

Critical Contingency Management

General Overview

10 April 2024



Critical Contingencies

What are they?

Why do we have Regulations?

When do they occur?

How are they fixed?

Who is required to act?

What are they required to do?

How do we prepare?

Where do you get more information?

What are Critical Contingencies?



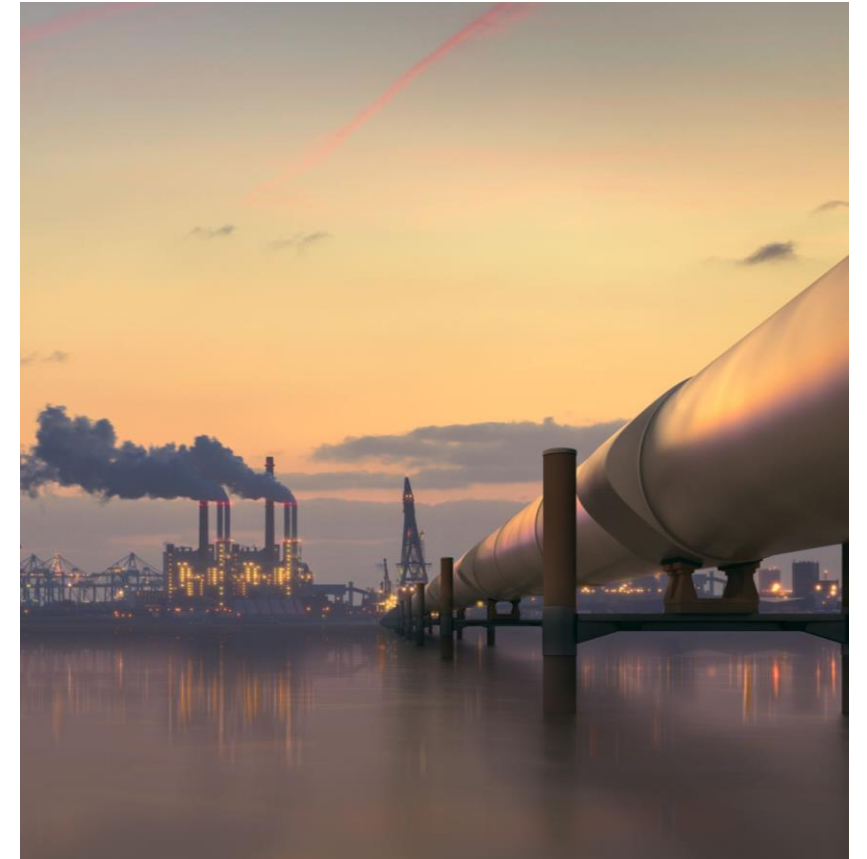
A CRITICAL CONTINGENCY IS:

a shortage of gas relative to demand that can't be resolved through standard industry processes

typically associated with production or transmission system failure

Gas consumers can't be automatically switched off to reduce demand (unlike electricity)

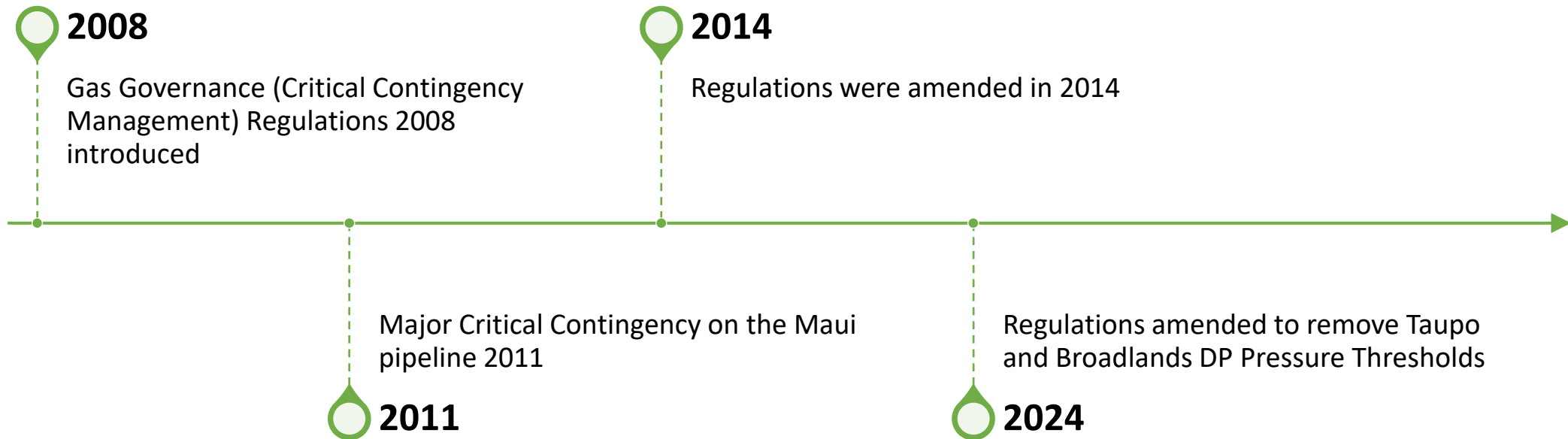
It's expensive and time consuming to reinstate a gas network if the pressure drops too low.



Why have regulations for Critical Contingencies?



The Regulations assign clear responsibilities and stipulate a process with associated timeframes to ensure a co-ordinated industry response.



When do Critical Contingencies occur?



When
Transmission
system
pressure
drops, or is
expected to
drop, below
a threshold



Gas production has an
unplanned outage

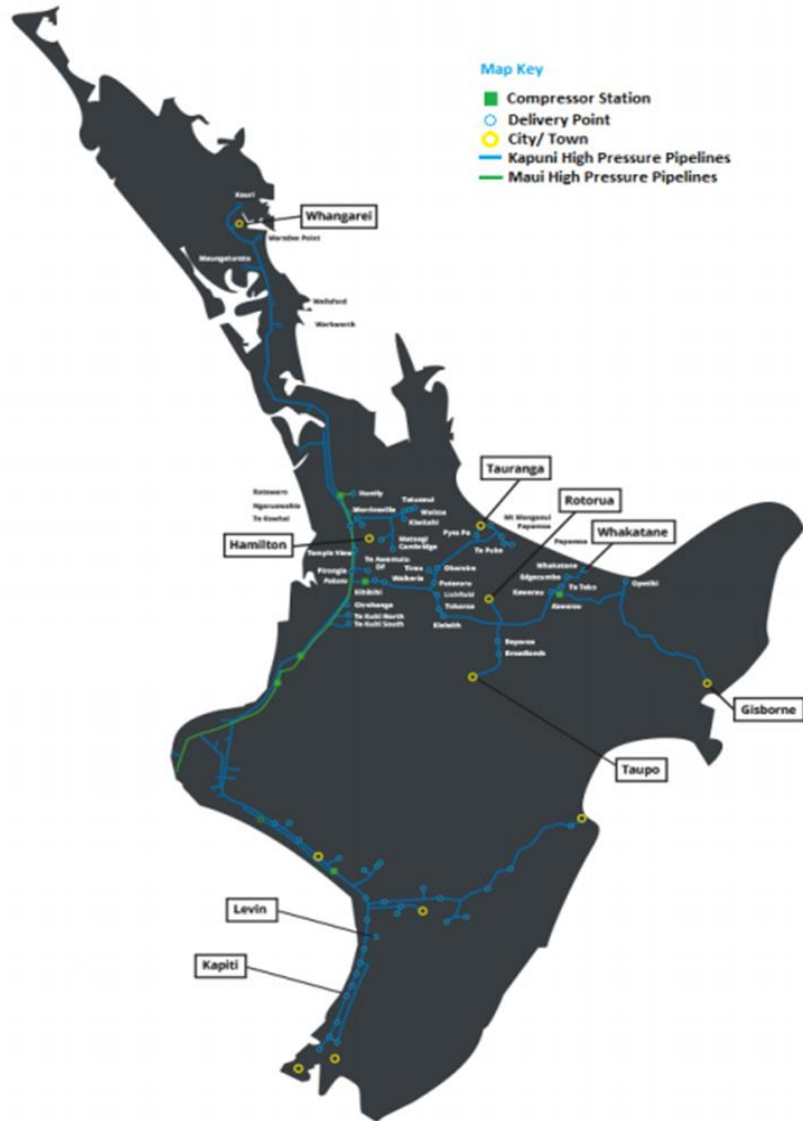


A physical problem with the gas
transmission pipeline system



Supply can't keep up with
demand

Transmission pipeline thresholds



Pipeline	Point of Measurement	Pmin (barg)	Time to Pmin (hours)
Maui	Rotowaro	30	3
Frankley Road	KGTP	35	3
South	Waitangirua	37	10
Hawkes Bay	Hastings	30	5
Bay of Plenty	Gisborne	30	5
Bay of Plenty	Tauranga	30	5
Bay of Plenty	Whakatane	30	5
Morrinsville Lateral	Cambridge	30	5
Central (North)	Westfield	37.5	6
North	Whangarei	27.5	5
	Any Other Gas Gate	30	5

How are Critical Contingencies resolved?



The system must be protected while the supply problem is fixed through:



Curtailment of consumers.



and/or



Supply of more gas if it is available and will help the situation.

Consumer Curtailment Bands

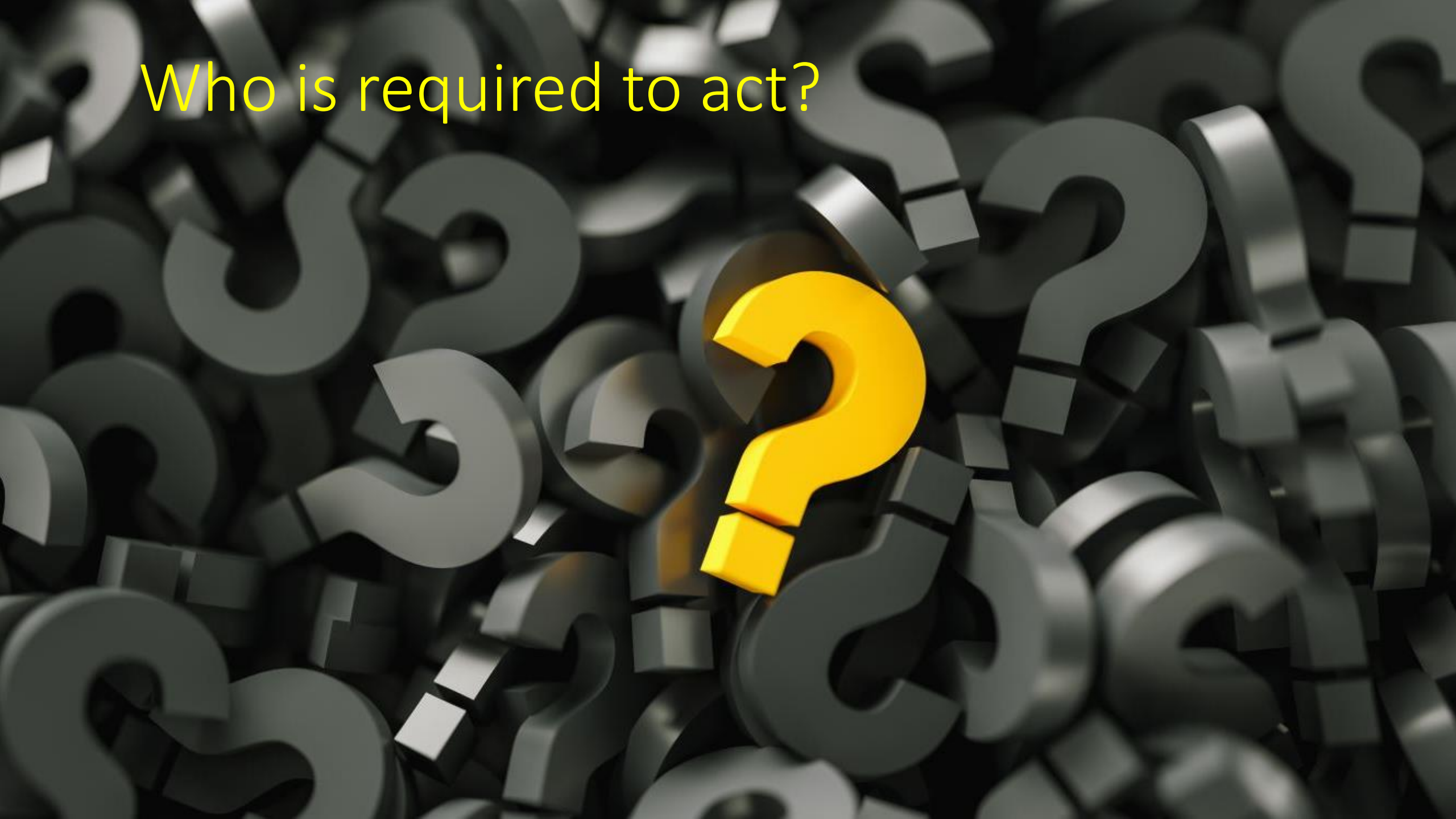
Band	Consumption	Description
0	Any	Gas Storage
1	>15 TJ/day	Consumers with alternative fuel capability supplied directly from the transmission system
2	>15 TJ/day	Consumers without an alternative fuel capability supplied directly from the transmission system
3	>10 TJ/annum up to 15 TJ/day	Large industrial and commercial consumers
4	>250 GJ/annum up to 10 TJ/annum	Medium industrial and commercial consumers
5	>2 TJ/annum	Essential services designated consumers
6	<250 GJ/annum	Small commercial consumers
7	Any	Critical care designated consumers

Designations

Consumers can apply for designations from the Gas Industry Company

Designation Types	Description
Essential Services (Band 5)	Mortuary services, crematoriums, heat treatment of biohazards, municipal water supply, treatment of municipal sewage, emergency services <ul style="list-style-type: none">• >2 TJ per year
Critical Care (Band 7)	Hospitals, primary health care, prisons, essential support for critical care providers
Critical Processing	To avoid serious damage to plant, mitigate serious environmental damage, or prevent inhumane treatment of animals at an abattoir
Electricity Supply	To start up or switch to generation plant that runs on fuel other than natural gas; or to synchronise a unit that provides voltage support.

Who is required to act?



Key participants

Transmission System Operator

Critical Contingency Operator

Retailers

Large Consumers

Producers

What are they required to do?



Transmission System Operator (TSO – Firstgas Ltd)



Operate the system
using a suite of
contracts and
operating codes



Identify there is a
potential issue



Notify Critical
Contingency
Operator



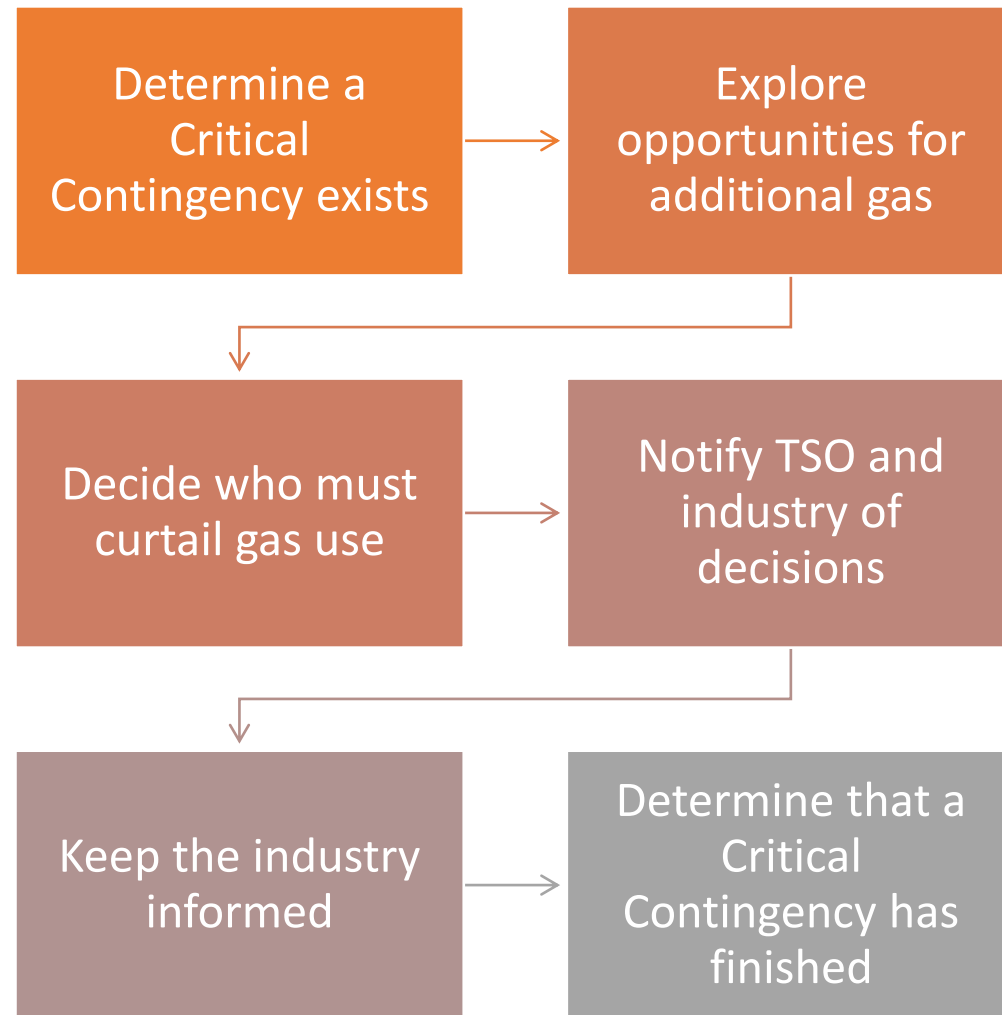
Continue to operate
system



Implement and
communicate
decisions made by
the CCO.
Communicate about
failed asset

Critical Contingency Operator (CCO)

- Appointed by GIC
- Plant & Platform Ltd
- 3 Approved Persons



Potential Critical Contingency Notification

Date:	29 January 2023
Time:	14:45
Notice Number:	CCO-070
Notice Type:	Potential Critical Contingency
Notice Issued to:	Firstgas TSO
Notice Copied to:	Stakeholders listed in the CCO Information Guide
Current Status:	The CCO has determined that a potential Critical Contingency situation exists.
CCO Instruction to TSO:	Issue notice of Potential Critical Contingency to Large Consumers and Retailers as soon as possible and ensure an appropriate critical notice is posted on OATIS.
Event causing potential Critical Contingency:	<p>The TSO has advised the CCO that there are two events affecting the transmission pipeline between Papamoa and Rangioru in the Bay of Plenty. A landslide has caused the pipeline to be exposed near Washer Road in Te Puke and a train derailment has left overturned carriages over the pipeline near Papamoa.</p> <p>As a result, the gas supply to Papamoa, Te Puke and Rangioru delivery points may be at risk.</p>
Summary of actions being taken to resolve event and estimated time to resolve:	<p>The TSO has advised the CCO that technicians are at both sites, and their engineering team is looking at options for both sites to contain the events.</p> <p>The CCO is closely monitoring the situation and assessing how this event could impact on the supply of gas.</p> <p>If a critical contingency pressure threshold is breached or a breach is considered unavoidable, the CCO will declare a Critical Contingency and determine if any load curtailment instructions will be required.</p>
Transmission pipeline(s) affected:	The Firstgas Pipeline supplying Papamoa, Te Puke and Rangioru in the Bay of Plenty.
Geographic area affected:	Bay of Plenty – specifically Papamoa, Te Puke, and Rangioru.

EXAMPLE CCO NOTICE

Sent to Firstgas

Copied to Stakeholders in CCO Contacts List

Posted on CCO Website

SMS Alert Optional



Retailers



See notifications that there is a Critical Contingency



Receive instruction from Firstgas about who must curtail gas use



Urgently contact affected customers to instruct them to curtail



Update Firstgas on curtailment progress



Send out a media appeal for users to reduce gas use, if requested by CCO

Producers



See notifications that there is a Critical Contingency



Consider whether extra gas can be made available to assist



If producer's asset has contributed to Critical Contingency, communicate with Firstgas, the CCO and the wider industry about the issue

Large Consumers

1

See notifications that a Critical Contingency exists

2

Receive notifications from Firstgas about curtailment

3

Follow the curtailment instructions if affected

4

Update Firstgas on curtailment progress

Non-Domestic Consumers

1

Receive notifications about curtailment from retailer

2

Follow the curtailment instructions if affected

3

Update their retailer on curtailment progress

How does the industry prepare?



What needs to be in place:

Critical Contingency Management Plan

Communications protocols (Information Guide and Communications Plan)

Retailer Curtailment Plans

Consumers allocated to correct bands

Supply designations

Up to date contact details

Annual industry training

Annual industry exercise

Annual Exercise:

Reg 34: “to test:

- The Firstgas Critical Contingency Management Plan (CCMP) complies with regulation 25 “; and*
- that the Retailers’ list of emergency contact details required by regulation 43 is current.”*
- Refer to the Participants Brief available on CCO website (Publications).

Wednesday 15 May 2024 – Exercise Hanguru



Where do you get more
information?



Websites



CCO

www.cco.org.nz

Current Events

Historic Events – Examples of Notices

Publications

Training Information



TSO

www.oatis.co.nz

Notices

Retailer & Large Consumer Template

Publications

Quick Reference Guides