TRANSPOWER

ERS Co-design Workshop TWO 2026

Emergency Reserve Scheme Design

May-June 2026

Workshop 2

Independent Chair’s Welcome

John Hancock
Signature Consulting

Housekeeping

- Level 1 – will escort you if you need to leave the meeting room
- Sign-off Workshop 1 minutes
- Workshop 1 minutes to be published on SO website
- Recording of meeting

Quick recap

- On Tuesday:
  - Andrew Marriott ran through the EA policy decisions
  - Murray Henderson ran through the SO's further policy work and implementation approach
  - The group:
    - Clarified understanding of the intent and design
    - Considered key design points
    - Identified potential issues for resolution

Aim for today

- Hash out key design points
- Enable SO to build a strawperson design for debate in workshop 3
- Working within given constraints:
  - Code requirements
  - Timeframes
  - SO tooling solution

Reminder of the timeline

Policy Statement likely to follow in Q1 2027

Co-design workshops

Final design

Update SO tooling and processes to accommodate Emergency Reserve

Consult on updated Procurement Plan and ~~Policy Statement~~

Publish Procurement Plan and ~~Policy Statement~~

Emergency Reserve scheme established

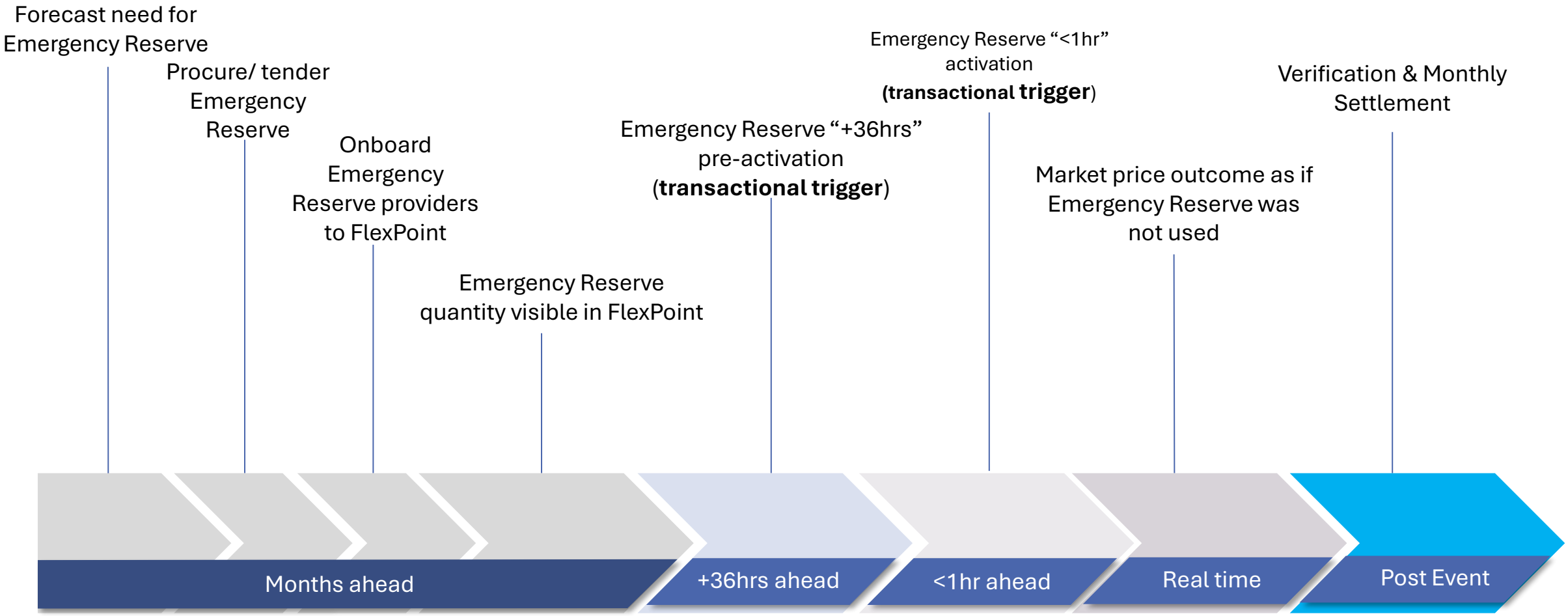
Now

Q4 2026

Electricity Authority
1. Permission to consult
2. Approves changed documents

Emergency Reserve scheme conceptual design – Process Overview

Operationalising the Emergency Reserve scheme



NB: scope for pragmatic 'initial' options as described in the Electricity Authority's decision paper.

Key thing we don't need to discuss

- We are using FlexPoint. It will manage:
  - Onboarding participants
  - Orchestrating events and triggers
  - Post event verification using meter data stored within the platform
  - Settlement calculations

But we welcome questions about FlexPoint and its capabilities / scope

Key features we do need to discuss

- Forecasting the need for ERS
- Provider eligibility and technical requirements
- Procure / tender for ER
  - Procurement arrangements
  - Assessing prices
  - Contractual terms
- Pre-activation and activation triggers and timelines
- Verification and performance assessment including load baselining and approach
- As we go… Procurement plan, contracts, full SO-flexibility

As we go:

- What should sit in:
  - Procurement Plan / Policy Statement - firm rules
  - Contracts (anchored to PP) – e.g. MW, asset details, commercial details
  - SO documents – SO maintains full flexibility / discretion
- What is the potential for gaming?
- What else have we missed?

Procurement Plan

Details what ancillary services SO procures

For each ancillary service:

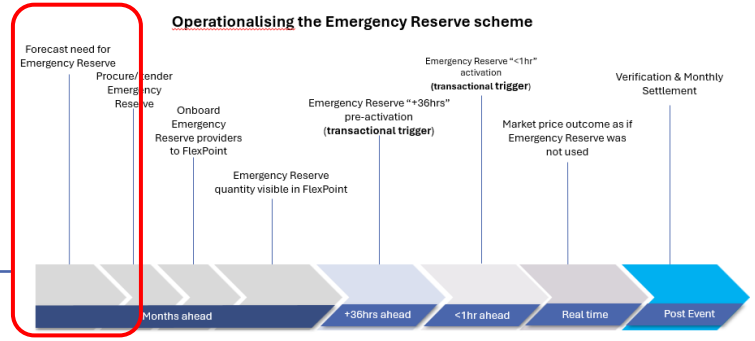
- basis and process for procurement
- performance and technical requirements
- contains key contract terms

"*the Code for ancillary services*"

Policy Statement

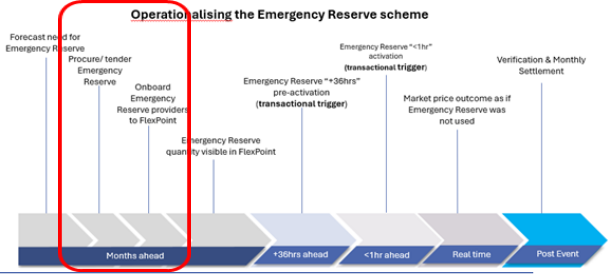
Details how the SO meets Code based obligations and expands on others in greater detail.

Forecasting the need for ERS



Our proposed approach	Questions to resolve
We will undertake analysis to determine: • Procurement period (timing, duration), and • Tender quantity At the start of the year (for year 1)	What else could trigger us undertaking this analysis going forward? Does this need to be defined?
Will use existing sources e.g. • Security of Supply analysis • NZ Generation Balance • Experience and intuition	Are there other sources we should consider? Does our approach need more detail? Should we put any limits / constraints / parameters around it?
We'll publish methodology/results alongside the release of tender docs	Should we seek feedback on this before contracting? Will prospective providers require more warning than this would provide? (ie do we need a notice of intention?)
We'll use year 1 as a market development / testing / learning opportunity, targeting a non-zero but judicious volume.	How should we calibrate the risk appetite going forward?

Provider eligibility and technical requirements



Our proposed approach

Eligibility against Code requirements (eg, no batteries, 12 mth stand-down) – **NB** non-participants must become participants

In the Procurement Plan, we will additionally and explicitly:

- Exclude:
  - ERS providers on networks with automated control limits (e.g. Orion) because net effect is paying for no change to system load?
  - Hot-water load control / ripple sources
- Not exclude IL that has recently participated in other markets
- Have minimum metering requirements – in terms of resolution, meter standard required, frequency, format, timeframe, aggregation level etc
- Not include a minimum participation size in the procurement plan, but will allow for one in any tender process
- Require providers to be capable of responding within timeframes implied by pre-activation / activation timeframes (36hrs, 20mins)
- Require that providers can maintain load-reduction for a minimum of 2 hrs

Questions to resolve

Can participant status process be sped up? (EA and NZX)

- Are all these necessary?
- What should the specific settings be?
- Are they required in the Procurement Plan (slower to update) or in other SO documents (more flexible, but less consultation)?
- What other technical requirements should be captured?
- Do we need a maximum off time?

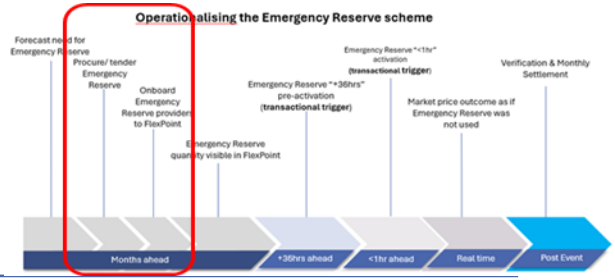
Procurement arrangements

Our proposed approach	Questions to resolve
We will follow the procurement process set out in the Procurement Plan	n/a
The ideal future state is that procurement is conducted within 4-weeks of the need arising, but this will not be set in the Procurement Plan and is not the aim for year 1	
We will not set up a panel of providers in the first instance	• Should we anticipate a panel in the Procurement Plan? • How else could we approach testing and contracting given some providers may need to update capability - how do we give certainty to both parties?
In year 1 we may directly approach 1 or 2 [known] providers, rather than conduct an open tender. Or choose to only pursue [known] providers via a tender rather than all tenders. [if cost comparable]	

Quantity, duration and price will be part of the tender
• Quantity – minimum fixed ER amount
• Defined duration
• Price "pre-event" & "event"
  • Pre-event – fixed fee i.e. per month
  • Event fee – fixed or variable
	Agree with event fee being fixed or variable?

Location may be part of tender	
Tenderers will need to provide information to evidence eligibility, and ensure access to X years of historic data	What evidence could be provided?
Decision and tender award required to be notified on website / comms channels. Timeframe for decision covered in tender docs.	Or is a minimum time til the contract period required, necessitating a set decision-point?

Assessing proposals

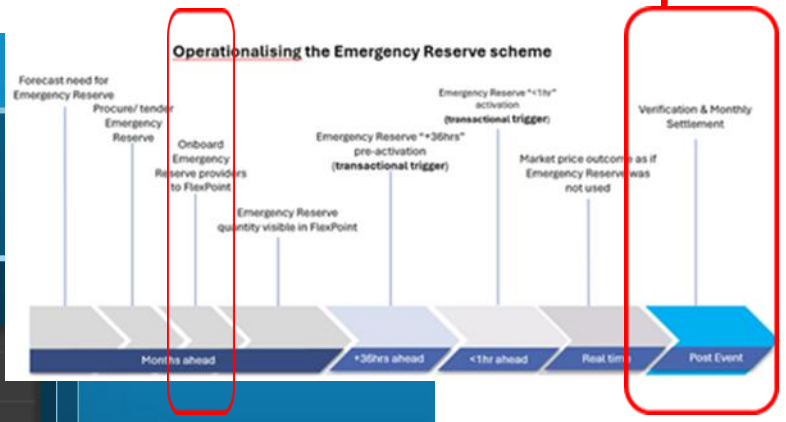


Our proposed approach	Questions to resolve
No obligation to procure following a tender.	
Screen on eligibility, and verify Code eligibility with EA	Or where should burden of proof lie?
• Assessment criteria to be outlined in tender documents – not strictly limited to costs • May provide weightings. • SO will need to estimate # of events to compare prices – may state this assumption in tender doc	• Views on weightings of each cost for tender assessment? E.g. lower pre-event but higher event costs preferrable to vice-versa?
• Testing and performance confirmation – physical performance and subsequently communications checks	

Emergency Reserve Scheme Workshop Topics – Analyse M&V + CBLs

workshop 2

Validation | MW Delivery | Performance Assessment



Event for Transpower - Waikoukou

Payment Pending

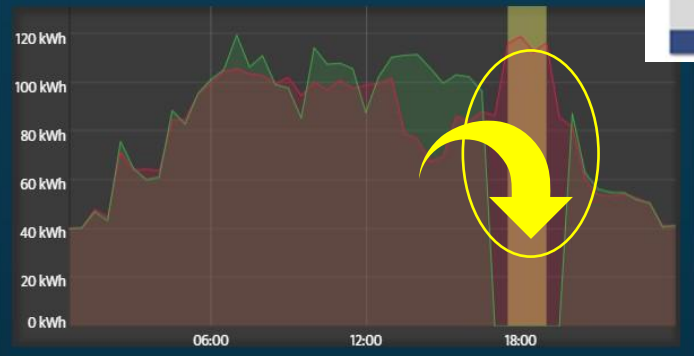
Jun 19th 19, 5:00:00 pm — Jun 19th 19, 7:00:00 pm

Settlement: $324.84

TP	Target DR	Actual DR	Performance
17:00 — 17:30	125.00kWh	116.02kWh	92.82%
17:30 — 18:00	125.00kWh	118.96kWh	95.17%
18:00 — 18:30	125.00kWh	112.68kWh	90.14%
18:30 — 19:00	125.00kWh	116.39kWh	93.11%
Performance			92.81%

WITHDRAW | REPLACE PAYMENT | SUBMIT METER DATA | PAYMENT

Performance



CBL EXAMPLE | 3DAY - SAA

Offer

Requested

250kW @ $700/MWh

Offered Amount 250 kW

Offered Price $ 700 /MWh

Offer Value: $350

Registration

Transpower – Head Office
Name

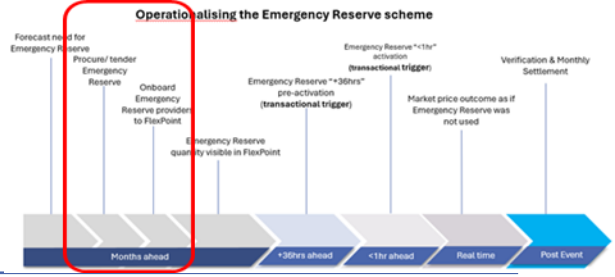
Transpower New Zealand Limited
Organisation

Sites

Customer – Transpower | Waikoukou

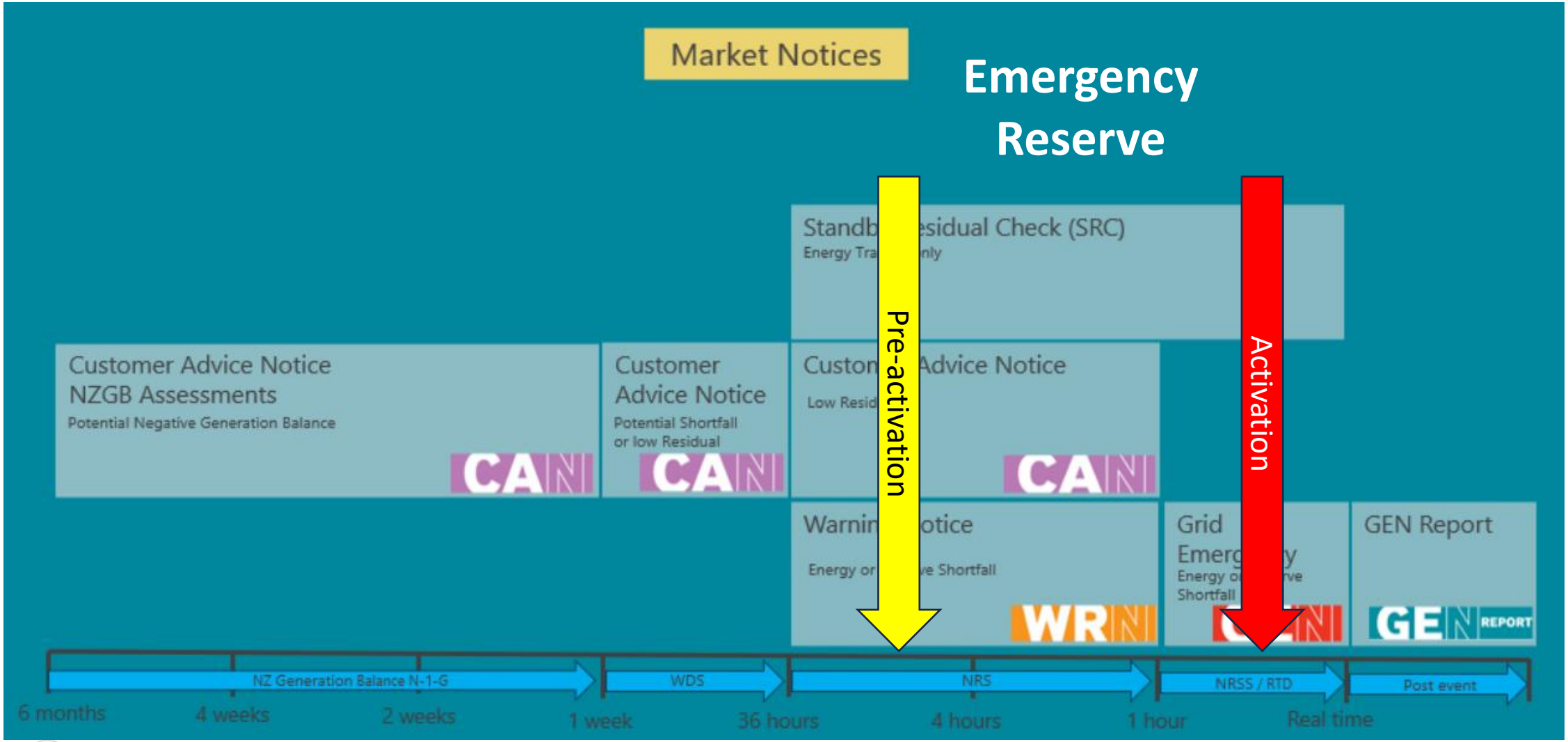
Emergency Reserve performance assessment

Contract terms



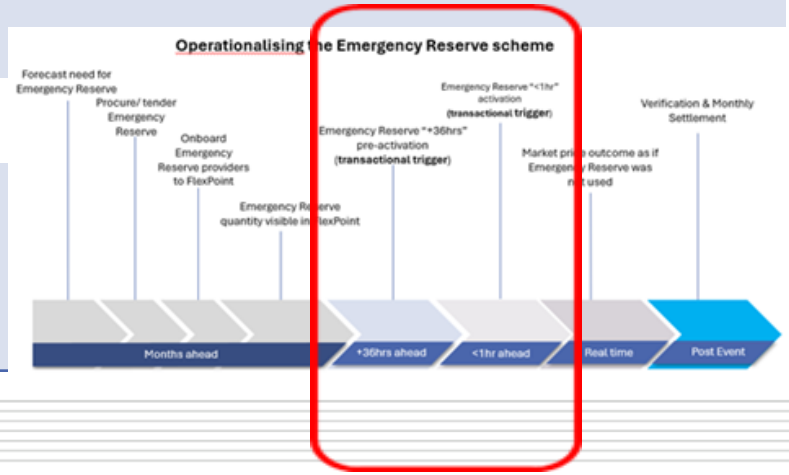
Our proposed approach	Questions to resolve
Compliance	What tolerances are there for successful delivery?
Obligation to notify of outages / maintenance that affect availability	How do outages / maintenance affect baselining?
Non-performance clawback	What is fair? Consider pre-event and event costs.
Must make data available (eg metering – granularity, aggregation, before/after tails)	
	• What other contract terms maybe be contentious or need consideration?

Pre-activation and activation triggers and timelines – Our proposed approach



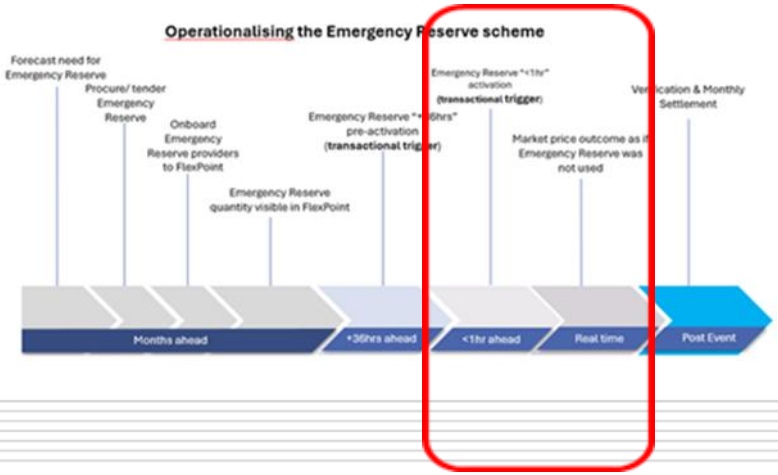
Pre-activation and activation triggers and timelines

Our proposed approach	Questions to resolve
Notifications via FlexPoint to providers ER providers must acknowledge activation notice but not pre-activation notice. No specific notifications to market but clear from residual shortfall notifications	Are there any comms / approaches to comms that need to be detailed in the procurement plan or that aren't determined by use of FlexPoint?
Pre-activated quantity the procured quantity, but activated quantity the residual shortfall • Cheapest ER providers selected – whole bids	Justifiable to pre-activate less conservatively given uncertainty between pre-activation and real-time e.g. IG forecasts?
Pre-activation on rolling 2 hrly basis with lock-out of 'X' hours ahead of real-time. Pre-activation for first period which fails rather than worst if there is an extended series of failed periods. No 'de-pre-activation' / 'stand down' notice (just expires)	Or at 12:00 PRSL for AM and PM peaks of following day? Or?????
Activation issued ~25mins ahead	
Activation **can** occur if not pre-activated • Payment as though pre-activated • No compliance – best endeavours	



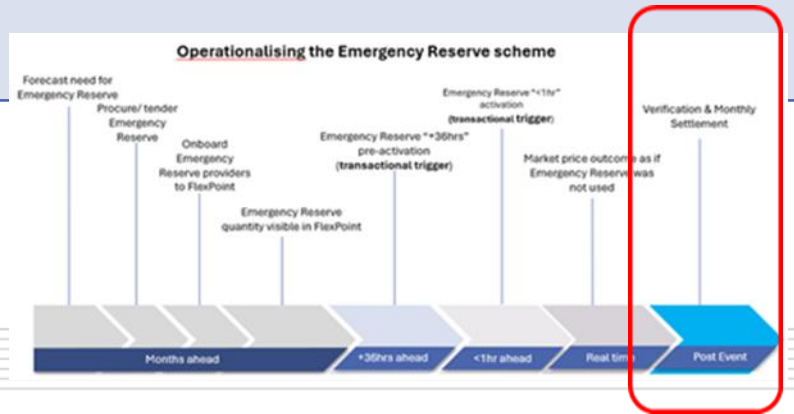
During event processes

Our proposed approach	Questions to resolve
Providers must deliver (minimum) contracted quantity before start of period of first activation (~20mins to achieve activation)	
Restoration manually co-ordinated	
ERS load added back into schedules for activated periods to maintain market prices, but won't reflect load reduction between activation notification and activated period. If ERS quantities in FlexPoint aren't at GXP level, activated ERS will be disaggregated to GXP pro-rata. Scarcity pricing remains as a 'marginal price outcome' not an administered one, therefore subject to changes in other system conditions (eg wind) - same as now	



During and post event processes

Our proposed approach	Questions to resolve
Verification / performance assessment assessed via FlexPoint, given metering and data requirements set out at tender/contract stage	Resolution of data? Pre and post 'tails' – how long? How long to provide the data?
System Operator sends ER info to Clearing Manager • Pre-event costs • Event costs • Per-provider Clearing Manager bills purchasers for ER costs and pays ER providers Pre-event costs paid monthly Event costs paid post-performance assessment - non-payment possible for non-performance Clawback possible of pre-event costs for non-performance Usual timings, wash-up etc apply	How strict should non-performance consequences be? Pay pro-rata or not at all? Consequences for late delivery?
System Operator must report on use of ER • Details of ER use • Comparison with VoLL costs	What information should the SO report and to whom, beyond Code requirements?



Looking ahead to workshop 3

- We’ll work the discussion up into a strawman design

Thank you

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