



ASIC

Australian Securities & Investments Commission

Commonwealth of Australia Gazette

MDP04/24, Wednesday, 25 September 2024

Published by ASIC

ASIC Gazette

Contents

Markets Disciplinary Panel: Infringement Notice

Recipient: Macquarie Bank Limited

The recipient has complied with the infringement notice. Compliance is not an admission of guilt or liability; and the recipient is not taken to have contravened subsection 798H(1) of the Corporations Act 2001.







PART 7.2A OF THE CORPORATIONS REGULATIONS 2001 INFRINGEMENT NOTICE

To: Macquarie Bank Limited

ACN 008 583 542

Level 12

1 Elizabeth Street SYDNEY NSW 2000

Matter: MDP 1213/23

Date given: 26 August 2024

TAKE NOTICE: The Australian Securities and Investments Commission (*ASIC*) gives this infringement notice to Macquarie Bank Limited ACN 008 583 542 (*Macquarie*) under regulation 7.2A.04 of the *Corporations Regulations 2001* (*Regulations*), which is made for the purposes of section 798K of the *Corporations Act 2001* (*Act*).

To comply with this notice, Macquarie must pay a penalty to ASIC, on behalf of the Commonwealth, in the sum of \$4,995,000.

Background

- 1. Macquarie is a Market Participant on the ASX 24 market.
- 2. Electricity futures contracts are listed for trading on the ASX 24 market.
- 3. At the relevant time, Macquarie was the largest Market Participant in the ASX 24 electricity futures market, accounting for approximately 58% of all electricity futures orders placed on the ASX 24 market.
- 4. The trading hours for the ASX 24 electricity futures market are from 10:00am AEST/AEDT to 4:00pm AEST/AEDT.
- 5. The commonly used reference price to reflect the fair market value of the underlying electricity futures contract is the Daily Settlement Price (*DSP*). The calculation of the DSP will be impacted by trades executed in a 2-minute Settlement Window (from 15:58:00 to 16:00:00 AEST/AEDT) and orders (bids and asks) present and unmodified for the whole of the 10-second Settlement Window (from 15:59:50 to 16:00:00 AEST/AEDT), and which are at a price more competitive than the last traded price.
- 6. Three clients of Macquarie placed 51 orders (*Relevant Orders*) for various electricity contracts in the last minute of trading from 12 January 2022 to 27 September 2022

Markets Disciplinary Panel: Infringement Notice Page 3 of 22

that impacted the DSP. These clients used Direct Market Access (*DMA*), where Macquarie permitted its clients to place orders with Macquarie which were then routed via Macquarie's terminals to ASX 24 to trade futures contracts on the ASX 24 market. The Relevant Orders are listed in Annexure A.

- 7. Macquarie's primary trade surveillance tool, 'SMARTS' programmed by Nasdaq Smarts Inc failed to trigger alerts for the Relevant Orders due to an error in the system, caused by the close time for the ASX 24 electricity futures market being incorrectly coded by Nasdaq to 16:30 instead of 16:00 (*hard coding error*).
- 8. Notwithstanding the hard coding error, the MDP considered that Macquarie breached the ASIC Market Integrity Rules (Futures Markets) 2017 (Rules) by allowing all but the first Relevant Order to be placed on ASX 24 when it ought to have reasonably suspected that those orders were placed with the intention of creating a false or misleading appearance with respect to the market for, or the price of, the contract.

Chronology of Events

- 9. On 12 January 2022, Relevant Order 1 was placed with Macquarie by a third party derivatives broker (*third party broker*) on behalf of a client of Macquarie (*client one*). This order was placed 14 seconds before the market close and impacted the DSP by 3.1%. The MDP did not consider that Macquarie breached the Rules by allowing this order but it is relevant in demonstrating a pattern of 'marking the close' by client one.
- 10. From 25 January 2022 to 10 February 2022, Relevant Orders 2-4 were placed with Macquarie by the third party broker on behalf of client one. These orders were placed from 2 to 12 seconds before the market close and impacted the DSP by 0.8% to 7.9%.
- 11. On 22 February 2022, in the course of its surveillance, ASIC emailed Macquarie with an enquiry about five orders in various electricity contracts entered 7 to 14 seconds before market close. The enquiry included Relevant Orders 1-4.
- 12. On 14 March 2022, to further investigate those orders, ASIC served Macquarie with notices to provide information and documents.
- 13. For the purpose of responding to ASIC notices, Macquarie obtained copies of communications between the third party broker and client one. Had someone at Macquarie examined these communications more closely, they would have identified instructions were given by client one to the third party broker that ought to have raised suspicion that they were aimed at influencing electricity futures contract prices rather than genuine trading. For example, instructions from client one at 14:56 on one day were to place an order on 'cob ie 2 seconds to go'.
- 14. On 28 March 2022, Macquarie responded to ASIC's notices and confirmed that its trade surveillance system SMARTS did not generate any internal alerts prior or subsequent to placement of each order that ASIC enquired about.
- 15. Macquarie's response also outlined the parameters for its 'marking the close' and 'Entry of High Closing Bid or Low Closing Ask' alerts. While not related to the hard coding error, the MDP noted that these parameters did not match how the DSP was

Markets Disciplinary Panel: Infringement Notice Page 4 of 22

calculated in the ASX 24 electricity futures market.

- 16. On 28 March 2022, Macquarie emailed the Nasdaq SMARTS service desk enquiring about the grouping of electricity contracts into a separate segment to devise a more targeted monitoring for these instruments, including activity around the close. However, in the subsequent correspondence with Nasdaq, Macquarie did not expressly raise the issue that certain alerts were not being triggered until 21 June 2022.
- 17. A Macquarie representative was subsequently examined by ASIC about manually reviewing the market at that time and stated '...there was not the level of concern that something might not have been working appropriately. And so no it was not considered.'
- 18. From 2 May 2022 to 19 May 2022, Relevant Orders 5-14 were placed with Macquarie by client one. These orders were placed from 1 to 20 seconds before the market close and impacted the DSP by 0.3% to 4.7%.
- 19. On 23 May 2022, ASIC sent Macquarie a further enquiry in relation to the steps and protocols a Macquarie analyst was required to follow when reviewing a marking on close alert.
- 20. On 25 May 2022, Macquarie stated in a response that 'Surveillance is currently reviewing whether any additional market-segment grouping can be used to assist [sic] identify the order activity raised by ASIC in the March notices. Discussions are underway with surveillance system vendor SMARTS.'
- 21. From 23 May 2022 to 1 June 2022, Relevant Orders 15-20 were placed with Macquarie by client one. These orders were placed from 2 to 55 seconds before the market close and impacted the DSP by 0.6% to 1.1%.
- 22. On 2 June 2022, ASIC contacted the compliance team at Macquarie by telephone, as part of ASIC's dialogue with all energy market participants at a time of peak electricity market volatility, to ask if they had any concerns, on clients meeting margin payment or on trading activity, and to alert them of ASIC's focus on this market given its volatility and to encourage them to report any suspicious activities. In response, Macquarie emailed ASIC noting an awareness of the electricity market's 'significant market volatility.'
- 23. From 3 June 2022 to 7 June 2022, Relevant Orders 21 26 were placed with Macquarie by client one. These orders were placed from 1 to 55 seconds before the market close and impacted the DSP by 0.5% to 26.7%.
- 24. During this time, Macquarie did not undertake enquiries or investigations into client one.
- 25. On 8 June 2022, ASIC again telephoned the compliance team at Macquarie, during which ASIC stated that it had observed some activity of concern around the close of ASX 24 energy products and requested that Macquarie advise its clients to be mindful of their trading obligations and that this activity was a focus area for ASIC at that time.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 5 of 22

- 26. On 9 June 2022 and 15 June 2022, Relevant Orders 27 and 28 were placed with Macquarie by another client of Macquarie (*client two*). These orders were placed 2 and 8 seconds before the market close and impacted the DSP 2.8% and 1.3%.
- 27. On 15 June 2022, Macquarie sent Nasdaq a follow up email regarding its earlier request for a new security filter for electricity futures asking for an 'ETA' and stating that 'it is becoming a higher priority'.
- 28. On 21 June 2022, Macquarie emailed Nasdaq that Macquarie was running calibration tests to generate an alert for a transaction that was executed on 10 June 2022 just before the close but was not able to get the alert. Macquarie requested Nasdaq to advise why the alert could not be generated and how it could achieve the desired result.
- 29. Macquarie did not get a response from Nasdaq and followed up with them on 27 June 2022 for an update.
- 30. A Macquarie representative was subsequently asked by ASIC in an examination:
 - Question: [W]e're looking at a time when we've got volatility in the electricity futures market. You're being faced with inquiries from ASIC. Are you thinking of putting anything else in place that will fill this gap at this stage?
 - Answer: This time there is not something contemplated. Because it could have been that I was just using a wrong percentage at my end. So at this stage there was not the level of concern.
- 31. On 27 June 2022, Relevant Orders 29 and 30 were placed with Macquarie by client two. These orders were placed 4 and 3 seconds before the market close and impacted the DSP 2.5% and 3.5%.
- 32. On 5 July 2022, Macquarie received an email from Nasdaq that it ran some calibrations but that a particular transaction was not captured in any of them. When subsequently examined by ASIC about the email, the Macquarie representative answered:
 - ...I was concerned. Because that's not something that should be part of the coding logic. And that's when you start questioning whether things are working as intended...
- 33. On 12 July 2022, ASIC sent an email to Macquarie alerting it to the four trades by client two to query whether any of the trades triggered a surveillance alert in Macquarie's surveillance system, and if so, to provide details.
- 34. On 13 July 2022, Macquarie replied that one trade generated a 'layering' surveillance alert however following review was not escalated further. No alerts were received for the other trades.
- 35. On 21 July 2022, an agenda for a governance forum meeting with Macquarie and Nasdaq recorded in the agenda 'Alerts not firing as expected. Pending SMARTS review' and on 22 July 2022, Macquarie received a response from Nasdaq that:

Since testing for Market Dominance at Close alert did not generate alert for below

Markets Disciplinary Panel: Infringement Notice Page 6 of 22

scenario when all thresholds set to minimum or 0 values and manual checks did not identify a reason, I have raised investigation ticket to alerts team to advise why alert could not be issued:

...

Please kindly note that analysis might take up to several weeks depending on the workload, thus appreciate your patience while we receive results on this.

- 36. Sometime in mid-July, Macquarie considered an interim workaround. Macquarie representatives were subsequently examined by ASIC about this and responded as follows:
 - a) A representative from Macquarie's risk surveillance team stated that implementing a manual fix was discussed internally in July 2022 but that 'it was decided that, based on resourcing and based on the...time that it would require to review, that we would wait for the SMARTS response before carrying that out';
 - b) A representative from Macquarie's risk surveillance team when asked about a workaround stated:
 - ...So what I'd done I think was around this time July. Mid July. That I went into SMARTS and I activated this rule called, 'Order and trade report.' Which is not really an alert. It's just a summary of everything that goes through the electricity market at the time.

But then I tried to test out how we could potentially leverage that control. But that control turned out to be very manual, very tedious and very difficult to track as well. And alongside with the messages we were getting back from, from SMARTS, I thought that was not, I made a decision that was not the right course of action to take at the time.

- c) And when asked what led to the decision other than the tedious nature of it, the representative stated:
 - '...the amount of time that it would have taken. The amount of manual... effort it could have taken place. How are we going to retain the record of that analysis? How are we going to employ those records into our, you know, retention system for alerting cases. There was a lot of complication that I would have had to work out in order to operationalise that. Rather than conducting it manually. And that's why I was hoping for an answer from SMARTS so that we could put in place something more strategic.'
- d) A representative from Macquarie's compliance team stated 'I ... didn't do anything extra within that time [between March and June].... Compliance doesn't own the relationship with SMARTS; that's a relationship owned by our Risk Surveillance function.'
- 37. From 8 September 2022 to 27 September 2022, Relevant Orders 31-51 were placed with Macquarie by a third client (*client three*). These orders were placed 13 or 14 seconds before the market close and impacted the DSP by 0.3% to 16.3%.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 7 of 22

- 38. On 4 October 2022, ASIC made enquiries of Macquarie in relation to these 21 orders placed by client three.
- 39. On 5 October 2022, Macquarie replied that 'No surveillance alerts were triggered for this activity'.
- 40. From 22 July 2022 to 7 October 2022, Macquarie sent sporadic requests to Nasdaq regarding the alerts and on 7 October 2022, Macquarie emailed Nasdaq and asked:

'Can we please get an update on this as matter of priority? It's been outstanding for way too long and [we] need to understand why the alert is not triggering.'

- 41. On the same day, Nasdaq responded that the issue 'is still being investigated'.
- 42. Later on 7 October 2022, Macquarie emailed Nasdaq and asked:

Can we get an actual update instead if this standard response please? What is holding up the investigation of this issue?

- 43. On 7 October 2022 Nasdaq advised Macquarie of the hard coding error by replying that the market close time for the 'Market Dominance at Close' alert is hard coded to 16:30:00.
- 44. By 9 October 2022, after Nasdaq had confirmed the hard coding error, Macquarie implemented an interim measure which involved an analyst undertaking a manual review of alerts.
- 45. On 10 October 2022, Macquarie emailed Nasdaq requesting same day confirmation and details that the closing time should have been set to 16:00 and not 16:30 and informed Nasdaq of ASIC's inquiries.
- 46. On 11 October 2022, Nasdaq replied that it was still investigating.
- 47. On 12 October 2022, Macquarie sent an email to Nasdaq requesting answers to its questions today, noting it was of regulatory interest and that 'we need to get a handle on where the issue lies and what the implications are across our surveillance universe.'
- 48. Later on 12 October 2022, Nasdaq responded to Macquarie's questions as follows (answers in blue):

Can you confirm that the correct value for the close time used by the alert logic should have been 16:00 (here) and this was incorrectly hardcoded on SMARTS side to 16:30, thus causing the alert not to fire?

-> Yes this is correct. Based on our analysis, the impact for this specific alert on this venue is limited to: Intra Day Options on 10 Year Treasury Bond Futures and associated Options, Intra-Day Options on 3 Year Treasury Bond Futures and associated options, Electricity and Gas contracts on ASX24

How widespread is this issue? i.e. are there any other markets globally where

Markets Disciplinary Panel: Infringement Notice Page 8 of 22

a hardcoded close time differs from the correct exchange close time?

-> The team have checked markets where you have this alert enabled, a subscribed subscription to that venue and whereby the alert hardcoded close exists – other impacted venues are CME and NYMEX

Is this a street-wide issue that affects all customers?

-> This is a street wide issue for customers on impacted venue(s) whereby they have enabled this impacted alert. For each customer, it does depend on what the CLOSING_DOMINANCE_PERIOD alert parameter is set to (in this case Macquarie's was 15 mins).

Can you please send out a notification email detailing the issue and remediation steps?

- -> We will issue that tomorrow once we have a commitment from our tech and product teams around ETAs for releases to remediate. We intend to send a standard notice to impacted customers. Is there anything you need from us in addition to that?
- 49. On 12 October 2022, Macquarie sought more information about the matter and on 13 October 2024, Nasdaq advised Macquarie that they were working on a release to fix the hard coding error.
- 50. On 14 October 2022, Macquarie lodged a Suspicious Activity Report pursuant to Rule 3.6.1 of the Rules for potential market manipulation in relation to Relevant Orders 31-51 placed by client three (after ASIC had made enquiries of Macquarie in relation to those orders).
- 51. On 18 October 2022, Macquarie emailed Nasdaq for an update and on the same day, Nasdaq responded attaching the Nasdaq Official Incident Notice.
- 52. On 21 October 2022, Nasdaq emailed Macquarie to advise that a fix to the hard coding error would be rolled out over the weekend.
- 53. Nasdaq incident report titled 'SFE- Incorrect close times on some ASX24/SFE products' dated 31 October 2022 included:

Following a support issue raised by a customer through the NTS support process, Nasdaq have uncovered a bug in the correct handling of the "Closed" instrument state on certain products within the SFE/ASX24 market whereby certain alerts would not trigger if an instrument closed before a pre-configured and hardcoded expected close time across impacted products on the SFE market.

Impacted products:

- · Intra Day Options on 10 and 3 Year Treasury Bond Futures,
- · Overnight Options on 10 and 3 Year Treasury Bond Futures,
- · NZ 90 Day Bank Bill Futures and Options
- · Electricity and Gas contracts

Impacted alerts:

· Market Dominance at Close

Markets Disciplinary Panel: Infringement Notice Page 9 of 22

· Pattern of Establishing Day High/Low Close

The bug was introduced in Jan 2018 following a planned change to migrate configuration files which were read by the alert engine to a new automated and revision controlled solution. The configuration file in question was used by the alert engine to understand the end of day close time of products on SFE.

As a result of this change, customers missed alerts during the period of this bug being in existence in Production. Nasdaq have taken action to review and correct the handling of the instrument state messages processed within the system.

Alleged Contraventions – Rule 3.1.2(1)(b) (false and misleading appearance)

- 54. Rule 3.1.2(1)(b) of the Rules provides:
 - (1) A Market Participant must not offer to purchase or sell a Contract or deal in any Contract:
 - (b) on account of any other person where:
 - (i) the Market Participant intends to create;
 - (ii) the Market Participant is aware that the person intends to create; or
 - (iii) taking into account the circumstances of the Order, a Market Participant ought reasonably suspect that the person has placed the Order with the intention of creating,

a false or misleading appearance of active trading in any Contract or with respect to the market for, or the price of, any Contract.

55. Rule 3.1.2(3) of the Rules provides:

For the purposes of subparagraph (1)(b)(iii), in considering the circumstances of the Order, the Market Participant must have regard to the following matters:

- (a) whether the Order or execution of the Order would be inconsistent with the history of or recent trading in that Contract;
- (b) whether the Order or execution of the Order would alter the market for, or the price of, the Contract;
- (c) the time the Order is entered or any instructions concerning the time of entry of the Order:
- (d) whether the person on whose behalf the Order is placed, or another person who the Market Participant knows to be a related party of that person, may have an interest in creating a false or misleading appearance of active trading in any Contract or with respect to the market for, or the price of, any Contract;
- (e) whether the Order is accompanied by settlement, delivery or security arrangements which are unusual;
- (f) where the Order appears to be part of a series of Orders, whether when put together with other Orders which appear to make up the series, the Order or the series is unusual having regard to the matters referred to in this subrule;
- (g) whether there appears to be a legitimate commercial reason for that person placing the Order, unrelated to an intention to create a false or misleading appearance of active trading in or with respect to the market for, or price of,

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 10 of 22

any Contract;

- (h) whether the proposed transaction, bid or offer which is proposed will involve no change of beneficial ownership;
- (i) the frequency with which Orders are placed by a person;
- (j) the volume of Contracts the subject of each Order placed by a person; and
- (k) the extent to which a person amends or cancels an instruction to purchase or sell a Contract relative to the number of transactions executed for that person.
- 56. ASIC Regulatory Guide 266 includes indicators that may combine to give rise to reasonable grounds to suspect that an order or transaction may affect market integrity. While this guidance is in the context of when a Market Participant is required to notify ASIC of reportable matters under Rule 3.6 of the Rules, similar principles apply as to circumstances when a participant ought reasonably suspect that the person has placed an order with the intention of creating a false or misleading appearance. The indicators are in Table 6 at 266.146 are as follows:

Primary indicator	Other indicators
 An order is placed: near the close of the trading day; or on the last day of the month, quarter, 	The order forms part of a trading pattern where the client or trader regularly chooses to buy high or sell low at the close. This may be a reportable matter where the order would, if executed, represent a significant increase or decrease from the previous trade price ('price support', 'marking the close' or 'window drossing')
half year or financial year	or 'window dressing') Other indicators include: • the client or trader chooses not to buy or sell at other times of the trading day when better prices are available;
	In addition, the client or trader may already hold existing positions in the futures contracts or related derivatives, and have an interest in maintaining the price of the futures at a certain level

- 57. The MDP did not consider, nor did ASIC allege, that Macquarie breached Rule 3.1.2(1)(b)(iii) by permitting Relevant Order 1 to be placed on 12 January 2022. However, the order displayed similar characteristics to the subsequent Relevant Orders by client one and should have contributed to a suspicion by Macquarie about client one's intention to impact the DSP when it placed the following Relevant Orders from 25 January 2022.
- 58. The MDP considered that it had reasonable grounds to believe that Macquarie breached Rule 3.1.2(1)(b)(iii) by permitting the subsequent 50 Relevant Orders 2-51 to be placed on the ASX 24 market between 25 January 2022 and 27 September 2022. This is because, taking into account all the circumstances, Macquarie ought to have reasonably suspected that the orders were placed with the intention of creating a false or misleading appearance with respect to the market for, or the price of, the contract in the ASX 24 electricity futures market by impacting the DSP.
- 59. Macquarie has accepted that it breached Rule 3.1.2(1)(b)(iii) by permitting all but Relevant Order 1 to be placed on the ASX 24 market.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 11 of 22

60. The MDP considered that Macquarie ought to have reasonably suspected that Relevant Orders 2-51 were placed with the intention of creating a false or misleading appearance, given the following circumstances.

Timing of orders and instructions as to timing

- 61. All of the Relevant Orders were placed within the last minute of the close. Given the methods for calculating the DSP, these orders were likely to, and did, affect the DSP.
- 62. A number of the late orders were matched with existing orders that had been available in the market for considerable time, suggesting they were placed to influence the DSP rather than a genuine desire to trade.
- 63. In respect of client one, Macquarie obtained documents between the third party broker and client one that should have raised suspicion that client one was seeking to influence electricity futures contract prices rather than engage in genuine trading. The MDP considered, given ASIC's queries and the circumstances of the trading, these communications should have been examined more closely by Macquarie and would have put it on notice of client one's possible intent with its subsequent orders.

Impact on the market

64. All the Relevant Orders impacted the DSP. The impact was between 0.3% and 26.7%.

Pattern of trading

65. Given that the clients were placing the Relevant Orders over multiple days with similar characteristics that impacted the DSP, this pattern of trading should have increased the suspicion that each client was trading with the intent to impact the DSP.

Client's interest in impacting the market

66. The Relevant Orders were placed across 26 dates and impacted the DSP in a direction that may have been favourable to the client's existing interest in that contract. On each of those dates, the respective client's position may have benefitted in the range of \$10,762 up to \$4,274,688.

Lack of commerciality

67. A number of the orders appear to lack commerciality, being asks where there had been bids placed earlier at higher prices, or conversely, bids where there had been asks placed earlier at lower prices.

Regulatory enquiries into clients' trading

68. Macquarie was alerted to potentially suspicious trading by ASIC. On 22 February 2022, ASIC enquired about five late orders including the first four Relevant Orders. This was followed up by notices to further investigate. The fact that ASIC's surveillance identified these orders and ASIC was further investigating should have added to Macquarie suspicion about client one's motives with its subsequent orders.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 12 of 22

69. ASIC's enquiries should have also alerted Macquarie that it had a problem with, and could not rely on, its SMARTS alerts from this time. This should have been reinforced by ASIC's further enquiries on 12 July 2022 about the Relevant Orders placed by client two.

Volatility in Electricity market

- 70. Geopolitical factors in 2022 resulted in extreme volatility in energy markets, which volatility could create conditions that incentivised manipulative behaviour in energy markets.
- 71. Macquarie should have been alerted to heightened risks of misconduct in the electricity futures market given its dominance in the market and given ASIC's contact on 2 June 2022 asking if Macquarie had concerns about, amongst other things, trading activity and its request for Macquarie to report suspicious activity. This was followed up by a call by ASIC on 8 June 2022 that it had observed activity of concern around the close of the ASX 24 energy products.

The determination of penalty

- 72. In determining the appropriate penalty for each alleged contravention, the MDP considered the four key factors set out in ASIC Regulatory Guide 216: Markets Disciplinary Panel (RG 216), namely:
 - (a) the character of the conduct;
 - (b) the consequences of the conduct;
 - (c) the participant's compliance culture; and
 - (d) remedial steps taken by the participant.

Character of the conduct

- 73. In considering the character of the conduct, the MDP have considered the conduct over three periods:
 - a) 12 January 2022 to 10 February 2022 (*first period*) when client one placed Relevant Orders 1-4;
 - b) 2 May 2022 to 27 June 2022 (*second period*) when client one placed Relevant Orders 5-26 and client two placed Relevant Orders 27-30; and
 - c) 8 September 2022 to 27 September 2022 (*third period*) when client three placed Relevant Orders 31-51.

Markets Disciplinary Panel: Infringement Notice Page 13 of 22

First Period

- 74. The MDP considered that Macquarie's conduct during the first period, from the time it received the second Relevant Order on 25 January 2022 until the fourth Relevant Order on 10 February 2022, was careless.
- 75. The MDP noted that Macquarie did not receive alerts from the first four Relevant Orders and this, unbeknownst to Macquarie, may have been because of the hard coding error.
- 76. However, the MDP considered that Markets Participants must be aware of, and responsible for, orders placed including orders placed using DMA. Its monitoring of client trading should include people with the right expertise as well as surveillance software to ensure it meets its gatekeeper obligations.
- 77. Having the right expertise is particularly important with specialised, complex and potentially volatile markets like the electricity futures market. In its response to ASIC on 28 March 2022, the parameters outlined by Macquarie for its 'marking the close' and 'Entry of High Closing Bid or Low Closing Ask' alerts did not match how the DSP was calculated in the ASX 24 electricity futures market indicating that Macquarie did not have sufficient expertise to adequately monitor the electricity futures market.
- 78. The MDP also considered that while DMA was important to the market, a Market Participant offering DMA should ensure that clients that use DMA remain competent and aware of their obligations, for example by offering ongoing education or periodically assessing the competence of the clients.

Second Period

- 79. Prior to the second period, Macquarie had been alerted by ASIC to client one's trading and Macquarie had received documents where it ought to have suspected client one was trading with an intention to influence the DSP. Yet Macquarie allowed client one to place the next 22 Relevant Orders between 2 May 2022 and 7 June 2022.
- 80. Further, the failure of SMARTS to trigger alerts was a control shortfall and Macquarie should have known it could not rely on SMARTS alerts from this time. On 28 March 2022, Macquarie contacted Nasdaq regarding grouping of electricity contracts into a separate segment to devise a more targeted monitoring, including activity around the close. However, the MDP considered that Macquarie did not adequately follow this up and the circumstances should have triggered more urgent response by Macquarie. Macquarie should have also put in place a workaround to cover this control shortfall. Its failure to do so amounted to a critical process failure.
- 81. This need for more urgency was heightened in June 2022, when ASIC contacted Macquarie about the electricity market, firstly to alert it to concerns around volatility and for Macquarie to alert ASIC of suspicious activities and subsequently to advise Macquarie that ASIC had observed activity of concern around the close of ASX 24 electricity products. Macquarie should have had increased monitoring of the electricity futures market at this time.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 14 of 22

- 82. Despite these circumstances, Macquarie allowed client two to place its four Relevant Orders from 9 June 2022 to 27 June 2022. Had Macquarie increased its monitoring and devised a workaround to cover the control shortfall in the SMARTS alerts, it may have identified these orders as suspicious.
- 83. On 12 July 2022, ASIC alerted Macquarie to client two's trading. Macquarie stated that it triggered a layering alert for one trade however, analysis of the alert failed to result in consideration that the trade should also be reviewed for other potential breaches given it was executed 2 seconds prior to the close of the market. This failure to further consider the order reflects poorly on the expertise and knowledge of the staff undertaking the post trade reviews and a deficiency in Macquarie's surveillance function.
- 84. The MDP considered that, given these circumstances, Macquarie's conduct by allowing the Relevant Orders to be placed during the second period was reckless and was an aggravating factor.

Third Period

- 85. Prior to the third period, in about mid-July 2022, Macquarie considered a workaround, given that it had identified by that time that the SMARTS alerts were not working as expected. Macquarie considered whether to develop and implement an alternative surveillance measure and made a decision not to do so, considering it too resource intensive. The MDP were very concerned that Macquarie chose not to implement alternative controls knowing that there was a deficiency in its surveillance system.
- 86. Macquarie allowed client three to place its 21 Relevant Orders from 8 September 2022 to 27 September 2022.
- 87. The MDP considered Macquarie's conduct in the third period was reckless and an aggravating factor. The MDP considered this was more serious than its conduct in the second period given Macquarie's conscious decision not to put in a workaround in July 2022 to compensate for the known control shortfall from the deficiency in the SMART alerts.
- 88. Overall, the MDP considered Macquarie's failure to adequately investigate the orders identified by ASIC and ensure adequate controls were in place to address the control shortfalls in the SMARTS surveillance as a serious and prolonged failure and may amount to a systemic failure by Macquarie.

Consequences of the conduct

- 89. The monetary benefit to Macquarie from brokerage from the Relevant Orders was immaterial, although Macquarie did benefit from deferring compliance costs by its decision not to implement an alternative surveillance measure to cover the period of the SMARTS deficiency.
- 90. The benefit to clients one, two and three was possibly more significant as on each day where the Relevant Orders were placed, the respective client's margin position may have benefitted in the range of \$10,762 up to \$4,274,688.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 15 of 22

- 91. Conversely, those on the wrong side of the price movement can be exposed to larger variation margin calls or reduced notional profits, which can lead to cost of funding pressures, and has the potential flow on effect of impacting the cost of electricity to everyday Australian businesses and consumers. This was especially heightened in the circumstances where many Australian energy suppliers and retailers were extremely sensitive to price variations at the time.
- 92. The MDP noted that this type of activity is a threat to the integrity of derivatives markets, including undermining the confidence in the DSP.
- 93. Additionally, manipulative orders can have broader implications for the reputation of the contract and may result in entities exiting the ASX 24 futures market altogether in favour of trading electricity derivatives over the counter, where there is no standardisation, less liquidity, less transparency and where there is a higher risk of counterparty default. The aggravating consequences of Macquarie's conduct are particularly serious in the extenuating circumstances where Macquarie was put on notice by ASIC, and was aware, of the heightened need to monitor the electricity futures market given the volatile conditions.
- 94. The MDP considered this was an aggravating factor.

Compliance culture

- 95. The MDP were concerned about Macquarie's compliance culture as:
 - a) Macquarie failed to adequately react to concerns raised by ASIC. The MDP would expect a Market Participant, when contacted by ASIC with specific concerns regarding client trading, would thoroughly investigate the matter and where necessary, or where uncertainty existed, would involve other departments including, as applicable, compliance, risk, trade surveillance and/or the trading desk. This is particularly so given the concerns raised about the electricity futures market at the time. Trading staff with specific trading expertise in the particular market may assist in providing specialist expertise in reviewing the matter;
 - b) Macquarie failed to appreciate the seriousness of its obligations as a Market Participant to act promptly and appropriately upon what were obvious risks of deficiencies in its surveillance system and ensure that it adequately monitored the orders placed by its clients in the ASX 24 electricity futures;
 - c) the circumstances raise a concern about the effectiveness of Macquarie's compliance and surveillance staff and whether they had the specific training and skills to adequately monitor the electricity futures market; and
 - d) the decision of Macquarie to not implement an interim solution to cover the period in which its trade surveillance system was deficient due to it being too resource intensive was, in all the circumstances, demonstrative of a reckless and poor attitude to compliance.

MDP04/24, Wednesday, 25 September 2024 Markets Disciplinary Panel: Infringement Notice Page 16 of 22

- 96. Macquarie accepted that it had breached the Rules for each of the Relevant Orders (other than the first one where a breach was not alleged) and agreed to an Agreed Statement of Facts with ASIC. The MDP acknowledged this reflected positively on Macquarie and was a mitigating circumstance.
- 97. However, the MDP considered Macquarie's Reply to ASIC's initial Statement of Facts which was submitted prior to Macquarie agreeing to the modified Agreed Statement of Facts. The MDP considered this Reply showed Macquarie sought to place too much blame on the hard coding error and had not, at the time of the Reply, taken full ownership or responsibility for its conduct.
- 98. The MDP also noted that Macquarie is responsible and accountable for the conduct of its staff and if matters were not escalated when they should be, it may suggest more systemic issues regarding the culture and reporting within Macquarie.
- 99. Overall, the MDP considered this was an aggravating factor.

Remedial steps

- 100. Macquarie failed to take remedial steps in relation to the control shortfall in the SMARTS system from when it should have been aware of the control shortfall in February 2022 until October 2022. Further it explicitly chose not to take remedial steps in July 2022, when it knew there was a control shortfall, until October 2022. The MDP considered this was an aggravating factor.
- 101. In its initial penalty submissions, Macquarie stated it has taken remediation steps to ensure that issues with monitoring for suspicious orders are escalated and actioned, so that the contraventions will not be repeated. These steps include the following:
 - a) improved Nasdaq/SMARTS vendor management and governance to facilitate early escalation and tracking of open queries;
 - b) improved tactical review framework for implementing tactical fixes;
 - c) improved protocols and governance for incident management;
 - d) enhanced alert tuning framework; and
 - e) organisational and personnel changes in the Surveillance and Compliance functions to improve operational rigour.
- 102. The MDP expects that remediation would include training so that surveillance staff were adequately educated on the operation, rules and risks of each specialist market in which Macquarie operates, including the ASX 24 electricity futures market. In addition, ongoing education and where appropriate, training of DMA clients should be considered by market participants to ensure ongoing awareness and understanding of market rules and risks.
- 103. Overall, given the delay in taking meaningful action when a critical control shortfall was apparent, the MDP considered the lack of timely remediation was an aggravating factor.

Markets Disciplinary Panel: Infringement Notice Page 17 of 22

Penalty

- 104. The maximum penalty for a single contravention that occurs wholly on or after 13 March 2019 is 15,000 penalty units. The low range is up to 5,000 penalty units, medium range is from 5000 to 10,000 penalty units and the high range is from 10,000 to 15,000 penalty units. The amount of one penalty unit for conduct between 1 July 2020 and 31 December 2022 is \$222.
- 105. In considering the penalty, the MDP were mindful of the size and resources of Macquarie and considered that a penalty, whilst proportionate, should also be sufficient to provide a general deterrent to Market Participants against future misconduct of this nature.
- 106. The MDP considered that the conduct should be treated as three single courses of conduct for each of the first, second and third periods. Having regard to the circumstances of the alleged contraventions during each period, the MDP considered:
 - a) the alleged contraventions in the first period to be in the low range and decided to impose a penalty of \$666,000 (3,000 penalty units). The entire amount of the penalty was applied to the first alleged contravention on 25 January 2022, with no penalty being specified for each subsequent contravention during the first period;
 - b) the alleged contraventions in the second period to be in the higher end of the middle range and decided to impose a penalty of \$1,887,000 (8,500 penalty units). The entire amount of the penalty was applied to the first alleged contravention in the second period on 2 May 2022, with no penalty being specified for each subsequent contravention during the second period; and
 - c) the alleged contraventions in the third period to be in the low end of the high range and decided to impose a penalty of \$2,442,000 (11,000 penalty units). The entire amount of the penalty was applied to the first alleged contravention in the third period on 8 September 2022, with no penalty being specified for each subsequent contravention during the third period.
- 107. Accordingly, the total penalty for all the alleged contraventions is \$4,995,000.

Other information

The maximum pecuniary penalty payable under an infringement notice in relation to an alleged contravention of subsection 798H(1) of the Act, by reason of contravening Rule 3.1.2 of the Rules is \$3,330,000 for each contravention occurring between 1 July 2020 and 31 December 2022.

Note: The maximum pecuniary penalty is 15,000 penalty units for a body corporate: see subsection 798K(2) of the Act. The amount of a penalty unit was \$222 between 1 July 2020 and 31 December 2022: see subsection 4AA(1) of the Crimes Act 1914.

The maximum pecuniary penalty that a Court could order Macquarie to pay for contravening subsection 798H(1) of the Act (a civil penalty provision), by reason of contravening Rule 3.1.2 of the Rules, is determined by section 1317G of the Act.

Markets Disciplinary Panel: Infringement Notice Page 18 of 22

Note: Under subsections 1317G(2) and (4), the maximum pecuniary penalty per contravention is the greatest

- (a) 50,000 penalty units; and
- (b) if the Court can determine the benefit derived and detriment avoided because of the contravention—that amount multiplied by 3; and
- (c) either:
 - (i) 10% of the annual turnover of the body corporate for the 12-month period ending at the end of the month in which the body corporate contravened, or began to contravene, the civil penalty provision; or
 - (ii) if the amount worked out under subparagraph (i) is greater than an amount equal to 2.5 million penalty units—2.5 million penalty units.

To comply with this infringement notice, Macquarie must pay the penalty within the compliance period. The compliance period starts on the day on which this notice is given to Macquarie and ends 27 days after the day on which it is given. This penalty can be paid using the method detailed in the email by which this notice is given.

The effects of compliance with this infringement notice are:

- (a) any liability of Macquarie to the Commonwealth for the alleged contraventions of subsection 798H(1) of the Act is discharged; and
- (b) no civil or criminal proceedings may be brought or continued by the Commonwealth against Macquarie for the conduct specified in the infringement notice as being the conduct that made up the alleged contraventions of subsection 798H(1) of the Act; and
- (c) no administrative action may be taken by ASIC under sections 914A, 915B, 915C or 920A of the Act against Macquarie for the conduct specified in the infringement notice as being the conduct that made up the alleged contraventions of subsection 798H(1) of the Act; and
- (d) Macquarie is not taken to have admitted guilt or liability in relation to the alleged contraventions; and
- (e) Macquarie is not taken to have contravened subsection 798H(1) of the Act.

Macquarie may choose not to comply with this infringement notice, but if Macquarie does not comply, civil proceedings may be brought against it in relation to the alleged contraventions.

Macquarie may apply to ASIC for withdrawal of this infringement notice under regulation 7.2A.11 of the Regulations and for an extension of time to comply under regulation 7.2A.09 of the Regulations.

Markets Disciplinary Panel: Infringement Notice Page 19 of 22

ASIC may publish details of this notice under regulation 7.2A.15 of the Regulations.

The unique code for this notice is MDP 1213/23.

Andrew Stecher

Counsel to the Markets Disciplinary Panel

with the authority of a Division of the Australian Securities and Investments Commission

Note: Members of the Markets Disciplinary Panel constitute a Division of ASIC as delegates of the members of the Division for the purposes of considering the allegations covered by this notice.

MDP 1213/13 Infringement Notice

Annexure A

Relevant Order	Date	Time	Contract	Side	Qty	Price	Client	Time from close (4pm)	Price significance	Order /Trade ¹	DSP impact ²	Aggregate benefit for date ³
1	12/01/2022	15:59:46	GQH2	S	1	\$47	Third party broker on behalf of client one	14 secs	\$1.85 lower than last traded price \$1.50 lower than prevailing competitive sell order	Trade	▼\$1.50 or ▼3.09%	+\$405,000
2	25/01/2022	15:59:58	BVU2	В	1	\$62	Third party broker on behalf of client one	2 secs	\$1.59 higher than last traded price \$1.50 higher than prevailing competitive buy order	Trade	▲ \$1.47 or ▲ 2.43%	+\$308,347
3	10/02/2022	15:59:48	GNU2	В	5	\$10.25	Third party broker on behalf of client one	12 secs	\$0.75 higher than last traded price	Order	▲ \$0.75 or ▲ 7.89%	+\$313,426
4	10/02/2022	15:59:48	BNU3	В	2	\$83.25	Third party broker on behalf of client one	12 secs	\$0.65 higher than last traded price	Order	▲ \$0.65 or ▲ 0.79%	
5	02/05/2022	15:59:40	BVZ2	S	2	\$71	Client one	20 secs	\$2.50 lower than the last traded price	Trade	▼\$2.50 or ▼3.4%	L\$704.400
6	02/05/2022	15:59:59	BQH3	В	1	\$153	Client one	1 sec	\$3.00 higher than last traded price	Trade	▲\$1.00 or ▲0.67%	+\$794,400
7	04/05/2022	15:59:56	BVM2	В	1	\$164	Client one	4 secs	\$4.00 higher than last traded price	Trade	▲\$2.00 or ▲1.25%	+\$838,656
8	06/05/2022	15:59:59	BVM2	В	1	\$159.75	Client one	1 sec	\$12.25 higher than last traded price	Trade	▲ \$3.25 or ▲ 2.17%	+\$1,391,208
9	09/05/2022	15:59:59	BVU2	В	1	\$140.25	Client one	1 sec	\$0.50 higher than last traded price	Trade	▲ \$0.50 or ▲ 0.36%	+\$93,840
10	12/05/2022	15:59:55	GNH3	S	1	\$23.82	Client one	5 secs	\$2.60 lower than last traded price \$1.18 lower than prevailing competitive sell order	Trade	▼\$1.18 or ▼4.72%	+\$180,965
11	13/05/2022	15:59:41	BNH3	В	1	\$138.75	Client one	19 secs	\$1.75 higher than last traded price	Order	▲ \$1.75 or ▲ 1.28%	+\$835,380
12	16/05/2022	15:59:51	BNZ2	S	1	\$133.75	Client one	9 secs	\$0.80 lower than last traded price	Trade	▼\$0.40 or ▼0.30%	+\$1,910,033
13	16/05/2022	15:59:55	BVM2	В	1	\$172.50	Client one	5 secs	\$4.50 higher than last traded price	Trade	▲ \$4.50 or ▲ 2.68%	+\$1,910,033
14	19/05/2022	15:59:55	BVM2	В	2	\$185	Client one	5 secs	\$4.00 higher than last traded price	Trade	▲ \$2.67 or ▲ 1.48%	+\$1,125,437
15	23/05/2022	15:59:58	BNZ2	S	1	\$186.75	Client one	2 secs	\$2.25 lower than last traded price	Trade	▼\$1.12 or ▼0.59%	+\$262,134
16	25/05/2022	15:59:05	BNZ2	S	1	\$196	Client one	55 secs	\$2.00 lower than last traded price	Order	▼\$2.00 or ▼1.01%	+\$490,176
17	26/05/2022	15:59:37	BVU2	В	1	\$221	Client one	23 secs	\$2.00 higher than last traded price	Order	▲\$2.00 or ▲0.91%	+\$348,864
18	01/06/2022	15:59:10	BQH3	В	1	\$250	Client one	50 secs	\$2.50 higher than last traded price	Trade	▲\$2.50 or ▲1.01%	
19	01/06/2022	15:59:23	BQZ2	В	1	\$255	Client one	37 secs	\$2.75 higher than last traded price \$2.00 higher than prevailing competitive buy order	Order	▲ \$2.00 or ▲ 0.79%	+\$2,121,984
20	01/06/2022	15:59:55	BNH3	В	1	\$235	Client one	5 secs	\$5.00 higher than last traded price	Trade	▲ \$2.50 or ▲ 1.09%	
21	03/06/2022	15:59:05	BQH4	S	2	\$141.50	Client one	55 secs	\$6.50 lower than last traded price \$2.50 lower than prevailing competitive sell order	Order	▼\$2.50 or ▼1.74%	+\$2,083,836
22	03/06/2022	15:59:54	GVM2	S	2	\$22	Client one	6 secs	\$8.00 lower than last traded price (01/06/2022)	Trade	▼\$8.00 or ▼26.67%	Ţ-,::3, ;;;
23	03/06/2022	15:59:59	BVZ2	S	2	\$110.25	Client one	1 sec	\$4.75 lower than last traded price	Trade	▼\$4.75 or ▼4.13%	
24	06/06/2022	15:59:34	BNU3	В	1	\$199	Client one	26 secs	\$2.00 higher than last traded price	Trade	▲ \$2.00 or ▲ 1.02%	+\$1,519,056

¹ This field identifies whether the order factored into the calculation of the DSP as either an order or as a trade.

² This field identifies the impact of the Relevant Order to the DSP on the relevant day. It has been calculated by removing the Relevant Order from the order book, determining what the DSP would have been without that order and then determining the differential against the actual DSP.

³ The Aggregate benefit for date aggregates the total benefit for a day if there are multiple Relevant Orders on the day in question.

Relevant Order	Date	Time	Contract	Side	Qty	Price	Client	Time from close (4pm)	Price significance	Order /Trade ¹	DSP impact ²	Aggregate benefit for date ³
25	06/06/2022	15:59:59	BVH3	В	1	\$129	Client one	1 sec	\$3.00 higher than last (outright) traded price	Trade	▲\$1.50 or ▲1.19%	
26	07/06/2022	15:59:55	BQM3	S	1	\$207	Client one	5 secs	\$2.00 lower than last traded price	Trade	▼\$1.00 or ▼0.48%	+\$120,120
27	09/06/2022	15:59:58	BQM3	В	2	\$219	Client two	2 secs	\$8.00 higher than last traded price \$6.00 higher than prevailing competitive buy order	Trade	▲ \$6.00 or ▲ 2.82%	+\$2,240,784
28	15/06/2022	15:59:52	BQU3	В	2	\$198.50	Client two	8 secs	\$2.50 higher than last traded price	Trade	▲\$2.50 or ▲1.28%	+\$1,380,000
29	27/06/2022	15:59:56	BQU2	S	1	\$305	Client two	4 secs	\$16 lower than last traded price	Trade	▼\$8.00 or ▼2.49%	¥ 1,000,000
30	27/06/2022	15:59:57	BQZ2	S	1	\$245	Client two	3 secs	\$10 lower than last traded price \$9 lower than prevailing competitive sell order	Trade	▼\$9.00 or ▼3.54%	+\$4,274,688
31	08/09/2022	15:59:47	PNH5	В	1	\$184.50	Client three	13 secs	\$5.28 higher than last traded price	Order	▲ \$5.28 or ▲ 2.95%	
32	08/09/2022	15:59:47	PNM5	В	1	\$176	Client three	13 secs	\$18.40 higher than last traded price	Order	▲ \$18.40 or ▲ 11.68%	1
33	08/09/2022	15:59:47	PNU5	В	1	\$205	Client three	13 secs	\$20.86 higher than last traded price	Order	▲\$20.86 or ▲11.33%	+\$122,237
34	08/09/2022	15:59:47	PNZ5	В	1	\$203	Client three	13 secs	\$19.81 higher than last traded price	Order	▲\$19.81 or ▲10.81%	=
35	20/09/2022	15:59:47	PNH5	В	1	\$175	Client three	13 secs	\$16.55 higher than last traded price (19/09/2022) \$19.21 higher than where DSP would have been set (via competitive strip order entered at 15:50:30)	Order	▲\$19.21 or ▲12.33%	
36	20/09/2022	15:59:47	PNM5	В	1	\$172	Client three	13 secs	\$20.84 higher than last traded price (19/09/2022) \$23.38 higher than where DSP would have been set (via competitive strip order entered at 15:50:30)	Order	▲ \$23.38 or ▲ 15.73%	+\$98,118
37	20/09/2022	15:59:47	PNU5	В	1	\$183	Client three	13 secs	\$6.95 higher than last traded price (19/09/2022) \$9.90 higher than where DSP would have been set (via competitive strip order entered at 15:50:30)	Order	▲ \$9.90 or ▲ 5.72%	
38	21/09/2022	15:59:47	PNM5	В	1	\$175	Client three	13 secs	\$23.84 higher than last traded price (19/09/2022) \$3.00 higher than previous day's DSP	Order	▲ \$3.00 or ▲ 1.74%	
39	21/09/2022	15:59:47	PNU5	В	1	\$188	Client three	13 secs	\$11.95 higher than last traded price (19/09/2022) \$5.00 higher than previous day's DSP	Order	▲ \$5.00 or ▲ 2.73%	- +\$15,390
40	23/09/2022	15:59:46	PNH5	В	1	\$179	Client three	14 secs	\$6.23 higher than last traded price	Order	▲ \$6.23 or ▲ 3.61%	
41	23/09/2022	15:59:46	PNM5	В	1	\$175	Client three	14 secs	\$2.23 higher than last traded price	Order	▲\$2.23 or ▲1.29%	†
42	23/09/2022	15:59:47	PNU5	В	1	\$188.50	Client three	13 secs	\$2.90 higher than last traded price	Order	▲\$2.90 or ▲1.56%	+\$62,556
43	23/09/2022	15:59:47	PNZ5	В	1	\$159.52	Client three	13 secs	\$21.77 higher than last traded price	Order	▲\$21.77 or ▲15.80%	-
			PNH5	В	1			-		1		
44	26/09/2022	15:59:47	1	_		\$179.25	Client three	13 secs	\$6.02 higher than last traded price	Order	▲\$6.02 or ▲3.48%	-
45	26/09/2022	15:59:47	PNM5	В	1 1	\$176	Client three	13 secs	\$6.64 higher than last traded price	Order	▲ \$6.64 or ▲ 3.92%	+\$83,910
46	26/09/2022	15:59:46	PNU5	В	1	\$189	Client three	14 secs	\$6.58 higher than last traded price	Order	▲ \$6.58 or ▲ 3.61%	4
47	26/09/2022	15:59:46	PNZ5	В	1	\$179.52	Client three	14 secs	\$25.15 higher than last traded price	Order	▲ \$25.15 or ▲ 16.29%	

Relevant Order	Date	Time	Contract	Side	Qty	Price	Client	Time from close (4pm)	Price significance	Order /Trade ¹	DSP impact ²	Aggregate benefit for date ³
48	27/09/2022	15:59:46	PNH5	В	1	\$181	Client three	14 secs	\$7.77 higher than last traded price (26/09/2022) \$1.75 higher than previous day's DSP	Order	▲\$1.75 or ▲0.98%	
49	27/09/2022	15:59:47	PNM5	В	1	\$177	Client three	13 secs	\$7.64 higher than last traded price (26/09/2022) \$1.00 higher than previous day's DSP	Order	▲\$1.00 or ▲0.57%	440.700
50	27/09/2022	15:59:47	PNU5	В	1	\$189.50	Client three	13 secs	\$7.08 higher than last traded price (26/09/2022) \$0.50 higher than previous day's DSP	Order	▲ \$0.50 or ▲ 0.26%	+\$10,762
51	27/09/2022	15:59:46	PNZ5	В	1	\$182	Client three	14 secs	\$27.63 higher than last traded price (26/09/2022) \$2.48 higher than previous day's DSP	Order	▲ \$2.48 or ▲ 1.38%	