Meeting Date: 6 August 2020

Strategy and Priorities

Security and Reliability Council

This paper is to aid the Security and Reliability Council's (SRC) discussion of its strategic environment. It provides a framework for considering the SRC's strategic issues, sets out some discussion material, and includes a brief environment scan of current strategic issues.

Note: This paper has been prepared for the SRC. Content should not be interpreted as representing the views or policy of the Electricity Authority.

Background

The SRC's statutory function is to provide independent advice on the performance of the electricity system and the system operator, and reliability of supply issues.

The SRC Chair's 2019 survey of SRC members found that "establishing an agreed SRC strategy would help drive a work programme and agenda relevant to the SRC brief, ensure the SRC is fulfilling its role, and provide the Authority with more meaningful, actionable advice." It concluded that once a year there should be an opportunity to discuss the current SRC work programme, explore emerging strategic issues, consider these in the context of the SRC role and develop an agreed SRC strategy.

This session has been scheduled to address this need. An hour and a half has been allocated for this session, and James Tipping will act as a facilitator for the discussion. James is the Authority's Chief Strategy Officer. An agenda for this session has been provided (Appendix A).

Joey Au will also lead a portion of the session, dedicated to the EPR G2 project[1], where he will review the timeframes, approach, and deliverables (Appendix C). Joey is a Principal Adviser at the Authority tasked with leading the EPR G2 project.

The attached slides are to aid SRC discussion

To facilitate the SRC's discussion, the secretariat has provided the attached supporting material (Appendix B). It draws heavily on the strategic framework established in the June 2018 session and reviewed in the 2019 session, as many of the issues identified are still relevant.

The material has been refreshed to reflect the current state of the industry.

Although set out as a series of Powerpoint slides, the facilitator does not intend to verbally present that material in the meeting. Rather, the material provides a framework for considering the SRC's strategic issues and some material to spur discussion.

In advance of the meeting, the Chair asks that you review the slides and **consider the questions in slide 7**. This preparation will help ensure the SRC can get the most value from the session on the day.

The Chair anticipates the session will have three main components:

- The SRC's role/function/purpose and other introductory context.
- Review of the top 3 SRC priorities.
- Review of the EPR G2 programme of work.

[1] The "G2" project is to examine and report on the potential impact of technological advances and other changes on the long-term security and resilience of the country's electricity supply.

Appendix A – Session agenda

SRC Strategy and Priorities working session, 6 August 2020

Purpose

For the SRC to reach a shared view on the key priorities for its work for the next two years, which will then help to test and inform its work programme.

Structure

The session will be structured as follows:

1. Introductory context
2. Working session: top priorities for SRC
3. EPR G2 programme of work

Pre-reading

The pre-reading for this session includes:

- Strategy slide pack
- SRC risk register
- A3 plan for EPR G2 project

Preparation

For the working session, please consider what you think the answers are to the following key questions:

- Given the changing external environment, and the work underway by other parties, where can the SRC have the most impact to drive trust and confidence in the sector?
- And how do we know what those priorities are?

Detailed agenda

Duration	Topic	Leader	Content
5 minutes	Introduction – EA strategy	James T	JT to talk through Authority's new strategy slides – development process, framework, work programme
15 minutes	Role of SRC (incl. in context of EA strategy)	James Stevenson-Wallace (or Grant Benvenuti, if JSW unavailable)	JSW/GB to talk through the first few slides from SRC strategy slide pack (10 mins) JT to lead short discussion on the role of the SRC in context of EA strategy (assisting achievement of the sector ambitions, 5 mins)
5 minutes	Summary of changes in the environment	James T	Focus is on changes with most impact to SRC environment – validate with group
35 minutes	Top 3 SRC priorities	James T	Break-out session before coming back together. Split into three groups of three. Focus on answering the key questions above.
30 minutes	EPR G2 programme of work	Joey	Joey to talk through (and seek feedback on) the draft EPR G2 project plan: Timeframes, Approach and Key Deliverables (A3 material to be provided in advance of the session).
5 minutes	Closing and next steps	Chair	Chair to sum up and agree next steps with the secretariat
	End		

Appendix B – Strategy and priorities slides

6 August 2020

STRATEGIC ENVIRONMENT

Discussion document

SECURITY AND RELIABILITY COUNCIL

SRC Secretariat

The function of the SRC

Function

The function of the SRC is to "provide independent advice on the performance of the electricity system and the system operator, and reliability of supply issues". [Electricity Industry Act, s.20]

Scope of SRC role

The Authority may seek the SRC's advice on:

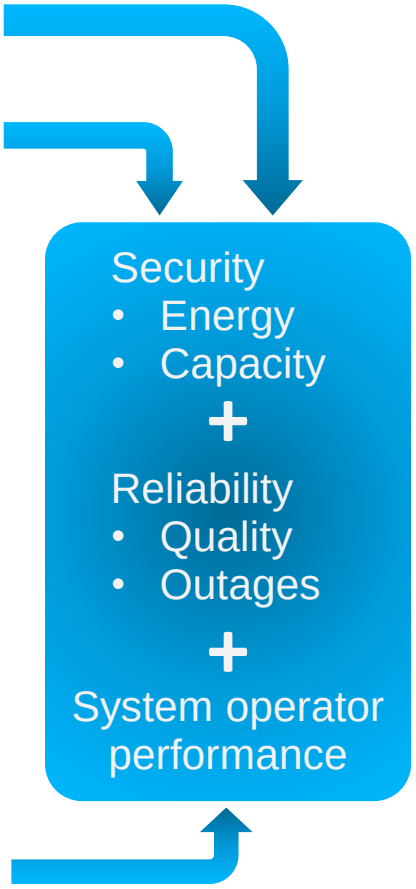
(a) the system operator's performance including against its PPOs, security of supply function and any other function important to the performance of the electricity system and/or to reliability of supply

(b) system operation issues, including industry development needs and priorities relating to system operations

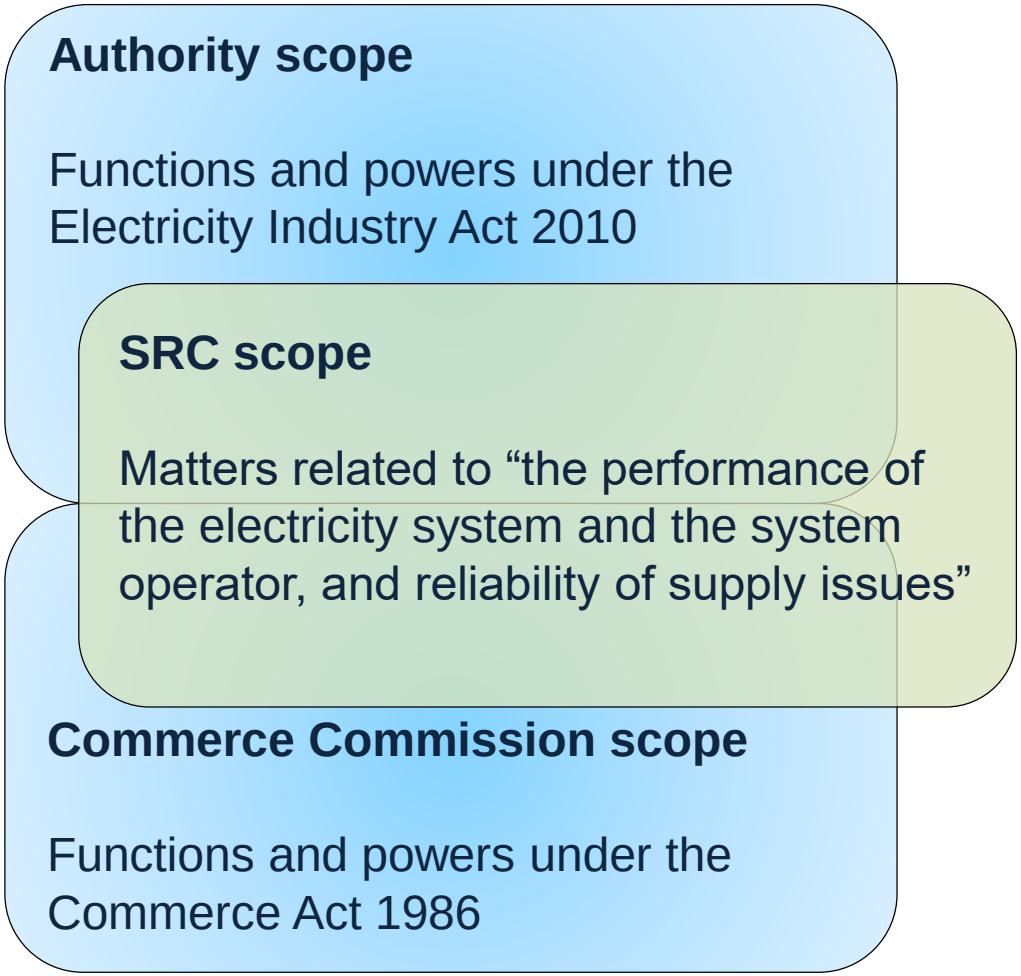
(c) security of supply issues, including system security assessments and security of supply forecasts

(d) reliability of supply issues, including planned and unplanned loss of supply and quality of supply issues

(e) any other matters that the Authority considers to be within the function of the SRC.



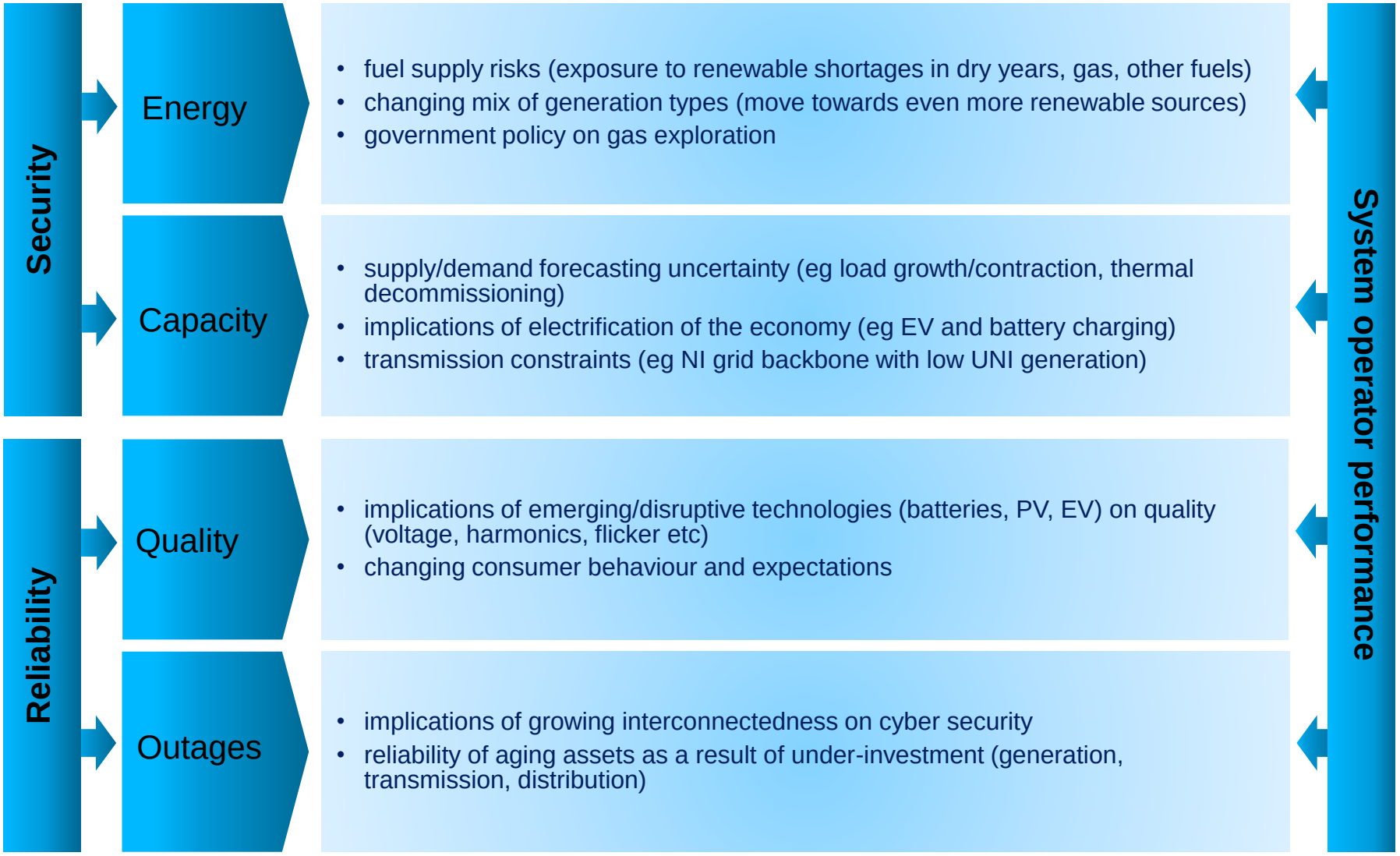
Scope of SRC advice



The SRC can (and should) provide advice on any security/reliability aspect of the electricity industry.

The Authority is the direct recipient of all SRC advice. Where advice is relevant to another party, the Authority passes that advice to the relevant party.

Key SRC strategic issues – environment scan



Key SRC strategic issues – the landscape is changing

Two strategic themes:

Economic changes/pressures:

- changes in dependence on electricity (changing value of lost load) and therefore more significant consequences if there is a shortage or interruption
- step changes in demand (especially industrial demand, also including peak demand increase from new transmission pricing methodology), and associated investment and decommissioning decisions
- structural changes in demand growth, including greater electrification
- potential challenges to capacity security from charging of EVs/batteries.

Climate change developments:

- targeting increased renewable generation – much of which is non-controllable
- incentives/pressures on owners of thermal generation (social licence to operate, gas exploration law changes, use of coal etc)
- potential regulatory/legislative changes (such as emissions trading scheme)

Work relevant to the SRC

- ENA's Network Transformation Roadmap www.ena.org.nz/dmsdocument/483
- Transpower's Whakamana I Te Mauri Hiko (https://www.transpower.co.nz/about-us/transmission-tomorrow/whakamana-i-te-mauri-hiko-empowering-our-energy-future)
- The Authority's Strategic Reset (https://www.ea.govt.nz/about-us/strategic-planning-and-reporting/strategy-reset-2020/)
- BusinessNZ Council's BEC2050 scenarios (https://www.bec.org.nz/our-work/scenarios/bec2050)

Preparation before the meeting

For the working session, please consider what you think the answers are to the following key questions:

1. Given the changing external environment, and the work underway by other parties, where can the SRC have the most impact to drive trust and confidence in the sector?
2. And how do we know what those priorities are?

Appendix C – Draft EPR G2 plan

Note: the draft EPR G2 plan is now out of date.

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DRAFT EPR G2 Timeframes, apporach and deliverables, and contents page for both the Issues Paper and Draft Report (as at 23 July 2020)

EPR Cabinet Minute (25th September 2019) - "invited the Minister of Energy and Resources to write to the Electricity Authority requesting it to examine the security and resilience of the electricity sector, with input from the Security and Reliability Council, and report its findings and recommendations within 18 months;"

1	2	3	4	5	6	7	8	9
Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
						COVID-19 Delay		

The objective(s) of the project is *to examine the potential impact of technological advances and other changes on the long-term security and resilience of the country's electricity supply. It would identify the risks posed by technological advances towards security of supply and other adverse outcomes, and allow for greater preparedness and planning.* EPR Government Response to Final Report Cabinet Paper (25 September 2019).

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22
Project (and engagement) Plan (early August)	**1.** Update the Minister. **2.** Summarise feedback from EPR submissions relating to G2. **3.** Short note on the review, approach & timeframe. **4.** Initial engagement with key stakeholders. **5.** Set up advisory group.	Developing 'chapters' of the Issues Paper and further engagement with stakeholders. **24 Oct:** SRC Meeting		**4 Nov:** Board Meeting	FINAL draft	**Issues Paper published and out for public consultation (5 weeks)** (late Jan)	Engagement + developing draft report. Submissions closed (late Feb)	Engagement + submissions analysis.	**Summary of submissions on Issues Paper published** (late April)	Engagement + developing draft report. **X May:** Board Meeting; **X May**: SRC Meeting;	Provide Draft Report to the Minister. FINAL draft	**Draft Options & Recommendations Paper published and out for public consultation (6 weeks)** (late July)	Engagement	Engagement + submissions analysis. Submissions closed (mid-Sept)	Engagement + developing final report.	FINAL draft	**1. Final Recommendations 2. Summary of submissions on Draft Options & Recommendations paper 3. Briefing with final recommendations to Minister 4. Implementation plan**			**Evaluation of the Authority's performance:** to understand whether the review had the right focus, the right process, whether the engagement and delivery of message was effective, and analysis, findings and recommendations were of high quality.		

The Authority releases an issues paper outlining the issue and ask questions to gather opinions, evidence, ideas and information.

All submissions are reviewed and analysed. Submissions help ensure the review is well-informed and relevant, and that our advice is current, credible and workable.

- The draft report describes our findings and makes recommendations to the Government to meet the brief. The report is submitted to the Minister of Energy and Resources.
- The draft report is then issued for public and stakeholder review, providing another opportunity for interested parties to have their say by making a submission.
- We listen carefully to all feedback and carry out further consultation before finalising our findings and recommendations in a final report.

- Our final report is accompanied by summary documents and submitted to the Minister of Energy and Resources.
- A final report be made publicly available once all relevant Ministers have been briefed. It's then up to the Government to decide what, if any, action they take on the Authority's findings and recommendations (where the levers and/or the statutory objectives are outside of the Authority.

DRAFT Table of Contents of Issues Paper

1. CONTEXT: Why are we doing this review?

Collate, summarise and then review (from domestic and international research):

2. DEFINITIONS: What do we mean by security, reliability and resilence?
3. IMPORTANCE OF SECURITY AND RESILENCE: Why is it important to have a secure and resilient electricity supply in NZ, how important is it and what are people willing to pay for more of it?
4. CURRENT POLICY (SYSTEM & SETTINGS) ON SECURITY AND RESILENCE: What is NZ's existing policy on security and resilience (Code, Grid reliability standards, Value of Lost Load, energy oly
5. DEFINING THE PROBLEM: What level of security and resilence should we have? Do we have an efficient level of security and resilience, now and into the future? What framework(s) should we use to think about the security and resilience problem?
6. SIZE OF THE CURRENT PROBLEM: How secure and resilient is NZ's electricity supply (currently and historically)?
7. POSSIBLE SIZE OF THE FUTURE PROBLEM: How secure and resilient is NZ's electricity supply in the future (under a range of scenarios, medium / long-term).
8. IDENTIFYING THE RISKS TO (AND OPPORTUNITIES FOR) SECURITY AND RESILENCE: What are the key technological advances and other changes that are likely to impact the long-term security and resilience of NZ's electricity supply and what are their likely impacts?
9. POLICIES TO IMPROVE SECURITY AND RESILENCE (OR REDUCE RISKS): How have we (and other countries) explicitly increased our (their) electricity supply's security and resilience in the past, and proposing (or suggested) to in the future?

DRAFT Table of Contents of Draft Options and Recommendations Paper

1. LATEST VIEW: Following feedback and our analysis of submissions we provide our latest view on:

- What we mean by security, reliability and resilence
- The problem, the size of the (current and future) problem, the 'location' of the problem (in the system) etc.
- Policy options we have received through consultation and will consider in this paper.

2. ANALYTICAL FRAMEWORK: Developing/outlining the framework(s) we will be using to analyse/assess our options against. For example: CBA, Wellbeing, Energy Trilemma, Authority Statutory Objectives (Competition, Reliability and Effeciency)

3. OPTIONS: Developing options to reduce the risk of and/or improve the security and resilience of NZ's electricity supply.

4. ANALYSIS: Analysing the impact of each option.

5. PREFERRED OPTIONS: Making our recommendations.

DRAFT In scope (of the Review)

The review's consideration should include [*as per EPR's recommendations*]

- the Council's (SRC) own charter, terms of reference and work programme
- the potential impact of large increases in intermittent generation, particularly wind and solar panels, large increases in electric vehicle charging and industrial heat, and possible proliferation of battery installations throughout distribution networks
- the risk monitoring policies and procedures of Transpower (as system operator responsible for managing the power system and operating the wholesale electricity market)
- the Electricity Authority's market development work programme and market performance monitoring functions
- other relevant matters, including matters overseen by agencies such as MBIE, the Commerce Commission and the Gas Industry Company.

Further thoughts from the Authority

- The value of lost load (VOLL).
- Grid reliability standards.
- Distributed energy or distributed generation / virtual power plants.
- The long-term impacts on security and resilience from climate change.
- The long-term impacts on security and resilience from the transition to a low emissions economy.

DRAFT Out of scope (of the Review) - to be developed further

Policies that the Government has already ruled out such as nuclear fission.
Duplicating research or analysis that has already been carried out to a high standard.

DRAFT Key questions this projects seeks to answer:

Identifying long-term risks and their potential effects

1. What are the key technological advances and other changes that are likely to impact the long-term security and resilience of NZ's electricity supply?
2. What are the potential impacts of those technological advances and other changes on the long-term security and resilience of the NZ's electricity supply and other outcomes?
   - How will the market respond (and transition) given existing policy settings and regulations? i.e. Will market driven solutions be adequate?
   - Is the resulting change to the long-term security and resilience of NZ's electricity supply optimal and efficient?

Identifying options and their potential effects

3. What are the options to MAXIMISE the OPPORTUNITY of those technological advances (and other changes) on the long-term security and resilience of the NZ's electricity supply?
4. What are the options to MINIMISE the RISK of those technological advances (and other changes) on the long-term security and resilience of the NZ's electricity supply?
5. What are their effects those options on the security and resilience of NZ's electricity supply and other outcomes? Is the resulting long-term security and resilience of NZ's electricity supply optimal and efficient?