FN-25-06 Fortnightly report 28 March 2025

This report summarises items that may be of interest to the Minister for Energy but do not necessarily require a formal briefing. Further information on any topic can be provided on request. Substantive items and decision papers will be provided to the Minister in the form of briefings.

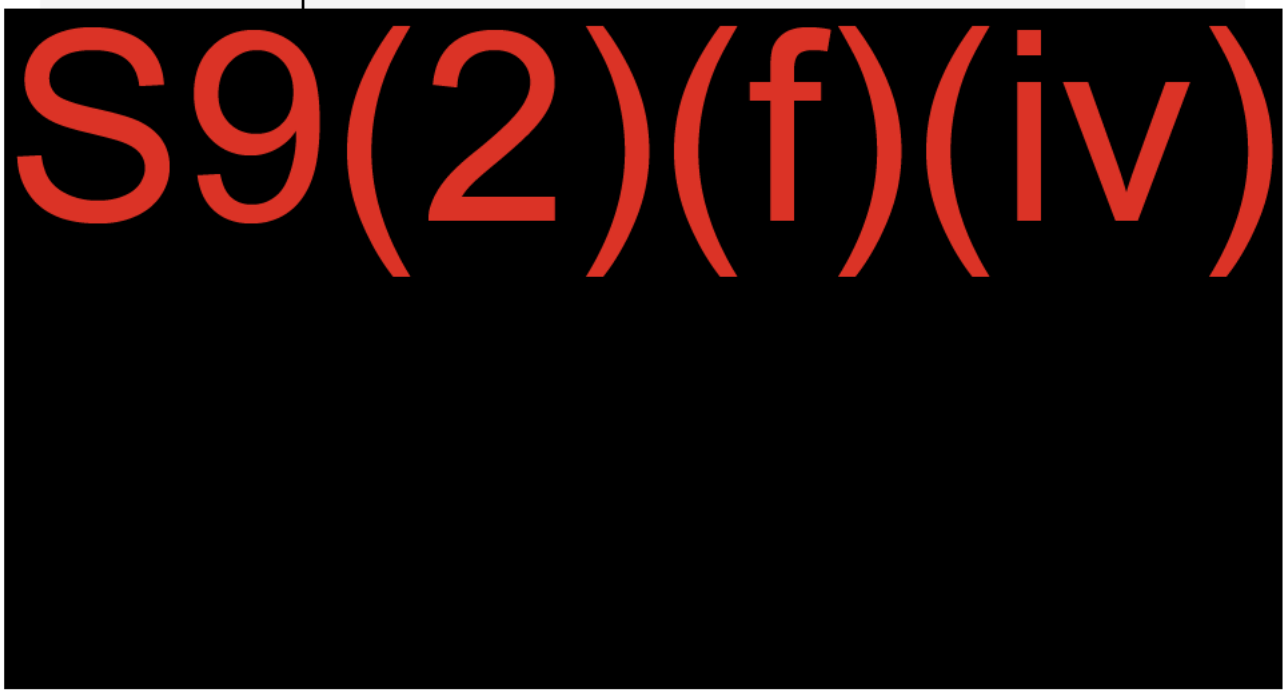
Electricity Authority contact: Sarah Gillies, Chief Executive

S9(2)(a) [redacted]

1. Upcoming publications

Market Development Advisory Group Quarterly Update dashboard	
Strategic outcome	Secure and resilient: *Effective risk management*
Purpose	This dashboard is a strategic update of the progress against the recommendations from the Market Development Advisory Group report released in December 2023.
Action and timing	Intended publication: 31 March 2025
Decision: Code amendment omnibus #5	
Strategic outcome	Secure and resilient: *Effective risk management*
Purpose	The Authority intends to amend the Code to: • update the stress test regime to reduce risk to consumers and security of supply • extend the trader default provisions to all retailers to protect all consumers • introduce a back-up means of calculating wholesale prices to improve market confidence. The updates in this paper are intended to be implemented by July 2025 to support security of supply for winter 2025.
Action and timing	Board to consider: 8 April 2025 Intended publication: 14 April 2025
Competition measures dashboard	
Strategic outcomes	Affordable: *Effective competition*
Purpose	This dashboard will inform consumers and participants on how competition in the industry is evolving and communicate the impact of the Authority's initiatives. Improved competition in the market will give consumers greater choices and more put downward pressure on prices.
Action and timing	Intended publication: 31 March
Recommended legislative amendments to improve security of supply	

Strategic outcomes	Secure and resilient: *Effective risk management, Regional resilience*
Purpose	We provided MBIE with four recommendations to improve the Authority's legislative framework as part of the Energy and Electricity Security Bill to enable us to better promote security of supply: • authorising information sharing with the system operator • introducing a criminal offence for intending to deceive or mislead the Authority • expanding the Authority's information gathering powers to any person if necessary or desirable • treating breaches of an exemption as a breach of the Code.
Action and timing	MBIE is considering the appropriate vehicle for the recommended changes, including whether they fit the scope of the Energy and Electricity Security Bill. We will continue to support MBIE as required.



2. Consultation underway

Level playing field measures options paper	
Strategic outcome	Efficient: *Innovation and distributed energy*
Purpose	The Authority is seeking feedback on a proposal to introduce mandatory non-discrimination obligations for hedge contracts that the gentailers - Genesis, Contact, Meridian and Mercury – would have to follow.

	This new rule would prevent the gentailers from giving preferential treatment to their retail arms for hedge contracts, ie make these contracts available to all industry participants on effectively the same terms they use when trading internally.
Action and timing	Consultation closes: 23 April 2025
Expiry of Urgent Code for market making under high stress conditions	
Strategic outcome	Secure and resilient: *Effective risk management*
Purpose	We're seeking feedback on whether to make permanent, or allow to expire, an urgent amendment to the Code that provides relief from market-making requirements during periods of market stress. In response to market stress during August 2024, we implemented an urgent Code amendment to reduce obligations on regulated market makers during periods of high futures market prices. Under the amendment, a price-based test would be used to adjust market-making settings during times of stress. The Authority is consulting on options, including if there is an ongoing need for a relief mechanism for the effective operation of market making in the New Zealand electricity futures market.
Action and timing	Consultation closes: 14 April 2025
Distributed generation pricing principles	
Strategic outcomes	Efficient: *Innovation and distributed energy*
Purpose	The Authority is consulting on ways to improve the distributed generation pricing principles that guide the cost of connecting distributed generation, such as wind and solar farms, directly to the network. Distributed generation plays an important role in bringing electricity to where it is needed most, and we want to ensure it is efficiently rolled out at the right places and at the right time.
Action and timing:	Consultation period extended: now closes 3 April 2025

3. Upcoming Electricity Industry Participation Code 2010 amendments

3.1. The following table has Electricity Industry Participation Code amendments that need to be presented to the House by the Minister's office within 20 working days following the date on which it is made.

Tracking number	Name	Date made	Date of Gazette notification	Date in force	Due date for presentation to the House
EIPCA-25-0005	Provision of information to system operator	7 March 2025	12 March 2025	14 March 2025	4 April 2025
EIPCA-25-0006	Update to scarcity pricing settings	11 March 2025	17 March 2025	17 April 2025	8 April 2025

4. Key external engagements

- 31 March: Infrastructure Commission/CE
- 1 April: ENA/CE
- 2 April: EEAG meeting/CE
- 2 April: Minister Watts/GIC/Genesis/Contact/Meridian/Mercury/CE
- 4 April: Auckland Chamber of Business and Northern Infrastructure Forum/CE, Chair

5. Investment pipeline monthly update

This is the first new monthly investment pipeline update

5.1. Last year, the Authority sought to require a more detailed assessment of where each project is in the process (including finance, land acquisition, consenting status, and connection queue status). We keep this information updated as we receive it. As a result, we introduced a new requirement for Transpower to collect additional information from developers so we have more information about new generation investment projects in the pipeline. With this information we will be able to produce a detailed and accurate assessment of where each project is in the process (including finance, land acquisition, consenting status, and connection queue status).

5.2. The Authority will provide monthly updates to the Minister. The first update is set out below. The report will continue to be evolved to increase accuracy and value. The Authority will also publish an improved dashboard to provide increased visibility to the industry and public on the investment pipeline, which will also be updated monthly.

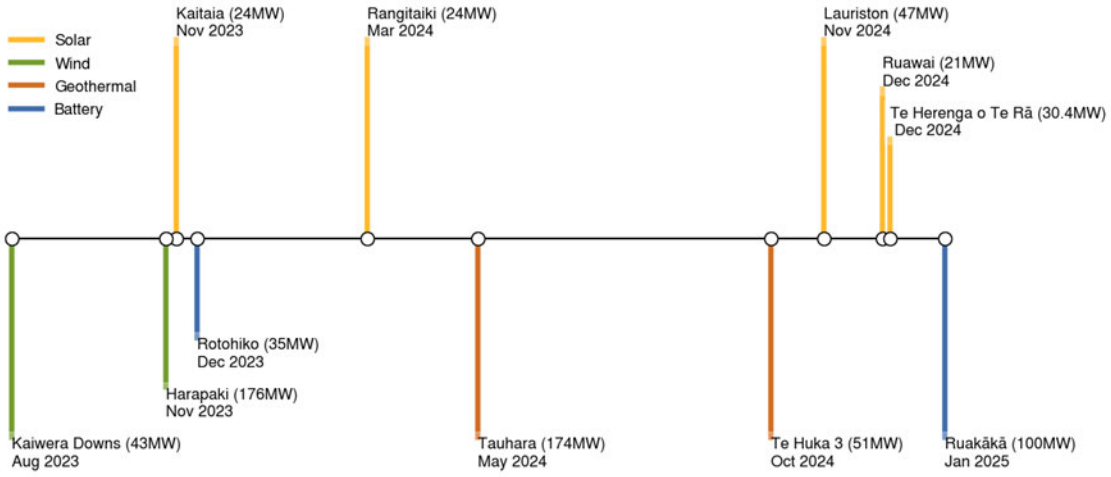
5.3. In summary:

- Since 2023 there has been more capacity built over an 18 month period than any period since 2010/2011.
- The pipeline is much bigger than can be practically absorbed by the market due to “initial enquiry” projects, so we have presented data excluding these projects. Historically very few of these early-stage projects progress.
- Even excluding initial enquiries, the pipeline has more projects than can be practically completed.
- The pipeline for the next three years has more than enough relatively certain projects to keep ahead of even exceptional demand growth. We are requiring Transpower to provide updated data monthly so we can monitor the pipeline to ensure that projects are progressing though the stages to commissioning.

Eleven new generation projects have been completed since 2023 - these include solar, wind, geothermal and battery projects

5.4. Figure 1 shows a total of 725MW of projects have been completed since August 2023 and are now generating, including 219MW of wind generation, 146MW of solar generation, 225MW of geothermal generation, and 135MW of batteries. This is the largest capacity built over an 18 month period since 2010/2011, when some smaller wind farms, a geothermal plant, and the two Stratford peakers (thermal plants) were built.

Figure 1: Projects completed since August 2023



Transpower has close to 70GW 65GW of projects in their its connection queue, but 30% of these are still in the initial enquiry stage

5.5. Table 1 shows that there are currently 64.9GW of projects in Transpower’s connection queue – around six times the already existing generation capacity in New Zealand.

5.6. Transpower is contacting developers for an update on their projects’ status. Next month’s update will provide a clearer picture on the pipeline of generation

investment projects. We will only include projects with committed developers – albeit at different stages of the investment process[1].

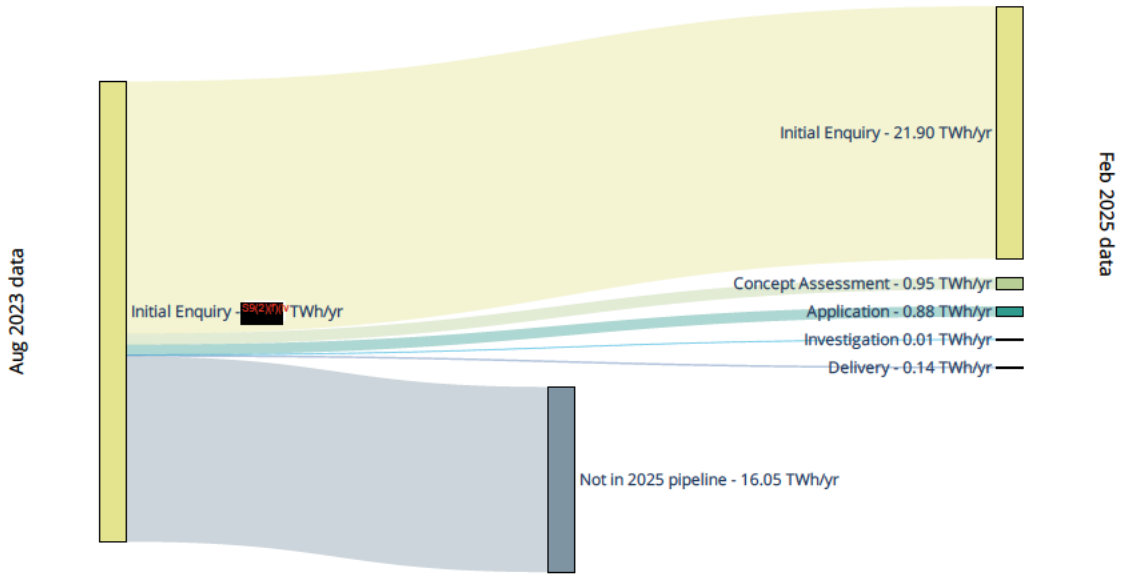
Table 1: Pipeline by fuel type and connection stage - as at 28 February 2025

Stage	Battery	Solar	Onshore wind	Offshore wind	Geothermal	Hydro	Other
Initial enquiry (MW)	570	10,758	7,845	0	0	0	980
Concept assessment (MW)	1775	7,812	4,380	7,710	160	254	0
Application (MW)	3,423	4,923	3,320	0	56	56	0
Investigation (MW)	1,973	4,262	1,168	0	190	0	360
Delivery (MW)	400	1,755	166	0	100	0	0
Connection commissioned (MW)	35	230	0	0	0	0	0
Generation commissioned (MW)	135	146.4	219	0	225	0	0

5.7. Figure 2 shows that many developers who make initial enquiries with Transpower do not progress projects further, with some dropping out of the queue but many remaining in the queue as initial enquiries. As most projects at the initial enquiry stage do not progress further, we have excluded them from the following analysis to provide a more realistic overview of the pipeline.

[1] Here we look at the stages as set out in Transpower's connection management framework: Our grid connection process | Transpower. Future updates will be based on project stages collected from developers, including finance, land acquisition, grid connection stage, and consenting.

Figure 2: Change in project status of 2023 initial enquiries, 2023-2025



There has been a substantial increase in projects in later stages of the connection queue since 2023

5.8. Since August 2023, the pipeline has grown substantially (albeit with many projects in the initial enquiry or concept assessment stages). This is a promising sign that projects are moving through Transpower's connection process. Once we have data over a longer period from our new data collection we'll have a better picture of any possible delays in the development stages.

5.9. There is now 176TWh/year (assuming capacity factors – ie, assuming the amount of time different types of generation such as wind or solar will be able to run) of projects in Transpower's connection queue at stages further than an initial enquiry (see Figure 3) – an increase of [redacted] TWh/year compared to 2023. 176TWh/year is over three times the amount of electricity generated in New Zealand last year (~42TWh/year). The largest increase has been for projects in the application stage, with an increase of [redacted] TWh/year (see Figure 4) compared to 2023.

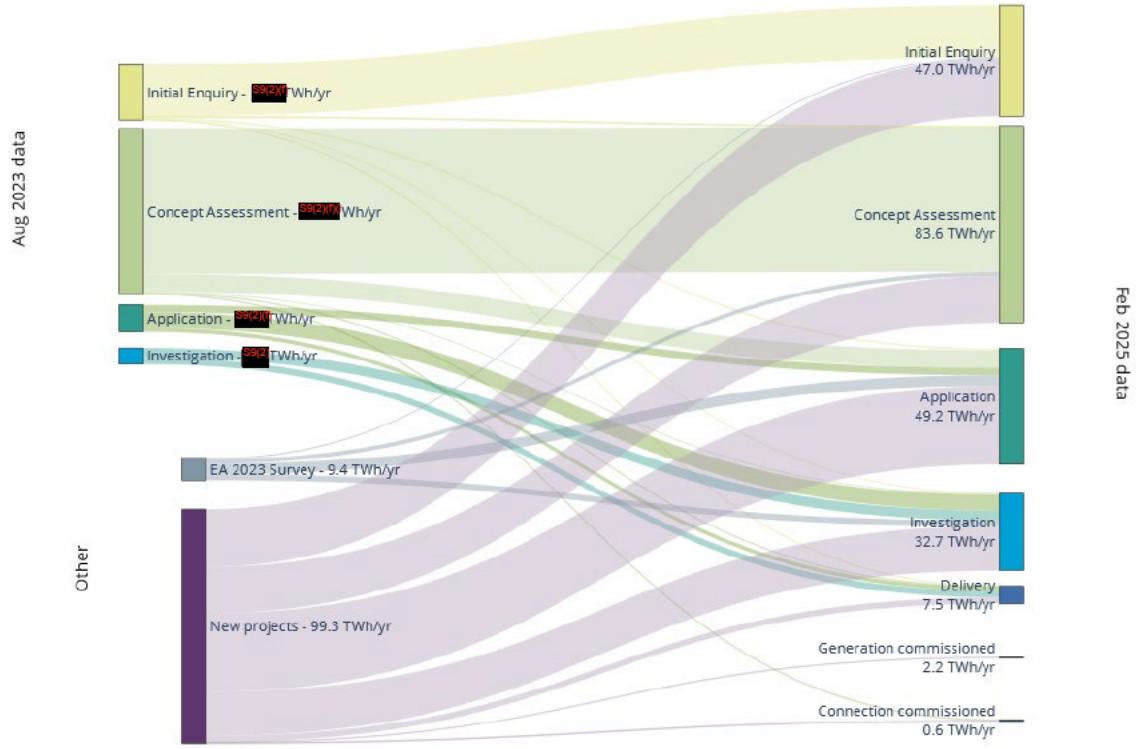
5.10. Figure 3 provides the changes to the pipeline since 2023 in estimated annual TWh by fuel type. Batteries account for the largest increase in the queue, increasing by [redacted] GW since 2023 (shown as [redacted] TWh/year in Figure 2 assuming a capacity factor of one). Wind and solar projects have also increased, by [redacted] TWh/year and [redacted] TWh/year respectively. Most projects that were not completed or included in the 2025 pipeline were wind and solar projects.

Figure 3: Connection queue change by fuel type (excluding initial enquiries), August 2023 to February 2025

5.11. Figure 4 shows progression of the annual TWh in each connection framework stage between August 2023 to February 2025, excluding projects not in the February 2025 data. Only 12% of annual generation at the concept assessment stage in 2023 had advanced to a later stage by 2025. However, 73% of projects that were at the application stage in 2023 had progressed to the investigation or delivery stages by 2025. 40% of projects that were in the investigation stage in 2023 were in delivery by 2025. While these statistics show that projects are progressing through Transpower's connection queue, the Authority is aware of some concerns with the speed of this progression. The Authority will be exploring this further by undertaking a survey of developers.

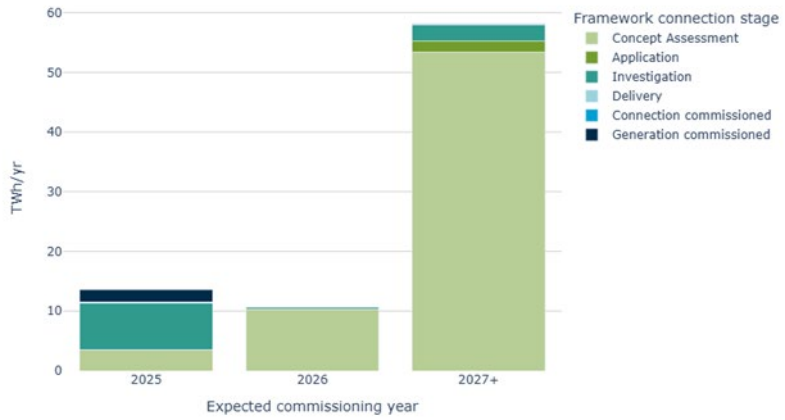
5.12. There were also some projects that were not in the connection queue in 2023 that were in the investigation, delivery or commissioning stages by 2025. These were mostly solar and battery projects, indicating these technology types are faster to develop.

Figure 4: Change in connection framework stage, August 2023 to February 2025



5.13. Figure 5 shows the connection queue by year. It shows that the connection queue looks healthy for the next three years. Because total demand is about 42TWh/year, it is unlikely that all these projects will proceed because it would be difficult for the market to absorb this amount of new generation. But the important thing is that we are seeing the rate of commissioning is keeping pace with the rate that MDAG's analysis said was required. As we briefed you recently, analysis of the annual reports of the 4 gentailers shows that we are on track. The Authority has required that this data be provided by Transpower monthly, so that we can monitor the pipeline closely.

Figure 5: Connection queue by year (excluding initial enquiry)



6. ‘Decentralisation’ deep dive

What is decentralisation?

6.1. In the energy sector, decentralisation means shifting from large scale electricity generation at a limited number of sites across the country, to smaller scale renewables, batteries and other distributed energy resources located closer to consumers.

New Zealand’s system is becoming more decentralised

6.2. The reasons for this change are:

(a) The costs of small-scale renewables (such as solar), batteries and other technologies are reducing rapidly.

(b) Increasing need for new electricity generation, storage, and flexible energy demand.

(c) Consumers are focusing more on solutions that provide resilience to climate change.

(d) Increased focus on energy affordability.

(e) Local energy systems can boost regional economic growth.

Decentralisation can generate significant benefits for consumers

6.3. Decentralisation presents significant opportunity. Decentralisation can dramatically improve *affordability, sustainability* and *resilience* outcomes through providing cheaper renewable sources of generation that are less susceptible to natural disasters.

6.4. While decentralisation cannot address the immediate security and affordability challenges facing the system, decentralisation will play a key role in improving supply of security and affordability over time.

There is misalignment on what a more decentralised system could look like

6.5. There are many views on what a future decentralised system could look like. Different parties see different opportunities, benefits and pathways to achieve it. We need to resolve this.

6.6. The Authority, other government organisations, the electricity sector, local government and consumers will make critical path decisions over the coming years.

6.7. These decisions include major electricity network upgrades, system operation models, local spatial and other council plans, and consumer investment in distributed energy resources. The choices could shape or limit future options. An aligned view of the future is needed to make decisions that are in the best interests of consumers.

We're taking action to create alignment and harness the benefits of decentralisation

6.10. To inform this green paper we have engaged with a small group[4] of people to provide new and/or challenging perspectives on the opportunity of decentralisation.

6.11. We plan to engage with those who don't typically interact with industry consultations, but who will likely benefit the most from decentralisation, such as councils and civil defence groups, iwi, and community groups.

Other key initiatives we have underway to support decentralisation

6.12. Alongside this work, we have several initiatives underway that will support the benefits of decentralisation, such as:

- *Digitalisation work programme*: To improve data access, so we can unlock the value of distributed energy resources and inform decision making
- *Future System Operations*: To help ensure network operating models, planning, and decision-making are in the best interests of consumers

[2] A green paper is an initial document used to start discussion and gather feedback on a particular issue. A green paper is typically followed by a white paper, which is a more complete document that outlines an official position on a particular issue.

[3] Title: 'Working together to ensure our electricity system meets the future needs of all New Zealanders'

[4] Mike Casey – Chief Executive, Rewiring Aotearoa; Duane Fernandes and Richard Coulter – Tākaka cohousing group; Anake Goodall – Seed the Change; Bill Heaps – Founding Director, Energy for Good; Kate Hodgins and Helena Parsons – Castle Hill Community Energy Project; Moonis Vegdani – Group Chief Strategy and Transformation Officer, Counties Energy

- *Power Innovation Pathway*: Supporting several initiatives that will contribute to distributed energy resource adoption and inclusive ownership models
- *Pricing initiatives to provide more options for end-users of electricity (Task Force measures 2A-2C):* Price signals that will support use of new technologies
- *Price barriers to efficient connection of distribution networks (price and non-price barriers):* Making it easier for energy resources to connect to distribution networks.

We will keep you updated

6.13. As decentralisation will play a key role in improving security of supply and affordability over time, we will keep you updated on our progress in creating alignment on how to maximise the benefits decentralisation.