



CENTRALINES
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CL-FC9014

Participant Rolling Outage Plan

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CL-FC9014

Participant Rolling Outage Plan

Document purpose

This Participant Rolling Outage Plan (PROP) is written to comply with:

- Part 9 of the Electricity Industry Participation Code 2010 (the Code), and
- the System Operator Rolling Outage Plan (SOROP).

The procedures described are in response to major generation shortages and/or significant transmission constraints. Typical scenarios include:

- unusually low inflows into hydro-generation facilities
- loss of multiple thermal generating stations, or
- multiple transmission failures.

Requirements under the Code

Under the Electricity Industry Participation Code 2010 (the Code), PROP must specify the actions that would be taken to:

- reduce electricity consumption when requested by the System Operator
- comply with the requirements and supplement the SOROP, and
- comply with the Electricity Industry Participation Code 2010.

Supply of power

Reducing demand by disconnecting supply to customers is a last resort. This will only occur after all other forms of savings, including voluntary savings are exhausted. Centralines will always endeavour to maintain supply to its customers.

Intended audience

This document applies to all Centralines' staff responsible for the implementation of the PROP as per *point 10.1*.

The document is also available to the public on Centralines' website.

Document contributors

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Recommended renewal period – at least every two years, or earlier if:

- there are any changes in circumstances, and/or
 - there are changes to the System Operator's Rolling Outage Plan (SOROP).
-

Related references

Legislation

- Electricity Industry Act 2010
- Electricity Industry Participation Code 2010

Emergency Plans

- FC9007 Incident Management Response Plan

Form

- CL-FC9014 Participant Rolling Outage Log

Other Documents

- Centralines' Load Shed Feeder Model

Other References

- [System Operator Rolling Outage Plan](#) – available on the Transpower website
 - [Electricity Authority – Electricity Information Exchange Protocols EIEP5A: Planned service interruptions](#) – available on the Electricity Authority website
 - [Electricity Authority – Guideline on arrangements to assist medically dependent consumers](#) – available on the Electricity Authority website
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Definitions/Abbreviations

AUFLS	Automatic Under Frequency Load Shedding – an automated network operational control scheme required under the Code. It ensures the required level of load-shedding happens when the grid frequency drops below a pre-set value. This loss of load acts to stabilise the grid and recover the frequency.
Authority	For the purposes of this document refers to the Electricity Authority.
Centralines staff	For the purposes of this document includes Centralines and Unison Networks Limited (Unison) staff involved in the management and operation of Centralines' network under the Management Services Agreement between Centralines and Unison.
CDEM	Civil Defence Emergency Management – covers the four 'Rs' of reduction, readiness, response, and recovery from a disaster.
Code	For the purposes of this document refers to the Electricity Industry Participation Code 2010.
Developing event	An event that evolves over time that could lead the System Operator to declare a supply shortage.
EIEP	Electricity Information Exchange Protocols – a set of standardised formats for business-to-business information exchanges which are: <ul style="list-style-type: none">• supported and coordinated by the Electricity Authority, and• informed by industry consultation and a panel of industry representatives.
Feeder	A section of the sub-transmission and distribution network.
GEN	Grid Emergency Notice
Grid	The network of high-voltage power lines between major power stations. The National Grid is part of the New Zealand electricity transmission system. It is operated by the Grid Operator, Transpower.
GXP	Grid Exit Point – any point of connection between Transpower's transmission system and the distributor's network.

Immediate event	An event that occurs with little or no warning, usually as a result of a transmission line or major generation failure. Such an event could lead the System Operator to declare a supply shortage.
IR	<p>Instantaneous Reserve – generation capacity and interruptible load made available in the event of a sudden failure of a generating or transmission facility. It is made available to maintain system frequency at 50 Hz.</p> <p>Instantaneous reserve is procured based on the size of the single largest contingent event that could occur during a trading period. Generators offer instantaneous reserves at the same time as they make energy offers.</p>
NOC	Network Operations Centre – Unison’s control room where Centralines’ network is controlled in real-time 24 hours a day and seven days a week.
PROP	Participant Rolling Outage Plan – outlined in this document.
Rolling outage	Planned electricity disconnections spread over different parts of the network at differing times to avoid prolonged outages at any one location.
Security	A term used to describe the ability or capacity of a network to provide service after one or more equipment failures.
SOROP	System Operator Rolling Outage Plan
Supply shortage declaration	Declaration made by the System Operator after consultation with the Electricity Authority.
System Operator	Operator of the national electricity transmission grid (Transpower).

1. Background

1.1 Electricity Authority

The Electricity Authority (the Authority) is a Crown entity set up under the Electricity Industry Act 2010 to oversee New Zealand's electricity industry and markets.

In accordance with the Code the Authority must approve the System Operator Rolling Outage Plan (SOROP) submitted by the System Operator.

1.2 Transpower

Transpower is a State-Owned Enterprise, that owns and operates New Zealand's National Grid.

As the System Operator, Transpower manages the real-time operation of New Zealand's power system and operating the wholesale electricity market. To keep the right amount of energy flow to match generated supply with demand, Transpower:

- forecasts supply and demand
 - develops and publishes guidelines of hydro levels for security of supply
 - enters into contracts for reserve energy, and
 - improves the ability for consumers to manage price risks in the market.
-

1.3 Centralines

Centralines Limited is the power lines company that safely delivers electricity to businesses and homes in Central Hawke's Bay.

Centralines has a single grid connection point at Transpower's Waipawa substation situated at Onga. This has four 33kV feeders which supply substations situated in:

- Takapau
- Waipukurau
- Waipawa, and
- Porangahau.

An adjacent 33/11kV substation at Onga provides four 11kV feeders for the immediate area.

Centralines has a similar winter and summer peak of 20.5MW.

1.4 Supply and demand

The System Operator controls the power system and operates the transmission network to match generation with customer demand. Constraints on the ability to manage this can arise from insufficient generation or transmission capacity. The result is a shortage of supply. As an example, shortage of supply can be caused by:

- low lake levels which reduce hydro generation
 - the failure of a large generator, or
 - a fault on a critical transmission circuit.
-

1.5 Supply shortage events

The SOROP outlines how the Systems Operator will deal with security of supply situations based on the level of severity. Events that may lead the System Operator to make a supply shortage declaration can, in general terms, be categorised as follows:

- Developing event – an event that evolves over time, e.g., low hydro lake or fuel levels, or
 - Immediate event – an event that occurs with little or no warning. It is usually a result of a transmission line or major generation failure.
-

1.6 Major incident

Developing or immediate events are classed by Centralines as a major incident. Centralines staff will:

- activate the appropriate contingency plan, and
- manage the incident accordingly.

Communication with electricity retailers, Civil Defence and other stakeholders will be managed following the procedures documented in:

- **FC9007 Incident Management Response Plan.**

Refer to *point 10.1* for details of Centralines staff appointed with responsibilities within this document.

2. Centralines' Network

2.1 The Network

Centralines is in the business of providing a safe, reliable, and cost-effective supply of electricity to their customers throughout the Central Hawke's Bay region. This is achieved through the provision, operation, and long-term management of their electricity distribution infrastructure, including overhead lines, underground cables, transformers, and substations. Centralines currently supplies electricity to over 8,600 consumers. Centralines supply area is shown in Figure 1.

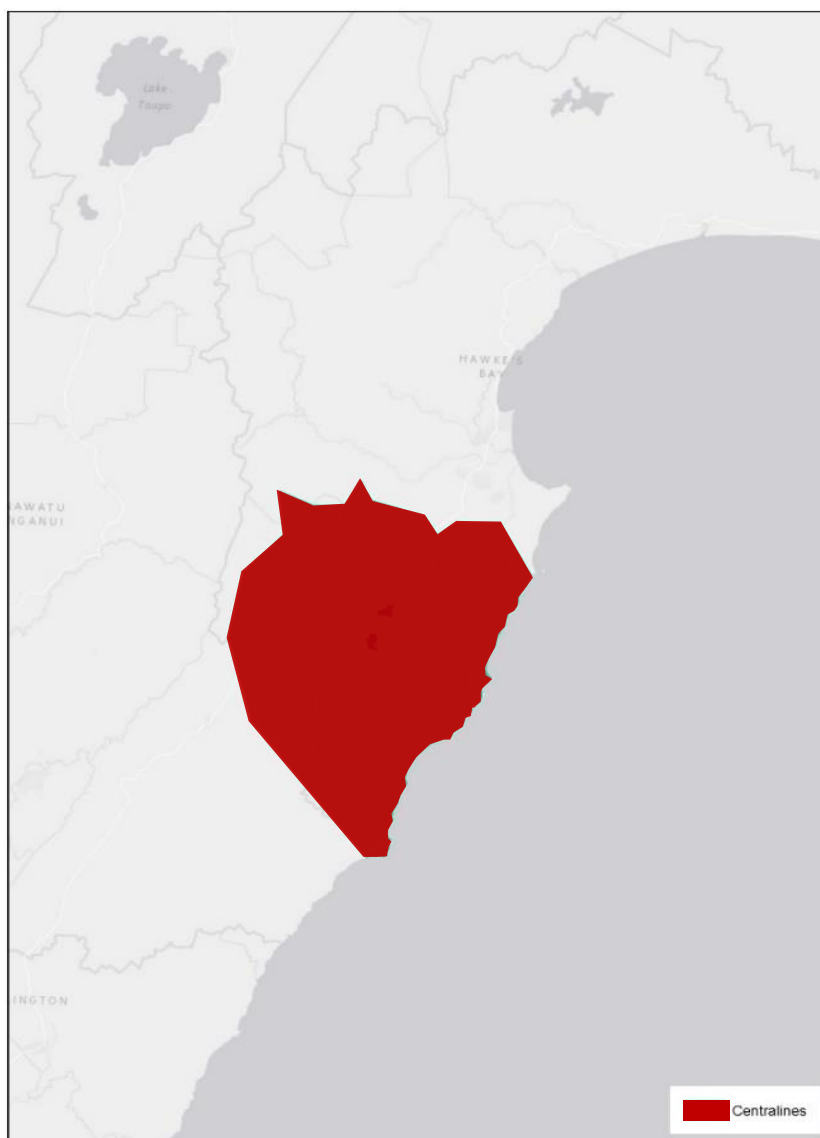


Figure 1 –Centralines Network Area

2.2 Means of reducing load

Centralines can reduce load by disconnecting customers or directly turning off water heating. In addition, Centralines may also reduce load through advertising, e.g., request customers to modify or reduce their electricity usage.

Water heating load shedding is generally not an option for sustained energy savings. It only defers, rather than reduces, energy demand. Additional load reductions would require disconnection of customers to achieve effective energy savings.

Automatic reduction can help to achieve this, either through:

- Automatic Under-Frequency Load Shedding (AUFLS), or
- disconnecting load.

The actions required to deal with an immediate event and a developing event respectively, are detailed in *Section 3* and *Section 4*.

3. Actions for Immediate Events

3.1 Reserve generation

The System Operator must ensure enough reserve generation is available as 'spinning reserve.' This will cover the risk of the largest connected generator tripping. The System Operator must also keep the system frequency at 50Hz. If a large generator trips, it may cause a reduction in frequency, that if not rectified, may result in other generators tripping. In turn, this could lead to cascade failure of the transmission system.

Reserve generation cannot immediately pick up the load of a disconnected generator. An immediate load reduction is required until an additional generation can pick up the load. AUFLS zones reduce load in stages until the frequency stabilises. These reductions are based on pre-determined levels of underfrequency prescribed in the Code.

To recover from an immediate event electricity consumption can be reduced by the actions described in *points* 3.2 and 3.3.

3.2 Instantaneous Reserve (IR) market

Instantaneous Reserve (IR) markets operated by the System Operator to procure interruptible load may be offered into by generators and load users. Interruptible load includes distribution networks control of hot water loads. The IR market capacity covers the risk of the largest generating unit or a critical transmission line tripping. The ability to do this is affected by the:

- number of frequency capable relays installed, and
- likely revenue stream from the market, less the compliance costs of participating in the reserve market.

Note

Centralines does not participate in the I/L market, however there is a 3rd party that does provide some interruptible load on the Centralines network.

3.3 Disconnecting customers

If the load shed by the IR market dispatch is insufficient to stabilise the network, further automatic load reduction is required.

It is a requirement of the Code that each distribution network company must always (unless exempted) have available two blocks of load. Each block must be 16% of its total load to be shed by automatic under frequency relays.

3.3.1 Automatic Under-Frequency Load Shedding (AUFLS)

If the load shed by the reserve market tripping is insufficient to stabilise the network, further automatic load reduction is required.

3.3.2 AUFLS Zone 1

If system frequency fails to recover after the reserve market load shed, AUFLS Zone 1 shedding will occur by disconnecting customers' supply. In the Centralines' network the tripping relays are located at zone substations and Transpower substations where individual feeders are tripped. This will disconnect 16% of Centralines network.

3.3 Disconnecting customers (cont)

3.3.3 AUFLS Zone 2

If Zone 1 tripping fails to restore frequency, the next stage, Zone 2 activates. This will disconnect a further 16% of Centralines’ network.

Table 1 outlines the Centralines’ AUFLS located at Waipukurau zone substation.

Zone	Feeder
1	13 Tapairu/Mangatarata
	14 Waipukurau Urban
	18 Waipukurau South/Farm Rd
2	15 Waipukurau CBD
	17 Cook Street
	19 Hatuma/Wanstead

Table 1 – Centralines AUFLS Zones

3.3.4 Manual Shedding

If AUFLS Zone 1 and Zone 2 tripping fails to stabilise frequency the System Operator will shed more load. This will be achieved by disconnecting:

- direct connect industrial customers, or
- distribution network GXP supplies.

Once the frequency has stabilised the System Operator will advise the Network Operations Centre (NOC) when the load can be restored.

3.4 Declaration of an immediate event

During an immediate event in a supply shortage, the System Operator will provide as much prior notice as reasonably practicable to Centralines. This will include the time and date the supply shortage declaration is likely to be made. However, it is likely a supply shortage declaration for an immediate event will need to be made without prior notice.

Refer to 3.3 point in Transpower System Operator Rolling Outage Plan.

3.5 Rolling outages during immediate event

The System Operator may direct Centralines to undertake rolling outages during an immediate event. This may occur, for example, if a grid emergency is likely to extend for a sustained period.

3.6 Communications

It is expected that the System Operator will communicate with NOC, for urgent operational matters. Refer to *point 10.2* for all contact information.

3.7 Supply restoration

Restoration of disconnected load must be undertaken in coordination with the System Operator to prevent:

- overloading the transmission grid, and/or
- creating further instability.

Refer to *point 5.8* for load variation limits.

3.8 Transmission grid emergency

The System Operator may request Centralines to reduce load under a Grid Emergency Notice (GEN). Refer to *point 7.1* for details of the response in the event of a GEN.

4. Actions for a Developing Event

4.1 Introduction

Rolling outages are a method of managing a developing event. Reduction in demand through disconnection of supply is considered only once all alternative methods of supply savings have been exhausted.

If the System Operator requests a load reduction for a developing event, Centralines must reduce demand to meet the energy savings targets. The targets are likely to be in the form of a weekly energy savings target that is reviewed each week.

Centralines' staff will disconnect feeders or groups of feeders, where they belong to a parallel or ring supply to reduce energy usage. This will be completed in a controlled manner to enable targets to be reached. These feeders are referred to as 'rolling outage feeders.'

4.2 Declaration of a developing event

The System Operator will endeavour to provide:

- at least 14 days' notice of a supply shortage declaration, and
- at least nine days' notice of a direction containing a savings target. This notice will include the times and dates the savings target will likely apply.

If the System Operator declares a developing event, they will:

- determine the energy savings target to be enforced for a specific region for a specified timeframe, and
- manage general media advertising of the need to conserve electricity and the impending rolling outages when they are requested.

If Centralines plans to issue a public message related to rolling outages, this will be sent to the Systems Operator for review before being released. Any such communication will set a time for response by the Systems Operator. This will enable the System Operators' feedback to be included before Centralines issues the message to the public.

5. Rolling Outage Strategy

5.1 Strategy overview

Centralines has developed a strategy to determine the level of load shedding to achieve the target savings required by the Authority. This includes the development and maintenance of a Load Shed Feeder Model, that:

- lists and groups the AUFLS and rolling outage feeders, and
- calculates potential energy savings for any given feeder group shedding strategy.

Actual selection of feeders during any outage will most likely diverge from any pre-determined plan due to operational considerations. The rolling outage feeders determined in the Load Shed Feeder Model are not made publicly available. This is to avoid confusion regarding which feeders are to be disconnected.

5.2 Allocating feeders

Centralines applies fundamental risk management principles to ensure the:

- health and safety of the public is preserved, and
- cost to the economy is minimised.

Table 2 outlines the desired criteria for the selection of rolling outage feeders.

Group	Concern	Maintain Supply to...	Examples
1	Public health and safety	Hospitals, air traffic control centres and emergency operation centres	<ul style="list-style-type: none"> • Waipukurau Hospital • Police Stations/Fire Services/Ambulance Services • Centralines Admin Building • CHBDC Admin Building
2	Important public services	Communication networks, water, and sewage pumping	<ul style="list-style-type: none"> • Waipukurau and Waipawa water supply pumps • Waipukurau and Waipawa sewerage pumps • Telephone exchange
3	Public health and safety	Minor health/medical centres, schools, and street lighting	<ul style="list-style-type: none"> • Medical centres • Schools • Colleges • Waipukurau CBD • Waipawa CBD • Rest Homes

5.2 Allocating feeders (cont)

Group	Concern	Maintain Supply to...	Examples
4	Food production	Dairy and food production facilities	<ul style="list-style-type: none"> • Dairy Farms • Bernard Matthews • Silver Fern Farms • Mr Apple Packhouse
5	Maintaining production	Central business districts, commercial and industrial premises	<ul style="list-style-type: none"> • Irrigation pumps • Orchards • Small commercial business • Residential customers
6	Avoiding disruption to households	Residential premises	

Table 2 – Priority of Supply

5.3 Waipawa GXP (WPW)

Transpower has only one GXP located at Waipawa zone substation (WPW) to supply the Centralines' network.

5.4 Extended reserves

Centralines ensures the provision of extended reserves (including AUFLS) and interruptible load.

Table 3 shows the percentage of average annual demand available in interruptible load or extended reserves by GXP.

GXP	AUFLS Block	% of Average Annual Demand Available for AUFLS	% of Average Annual Demand Available for Interruptible Load (MW)
WPW	Z1, Z2	32%	Approximately 1 MW

Table 3 – Extended Reserves and Interruptible Load on Rolling Outage Feeders

5.5 Potential savings calculation

The target savings specified by the System Operator allow for savings which may already be occurring as a result of other measures. The tables below show how Centralines plans to achieve 5 - 25% energy savings target.

25% schedule																											
Group	Hours	Cuts per week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Weekly savings (MWh)
6	0	7																								0	
5	14	7	0.2	0.2			0.2	0.3	0.4	0.5					0.4	0.4			0.4	0.5	0.5	0.5			0.3	0.3	36
4	15	7	2.5	2.5	2.4	2.4			3.2				3.2	3.1			3.1	3.1			3.2	3.1	2.9	2.9	2.7	2.6	301
3	12	7		1.0	1.0	1.0	1.0					1.7	1.6				1.4	1.4		1.7	2.0				1.3	1.1	113
2	5	7	2.5	2.3	2.2																	4.6	4.2				111
1	0	0																								0	
																									561		
Average CENTRALINES winter load																									2215.30		
Estimated Percentage Savings																									25%		

Table 4 – 25% Potential Energy Savings

20% Schedule																											
Group	Hours	Cuts per week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Weekly savings (MWh)
6	0	7																									0
5	14	7	0.2	0.2			0.2	0.3	0.4	0.5					0.4	0.4			0.4	0.5	0.5	0.5			0.3	0.3	36
4	15	7	2.5	2.5	2.4	2.4			3.2				3.2	3.1			3.1	3.1			3.2	3.1	2.9	2.9	2.7	2.6	301
3	12	7		1.0	1.0	1.0	1.0					1.7	1.6				1.4	1.4		1.7	2.0				1.3	1.1	113
2	0	7																									0
1	0	0																									0
																									450		
Average CENTRALINES winter load																									2215.30		
Estimated Percentage Savings																									20%		

Table 5 – 20% Potential Energy Savings

15% Schedule																											
Group	Hours	Cuts per week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Weekly savings (MWh)
6	0	7																									0
5	13	7	0.2	0.2			0.2	0.3	0.4	0.5					0.4				0.4	0.5	0.5	0.5			0.3	0.3	33
4	10	7		2.5	2.4								3.2	3.1			3.1	3.1			3.2	3.1			2.7	2.6	203
3	10	7		1.0	1.0	1.0	1.0					1.7	1.6				1.4	1.4							1.3	1.1	88
2	0	7																									0
1	0	0																									0
																									324		
Average CENTRALINES winter load																									2215.30		
Estimated Percentage Savings																									15%		

Table 6 – 15% Potential Energy Savings

5.5 Potential savings calculation (cont)

10% Schedule																												
Group	Hours	Cuts per week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Weekly savings (MWh)	
6	0	7																									0	
5	8	7	0.2	0.2										0.4					0.4	0.5	0.5					0.3	0.3	20
4	10	7		2.5	2.4									3.2	3.1				3.1	3.1					3.2	3.1	203	
3	0	7																									0	
2	0	7																									0	
1	0	0																									0	
																								223				
																								Average CENTRALINES winter load	2215.30			
																								Estimated Percentage Savings	10%			

Table 7 – 10% Potential Energy Savings

5% Schedule																												
Group	Hours	Cuts per week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Weekly savings (MWh)	
6	0	7																									0	
5	11	7	0.2	0.2			0.2	0.3	0.4	0.5									0.4	0.5	0.5					0.3	0.3	27
4	5	7		2.5	2.4																					93		
3	0	7																									0	
2	0	7																									0	
1	0	0																									0	
																								120				
																								Average CENTRALINES winter load	2215.30			
																								Estimated Percentage Savings	5%			

Table 8 – Potential 5% Energy Savings

5.6 Existing agreements

Centralines will not engage in agreements with retailers or consumers on its network which may adversely affect it from responding to a direction to reduce load. However, it does have several significant generators on the network that will be omitted from the Load Shedding Model.

5.7 Managing health and safety issues

No contractual agreement exists between Centralines and its retailers to identify and manage health and safety issues affecting consumers on its network. However, Centralines requires the retailer to notify their customers of planned outages. Centralines will supply its retailers with a list of their affected customers in alignment with the Electricity Authority – Electricity Information Exchange Protocols EIEP5A: Planned Service Interruptions.

5.8 Load variation

Centralines will best endeavour to minimise the impact on frequency and voltage stability and the disconnection and restoration of its demand during times when demand is typically ramping up or down.

The level of AUFLS during rolling outages needs to be maintained. Unless agreed otherwise with the System Operator, the rate of load shedding will be no more than 25MW per 5 minutes. Centralines will either:

- exclude the current AUFLS feeders from its Load Shed Feeder Model, which means that supply to lower value loads may be maintained while higher value loads are cut, or
 - include AUFLS feeder shedding but limit the shedding to ensure that two AUFLS blocks of 16% are maintained. If Centralines shed 25% of their network load they would also:
 - shed up to 25% of the AUFLS load, and
 - arm additional higher value load feeders to supplement the AUFLS load and exclude these from its PROP.
-

6. Implementing the Participant Rolling Outage Plan

6.1 Process overview

The PROP will commence once the System Operator provides notice that an increase in weekly energy savings target is required. In this section, the implementation of the PROP (shown in Figure 2) is described.

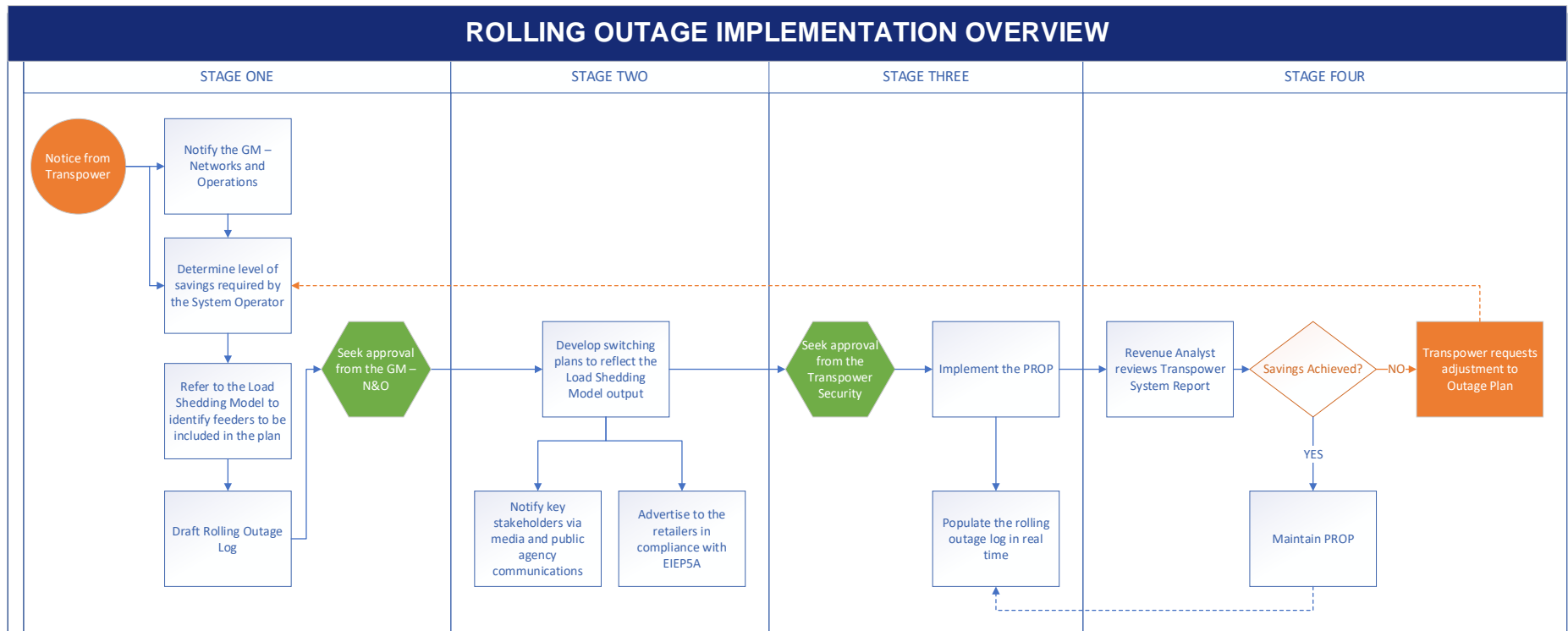


Figure 2 – PROP Implementation

communications in accordance with Centralines' policies and procedures. The media will be notified weekly of anticipated outages until the Rolling Outage Plan ends.

Note

Retailers are required to notify their vulnerable customers.

**6.4 Stage
Three**

Before the Participant Rolling Outage Plan is implemented the Transpower System Operator Security Coordinator must give permission for the rolling outages to commence.

The System Control Operator is responsible for updating the Participant Rolling Outage Log. This includes disconnection and reconnection times. In addition, all actions will be recorded on the SCADA log.

**6.5 Stage
Four**

The Revenue Analyst monitors the Transpower System Operator Report. This outlines Centralines' energy saving results against its target weekly savings. The Revenue Analyst will advise requirements for future load shedding needed to achieve the weekly target. Continued adjustments to the Load Shed Feeder Model will be made based on observed savings in the previous week.

Monitoring performance during the outage is detailed further in *Section 8*.

**6.6 Other
planned
outages**

During the rolling outages Centralines will consider postponing planned outages for maintenance and project work.

**6.7
Contingent
events**

If an unplanned event occurs that will alter planned rolling outages, the Operations Manager – Networks will be responsible for all decisions. Where possible, any changes to the planned timetable should be published on Centralines' website and be communicated to retailers.

7. Grid Emergency Coordination

7.1 Grid emergency

If the System Operator declares a grid emergency during a developing event, the grid emergency will take priority.

Water heating load is not used to reduce load in a developing event outside of winter demand peaks. However, Centralines does have water heating load available for load reduction when required for a grid emergency. In the event of a grid emergency, this load would be shed, and the System Operator advised. If more shedding is required, the System Operator can instruct the Grid Owner to disconnect load. After the grid emergency is cancelled the rolling outages pattern would not continue.

7.2 Restoration of supply

Restoration of disconnected load must be a coordinated effort alongside the System Operator. This is to prevent overloading the transmission network and creating further instability. Refer to *point 5.8* regarding load variation.

8. Maintaining and Monitoring Performance

8.1 Assess performance

At the end of each week an assessment will be made of the adopted Load Shed Feeder Model to identify areas for improvement for the following week, as detailed in *Figure 2*.

8.2 Performance monitoring

In parallel with the System Operator, the Revenue Analyst is responsible for daily and weekly reporting of consumption relative to target levels. This report uses the data provided daily by Transpower, as outlined in its SOROP, and Centralines' data sources.

The Operations Manager – Networks is responsible for providing information to the System Operator on the actual performance against the savings target. This will include the nature and extent of the rolling outages.

Reporting of daily or real time limits to the System Operator will be too slow for taking real time action. In these cases, the Operations Manager – Networks, with the assistance of the Commercial Manager, will monitor Centralines' savings. Adjustments will be made to the Load Shed Feeder Model when required.

These savings will be calculated using GXP loads measured by Centralines' metering and SCADA system. These will be compared with the targets supplied by the System Operator.

9. Load Restoration

9.1 Revoke supply shortage declaration

Direction from the System Operator to revoke the supply shortage declaration is first directed to the NOC. This must be followed up with an email to control.room@unison.co.nz to ensure all Centralines' staff who have a responsibility under this document are notified.

Any load still disconnected must be restored in conjunction with the System Operator as detailed in *point **Error! Reference source not found.***

10. Communication

10.1 Roles and responsibilities

Table 9 identifies the roles and responsibilities of Centralines' staff involved in the implementation and communication of the PROP.

Roles	Responsibilities
General Manager – Networks and Operations	<ul style="list-style-type: none"> • Managerial contact for the System Operator which includes all administrative matters and escalation. • Reports overall compliance to Electricity Authority. • Only authority to commence the PROP.
Operations Manager – Networks	<ul style="list-style-type: none"> • Operational contact for the System Operator. • Notifies the General Manager – Networks and Operations to implement PROP. • Prepares the load shedding schedules. • Reports to CDEM and Lifelines. • Provides information to the System Operator on the actual performance against the savings target.
General Manager – Centralines	<ul style="list-style-type: none"> • General retailer communications. • Reports to and addresses enquiries from the media and public agencies.
System Control Operator	<ul style="list-style-type: none"> • Notifies retailer of affected customers in accordance with EIEP5A.
Revenue Analyst	<ul style="list-style-type: none"> • Reports weekly savings to the Operations Manager – Networks.

Table 9 – PROP Roles and Responsibilities

10.2 Contact information

It is expected that the System Operators will communicate with NOC, in most cases. Table 10 provides all necessary contact information.

Contact	NOC	All Other Staff
Email	control.room@unison.co.nz	outage.coordinator@unison.co.nz
Phone	0800 2 86476	0800 2 86476
Escalation	Edward.Brown@unison.co.nz Operations Manager	Jason.Larkin@unison.co.nz General Manager – Centralines
Address	<p>Physical: 1101 Omaha Road Hastings 4175</p> <p>Postal: PO Box 555 Hastings 4156</p>	

Table 10 – Contact Information

10.3 Shutdown notification

With the wide-scale impact of the rolling outages it is not feasible to use Centralines standard planned outage notification process. This is mainly because retail and postal systems could not process the thousands of outage notifications required.

When implementing the PROP, Centralines will notify outages as follows:

- Public notices – Centralines staff will place public notice advertisements in local newspapers. Refer to *Appendix B - Draft Rolling Outage Public Notice*. This will provide a rolling outage timetable showing the times and areas affected by rolling outage.
- Centralines website – www.centralines.co.nz under the No Power option showing the rolling outage timetable.
- Retailer notification – Centralines will provide the rolling outage timetable to all electricity retailers. This will include a schedule showing the rolling outage group for all ICPs. (It is not appropriate to filter the schedule for an individual retailer's ICPs, as this would place ICPs who have recently switched retailers at risk of not being notified.)

Where possible, Centralines will provide seven days' notice of all rolling outage plans, generally publishing and issuing notifications on a Monday to apply from the following Monday.

10.4 Vulnerable customers and priority sites

Centralines are unable to prevent rolling outages that may affect individual vulnerable customers and priority sites. So, in addition to the prioritisation of rolling outage feeders, Centralines will provide information in its public notices and website alerting customers including vulnerable customers to the risks.

Appendix A - Participant Rolling Outage Log

Participant Rolling Outage Log



Day: _____ Date: _____
Total MW Off: _____ On: _____

Area/Location	Substation	Circuit Breaker or Device	Time Opened	Time Closed	Device Loading (AMPs)

Appendix B - Draft Rolling Outage Public Notice

Electricity Supply Interruptions

Please read - Your supply may be affected

Centralines is being required to reduce electricity consumption with rolling power outages across Central Hawke's Bay. This is to meet an x% savings target set by the System Operator in response to the current energy crisis.

Voluntary savings have already helped us reduce the impact of rolling outages, and further savings may allow us to reduce these planned cuts further.

Outages will occur within the time periods noted in the schedule below. Wherever possible, we will delay cuts and restore power early, **so please treat all lines as live.**

Within each area we have prioritised individual circuits to minimise the cost and disruption to our community, and timed outages accordingly.

YOUR SAFETY AND PROTECTION

It is important to ensure you keep safe around electricity even when it is off.

- Power may be restored at any time.
- Please leave all appliances off during power cuts, particularly ovens and cook tops.
- To prevent damage to computers and other electrical equipment turn power off at the wall prior to outages.

Are you reliant on power?

If your health may be affected by these outages, you will need to make alternative arrangements or contact your healthcare provider for assistance. Please note telephones that rely on a mains supply may not operate during outages, so plan in advance.

Areas	Priority Group	Monday	Tuesday	Wednesday	Thursday	Friday
A	1	8pm-12am	8pm-12am	1pm-5pm	1pm-5pm	
B	2	8pm-12am		1pm-5pm		
C	1		8pm-12am			1pm-5pm
D	2		8pm-12am		1pm-5pm	
E	1		8pm-12am		1pm-5pm	

Connections in priority groups other than those listed (and those with a 'reserved' priority) are not scheduled for rolling outages in this period.

Appendix C - Summary of Document Changes

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
31/03/2010	1.0	New Plan	Unison Operations Manager	Area Services Manager (Centralines)	CEO
21/05/2010	1.1	6.3 – description of CL Networks expanded. References to Category A and Category B Events replaced. 18.0 Addition of Savings Schedules from 5% to 25%	Unison Operations Manager	Area Services Manager (Centralines)	CEO
31/03/2016	2.0	<p>Full review and update into new template.</p> <p>Document renamed from Security of supply Participant Outage Plan to Participant Rolling Outage Plan.</p> <p>Updated to Definitions – Authority, Code, Supply shortage Declaration, Electricity Authority and Transpower.</p> <p>Addition of:</p> <ul style="list-style-type: none"> • point 3.1 Supply and demand, and • point 4.2 Authority to commence rolling outages. <p>Minor updates to points 2.1, 2.2, 3.1, 3.2, 4.1, 6.1, 6.2, 6.3, 6.5, 7.1, 8.1, 8.2, 8.3, and 9.3.</p> <p>Deletion of point 12.7 Planned savings.</p> <p>Reference to Commission replaced with either System Operator or the Authority.</p> <p>Appendix C – Feeder Priorities deleted.</p>	Operations Manager	GM Networks & Operations	GM Networks & Operations

Date	Version No.	Changes to Document	Creator	Authoriser	Approver
06/04/2021	3.0	<p>Full review to comply with the revised SOROP and restructure of document.</p> <p>Addition of points:</p> <ul style="list-style-type: none"> • 4.5 Rolling outages during immediate event • 6.1 – Strategy overview • 6.4 Feeder group – other services • 6.6 Existing agreements, and • 6.7 Managing health and safety issues • 11.1 – Roles and responsibilities, and • 11.2 – Contact information. <p>New Section 7 – Implementing Participating Rolling Outage Plan.</p> <p>EIEP definition added.</p> <p>Minor updates to points 5.2, 6.2, 6.3, 6.5, 6.8, 7.1 - 7.5, 10.1, 11.1, 11.2 and Appendix B.</p>	Operations Manager - Networks	General Manager – Centralines	GM Networks & Operations
01/09/2023	3.1	<p>Minor Review. FC9001 Crisis Management Plan and FC9002 Crisis Communication replaced by FC9007 Incident Management Response Plan.</p> <p>Added reference to Transpower’s System operator Rolling Outage plan. Transpower Approval received on 10 July 2023</p>	Operations Team Lead	General Manager – Centralines	<p>General Manager Network and Operations</p> <p>System Operator Transpower</p>