

# Outage coordination practice and monitoring

SRC background information

# Agenda

- Code framework
- Operational practice
- Security of supply monitoring
- Authority work programme
- Further reading

# Code Framework

## **Tech Code D of Schedule 8.3 sets out asset owner and system operator obligations for outage coordination:**

- Asset owners must give as much notice as practicable of all planned outages that may affect the system operators ability to meet their PPOs
- If unsure of the impact of an outage they must contact the system operator for advice
- Asset owners must give written notice up to 12 months ahead of a planned outage and notify of changes as and when they become aware of them
- The system operator must assess the impact of all notified outages
- The system operator may request an asset is kept in service until and more suitable time, they may suggest an alternative time for a planned outage
- Asset owners must endeavour to plan their outages to minimise impact and modify an outage at the request of the system operator subject to cost and disruption impacts on their operation
- System operator may request an asset is returned to service

# Code framework

**The system operator describes the actions it will take to comply with the Code in its policy statement (Clauses 54 to 56)**

**Should an outage threaten its ability to meet its PPOs, the system operator reserves the right to take action under its Emergency management policy to preserve system security**

**These actions could include grid re-configuration or emergency demand management**

**The Code The Code framework for outage coordination assumes a high degree of cooperation and reasonableness on the part of both the system operator and asset owners**

**To-date, the Authority has not been made aware of any significant issues in this regard**

# Operational practice

the system operator maintains a web-based portal as its preferred means for asset owners to notify it of asset outages – Planned Outage Coordination Process (POCP)

POCP User guide provides a set of business rules that extend and clarifies the information that the system operator expects to be notified of and the timeframe for notification

TRANSPOWER											
POCP											
Guest											
Outages											
Quick Filter											
Active Weeks From Today											
Weeks 4											
Active Today											
Active Between											
All											
List Calendar											
A											
←											
Outage Block	Start Time ↑	End Time	Type	Asset Owner	Planning Status	MW Remaining	MW Loss	MVar Output	GXP	Category	Last Modified
HLY3	10 Feb 2013, 00:00:00	31 Dec 2025, 00:00:00	Continuous	Genesis Energy Limited	Cancelled	0	245	0	HLY	Generation	26 Jun 2014, 13:11:26
HLY1	01 Jan 2017, 00:00:00	31 Dec 2031, 23:59:00	Continuous	Genesis Energy Limited	Cancelled	0	245	0	HLY	Generation	01 Feb 2013, 16:42:30
PEN_FDR_2532	02 May 2018, 23:07:38	29 Nov 2034, 18:00:00	Continuous	Transpower New Zealand Limited - Grid Owner	Confirmed				PEN	Transmission	29 Jul 2024, 13:09:08
MHO_STN	01 Feb 2019, 08:00:00	24 Oct 2024, 16:00:00	Continuous	Manawa Energy Limited	Confirmed		4		MHO	Generation	20 Sept 2024, 15:05:02
MHO_STN	18 Feb 2019, 08:00:00	30 May 2025, 16:00:00	Continuous	Manawa Energy Limited	Confirmed		2		MHO	Generation	06 Jun 2024, 15:05:03
KIN_FDR_2532	17 Apr 2019, 16:00:00	25 Jan 2025, 17:30:00	Continuous	Transpower New Zealand Limited - Grid Owner	Confirmed				KIN	Transmission	25 Jan 2024, 13:09:11

# Operational practice

## Summary of the POCP Business rules

1. **Asset owners will endeavour to provide accurate and up to date information and reserve the right to change any planned outage at anytime**
2. **An outage is defined as:**
  1. Any asset not capable of the generation, conveyance or consumption of electricity
  2. An asset that has a temporary reduction in capability due to equipment constraints
  3. A planned outage is when the start and/or end time can be reasonably anticipated
3. **Asset owners will provide information at least 26 months ahead where possible. Notice of an unplanned outage will be provided within 24hours of it occurring**
4. **All outage information provided via POCP will be made publicly available on POCP**
5. **Asset owners will provide required information for each outage, system operator may record additional information as required**
6. **The system operator will assess outage information in terms of meeting its PPOs and publish the results where an outage poses a risk to meeting the PPOs**

# Security of supply monitoring

Outage information is used in two key areas to monitor and publish security of supply impacts:

## Electricity risk curves (ERCs)

- long duration outages of key assets may have an impact on the power system's ability to meet winter energy needs
- The system operator “de-rates” thermal plant ability to meet winter energy needs due to outages as well as fuel constraints
- outages of other firm generation, such as geothermal generators, will also impact the power system's ability to conserve water for hydro generation

## New Zealand Generation balance (NZGB)

- The NZGB looks forward 200 days and assesses the power system's ability to meet morning and evening peak demand under different supply and demand scenarios:
  - Normal secure operation (N-1) and secure operation following a major loss of supply (N-1-G)
  - Forecast high and extreme demand scenarios
  - Very low wind generation scenario
- supply margin of less than 200MW is highlighted as a potential risk period

# Authority work programme

## Enhancing outage coordination

- Consulting on incorporating aspects of SO guidelines in the Code
- Will provide clarity and certainty on obligations of assets owners when planning outages
- Communications will highlight the need to provide as much notice as possible to the system operator
- Authority will be working with system operator to monitor outages planned for early 2025 (possible outage deferrals from winter 2024)

## Thermal fuel disclosure

- Consulting on amendments to Margin Monitoring S46 notice to allow publication of thermal fuel information gathered
- Will be followed by a Clause 2.16 notice to permanently collect and publish thermal fuel information
- Selected information intended to be shared with the system operator for SoS monitoring purposes



# Further reading

## ERCs:

- ERCs Explanation (document and animation):  
<https://www.transpower.co.nz/system-operator/notices-and-reporting/weekly-reporting/electricity-risk-curves/electricity-risk>
- Latest ERCs:  
<https://www.transpower.co.nz/system-operator/notices-and-reporting/weekly-reporting/electricity-risk-curves>

## Outage planning:

- Grid owner outage planning policy:  
<https://www.transpower.co.nz/our-work/industry/our-grid/outage-planning>
- NZGB tutorial videos:  
<https://www.youtube.com/playlist?list=PLXUc cGn4ptEPolfGBABHINoAx68xw4aDZ>
- POCP tutorial videos:  
<https://www.youtube.com/playlist?list=PLXUc cGn4ptEMvCYRWEBzggwbhldk2fxw>