TRANSPOWER

Quarterly system performance information

January to March 2026

Report Purpose

This report is Transpower's review of its performance as system operator in accordance with clauses 3.13 of the Electricity Industry Participation Code 2010 (the Code) and 12.3 of the System Operator Service Provider Agreement (SOSPA):

3.13 Self-review must be carried out by market operation service providers

(1) Each **market operation service provider** must conduct, on a monthly basis, a self-review of its performance.

(2) The review must concentrate on the **market operation service provider's** compliance with—

(a) its obligations under this Code and Part 2 and Subpart 1 of Part 4 of the **Act**; and

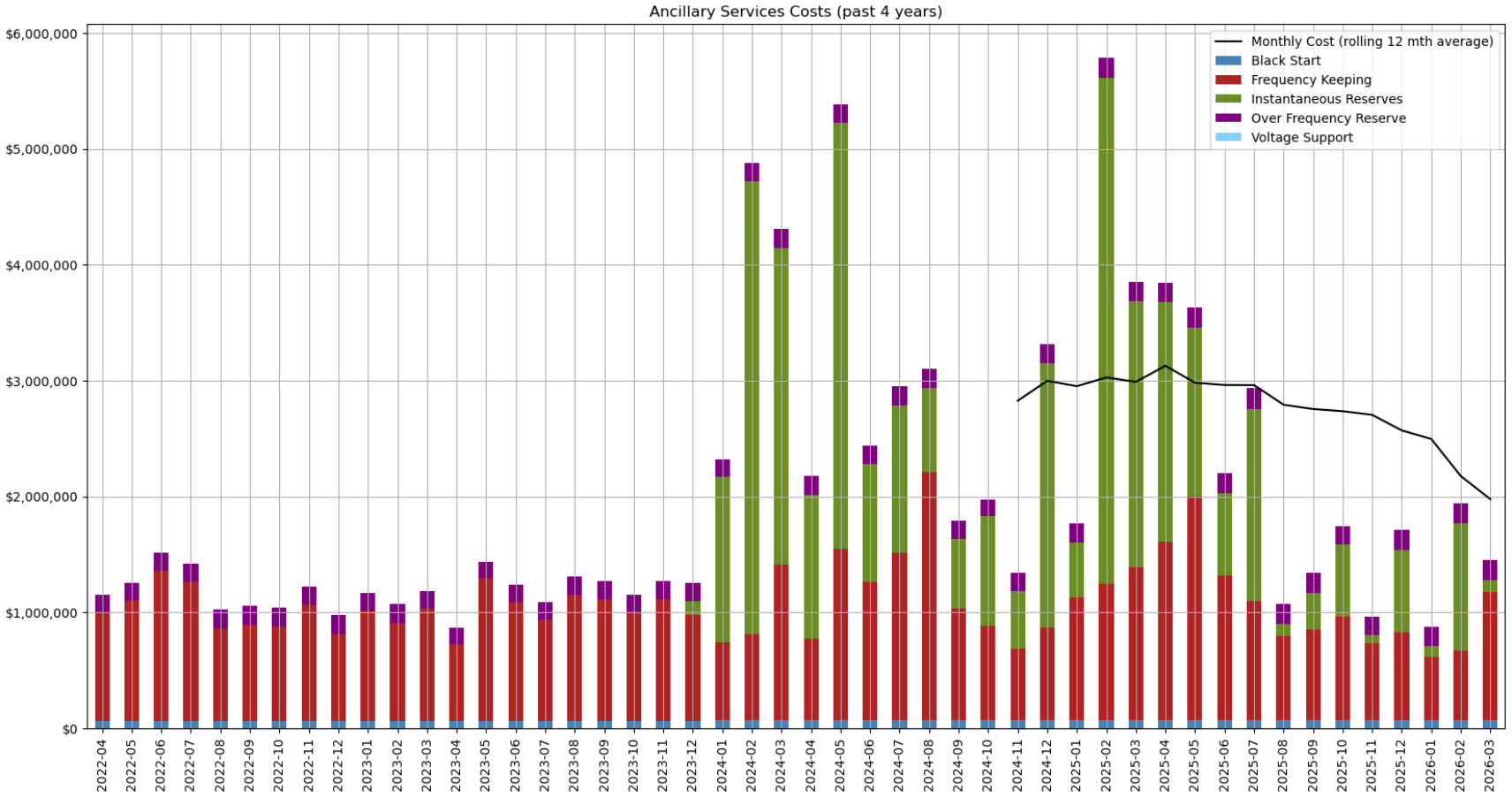
(b) the operation of this Code and Part 2 and Subpart 1 of Part 4 of the **Act**; and

(c) any performance standards agreed between the **market operation service provider** and the **Authority**; and

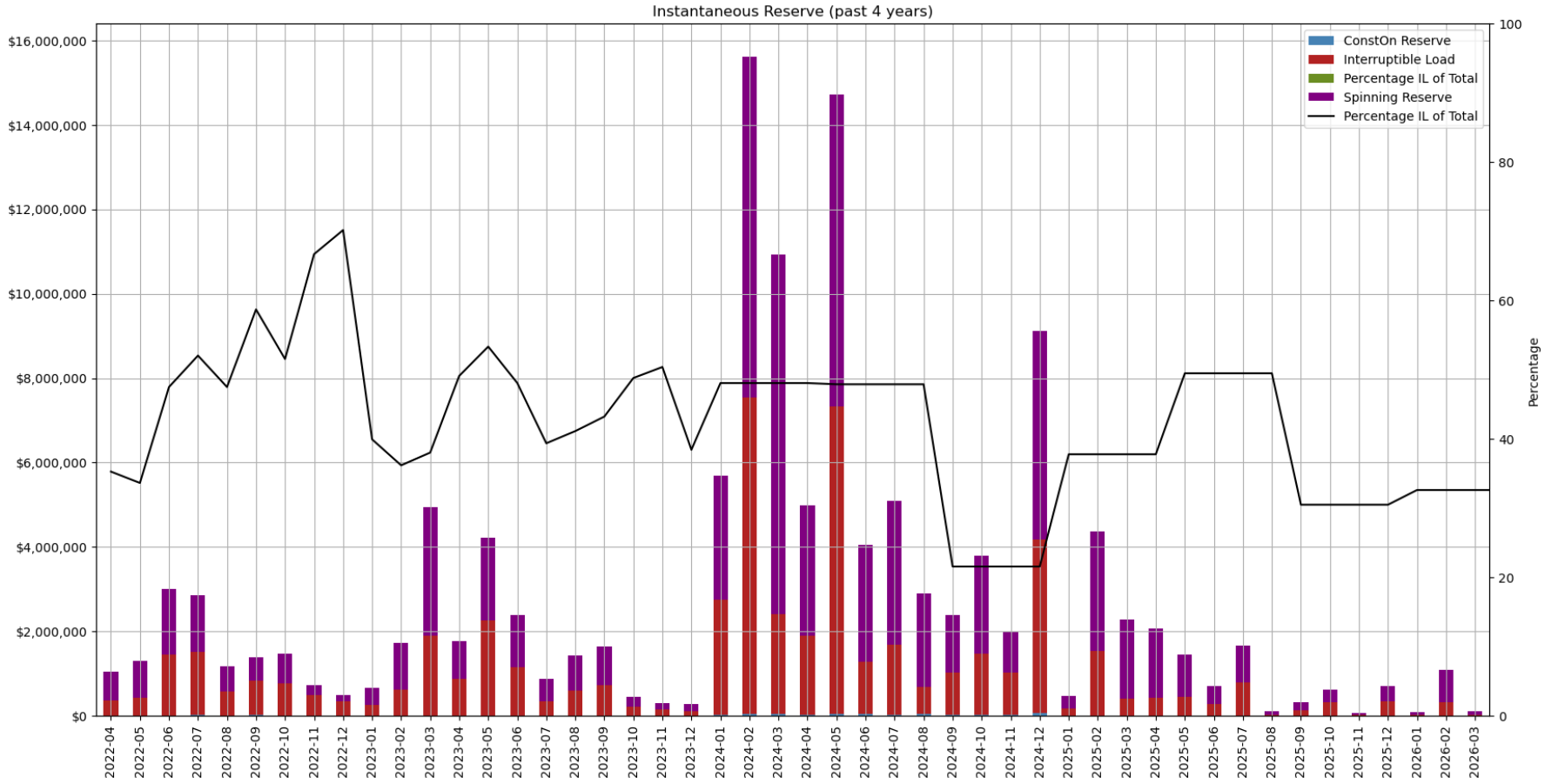
(d) the provisions of the **market operation service provider agreement**.

Contents

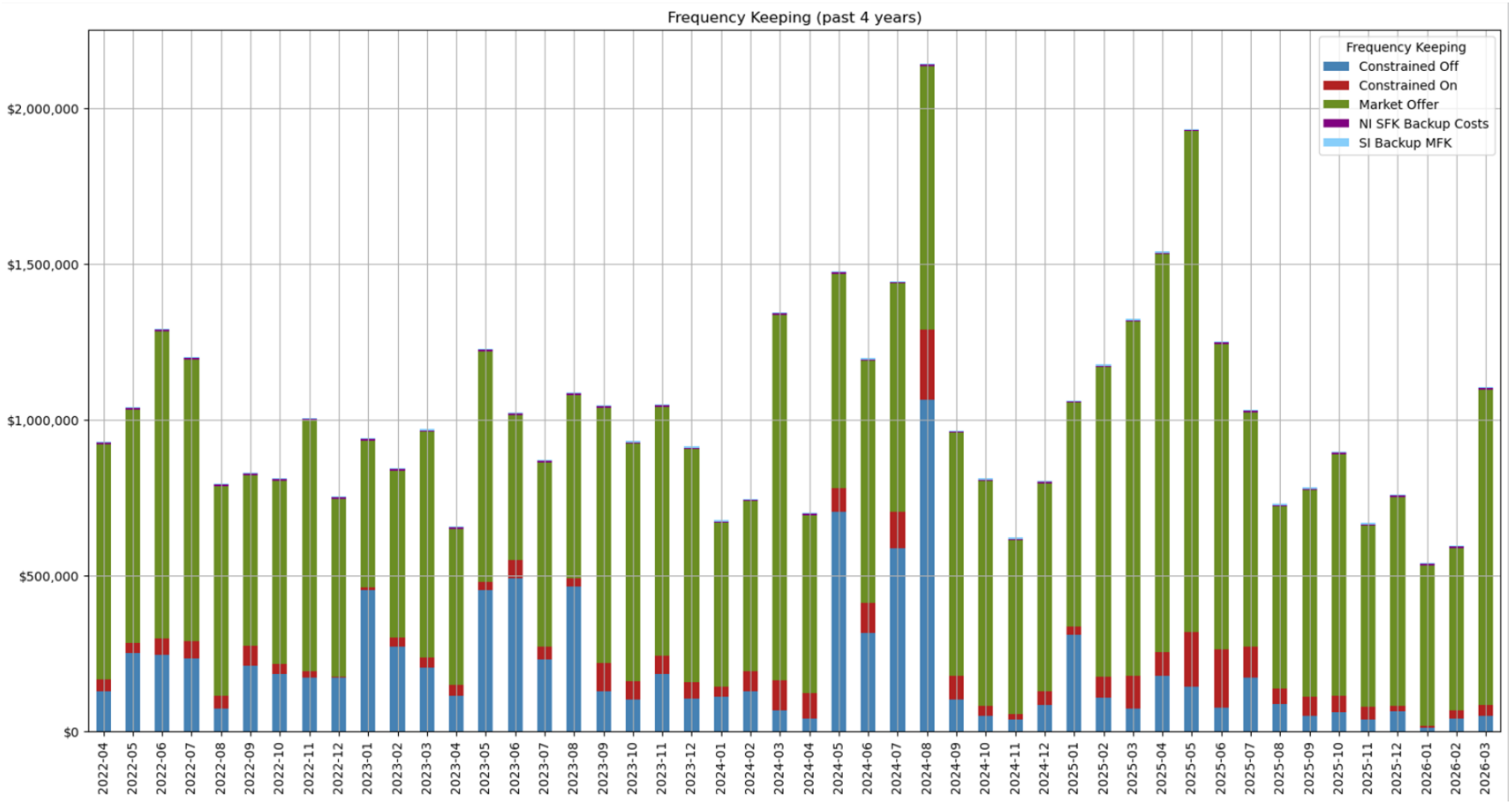
1 Ancillary services costs



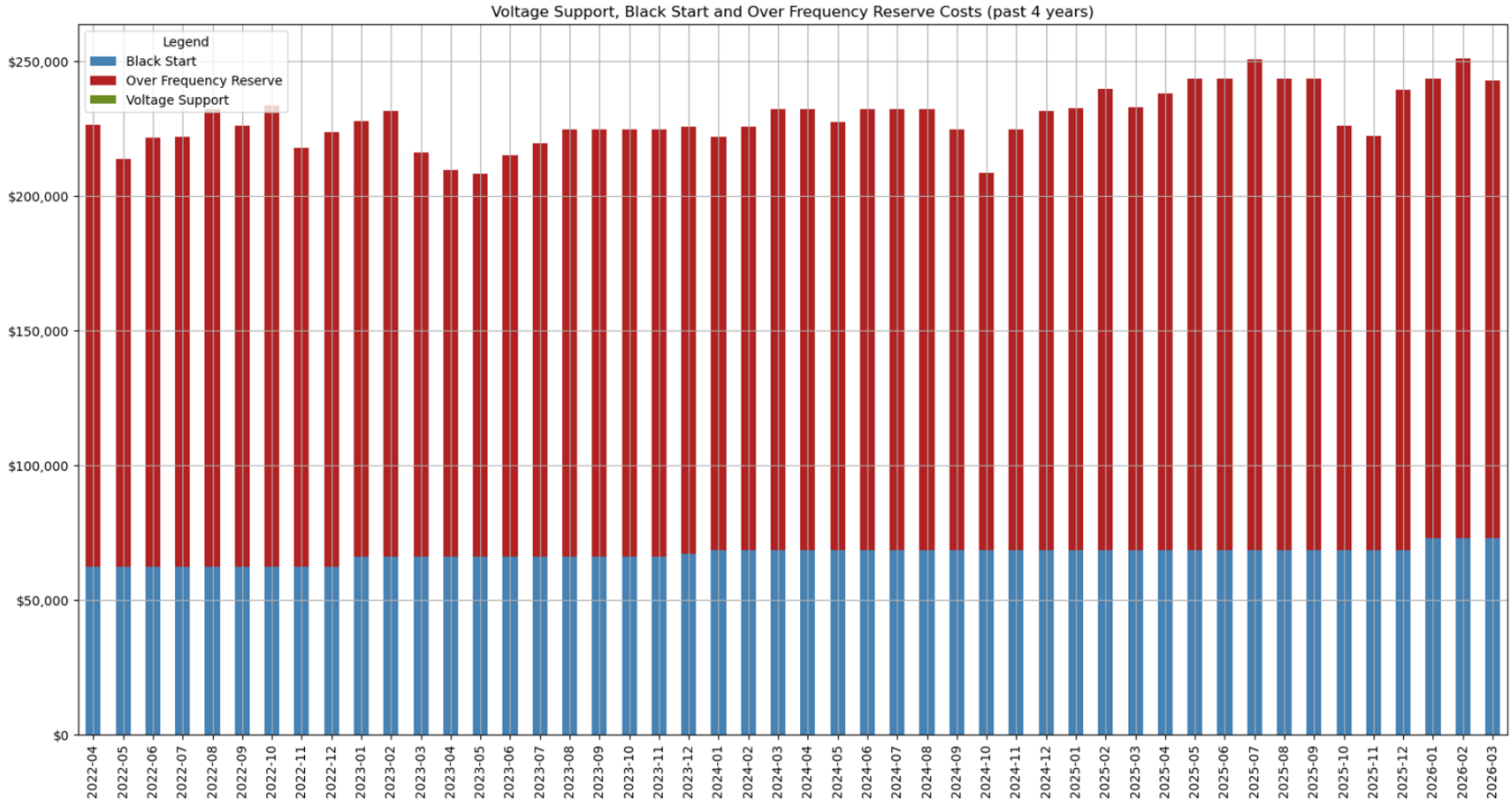
Ancillary service costs were lower this quarter than the previous quarter. The decrease was driven by decreases in instantaneous reserve costs and frequency keeping costs which are shown in more detail in the following plots.



Instantaneous reserve costs decreased this quarter. This was due to a combination of warmer temperatures reducing demand and high levels of hydro storage in the South Island keeping thermal generation off for much of the time. There were some periods of higher reserve prices in the North Island due to planned and unplanned HVDC outages.



There was a decrease in frequency keeping costs this quarter in both islands. The decrease was driven by reductions to constrained on and constrained off frequency keeping costs.

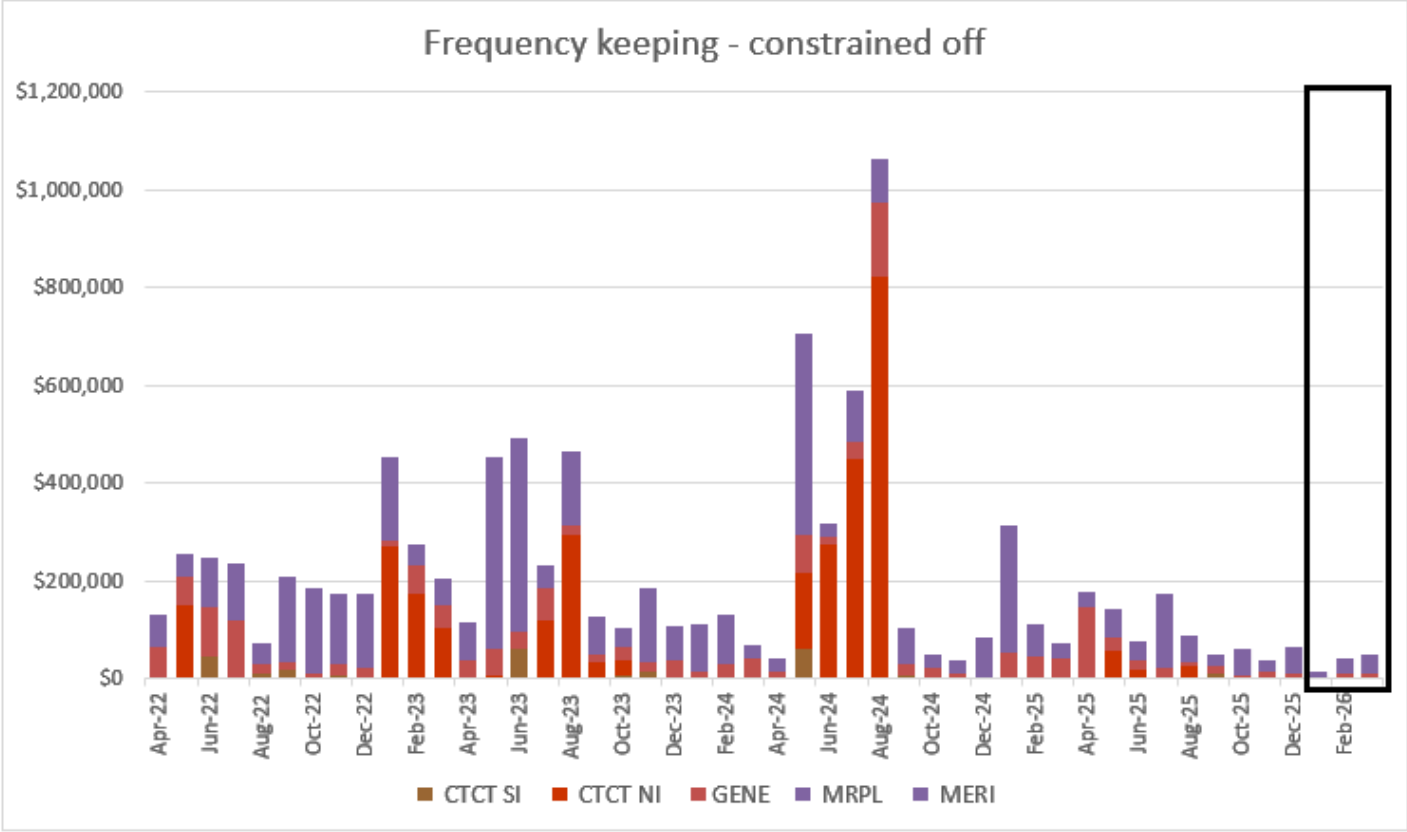


Over frequency reserve costs were higher this quarter which reflects increased availability of generator units which provide these services and because inflation adjustments were applied to all over frequency contracts. Increased black start costs this quarter are associated with the new black start (North Island) procurement contracts which took effect on 1 January and inflation adjustments for the remaining black start (South Island) contracts.

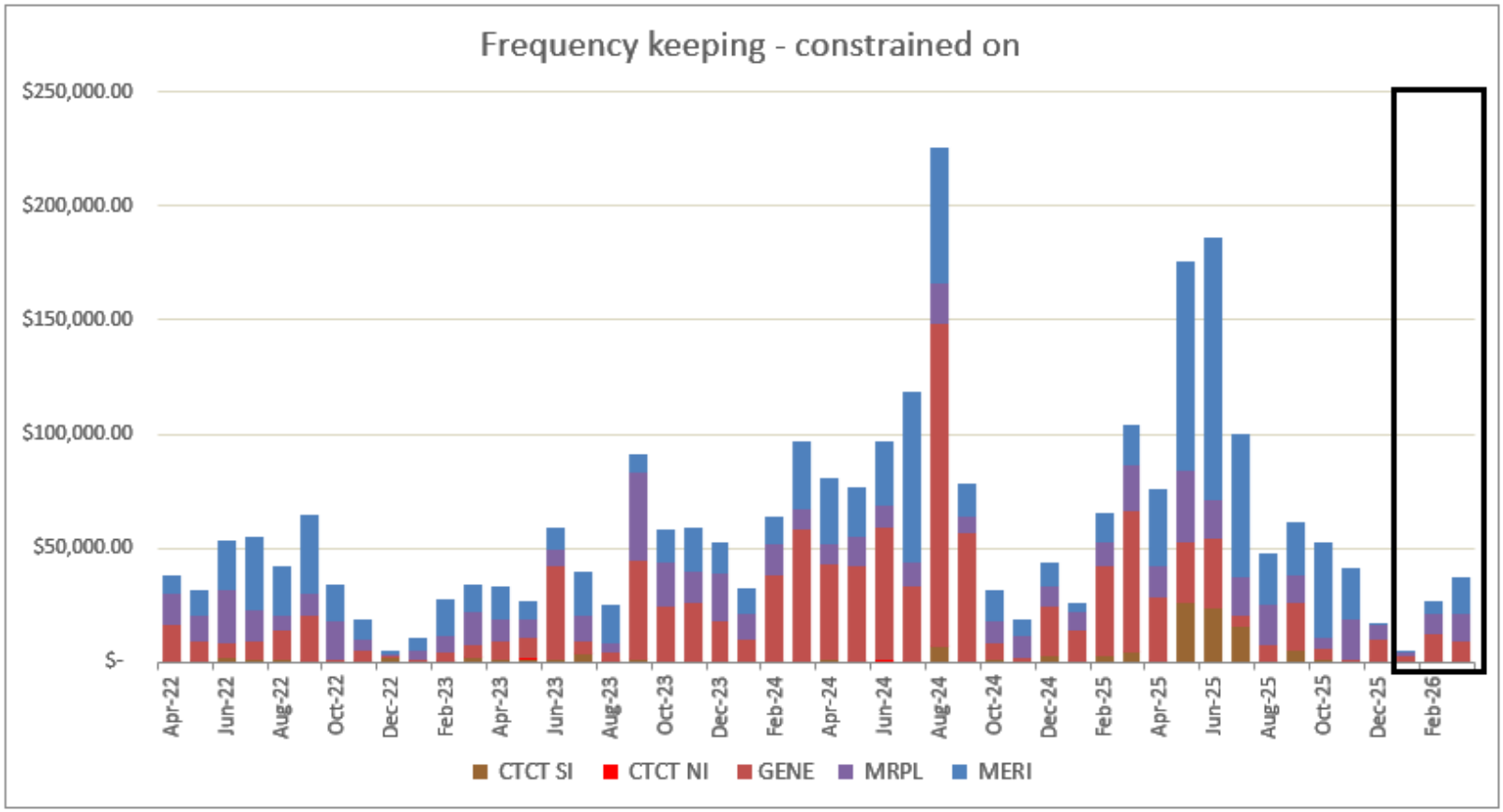
2 Constrained on/off costs

Note: Where there is a high payment, as opposed to in increasing/decreasing trend, it will often relate to payments over a small number of trading periods.

Frequency Keeping

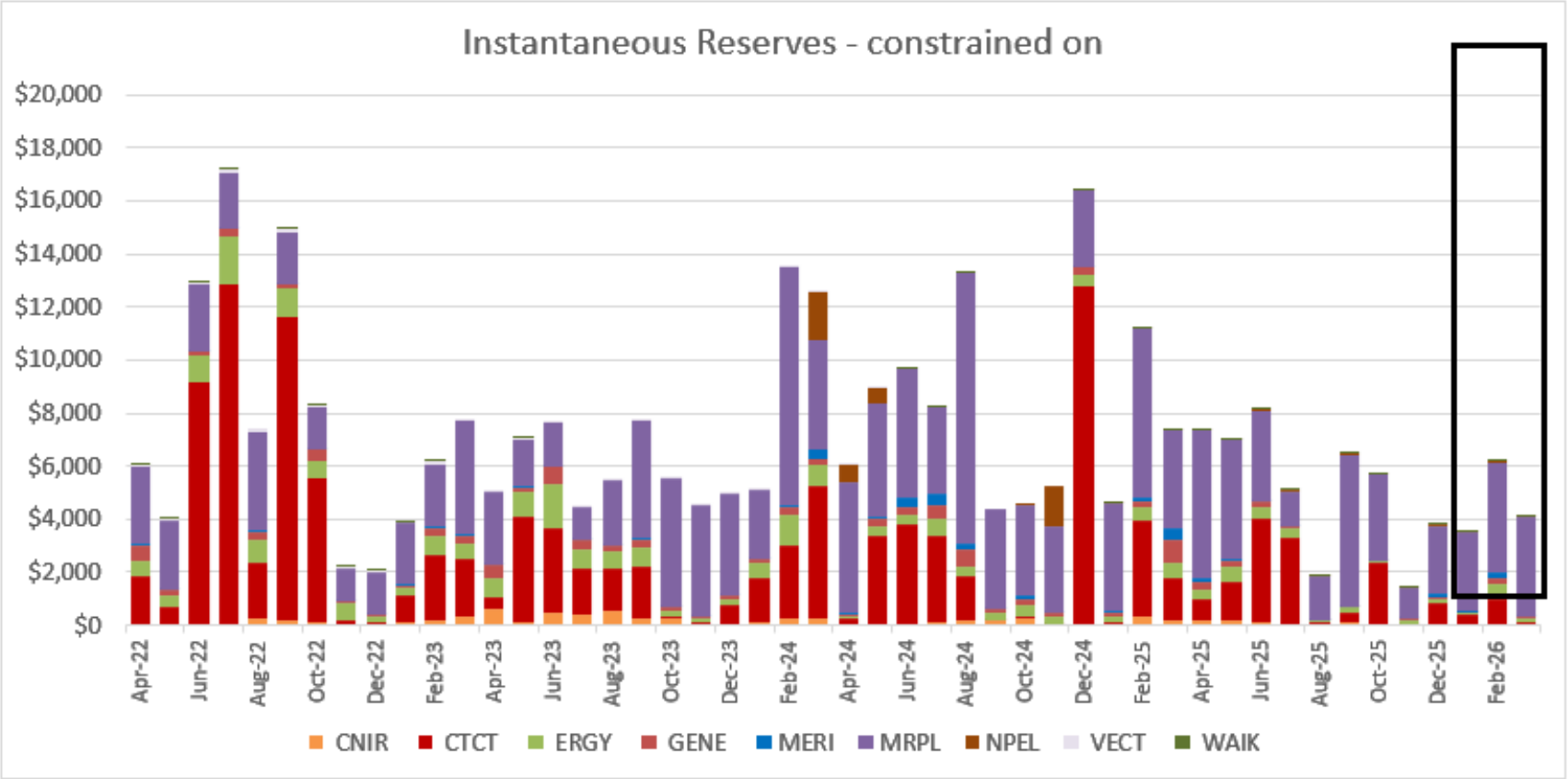


Constrained off costs have fallen this quarter. The decrease in costs can mainly be attributed to the lower market prices for generation compared to the previous quarters.



Constrained on costs decreased this quarter reflecting lower market prices for generation as hydro storage in the South Island catchments remained high for most of the quarter. However overall, these costs are still relatively low compared to other ancillary service costs.

Instantaneous Reserves



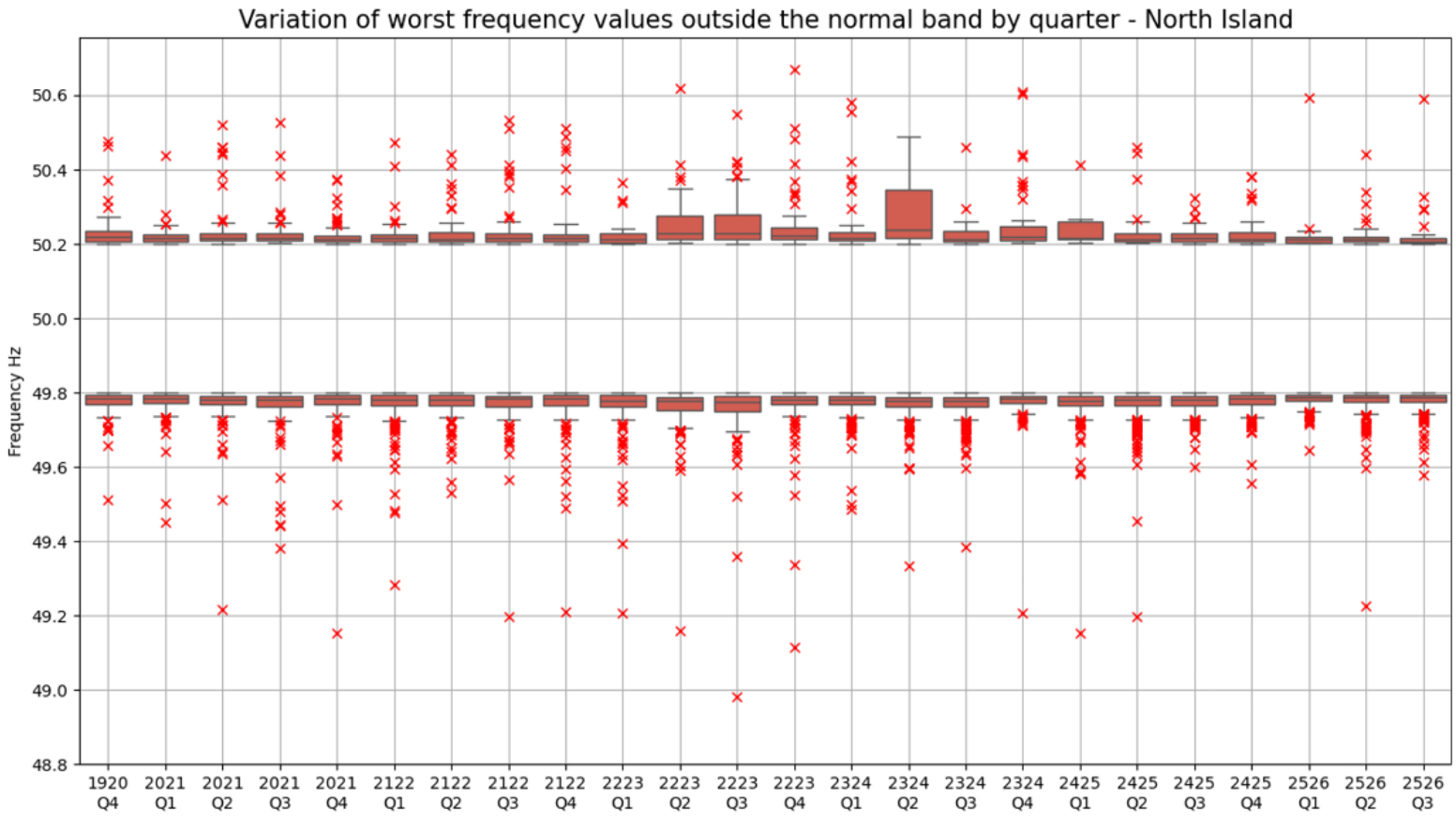
Costs increased this quarter coinciding with HVDC outages when reserves must be procured within the receiving island. Costs remained relatively low.

3 Frequency fluctuations

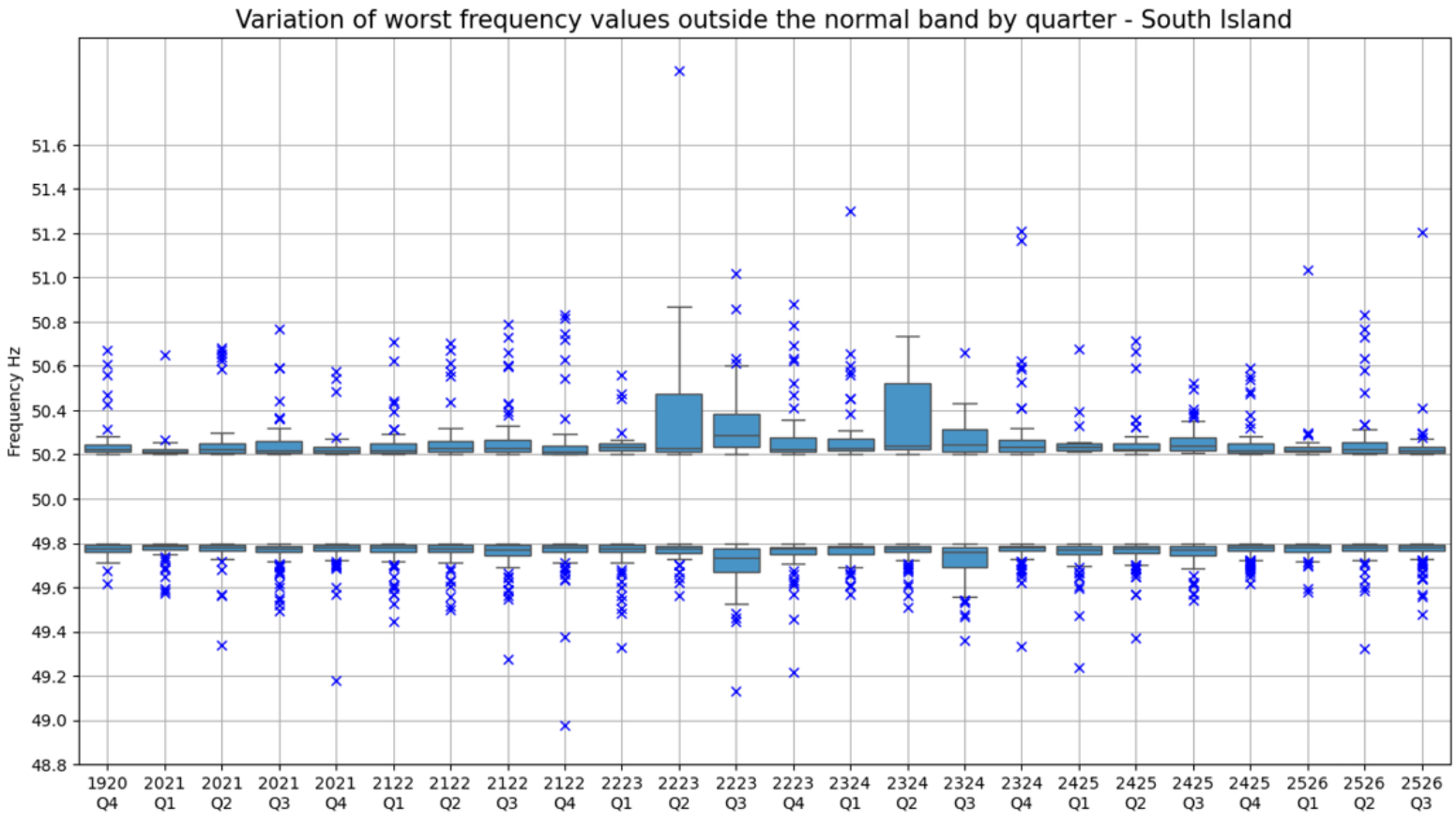
3.1 Maintain frequency in normal band (Frequency value)

The following charts show the distribution of the frequency excursions outside the normal band (49.8 to 50.2 Hz) by quarter, including the reporting period.

North Island



South Island



Note: These box and whisker charts show the distribution of data. The "box" represents the distribution of the middle 50% of the data, the "whiskers" indicate variability, and outliers are shown as single data points.

Excursions ± 0.5 Hz of the normal band this quarter:

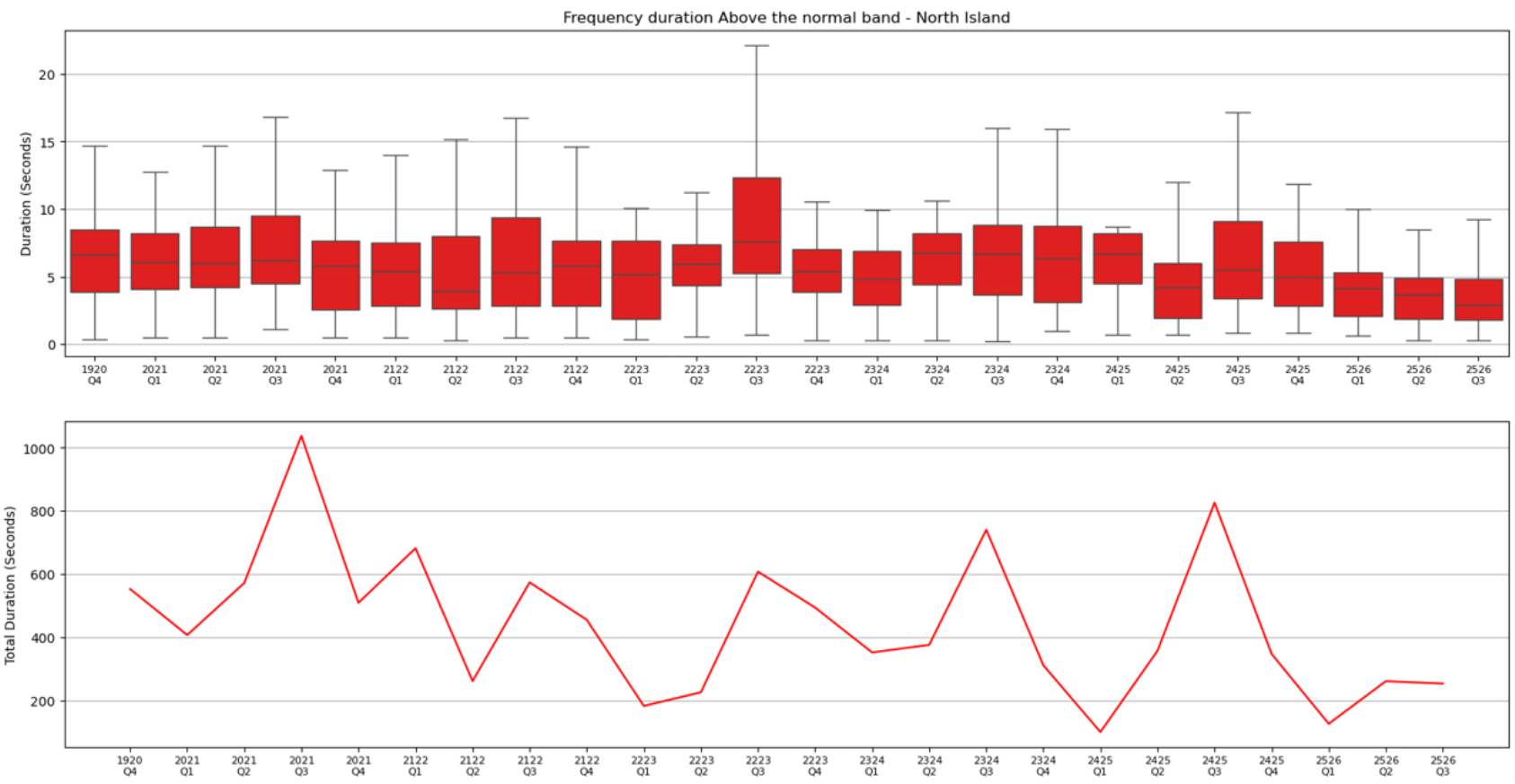
	Above	Below
January	Tiwai Potline 15/01, 23/01, 2x instances on 08/01	Manapouri G6 shutdown 27/01
February	HVDC Pole 3 trip 04/02 Maraetai-Whakamaru1 trip 13/02 Tiwai Potline emergency shutdown 22/02	HVDC Pole 3 trip 04/02
March	Tiwai Potline trip 2x instances 29/03	Manapouri Generation trip 11/03

3.2 Recover quickly from a fluctuation (Time)

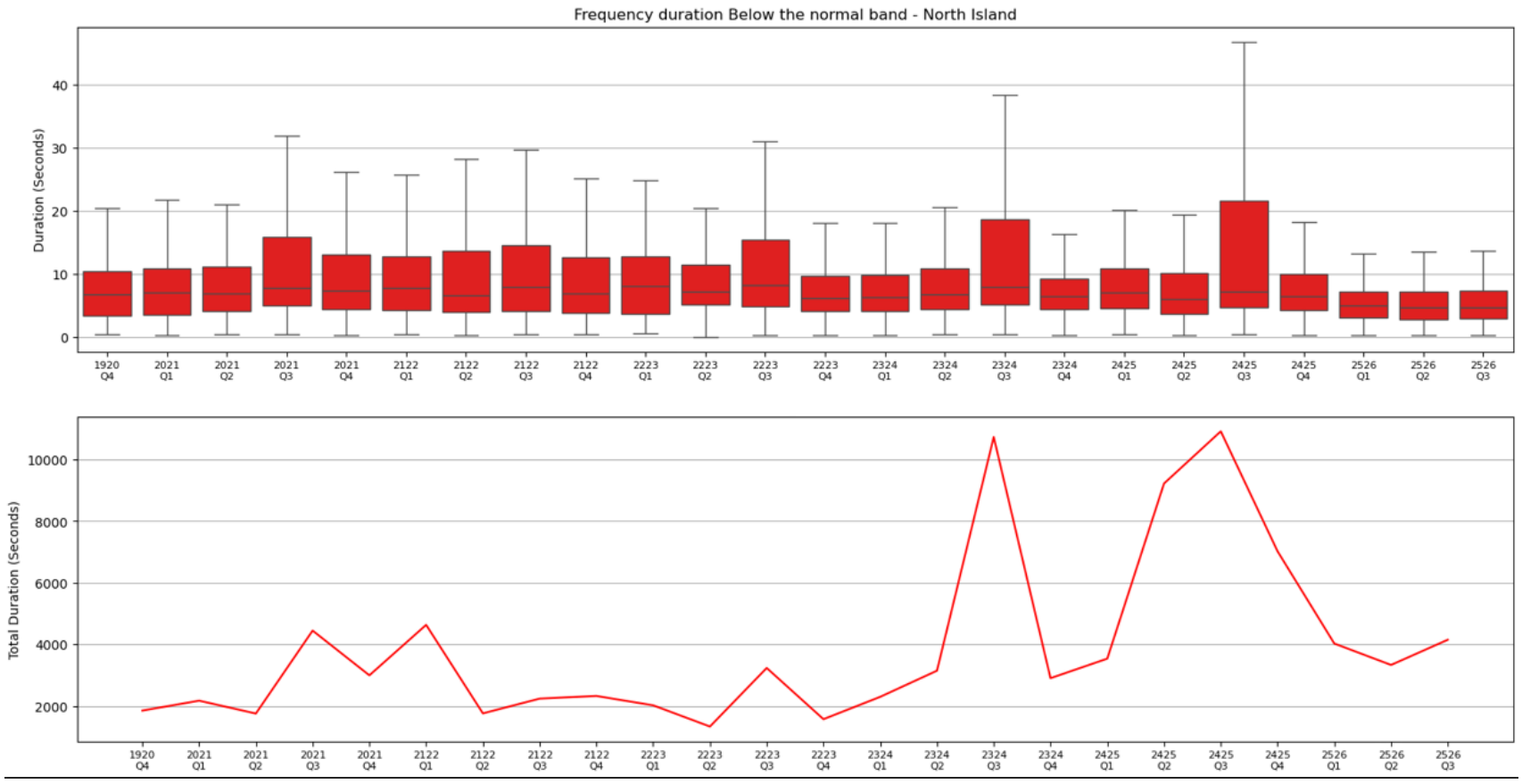
The following charts show the median and total duration of all the momentary fluctuations above and below the normal band for each island. The information is shown as a 4-quarter rolling average to illustrate trends in the data.

North Island

Above the normal band



Below the normal band

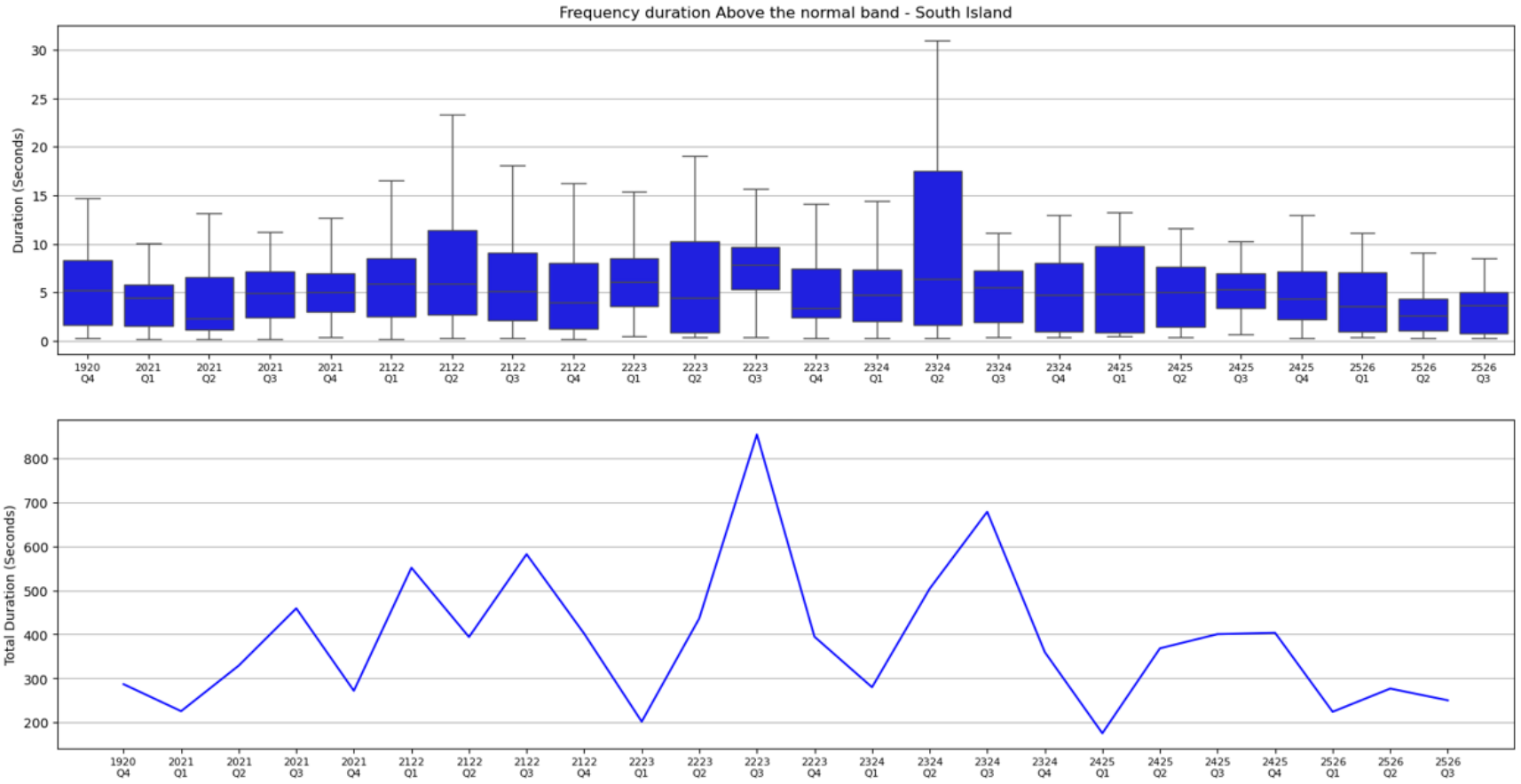


Excursions ± 0.5 Hz of the normal band this quarter:

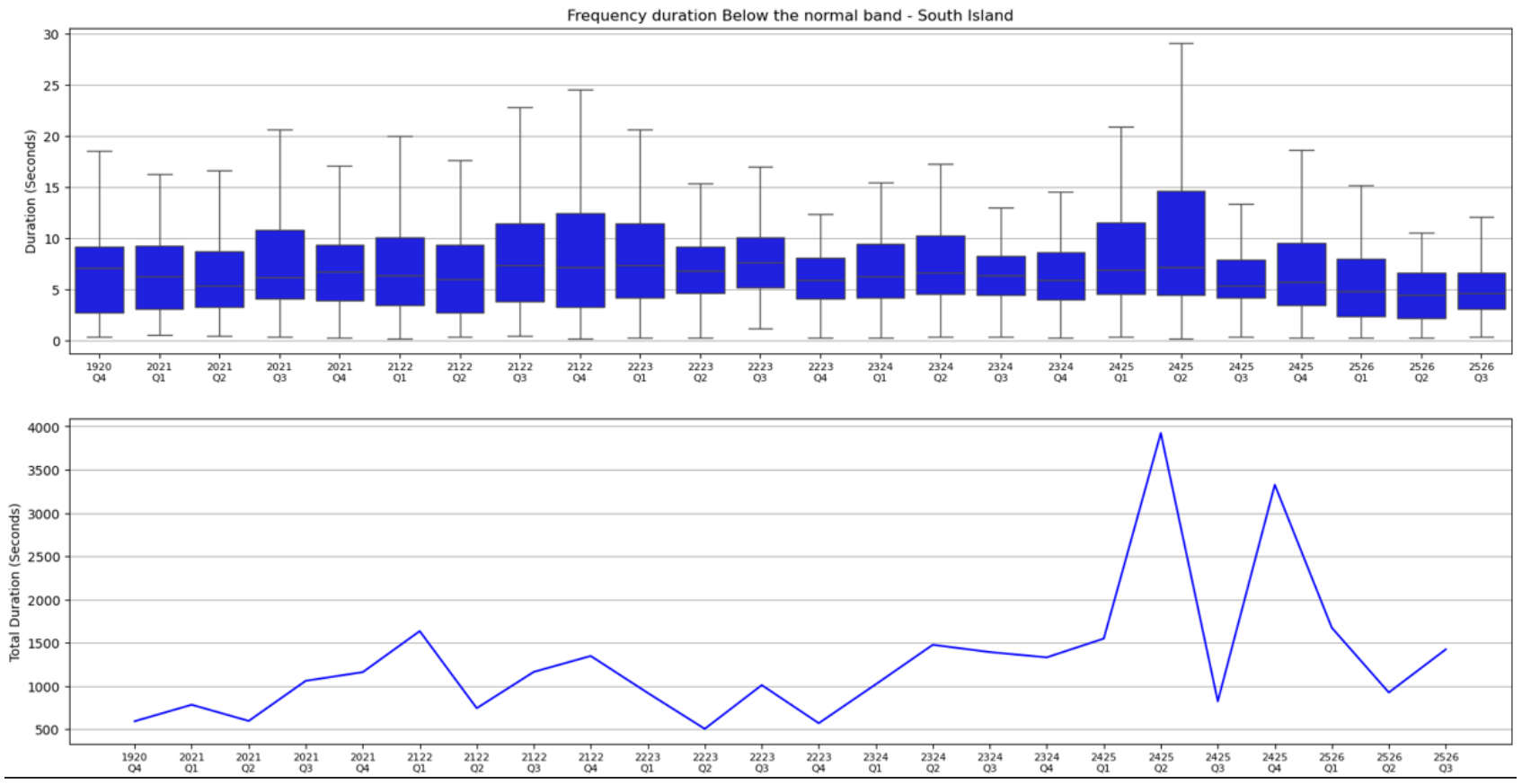
	Above	Below
January		
February	HVDC Pole 3 trip 04/02 Maraetai-Whakamaru 1 trip 13/02	HVDC Pole 3 trip 04/02
March		

South Island

Above the normal band



Below the normal band



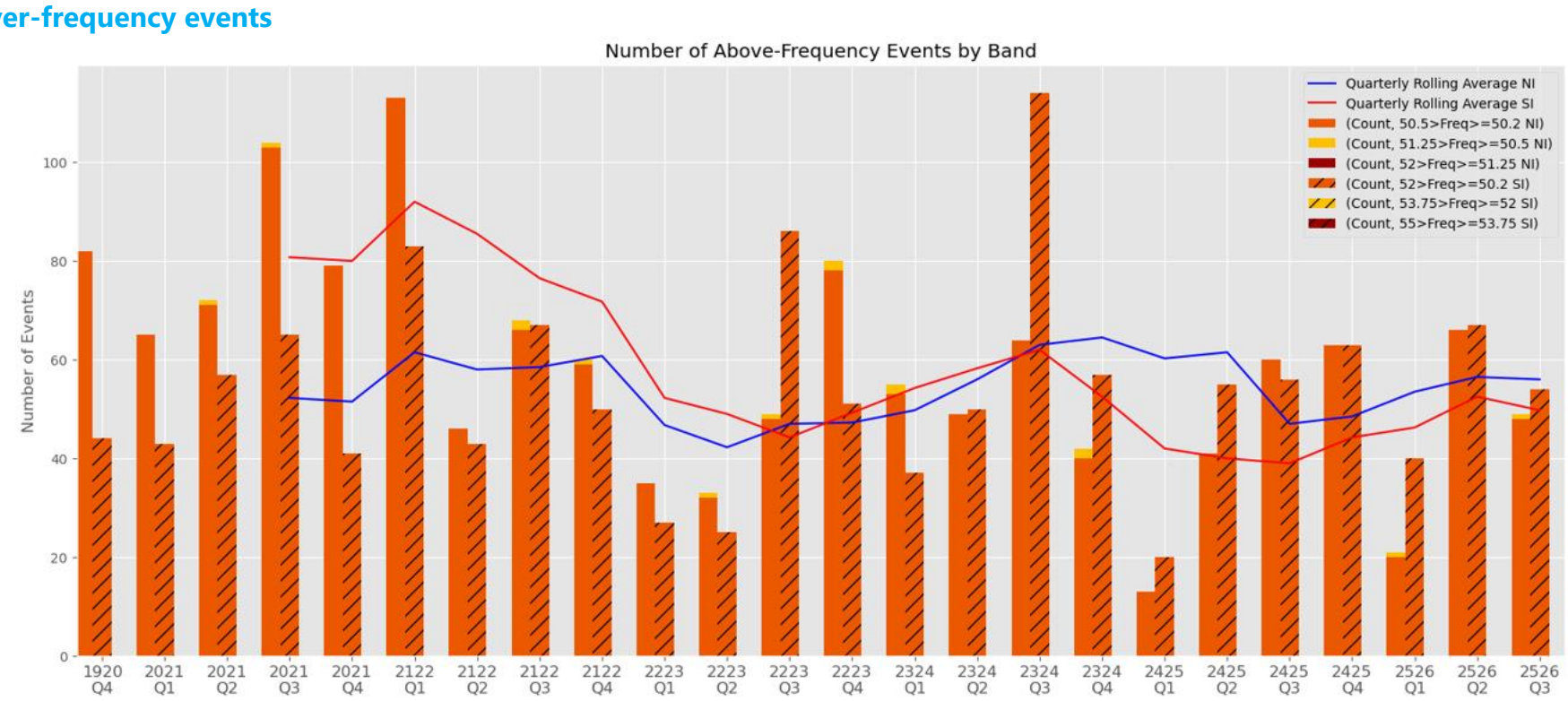
Excursions ± 0.5 Hz of the normal band this quarter:

	Above	Below
January	Tiwai Potline 15/01, 23/01, 2x instances on 08/01	Manapouri G6 shutdown 27/01
February	Tiwai Potline emergency shutdown 22/02	
March	Tiwai Potline trip 2x instances 29/03	Manapouri Generation trip 11/03

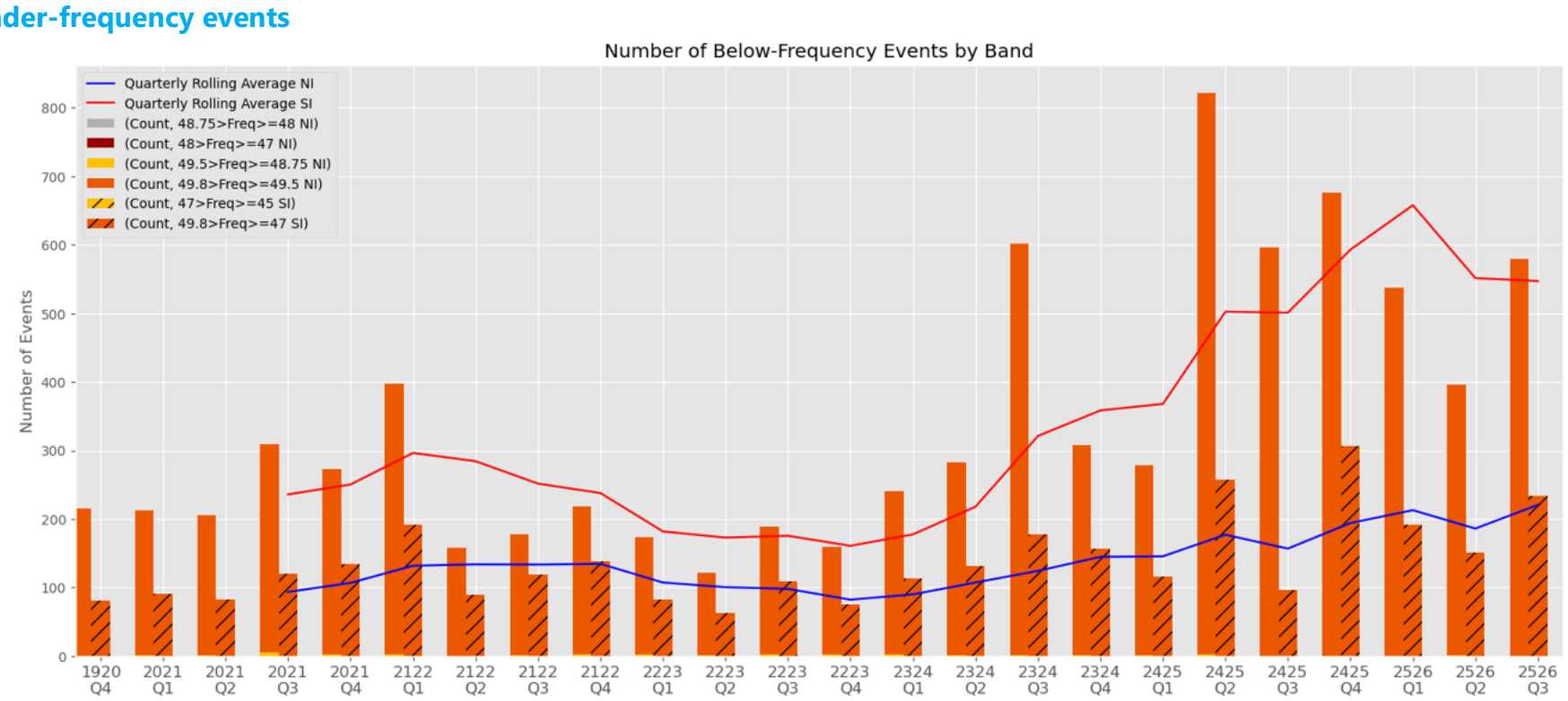
3.3 Manage frequency and limit rate of occurrences during momentary fluctuations (Number)

The following charts show the number of momentary fluctuations outside the frequency normal band, grouped by frequency band, for each quarter. Information is shown by island, including a 4-quarter rolling average to show the prevailing trend.

Over-frequency events



Under-frequency events



Excursions ± 0.5 Hz of the normal band this quarter:

	Above	Below
January	Tiwai Potline 15/01, 23/01, 2x instances on 08/01	Manapouri G6 shutdown 27/01
February	HVDC Pole 3 trip 04/02 Maraetai-Whakamaru 1 trip 13/02 Tiwai Potline emergency shutdown 22/02	HVDC Pole 3 trip 04/02
March	Tiwai Potline trip 2x instances 29/03	Manapouri Generation trip 11/03

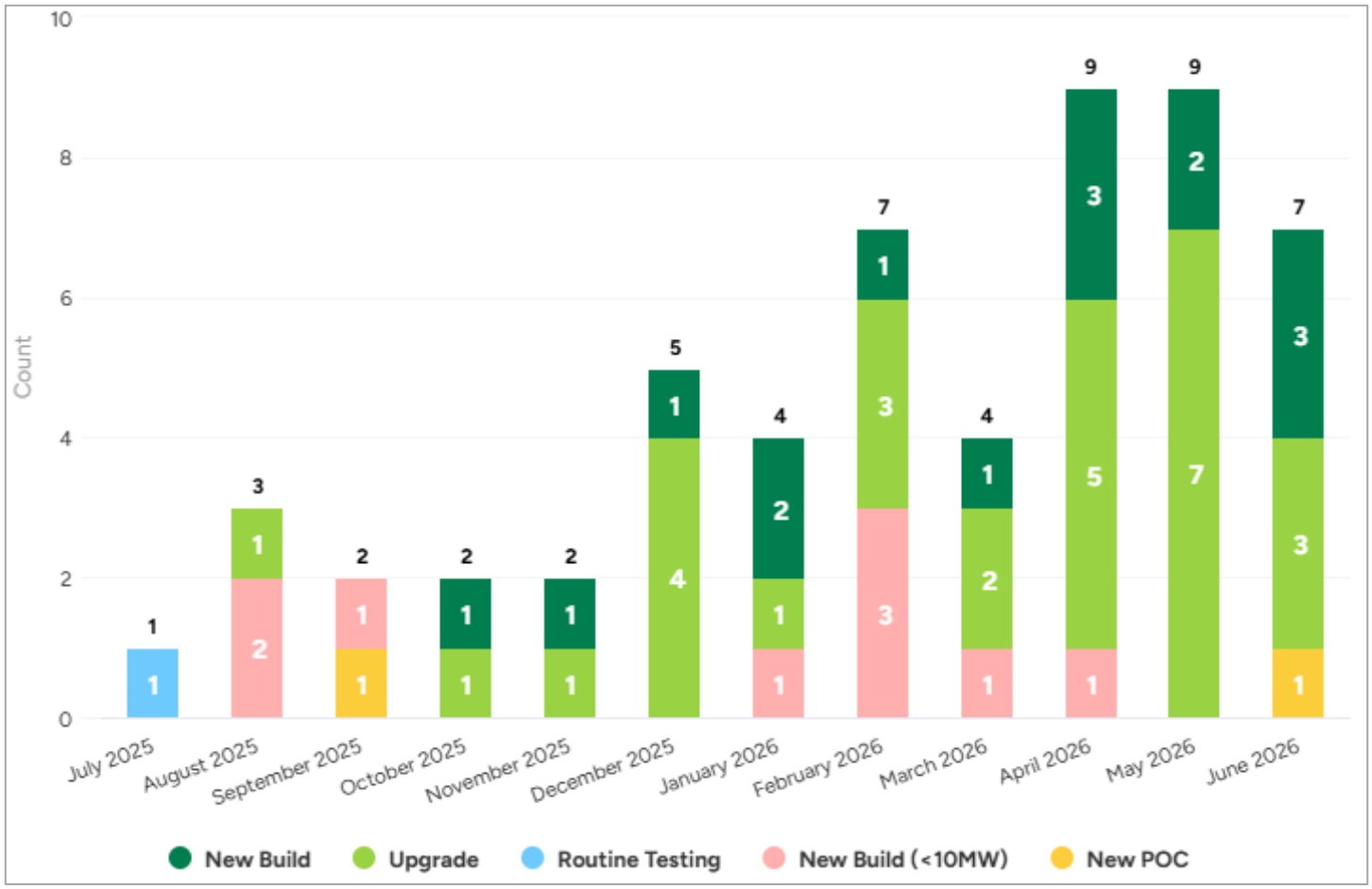
Reporting against Code clause 7.2E:

North Island	52 > x ≥ 51.25	51.25 > x ≥ 50.5	49.5 > x ≥ 48.75	48.75 > x ≥ 48	48 > x ≥ 47
2024					
Apr	0	2	0	0	0
May	0	0	0	0	0
Jun	0	0	1	0	0
Jul	0	0	1	0	0
Aug	0	0	0	0	0
Sep	0	0	1	0	0
Oct	0	0	0	0	0
Nov	0	0	0	0	0
Dec	0	0	2	0	0
2025					
Jan	0	0	2	0	0
Feb	0	0	0	0	0
Mar	0	0	1	0	0
Apr	0	0	1	0	0
May	0	0	0	0	0
Jun	0	0	0	0	0
Jul	0	0	1	0	0
Aug	0	0	0	0	0
Sep	0	1	0	0	0
Oct	0	0	2	0	0
Nov	0	0	0	0	0
Dec	0	0	1	0	0
2026					
Jan	0	0	0	0	0
Feb	0	1	1	0	0
Mar	0	1	0	0	0

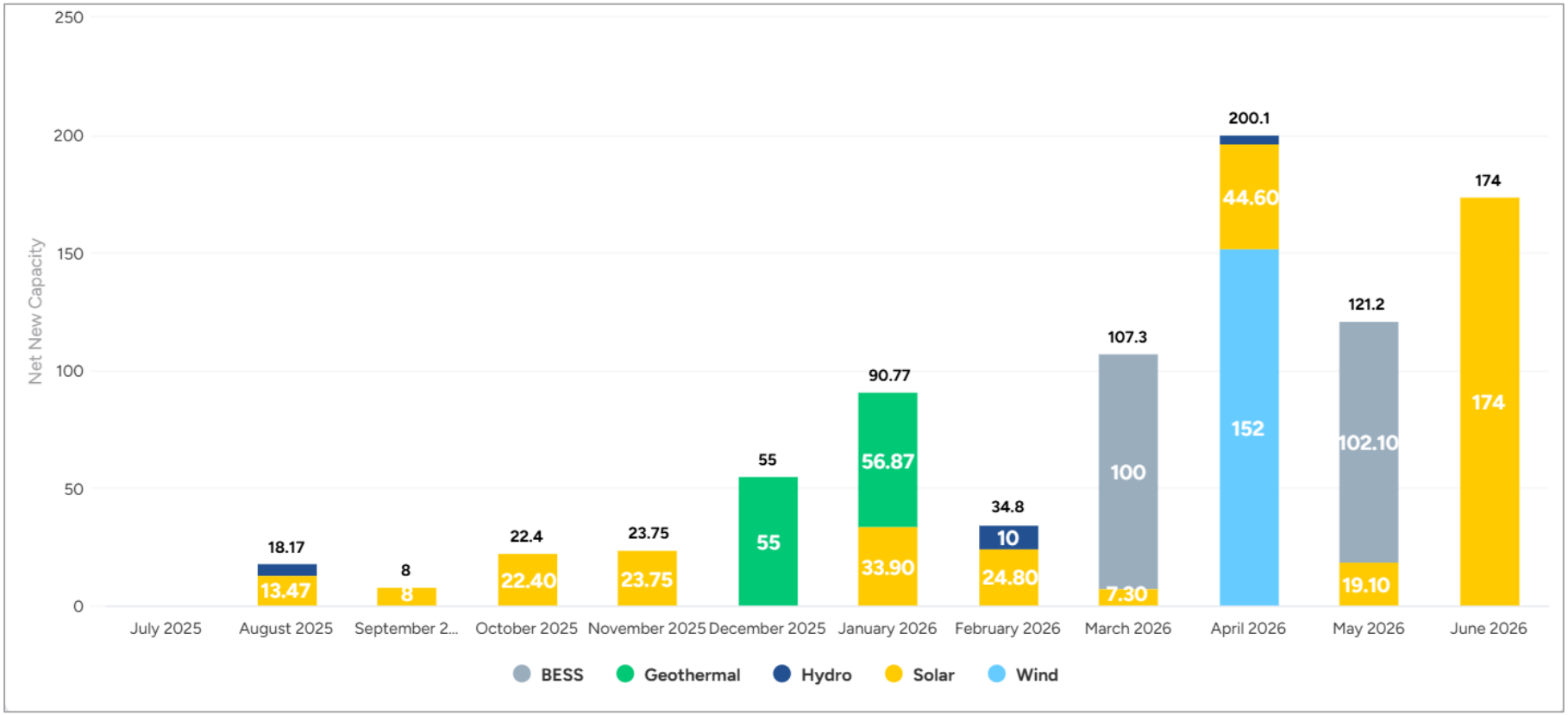
South Island	55 > x ≥ 53.75	53.75 > x ≥ 52	52 > x ≥ 51.25	51.25 > x ≥ 50.5	49.5 > x ≥ 48.75	48.75 > x ≥ 48	48 > x ≥ 47	47 > x ≥ 45
2024								
Apr	0	0	0	2	0	0	0	0
May	0	0	0	0	0	0	0	0
Jun	0	0	0	0	1	0	0	0
Jul	0	0	0	0	1	0	0	0
Aug	0	0	0	0	0	0	0	0
Sep	0	0	0	0	1	0	0	0
Oct	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0
Dec	1	0	0	0	2	0	0	0
2025								
Jan	0	0	0	0	2	0	0	0
Feb	0	0	0	0	0	0	0	0
Mar	0	0	0	0	1	0	0	0
Apr	0	0	0	0	1	0	0	0
May	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0
Jul	0	0	0	0	1	0	0	0
Aug	0	0	0	0	0	0	0	0
Sep	0	0	0	1	0	0	0	0
Oct	0	0	0	0	2	0	0	0
Nov	0	0	0	0	0	0	0	0
Dec	0	0	0	0	1	0	0	0
2026								
Jan	0	0	0	0	0	0	0	0
Feb	0	0	0	1	1	0	0	0
Mar	0	0	0	1	0	0	0	0

4 Commissioning

4.1 FY 25/26 Completed and Confirmed Commissioning



4.2 FY 25/26 New Capacity (MW) by Generation Type



5 Security notices

The following table shows the number of Warning Notices, Grid Emergency Notices and Customer Advice Notices issued over the last 12 months.

Notices issued	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Demand Allocation Notice	-	-	-	-	-	-	-	-	-	-	-	-
Grid Emergency Notice	1	1	-	-	-	-	5	5	3	-	-	-
Warning Notice	-	-	-	-	1	-	-	1	-	-	-	-
Customer Advice Notice	18	21	10	5	14	10	12	14	10	22	23	11

5.1 Low residual CANs

This quarter we have issued no low residual Customer Advice Notices.

5.2 Grid emergencies

There were no grid emergencies declared by the System Operator in January to March 2026.