principal parties involved in standard-setting and the related regulatory 'system' — the Ministry of Business, Innovation and Employment (MBIE), the Electricity Authority, the Energy Efficiency and Conservation Authority

(EECA), the Electricity Engineers' Association (EEA), Electricity Networks Aotearoa (ENA), and Standards NZ.

Outdated standards directly impact security of supply, as they hinder the integration of flexible resources that could otherwise support the grid during periods of stress, and they increase system stability risk.



Standards NZ PAS 6014:2025, source Standards NZ

The Council heard that the standards system itself is very complex, lacks cohesion and coordination. That it is a source of confusion and frustration to participants and stakeholders — resulting in unnecessary delay, cost and risk to DER.

There are clear opportunities to improve governance, coordination and strategy. These are organisational issues rather than criticisms of the technical staff across the named organisations. It may even challenge, security of supply. For example,

- if small-scale inverter settings do not support appropriate voltage or frequency management,

- if excess export from PV systems, or coincident demand from EV charging, exceed system and/or network capacity.

Council advice and commentary

The Council recommended the Authority:

1. Act to improve the performance of the standards system to reduce friction and improve clarity and coordination.
2. Appoint a policy owner or 'steward' to bring cohesion to the currently fragmented system.
3. Establish clear objectives for the standards system, so that it enables — rather than impedes — the energy transition.
4. Create a reference or working group to coordinate standards development and maintenance and produce public resources to aid stakeholder understanding.
5. Closely monitor the integration of EV charging, and enable opportunities presented by a large growing EV fleet.

Takeaway: *With rapid uptake of EVs, batteries and rooftop PV, the technical rules that govern these devices have moved from 'nice to have' to system-critical. New Zealand has the opportunity to set up coherent, well-stewarded standards; otherwise there will be unnecessary cost, system risk and a slower energy transition.*

2.3.4 Tree regulations and network resilience

Trees contacting and damaging power lines are the single largest cause of supply interruption in New Zealand. The Council has repeatedly flagged that tree regulations are unfit for purpose.

In February 2026 it conducted a deep dive on the efficacy of current and proposed reforms, with presentations from Electricity Networks Aotearoa (ENA), Powerco and MBIE.

The Council heard that trees account for around 80% of power outages during severe weather events; for Cyclone Gabrielle, around 95% of network faults were tree-related, many involving trees outside the zone distributors' can directly control.



Fallen trees damage electricity lines, source: Electricity Networks Aotearoa

Costs and risks are increasing as forest-on-farm conversions grow, severe weather events become more frequent, and reliance on electricity rises. While these costs, which amount to many tens of millions¹ of dollars per annum for tree management, service restoration and lost service, are primarily borne by electricity consumers, they are caused by tree owners - with local authorities and commercial forest owners the main culprits.

MBIE's 'phase two' tree regulation reforms are welcome but do not go far enough: distributors (and therefore consumers) will continue to bear most of the burden, tree-owners, particularly commercial forestry owners have little incentive to mitigate.

2.3.5 Council advice and takeaway

The Council recommended:

1. The Authority advocate for electricity consumers on tree regulation reform — current reforms do not go far enough and expose consumers to growing costs and risks.
2. Government pursue further reform to mitigate the growing cost of, and risk to, reliability of supply, particularly from commercial forestry and other tree-owning entities.
3. Be pragmatic around adherence to regulations in emergency situations to speed up power restoration, advocate for better cross-government coordination during response and recovery.
- 4.

The Council conveyed its tree-regulation recommendations directly to the Minister for Energy and Resources.

Takeaway: *Inadequate tree management is the issue with the most consistent and avoidable impact on the reliability of New Zealand's electricity supply. The current direction of regulatory reform is welcome but insufficient; further change is required to expose those with responsibility for tree management to the costs of their action (and inaction).*

2.3.6 Cybersecurity: a worsening threat landscape

Cyber threats are a growing risk to the electricity system's security and reliability. The Council met with the National Cyber Security Centre (NCSC), Transpower and Vector, for a discussion facilitated by Electricity Networks Aotearoa (ENA).

- NCSC noted 34 cyber incidents involving nationally significant organisations in energy, water, and waste services
- A widening gap between the sophistication of malign actors and the readiness of some local entities to defend against them
- Concern that the impending 'one size fits all' regulatory approach, as applied in Australia, would set the bar too high for small non-system critical participants, such as small distribution networks, and too low for system-critical entities such as Transpower and large generators.

¹ As presented to the SRC by the ENA in the February 2026 meeting.

The Council recommended the Authority:

1. Actively lift the understanding of cyber security across the sector through direct engagement with participants and regulatory bodies.
2. Play a role in shaping tiered, proportionate rules tailored to the risk and criticality of different participants — avoiding the pitfalls of a blunt one-size-fits-all approach.
3. Encourage participants to engage in DPMC's (the Department of the Prime Minister and Cabinet) upcoming consultation and consider voluntarily self-assessing against established Australian Cyber Security Standards.

The Council also wrote to the DPMC, as policy lead for cyber security regulation, conveying its recommendations directly.

Takeaway: *Cyber risk to the electricity sector is rising and is unlikely to ease. Sector participants are visibly more engaged than three years ago, and cyber security technology has matured. Cyber security regulation should design tiered rules that lift readiness across both system-critical and non-critical participants, and that draw on what New Zealand can learn from the experience (and mistakes) of comparable jurisdictions.*



Synchronous generators - turbine hall, Manapouri power station

3 Looking ahead

The Council will continue to maintain its proactive stance, adapting its focus as the energy landscape evolves to ensure it is identifying and advising on the most significant emerging risks to the security and reliability of New Zealand's power system.

Looking to FY27, the Council will again focus on persistent challenges and emerging risks and opportunities. These are expected to include:

1. Maintaining a close focus on the near-term security of supply situation, System Operator performance and its security of supply assessments
2. Understanding the strategic implications of gas decline and geopolitical developments (such as the Hormuz closure) on energy policy, and the electricity system
3. Assessing sector readiness to meet expected demand growth through the 2030s – generation, networks, system operations – as the sector evolves, specifically:
 - scale integration of solar and an increasingly intermittent and non-synchronous generation mix
 - a more nuanced and intelligent understanding of how the changing demand / supply profiles affects energy and capacity risk and specifically over seasons
 - leveraging the potential of DER to supplement (and reduce the cost of) networks and grid delivered energy
 - seasonal storage and dry-year cover in a low thermal electricity system.
4. Identifying and advising on issues that constrain progress and improving information available to the sector, regulator and policy makers, for example:
 - Tracking developments to adjust to falling natural gas supply, including LNG imports and greater transparency of gas production information
 - time and cost to connect to distribution and transmission networks for new generation and offtake
 - market, regulatory and other barriers to the development of generation of the type and scale required to maintain security of supply and competitively priced energy
 - barriers to and enablers of secure integration and system-value maximising utilisation of DER
 - policy and regulatory cohesion across historically discrete but increasingly interdependent and 'converging' electricity, gas and liquid fuels systems.

4 Engagement and collaboration

The Council's independence and expert advice are built upon a foundation of robust engagement with a wide array of stakeholders. These engagements are essential for maintaining the Council's system-wide perspective and ensuring its analysis is grounded in the operational realities of the sector.

The Council acknowledges and thanks the following organisations for their contribution to its work over the past year:

	The Electricity Authority
	Transpower New Zealand Limited
	National Emergency Management Agency
	Ministry of Business, Innovation and Employment
	Electricity Networks Aotearoa
	Energy Efficiency and Conservation Authority
	Electricity Engineers Association
	Contact Energy

	Genesis Energy
	Meridian Energy
	National Cyber Security Centre
	Standards NZ
	Northpower
	Unison
	Vector
	Gas Industry Company
	Concept Consulting
	Enerlytica
	DETA consulting
	Bespoke Energy
	Powerco

5 The Security & Reliability Council

The Council is established under section 20 of the Electricity Industry Act 2010. Its statutory function is to *provide independent advice to the Electricity Authority on the performance of the electricity system and the System Operator; and reliability of supply issues.*

The Council fulfils its function by providing the Electricity Authority independent advice on:

- the System Operator's performance, including against its principal performance obligations, security of supply function, and any other function important to the performance of the electricity system or to reliability of supply;
- system operations issues, including industry development needs and priorities;
- security of supply issues, including system security assessments and security of supply forecasts;
- reliability of supply issues, including planned and unplanned loss of supply and quality-of-supply issues; and
- any other matters the Council considers appropriate or that the Electricity Authority seeks its advice on.

5.1 Council members

Members are appointed by the Electricity Authority for their expertise and ability to contribute to the Council's functions. The members are:

- Hon Heather Roy (Chair)
- Ben Gerritsen
- Chris Ewers
- Karen Frew
- Allan Miller
- David Binnie
- Steve Duggan
- Andre Botha
- Mary Ollivier
- Tim Boyce

During FY26, Paula Checketts, Rebecca Larking and Nanette Moreau retired from the Council.

While the Council is independent of the Electricity Authority, it uses the Authority's IT systems and communications channels.

The Council is supported by an independent secretary appointed by the Electricity Authority in consultation with the Chair of the Council. You can contact the Council via the secretary on src.secretariat@ea.govt.nz.

The Council has a webpage², hosted on the Electricity Authority's website, where meeting papers and its advice to the Authority and other parties are published.

² [Security and Reliability Council | Electricity Authority](#)