Meeting Date: 24 October 2018

GLOSSARY AND OVERVIEW OF MEETING AGENDA

SECURITY AND RELIABILITY COUNCIL

The purpose of this paper is to orient any reader with the terms that tend to come up in Security and Reliability Council (SRC) papers, and put the agenda for this meeting into the context of the SRC's functions.

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

Purpose

The purpose of this paper is to:

- provide a glossary of terms (see Table 1) that regularly come up in Security and Reliability Council (SRC) papers
- illustrate (see Figure 1) how the SRC's meeting agenda aligns with its functions.

Glossary

Table 1: Glossary of terms

Name	Acronym	Description & comments
Security of supply related terms		
Risk meter	-	The risk meter has four states – Normal, Watch, Alert or Emergency. The status depends on actual hydro storage in comparison with the HRCs, and is set by the system operator in accordance with the SOSFIP.
Hydro risk curves	HRCs	The HRCs define when OCCs start and stop. The system operator publishes 1%, 2%, 4%, 8% and 10% HRCs.
Official conservation campaign	OCC	When the system operator declares an OCC, electricity consumers are encouraged to save electricity.
Customer compensation scheme	CCS	A Code requirement for retailers to pay consumers $10.50/ICP/week during an OCC.
Security of supply forecasting and information policy	SOSFIP	This policy sets out security of supply forecasting obligations of the system operator. The system operator is the author, though the Authority approves it as part of the Code.
Rolling outages	-	If the system operator declares rolling outages, groups of 'electrically close' consumers will be forced to 'take turns' without any electricity.
System operator rolling outage plan	SOROP	This plan sets out what the obligations of the system operator if rolling outages are required.
Participant rolling outage plan	PROP	Distributors and direct connect consumers are required to have a PROP to implement the system operator's instructions for rolling outages.
Annual assessment of security of supply related terms		
Security Standards Assumptions Document	SSAD	An Authority document that sets out how the system operator is to calculate its annual assessment of security of supply in an 'apples with apples' comparison against WEM and

		WCM.
Winter energy margin	WEM	This represents an optimal surplus of generator capability to produce GWh in winter. In 2012, the Authority set WEM for New Zealand as 14-16% and for the South Island as 25.5-30%.
Winter capacity margin	WCM	This represents an optimal surplus of generator capability to produce MW in winter. In 2012, the Authority set WCM for the North Island as 630-780 MW.
Security standards	-	An umbrella term for any margins set by the Authority. As of 2017, this includes only NZ-WEM, SI-WEM and NI-WCM.
New Zealand Generation Balance related terms		
New Zealand Generation Balance	NZGB	A forecast measure of capacity security over the coming 200 days.
N-1	-	For the purposes of NZGB, 'N-1' represents the normal state of the power system, minus a key generator (such as Unit 5 at Huntly) or a key transmission asset (such as a single HVDC pole).
N-1-G	-	For the purposes of NZGB, 'N-1-G' represents the same situation as 'N-1', minus a (or another) key generator. They are scenarios that are used to 'stress test' the power system and model what would result.
Commerce Commission related terms		
Electricity Distribution Business	EDB	New Zealand's 29 distributors and Transpower.
Quality	-	For the Commerce Commission, 'quality' means the reliability of EDBs' networks.
System Average Interruption Duration Index	SAIDI	The average outage duration for each customer served by an EDB.
System Average Interruption Frequency Index	SAIFI	The average number of outages for each customer served by an EDB.
Information security related terms		
Control Systems Security Information Exchange	CSSIE	A group of electricity-focussed information security professionals that share information. Convened by the NCSC.
National Cyber Security Centre	NCSC	A division of the GCSB that helps New Zealand organisations protect their critical information systems.
Cert NZ	CERT	A government agency that helps New Zealand

		be more resilient to cyber-threats.
Government Communication Services Bureau	GCSB	A government agency with responsibility for intelligence collection and analysis, and protective security.
Other electricity industry terms		
Thermal generation	-	Thermal generation is electricity generation that is fuelled by hydrocarbons such as gas, coal, diesel and petrol.
Gigawatt-hour	GWh	A billion watt-hours of electrical energy.
Megawatt	MW	A million watts of electrical energy.
Peak demand	-	Some measure of the maximum electricity used instantaneously.
Installation Control Point	ICP	The location at which a consumer's installation connects to a parent network. Each ICP has a unique ICP identifier.
Trading period	-	As wholesale electricity is traded by half hour, there are 48 trading periods in a normal day.
Electricity Industry Participation Code 2010	Code	The legislation administered by the Electricity Authority.
Automatic under-frequency load shedding	AUFLS	The last backstop to arrest falling frequency and prevent cascade failure.
Supervisory control and data acquisition	SCADA	A system for reporting real-time data to a control room operator.
Scheduling Pricing Dispatch	SPD	The system operator's key market system tool for achieving security-constrained economic dispatch.
Reserve Management Tool	RMT	The system operator's tool for determining the minimum sufficient quantity of reserves.
System operator service provider agreement	SOSPA	The contract between the Electricity Authority and Transpower in its role as the system operator.

Overview of meeting agenda

Figure 1 overlays the 24 October 2018 SRC meeting agenda items onto the SRC's matrix for assessing strategic alignment.

Figure 1: Overview of meeting agenda