

Meeting Date: 21 August 2024

RISK RADAR – SECURITY AND RELIABILITY RISKS

SECURITY AND RELIABILITY COUNCIL

This paper is to help the SRC brainstorm about electricity industry risks with the objective of ensuring they spend their time dealing with the most consequential matters that could manifest over a mix of timeframes.

Note: This paper has been prepared for the purpose of the Security and Reliability Council (SRC). Content should not be interpreted as representing the views or policy of the Electricity Authority.

Risk Radar - security and reliability risks

1. Purpose and background

- 1.1. This paper presents the latest version of the SRC's risk radar (Table 1). The risk radar supports the SRC to triage their time and attention in a risk-based way.
- 1.2. Risks are sorted into three categories:
 - a) risks that could manifest within one year.
 - b) risks that could manifest within more than one year.
 - c) persistent risks that could manifest at any time.
- 1.3. Within each category, risks are ordered by the SRC secretariat's rough estimation of consequence and likelihood, however this may change over time, and the order may not represent the current priorities.

2. Changes since the previous version

- 2.1 There are three proposed changes to the risk radar arising from previous meetings.
- 2.2 The changes made for the Q3 2024 (August) meeting include:
 - The addition of two proposed medium-term risks:
 - Low-risk approach by industry leading to high cost and consumer disengagement
 - Consumer disengagement leading to inadequate demand response and peaking issues
 - Changing the risk of "**aging assets leading to increased failures**" to "**inadequate maintenance of aging assets leading to increased failures**"
- 2.3 The current version of the risk radar is included at the end of this document, with these proposed changes noted
- 2.4 Members have confirmed they are comfortable for a copy of the radar to be included in the minutes for each meeting.
- 2.5 Members are asked to consider what changes are needed to best utilise the radar in the SRC's work.
- 2.6 As a reminder, the secretariat incorporated member-feedback into a revised risk radar, with the aim to:
 - Reduce duplication of stated risks
 - More clearly set out cause and effect for each risk
 - Cluster items, as appropriate

3. Questions for the SRC to consider

- 3.1 The SRC may wish to consider the following questions.

- Q1. Is the SRC comfortable with the changes proposed to the risk radar?**
- Q2. What content changes would the SRC like made to this risk radar for the next meeting?**
- Q3. What further information, if any, does the SRC wish to have provided to it by the secretariat?**
- Q4. What advice, if any, does the SRC wish to provide to the Authority?**

SRC Risk Radar – Cause and Effect layout

Priority	Cause	Effect	Horizon	Comments
	Reduced gas supply	Reduced peaking and last resort generation	P	
	Insufficient collaboration	Increased costs, reduces reliability	P	
	Government policy misaligned with industry objectives	Reduced investment and confidence & reduced water for hydro output & reduced gas	P	
	Increased small scale DG	Network congestion	P	
	Weather events	Increased outages	P	
	Inadequate AUFLS	Blackouts	P	
	Cyber attack	Damages system assets	P	
	Physical attack	Damaged system assets	P	
	Pandemic	Reduced workforce, restricted travel	P	
	Less live work	Increased outages	P	
	Social media	Personnel/asset attacks	P	
	Natural disasters and fires	Damaged system assets	P	A resilience issue
	Delayed tree regulations	Increased outages	S	
	Regulator strategic priorities misaligned with industry objectives	Reduced investment and confidence	S	
	Commerce Commission regulations	Inhibits investment	S	
	Supply chain	Reduced goods/services	S	
	Dry Year	Increased prices and emissions & reduced market confidence and investment	S	
	Increased intermittency	Reduced capacity and flexibility at peaks	S	
	Poor extended reserve implementation	Increased blackouts	S	
	Fragmented government approach	Delays	S	
	Lack of thermal	Reduced capacity and flexibility	L	
	Demand increases outpace generation capacity increases	Causing outages	L	
	Inefficient market response	Insufficient generation	L	
	Early thermal exit	Reduced capacity and flexibility	L	
	Poor/unenforced standards	Reduced power quality	L	Through noncompliance
	Insufficient DER uptake	Network instability	L	
	Generation market misaligned with policy changes	Reduced capacity and flexibility	L	
	Inadequate maintenance of Aging assets	Increased failures	L	* Does this need a change in prioritisation as well?
	Over-reliance on AI and automation	Reduced emergency human input	L	Inadequate response leading to outages

	Ageing/emigrating workforce	Reduced institutional knowledge and people available to plan, design and build	L	
	EV uptake	Undermined LV network stability	L	
	Stranded asset costs	Reduced network viability	L	
	Simultaneous asset replacement	Reduced asset availability	L	
	Low-risk approach by industry	High-cost and consumer disengagement		*
	Consumer disengagement	Inadequate demand response and peaking issues		*

Key	Symbol/colour	Meaning	Horizon	Meaning
	Red	High priority	P	Persistent risks – could happen any time
	Amber	Medium priority	S	Risks that can manifest anytime in approx. the next year
	Green	Lower priority	L	Risks that can manifest in approx. 1-5 years

*** Proposed new entries/changes - Need further discussion at August meeting's risk and strategy session**

