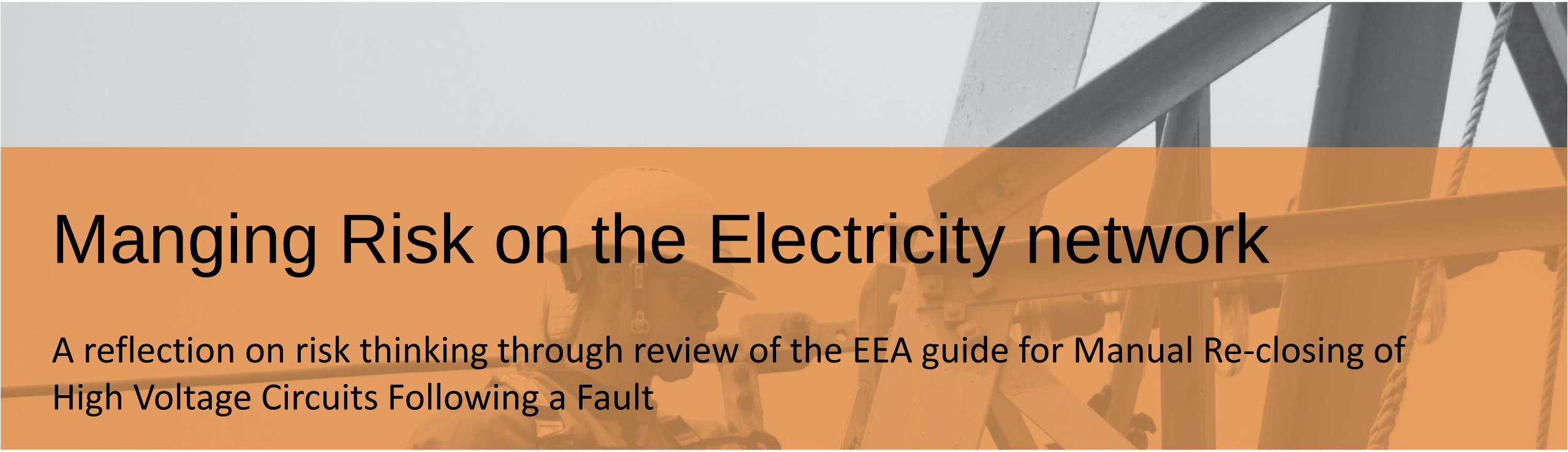
Electricity Engineers' Association

HEALTH & SAFETY



Manging Risk on the Electricity network

A reflection on risk thinking through review of the EEA guide for Manual Re-closing of High Voltage Circuits Following a Fault

EEA.CO.NZ

THE REVIEW PROCESS

The EEA Safety, Standards and Procedures Group (SSPG) regularly review guides.

EEA guide for Manual Re-closing of High Voltage Circuits Following a Fault was last reviewed during 2014 and was due for an update.

However Members had also requested guidance around management of hazards around lines

WAS THE RISK MANAGEMENT PROCESS THE SAME WHEN RE-CLOSING A HV CIRCUIT AND RESPONDING TO A NETWORK HAZARD?

- *Manual closing of a circuit breaker following a fault **and** determining the best course of action to respond to a hazard seemed to require a similar risk thinking approach.*
  - *Evidence needed to be gathered*
  - *A rigorous evaluation process was required*
  - *Wrong decisions lead to high consequences*
  - *The Energisation and the De-Energisation process manged the same risks*

SIMILAR RISK THINKING WAS EVIDENT SO THE SSPG DECIDED TO COMBINE IN TO ONE GUIDE

The EEA guide for Manual Re-closing of High Voltage Circuits Following a Fault becomes;

Network Fault Management – Guide to Manual Reclosing and Risk Management of reported hazards

THE PURPOSE OF THE GUIDE

To provide a framework for Electricity Network companies to determine an appropriate policy for managing risk associated with the manual reclosing of HV circuits following a fault and hazards that can be reported on or near the electricity network.

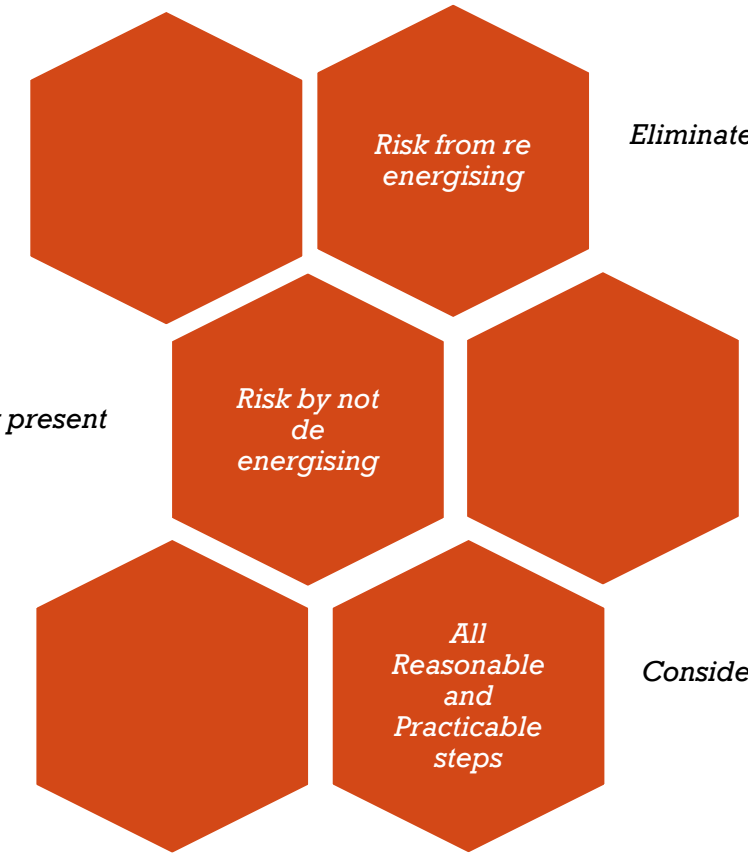
The guide sets out principles that promote risk management thinking. The principles are intended to inform a Network Company who can produce their own documents that provide procedures for operational staff such as call centre staff, network managers and control room operating staff.

The guide is divided in to two parts

Part A - Guide for Manual Reclosing of a High Voltage Fault following a trip and / or lock out event

Part B - Managing risk of reported hazards on or around the Electricity Network

A NETWORK COMPANY NEEDS TO FULLY CONSIDER THE RISK



Eliminate or minimise the risk

Fully consider risk a network hazard may present

Consider what is possible and consider what is reasonable

AND THEN DEVELOP THEIR OWN PROCEDURES

- *The guide provides guidance for companies to develop their own procedures*
- *Those procedures will be tailored to the network specific topology*
- *Procedures that align with how the network company works*

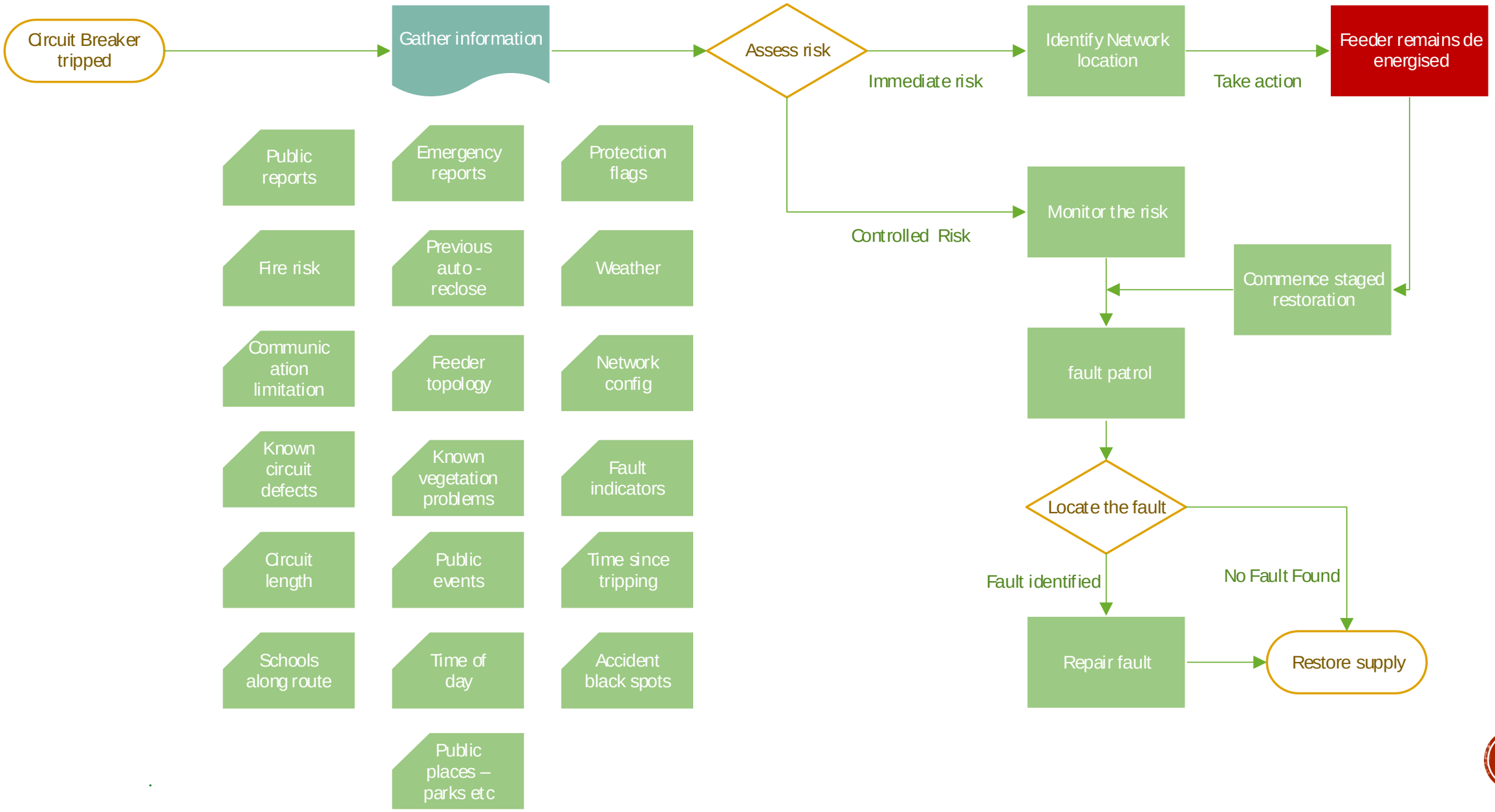
A network company can pre-assess their network and produce a risk profile for each feeder !

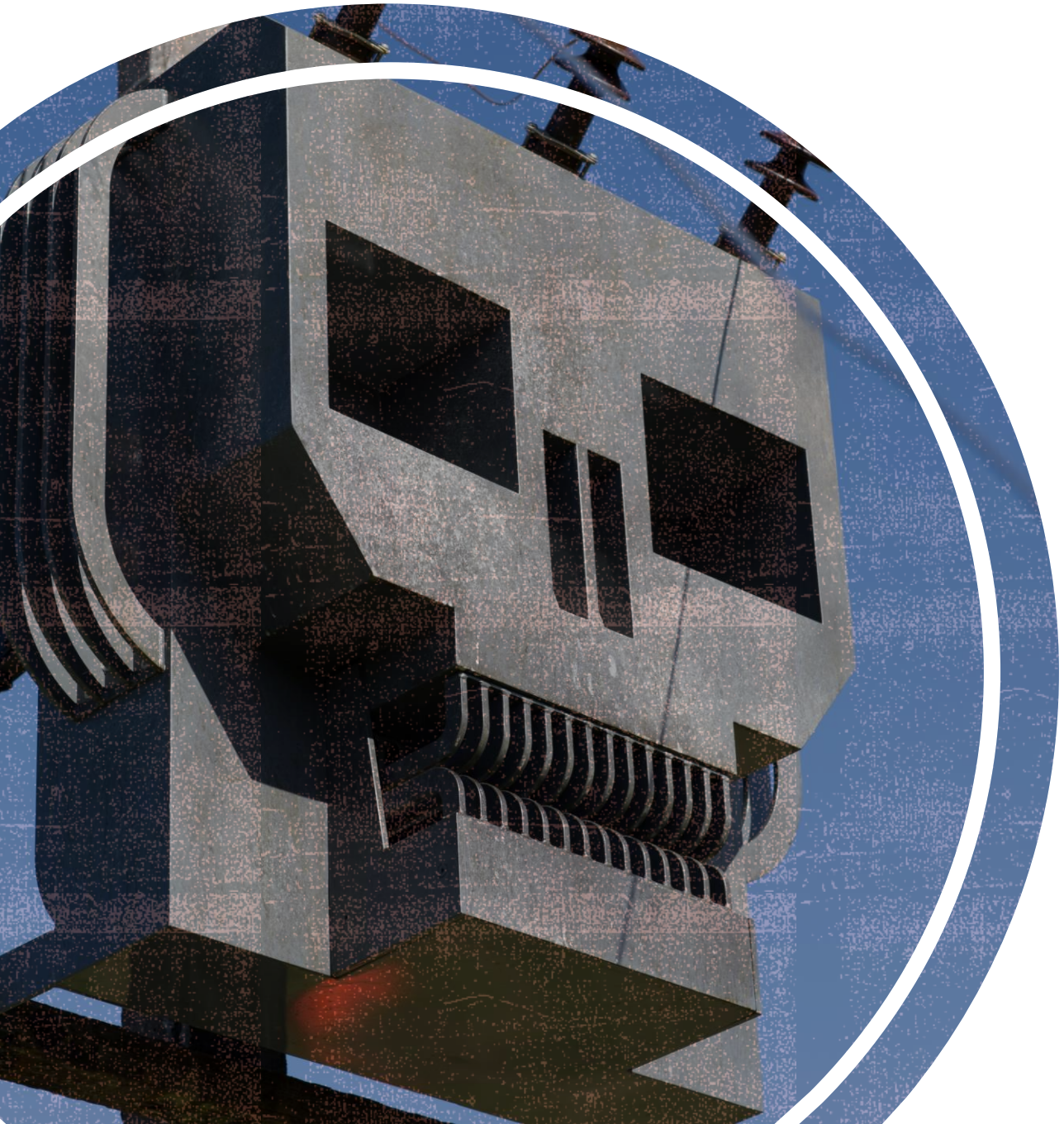
PART A

GUIDE FOR MANUAL RECLOSING OF HIGH VOLTAGE CIRCUITS FOLLOWING A FAULT

- *Following operation Of a HV protective Device*
- *Gather General information*
- *Gather Network Information*
- *Assess the risk*

The journey to the RIGHT decision is all about a procedure……





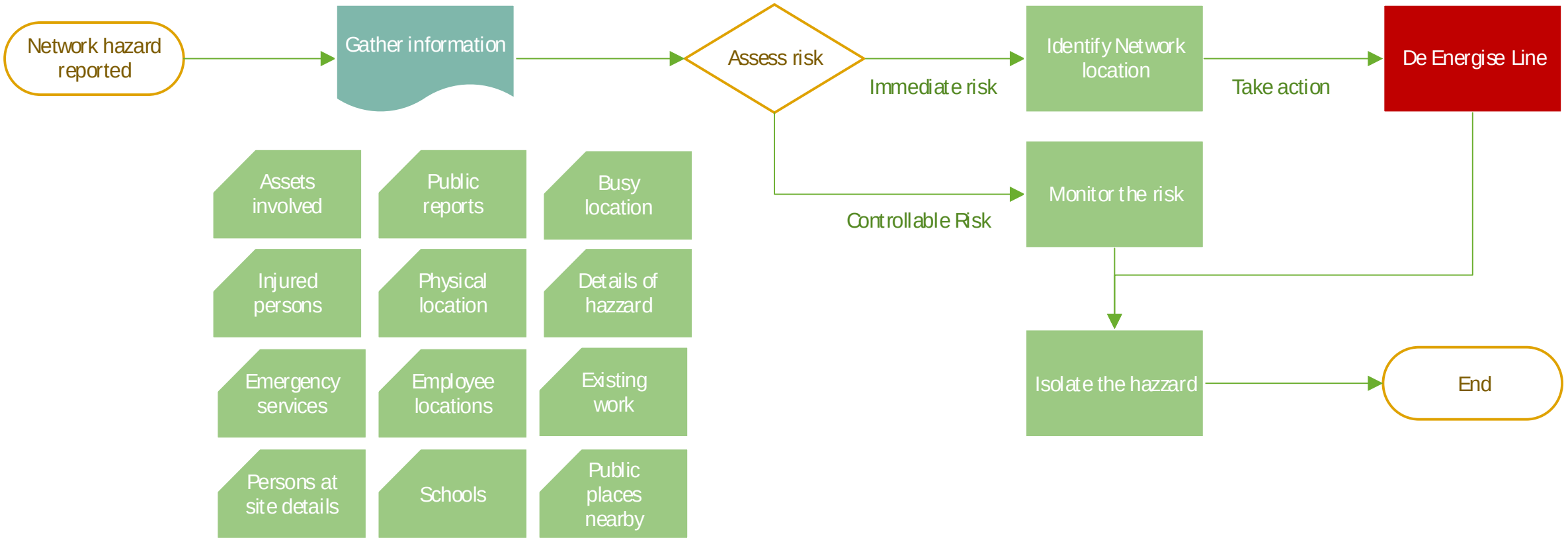
MAKE THE CORRECT DECISION DON'T LET RISK HAVE THE BENEFIT OF DOUBT

- *Urban areas : Do not attempt a manual close*
- *A minimum wait time of 15 Min but that's just a starting point – extended allowance should be the norm*
- *Unknown situations should always assume worst case outcomes*
- *Be reasonable: consider what that means when applied to doubt*

PART B
MANAGING A REPORT OF A HAZARD

- *All reports of hazards on the Electricity Network must be risk assessed*
- *Make all reasonable endeavours to gather enough evidence*
- *Identify the risk*
- *And be prepared to take action*

THE JOURNEY TO THE RIGHT DECISION IS ALL ABOUT A PROCEDURE.....



MAKE THE CORRECT DECISION DON'T LET RISK HAVE THE BENEFIT OF DOUBT

- *How fast can a hazard be eliminated*
- *The greater the potential for harm the greater the action required*
- *Reported hazards with High Consequence then likelihood should not be a major factor*
- *A Network company must consider what is possible in their circumstances to preserve public, worker and property safety*

Questions and discussion